



**PROCUREMENT MANAGEMENT UNIT
ENVIRONMENTAL INVESTMENT FUND**

**Open National Bidding
(Works)
Supply and Installation of Irrigation
System to Sesfontein Community
Garden**

Procurement Reference No: W/ONB/IREMA – 02/2020

Procurement Management Unit

Environmental Investment Fund, 8933 Heinitzburg Heights,
c/o Hienitzburg & Dr. Theo Ben-Gurirab Streets,
Klein Windhoek
Windhoek, Namibia



Issued on: Friday, 11 September 2020

Closing date & Time: Wednesday, 14 October 2020 at 11H00 am

PARTICULARS OF BIDDER

Business Name :

Postal Address:

Telephone No:

Cell No.:

Fax No.:

Contact Person:

E-Mail Address:

VAT Registration No:

BID AMOUNT: N\$

INFORMATION TO THE BIDDERS:

Bidders shall submit the Bidding documents in a sealed envelope, duly marked with the Procurement Reference Number “W/ONB/IREMA-02/2020”, The inner and outer of the envelopes shall bear the Bidder’s name and address, to be Hand delivered at the Environmental Investment Fund, 1st Floor, Reception, Date: Wednesday, 14 October 2020 at 11H00 am.

Joseph Elagon

PROCUREMENT MANAGEMENT UNIT

Standard Bidding Document

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Summary Description

This Standard Bidding Document for Procurement of Works is to be used when a prequalification process has not taken place before bidding and, therefore, post-qualification applies. A brief description of these documents is given below.

SBD for Procurement of Works

Summary

PART 1 – BIDDING PROCEDURES

Section I. Instructions to Bidders (ITB)

This Section provides relevant information to help Bidders prepare their bids. Information is also provided on the submission, opening, and evaluation of bids and on the award of Contracts. **Section I contains provisions that are to be used without modification.**

Section II. Bidding Data Sheet

This Section consists of provisions that are specific to each procurement and that supplement the information or requirements included in Section I, Instructions to Bidders.

Section III. Bidding Forms

This Section contains the forms which are to be completed by the Bidder and submitted as part of its Bid.

PART 2 – EMPLOYER’S REQUIREMENTS

Section IV. Schedule of quantities

This section contains provides project specific measured quantities of the works.

Section V. Evaluation Criteria

This section contains supplementary evaluation criteria which the Employer may choose to apply to the procurement under consideration.

Section VI. Scope of Services, Performance Specifications and Drawings

This Section contains the Specification and supplementary information that describe the works to be procured.

PART 3 – CONDITIONS OF CONTRACT AND CONTRACT FORMS

Section VII. General Conditions of Contract

This Section contains the general clauses to be applied in all contracts. **The text of the clauses in this Section shall not be modified.**

Section VIII. Special Conditions of Contract

The contents of this Section supplement the General Conditions of Contract and shall be prepared by the Employer.

Section IX. Contract Forms

This Section contains forms which, once completed, will form part of the Contract.

PART 1 – Bidding Procedures

Section 1 - Instructions to Bidders

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Section I - Instructions to Bidders

A. General

- 1. Scope of Bid**
- 1.1 The Public Entity referred to herein as Employer as defined¹ in Section II “**Bidding Data Sheet**” (**BDS**) invites bids for the Works, as **described in the BDS**. The name and identification number of the Contract is **provided in the BDS**.
- The name and identification number of the Contract are **provided in the BDS and the SCC**.
- 1.2 The successful Bidder shall be expected to complete the Works by the Intended Completion Period **specified in the BDS**.
- 1.3 Throughout these bidding documents, the terms:
- (a) the term “in writing” means communicated in written form (e.g. by mail, e-mail, fax,) with proof of receipt;
 - (b) if the context so requires, “singular” means “plural” and vice versa;
 - (c) “day” means calendar day unless otherwise stated;
- 2. Source of Fund**
- 2.1 The Works shall be financed by the Public Entity’s own budgetary allocation, **unless otherwise stated in the BDS**.
- 3. Public Entities Related to Bidding Documents & to application for review**
- 3.1 The public entities related to these bidding documents are the Public Entity, acting as procurement entity (Purchaser), the Procurement Policy Unit, in charge of issuing standard bidding documents and responsible for any amendment these may require, the Central Procurement Board in charge of vetting Bidding document, receiving and evaluation of bids in respect of major contracts and the Review Panel, set up under the Public Procurement Act, 2015 (hereinafter referred to as the Act.)

Application for Review shall be addressed to:

The Chairperson Review Panel
Environmental Investment Fund, 8933 Heinitzburg
Heights, c/o Hienitzburg & Burg Streets, Klein Windhoek
Windhoek, Namibia
P.O. Box 28157

4. Fraud and Corruption

- 4.1 The Government of the Republic of Namibia requires that bidders/suppliers/contractors, participating in procurement in Namibia, observe the highest standard of ethics during the procurement process and execution of contracts.
- 4.2 The Employer will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;

For the purposes of this Sub-Clause:

- (i) “corrupt practice” is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - (ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
 - (iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - (iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - (v) “obstructive practice” is deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation.
- 4.3. Bidders, suppliers and public officials shall also be aware of the provisions stated in section 67 and 68 of the Public Procurement Act, 2015 which can be consulted on the website of the Procurement Policy Unit (PPU) : www.mof.gov.na/procurement-policy-unit

- 5. Eligible Bidders**
- 5.1 A Bidder may be a natural person, private entity, or government-owned entity or any combination of them in the form of a joint venture, under an existing agreement, or with the intent to constitute a legally-enforceable joint venture. All partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms.
- 5.2 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:
- (a) they have a controlling partner in common; or
 - (b) they receive or have received any direct or indirect subsidy from any of them; or
 - (c) they have the same legal representative for purposes of this bid; or
 - (d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
 - (e) a Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the party is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or
 - (f) a Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; or
 - (g) a Bidder, or any of its affiliates has been hired (or is proposed to be hired) by the Employer as Engineer for the contract.

- 5.3 (a) A bidder that is under a declaration of ineligibility by the Government of Namibia in accordance with applicable laws at the date of the deadline for bid submission and thereafter shall be disqualified
- (b) Bids from contractors appearing on the ineligibility lists of African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank Group and World Bank Group shall be rejected.
- 5.4 Government-owned enterprises in the Republic of Namibia shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law, and that they are not a dependent agency of the Government.
- 6. Qualifications of Bidders**
- 6.1 All bidders shall provide in Section III, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.
- 6.2 Bidders shall include the information and documents listed hereunder with their bids, unless otherwise stated in the BDS. The non-submission of the documents by the Bidder within the prescribed period may lead to the rejection of its bid.
- (a) copies of original documents defining the constitution or legal status, place of registration, and principal place of business of the Bidder;
 - (b) total monetary value of construction works performed for each of the last five years;
 - (c) experience in works of a similar nature and size for each of the last five years or as otherwise stated in the BDS; and clients who may be contacted for further information on those contracts;
 - (d) major items of construction equipment proposed to carry out the Contract;
 - (e) qualifications and experience of key site personnel and technical personnel proposed for the contract;
 - (f) report on the financial standing of the Bidder for the last three years, such as certified copies of Financial Statements/Audited Accounts as filed at the Registrar of Companies;
 - (g) evidence of adequacy of working capital for this Contract (access to line(s) of credit and availability of

- other financial resources);
- (h) authority to seek references from the Bidder's bankers; and
- (i) information regarding any litigation, current or during the last five years, in which the Bidder was/is involved, the parties concerned, the issues involved, the disputed amounts, and awards;
- (j) proposals for subcontracting components of the Works amounting to more than 10 percent of the Contract Price.

6.3 To qualify for award of the Contract, bidders shall meet the following minimum qualifying criteria:

- (a) a minimum average annual financial amount of construction work over the period **specified in the BDS**.
- (b) experience as prime contractor in the construction of a minimum number of works of a nature and complexity equivalent to the Works over a period as **specified in the BDS** (To comply with this requirement, works cited should be at least 70 percent complete);
- (c) proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment **listed in the BDS**;
- (d) a Contract Representative with five years' experience in works of an equivalent nature and volume or as otherwise **specified in the BDS**; and
- (e) liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of no less than the amount **specified in the BDS**.²

A consistent history of litigation or arbitration awards against the Applicant or any partner of a Joint Venture may result in disqualification.

B. Contents of Bidding Documents

- 7. Sections of Bidding Document**
- 7.1 The Bidding Document consists of all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 10.
- Part 1
 - Section I - Instructions to Bidders (ITB)
 - Section II- Bidding Data Sheet
 - Section III - Bidding Forms
 - Part 2
 - Section IV – Schedule of Quantities
 - Section V - Evaluation Criteria
 - Section VI – Scope of Works, Performance Specifications and Drawings
 - Part 3
 - Section VII - General Conditions of Contract
 - Section VIII - Particular Conditions of Contract
 - Section IX - Contract Forms
- 7.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in the rejection of its bid. Sections III and IV should be completed and returned with the Bid in the number of copies specified in the **BDS**.
- 8. Clarification of Bidding Document**
- 8.1 A prospective Bidder requiring any clarification of the Bidding Document shall contact the Employer in writing at the Employer's address **indicated in the BDS**.
- The Employer will respond in writing to any request for clarification, provided that such request is received 14 days prior to the deadline for submission of bids.
- Should the Employer deem it necessary to amend the Bidding Document as a result of a request for clarification, it shall do so following the procedure under ITB 10.

- 9. Site visit/Pre-bid meeting**
- 9.1 Bidders, at the Bidders' own responsibility and risk, are encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing their Bids and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidders' own expense.
- 9.2 The Bidder or its designated representative is invited to attend a pre-bid meeting, as **provided for in the BDS**. The purpose of the pre-bid meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.
- 10. Amendment of Bidding Document**
- 10.1 At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Document by issuing addenda and extend the deadline for submission of bids, if needed.
- 10.2 Any addendum thus issued shall be part of the bidding documents and shall be communicated in writing or by cable to all purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum in writing to the Employer.
- 10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend, as necessary, the deadline for submission of bids, in accordance with ITB Sub-Clause 21.2 below.

C. Preparation of Bids

- 11. Cost of Bidding**
- 11.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs irrespective of the outcome of the bidding process.
- 12. Language of Bid**
- 12.1 The Bid, supporting documents as well as all correspondence relating to the bid exchanged by the Bidder and the Employer shall be in English Language.
- 13. Documents Comprising the Bid**
- 13.1 The Bid shall comprise the following:
- (a) Bid submission Form (in the format indicated in Section III);
 - (b) Bid Security or Bid Securing declaration (where applicable);

- (c) completed Bill of Quantities / Activity Schedule;
- (d) Qualification information and documentary evidence establishing the Bidder's qualifications to perform the contract;
- (e) Alternative offers where invited;
- (f) the following documentary evidence is required
 - i. have a valid copy company Registration Certificate;
 - ii. have an original valid good Standing Tax Certificate;
 - iii. have an original valid good Standing Social Security Certificate;
 - iv. have a certificate indicating SME Status (for Bids reserved for SMEs);
 - v. An undertaking on the part of the Bidder that the salaries and wages payable to its personnel in respect of this proposal are compliant to the relevant laws, Remuneration Order, and Award, where applicable if it is awarded the contract or part thereof; and;
- (g) List of proposed SMME's to be used as Sub-Contractors for this Bid

- 14. Bid Submission Form and Schedules** 14.1 The Bid Submission Form, Schedules, and all documents listed under ITB 13.1 shall be prepared using the relevant forms, if so provided.
- 15. Alternative Proposal** 15.1 Alternative Technical Proposals and completion dates if allowed shall be indicated in Section V- Employer's Requirements under Specifications. The evaluation methodologies for their consideration shall be given in Section IV.
- 16. Bid Prices and Discounts** 16.1 The Contract shall be for the whole Works, as described in ITB Sub-Clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.
- 16.2 Bidders shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items for which no rate or price is entered by Bidders, shall not be paid for by the Public Entity when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.
- 16.3 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 14

days prior to the deadline for submission of bids, shall be included in the rates, prices, and total Bid price submitted by Bidders.

16.4 The price to be quoted in the Bid Submission Form shall be the total price of bid after any discount offered.

The discount if any and the conditions of its application shall be indicated separately.

17. Currencies of Bid and Payment

17.1 The bid price and rates shall be in Namibian Dollars and fixed for the duration of the contract unless otherwise **specified in the BDS.**

17.2 Unless otherwise **specified in BDS** interim payment for Plant and Material on site is applicable as per GCC 14.5

18. Documents Comprising the Technical Proposal

18.1 The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in the Bidder Qualification Form (section III), in sufficient details to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.

19. Period of Validity of Bids

19.1 Bids shall remain valid for a period **specified in the BDS.** The Bid Validity period should not exceed 180 days.

19.2 In exceptional circumstances, prior to expiry of the original bid validity period, the Employer may request that the bidders extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing.

20. Bid Security/Bid Securing Declaration

20.1 The Bidder shall furnish either a subscription to a Bid Securing Declaration or a Bid Security in its original form with its bid as part of its bid, if so **required in the BDS.**

20.2 Bid Security shall be in the form of a Bank (Demand) Guarantee from a local commercial bank as per the format contained in section III and shall be valid for a period of 30 days beyond the validity period of the bid or beyond any period of extension

20.3 Any bid not accompanied by an enforceable and substantially compliant Bid Security or a subscription to a Bid Securing Declaration in the Bid Submission Form, if required in accordance with ITB 20.1, shall be rejected by the Employer as non-responsive.

20.4 Bid Security shall be forfeited or the Bid Securing declaration exercised for non-compliance on the part of the Bidder for reasons mentioned in the Bid Security format

contained in Section III or the Bid Securing Declaration contained in Section III.

21. Format and Signing of Bid

21.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB 13.1 and clearly mark it “ORIGINAL”. In addition, the Bidder shall submit the number of copies **as specified in the BDS**, clearly mark with the label “COPY.” In the event of any discrepancy between the original and the copies, the original shall prevail.

21.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder

D. Submission and Opening of Bids

22. Sealing and Marking of Bids

22.1 Bidders may always submit their bids by mail or by hand. Procedures for submission, sealing and marking are as follows:

(a) Bidders submitting bids by mail or by hand shall enclose the original and each copy of the Bid, including alternative bids, if permitted in accordance with ITB 15, in separate sealed envelopes, duly marking the envelopes as “ORIGINAL”, “ALTERNATIVE” and “COPY.” These envelopes containing the original and the copies shall then be enclosed in one single envelope. The rest of the procedure shall be in accordance with ITB sub-Clauses 22.2.

22.2 The inner and outer envelopes shall:

- (a) bear the name and address of the Bidder;
- (b) be addressed to the Employer as indicated in ITB 22.1;
- (c) bear the specific identification of this bidding process indicated in accordance with ITB 1.1; and
- (d) bear a warning not to open before the time and date for bid opening.

23. Deadline for Submission of Bids

23.1 Bids shall be delivered to the Employer at the address and no later than the time and date **specified in the BDS**.

The Employer may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Document in accordance with ITB 10.

24. Late Bids

24.1 Late bids shall not be considered. They will be returned unopened

- 25. Withdrawal, Substitution, and Modification of Bids** 25.1 No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid submission Form or any extension thereof.
- 26. Bid Opening** 26.1 The Employer shall open the bids at the time place and address **specified in the BDS** in the presence of Bidders` designated representatives who choose to attend.
- 26.2 The bidders' names, the Bid Prices, the total amount of each bid, any discounts, any alternative bid, bid modifications and withdrawals, the presence or absence of bid security, and such other details as the Employer may consider appropriate, will be announced and recorded by the Employer at the opening.

E. Evaluation and Comparison of Bids

- 27. Confidentiality** 27.1 Information relating to the examination, evaluation, comparison, and post-qualification of bids and recommendation of contract award, shall not be disclosed to Bidders or any other person not officially concerned with such process.
- 27.2 Any attempt by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its bid.
- 28. Clarification of Bids** 28.1 To assist in the examination, evaluation, and comparison of the bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its bid. No change in the prices or substance of the bid shall be sought, offered, or permitted, except to confirm the correction of arithmetical errors discovered by the Employer in the evaluation of the bids, in accordance with ITB 31.
- 29. Determination of Responsiveness** 29.1 The Employer`s determination of a bid`s responsiveness is to be based on the contents of the bid itself, as defined in ITB13.
- 29.2 A substantially responsive bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission.
- 29.3 The Employer shall examine the technical aspects of the bid submitted in accordance with ITB 18, Technical Proposal, in particular, to confirm that all requirements of Section V (Employer`s Requirements) have been met without any

material deviation, reservation or omission.

29.4 If a bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

30. Nonconformities, Errors, and Omissions

30.1 Provided that a bid is substantially responsive, the Employer may waive any non-material non-conformity in the bid, request that the Bidder submit the necessary information or documentation, to rectify nonmaterial nonconformities in the bid related to documentation requirements but not related to any aspect of the price of the bid; and shall rectify quantifiable nonmaterial nonconformities related to the Bid Price.

31. Correction of Arithmetical Errors

31.1 Provided that the bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:

- (a) only for unit price contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
- (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

32. Margin of Preference

32.1 **Unless otherwise specified in the BDS,** Margin of preference shall not apply.

33. Evaluation of Bids

33.1 The criteria and methodology used to evaluate bids as per Section IV - Evaluation Criteria and no other evaluation criteria or methodologies shall be permitted.

33.2 To evaluate a bid, the Employer shall consider the following:

- (a) the bid price, excluding Provisional Sums and the

provision, if any, for contingencies in the Summary Bill of Quantities for admeasurement contracts or Schedule of Prices for lump sum contracts, but including Daywork items, where priced competitively; and

- (b) price adjustment for correction of arithmetic errors, discounts, non-conformities, due to the supplementary criteria as defined in Section III, and Margin of Preference, if applicable.

33.3 If this Bidding Document allows Bidders to quote separate prices for different contracts, and to award multiple contracts to a single Bidder, the methodology to determine the lowest evaluated price of the contract combinations, including any discount offered in the Bid Submission Form, is specified in Section III (Evaluation and Qualification Criteria).

33.4 If the bid for an admeasurement contract, which results in the lowest Evaluated Bid Price, is seriously unbalanced, front loaded or substantially below updated estimates or if any item in the Priced Activity Schedule is front loaded or contains an erroneous amount in the opinion of the Employer, the Employer may after clarification require the Bidder to produce detailed price analysis for any or all items that the amount of the performance security be increased at the expense of the Bidder.

- | | |
|--|---|
| 34. Comparison of Bids | 34.1 The Employer shall compare all substantially responsive bids in accordance with ITB 33 to determine the lowest evaluated bid. |
| 35. Qualification of the Bidder | 35.1 The Employer shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated substantially responsive bid meets the qualifying criteria. |
| 36. Employer's Right to Accept Any Bid, and to Reject Any or All Bids | 36.1 The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. |

F. Award of Contract

- | | |
|---------------------------|---|
| 37. Award Criteria | 37.1 Subject to ITB 36.1, the Employer shall award the Contract to the Bidder whose offer has been determined to be the |
|---------------------------|---|

lowest evaluated bid and is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

38. Notification of Award

38.1 Prior to the expiration of the period of bid validity, the Employer shall, for contract amount above the prescribed threshold of N\$ 2 M, notify the selected bidder of the proposed award and accordingly notify unsuccessful bidders. Subject to Challenge, the Employer shall notify the selected Bidder, in writing, by a Notification of award for award of contract. The Notification of award shall specify the sum that the Employer will pay the Contractor in consideration of the execution and completion of the Works (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”) and the requirement for the Contractor to remedy any defects therein as prescribed by the Contract. Within seven days from the issue of notification of award, the Purchaser shall publish on the Public Procurement Portal (www.eif.org.na) and the Purchaser’s website, the results of the Bidding Process identifying the bid and lot numbers and the following information:

(i) name of the successful Bidder, and the Price it offered, as well as the duration and summary scope of the contract awarded; and

(ii) an executive summary of the Bid Evaluation Report.

38.2 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.

39. Signing of Contract

39.1 Promptly upon issue of notification of award, the Employer shall send to the successful Bidder the Contract Agreement.

39.2 Within thirty (30) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer.

40. Performance Security

40.1 Within thirty (30) days of the receipt of the notification of award from the Employer, the successful Bidder shall furnish the Performance Security in accordance with the conditions of contract, using for that purpose the Performance Security Form included in Section VIII (Contract Forms).

- 40.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or to sign the Contract Agreement within the prescribed delay shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.
- 41. Advance Payment and Security**
- 41.1 The Public Entity shall provide an Advance Payment (if applicable) on the Contract Price as stipulated in the GCC, subject to a maximum amount, **as stated in the BDS**. The Advance Payment shall be guaranteed by a security as per the format contained in Section VIII.
- 42. Plant and Materials on site**
- 42.1 Unless otherwise **specified in BDS** interim payment for Plant and Material on site is applicable as per GCC 14.5
- 43. Debriefing**
- 43.1 The Purchaser shall promptly attend to all debriefing for the contract made in writing and within 30 days from the date of the publication of the award or date the unsuccessful bidders are informed about the award.

Section II. Bidding Data Sheet (BDS)

The following specific data for the works to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

A. General	
ITB 1.1	<p>The Public Entity is: Environmental Investment Fund</p> <p>The Works is: to undertake the Supply and installation of irrigation system at Sesfontein Community Garden.</p> <p>The name and identification of the Contract are W/ONB/IREMA-02/2020</p> <p>The Project is: Supply and Installation of irrigation system at Sesfontein Community Garden.</p>
ITB 1.2	The Intended Completion period is 9 months from start date
ITB 2.1	The Funding Agency is: Environmental investment Fund
ITB 5.3	<p>A list of firms debarred from participating in Public Procurement in Namibia is available at http://www.mof.gov.na/procurement-policy-unit</p> <p>A list of firms debarred by World Bank is available at http://www.worldbank.org/debarr</p>
ITB 6.2	The information required from bidders in ITB Sub-Clause 6.2 is modified as follows: none
ITB 6.2 (f)	Proposed SME Sub-Contractors and Conventional Sub-Contractors to be indicated in Section III: Bidding Forms
ITB 6.3 (a)	The Contractor must have a minimum average annual financial amount of construction of 1 500 000,00 over the last 3 years
ITB 6.3 (b)	<p>The number of works is: 5 similar Works</p> <p>The period is: last 3 years</p>
ITB 6.3 (c)	<p>The minimum essential equipment to be made available for the Contract by the successful Bidder shall be:</p> <ul style="list-style-type: none"> • Excavator • Jack Hammer • Edge cutter • Plate compactor • Other necessary tools and equipment

	Other equipment and plants not specified above shall be listed in the Data Form: Schedule of equipment offered
ITB 6.3 (d)	<p>The proposed personnel to be made available for the Contract by the successful Bidder shall be:</p> <p><u>Contractor’s Manager/Representative</u></p> <ul style="list-style-type: none"> • An experienced Contracts Manager, minimum 10 years • Fulltime employed by the Bidder for the duration of the project (contractual agreement between the parties must be attached); • Must be in possession of a tertiary qualification in Construction or Agricultural Engineering • Must have been involved in at least 5 construction projects <p><u>Contractor’s Site Agent/Superintendent</u></p> <ul style="list-style-type: none"> • An experienced Site Agent, minimum 5 years • Fulltime employed by the Bidder for the duration of the project (contractual agreement between the parties must be attached); • Must have been involved in at least 3 construction projects <p><u>Pipework Foreman</u></p> <ul style="list-style-type: none"> • An experienced Forman, minimum 5 years • Fulltime employed by the Bidder for the duration of the project (contractual agreement between the parties must be attached); • Must have been involved in at least 5 construction projects <p>Other personnel and not specified above shall be listed in the Data Form: Schedule of personnel offered</p>
ITB 6.3 (e)	The minimum amount of liquid assets and/or credit facilities net of other contractual commitments of the successful Bidder shall be 10% of the quoted contract price
B. Bidding Documents	
ITB 8.1	The Public Entity’s address for clarification is: Environmental Investment Fund

	Private Bag 2500, Windhoek Namibia
ITB 9.2	Compulsory Pre-bid Meeting: 24 September 2020 at 10:00 AM
C. Preparation of Bids	
ITB 17.1	The Contract is subject to price adjustment in accordance with GCC Clause 13.8 and PCC item B 2.7.3
ITB 17.2	Interim Payment for Plant and Material on site is applicable under Appendix to Tender in accordance to GCC 14.5 and PCC B 2.8.
ITB 19.1	The Bid shall be valid for <i>120 days</i> after the deadline set for the submission of bid, the deadline being counted as day one of the validity period.
ITB 20.1	Bid Securing Declaration is applicable.
D. Submission and Opening of Bids	
ITB 21.1	In addition to the original of the bid, the number of copies is: Only the Original and one copy is required
ITB 23.1	The deadline for submission of bids shall be Wednesday, 14 October 2020 at 11:00AM
ITB 23.1	The Employer's address for the purpose of Bid submission is: Attention: The Chairperson, Procurement Board Address: Environmental Investment Fund P.O. Box 28157 Windhoek Namibia
ITB 26.1	The bid opening shall take place at: Environmental Investment Fund, 8933 Heinitzburg Heights, c/o Hienitzburg & Dr. Theo Ben-Gurirab Streets, Klein Windhoek Windhoek, Namibia Date: Wednesday, 14 October 2020 Time:11:10AM
E. Evaluation and Comparison of Bids	

ITB 32.1	A margin of preference shall not apply. If a margin of preference applies the application methodology shall be defined in Section V – Evaluation Criteria.
F. Award of Contract	
ITB 40.1	The Standard Form of Performance Security acceptable to the Public Entity shall be “a Bank Guarantee”. The Bank guarantee shall be 10 % of the contract price inclusive of provisional and contingencies sum and VAT.
ITB 41.1	The Advance Payment shall be limited 20% percent of the Contract Price, less the provisional and contingencies sums
ITB 42.1	Interim Payment for Plant and Material on site is applicable.

Section III - Bidding Forms

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Data Form 1

Bid Submission Form

The Bidder must prepare the Bid Submission Form on stationery with its letterhead clearly showing the Bidder’s complete name and address.

Note: All italicized text is for use in preparing these forms and shall be deleted from the final document.

Date: _____

Bidder’s Reference No.: _____

Procurement Reference No.:.....

To: Environmental Investment Fund
P.O. Box 28157
Windhoek
Namibia

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) Clause 10;
- (b) We offer to execute in conformity with the Bidding Documents the following Works:
_____;
- (c) The total price of our Bid after discounts, if any, offered in item (d) below is:

_____;
- (d) The discounts offered and the methodology for their application are:

_____;
- (e) Our bid shall be valid for a period of **90** days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) We hereby confirm that we have read and understood the content of the Bid Securing Declaration attached hereto and subscribe fully to the terms and conditions contained therein, if required. We understand that non-compliance to the conditions mentioned may lead to disqualification.
- (g) If our bid is accepted, we commit to obtain a Performance Security and a Preference Security (if applicable) in accordance with the Bidding Document;
- (h) We, including any subcontractors or suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 5.2;

- (i) We are not participating, as a Bidder in more than one bid in this bidding process other than alternative offers submitted in accordance with ITB 15;
- (j) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible under the laws of Namibia;
- (k) We are not a government owned entity / We are a government owned entity but meet the requirements of ITB 5.4;³
- (l) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (m) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive; and
- (n) If awarded the contract, the person named below shall act as Contractor’s Representative: _____

Name: _____

In the capacity of: _____

Signed: _____

Duly authorized to
sign the Bid for and on
behalf of: _____

Date: _____

Seal of Company _____

³ Use one of the two options as appropriate.

Data Form 2

Bid Securing Declaration

(Section 45 of Act)

(Regulation 37(1)(b) an 37(5))

Date:[Day/month/year].....
[DD/MM/YYYY]

Procurement Ref No.: W/ONB/IREMA-02/2020

To: Environmental Investment Fund
P.O. Box 28157
Windhoek
Namibia

I/We* understand that in terms of section 45 of the Act a public entity must include in the bidding document the requirement for a declaration as an alternative form of bid security.

I/We* accept that under section 45 of the Act, I/we* may be suspended or disqualified in the event of

- (a) a modification or withdrawal of a bid after the deadline for submission of bids during the period of validity;
- (b) refusal by a bidder to accept a correction of an error appearing on the face of a bid;
- (c) failure to sign a procurement contract in accordance with the terms and conditions set forth in the bidding document, should I/We* be successful bidder; or
- (d) failure to provide security for the performance of the procurement contract if required to do so by the bidding document.

I/We* understand this bid securing declaration ceases to be valid if I am/We are* not the successful Bidder

Signed:
[insert signature of person whose name and capacity are shown]

Capacity of:
[indicate legal capacity of person(s) signing the Bid Securing Declaration]

Name:

Duly authorized to sign the bid for and on behalf of: [insert complete name of Bidder]

Dated on _____ day of _____, 20_____
[insert date of signing]

Corporate Seal (where appropriate)

[Note*: In case of a joint venture, the bid securing declaration must be in the name of all partners to the joint venture that submits the bid.]

***delete if not applicable / appropriate**

Data Form 3



Republic Of Namibia

Ministry of Labour, Industrial Relations and Employment Creation

Written undertaking in terms of section 138 of the Labour Act, 2015 and section 50(2)(D) of the Public Procurement Act, 2015

1. EMPLOYERS DETAILS

Company Trade Name:.....

Registration Number :.....

Vat Number:

Industry/Sector:

Place of Business:.....

Physical Address:.....

Tell No.:.....

Fax No.:.....

Email Address:.....

Postal Address:.....

Full name of Owner/Accounting Officer:.....

.....

Email Address:.....

2. PROCUREMENT DETAILS

Procurement Reference No.:.....

Procurement Description:

.....

.....

Anticipated Contract Duration:

Location where work will be done, good/services will be delivered:

.....

3. UNDERTAKING

I*[insert full name]*, owner/representative

of*[insert full name of company]*

hereby undertake in writing that my company will at all relevant times comply fully with the relevant provisions of the Labour Act and the Terms and Conditions of Collective Agreements as applicable.

I am fully aware that failure to abide to such shall lead to the action as stipulated in section 138 of the labour Act, 2007, which include but not limited to the cancellation of the contract/licence/grant/permit or concession.

Signature:

Date:

Seal:.....

Please take note:

- 1. A labour inspector may conduct unannounced inspections to assess the level of compliance*
- 2. This undertaking must be displayed at the workplace where it will be readily accessible and visible by the employees rendering service(s) in relations to the goods and services being procured under this contract.*

Data Form 4

Schedule of Contractor's Equipment Offered

The Bidder is to state below (in accordance with **ITB 6.3 (c)**) each item of major equipment which he guarantees to provide on the site within the time indicated hereunder. If such equipment is not owned by the Bidder, he shall attach a letter of intent from a reputable equipment (plant) hire firm that such equipment will be provided during the period of the Contract.

TYPE	REGISTRATION NUMBER	DESCRIPTION AND MAKE	YEAR OF MANUFACTURE	NUMBER OF HOURS SINCE NEW *	NAME OF OWNER **	WHERE EQUIPMENT CAN BE INSPECTED	DATE AVAILABLE

* In case of major overhauls, state the number of hours since last overhaul.

** When not owned by the Tenderer, also state whether the equipment will be held under a hire agreement or a hire-purchase agreement.

*** State the earliest date available on site or the number of days after award of contract.

The Contractor also undertakes to bring onto the site, without additional costs to the Employer, any additional construction equipment, which in the opinion of the Engineer is necessary for completing the contract within the tendered contract period.

Schedule of Contractor's Equipment Offered (Continued)

The Bidder is to state below (in accordance with **ITB 6.3 (c)**) each item of major equipment which he guarantees to provide on the site within the time indicated hereunder. If such equipment is not owned by the Bidder, he shall attach a letter of intent from a reputable equipment (plant) hire firm that such equipment will be provided during the period of the Contract.

TYPE	REGISTRATION NUMBER	DESCRIPTION AND MAKE	YEAR OF MANUFACTURE	NUMBER OF HOURS SINCE NEW *	NAME OF OWNER **	WHERE EQUIPMENT CAN BE INSPECTED	DATE AVAILABLE

* In case of major overhauls, state the number of hours since last overhaul.

** When not owned by the Tenderer, also state whether the equipment will be held under a hire agreement or a hire-purchase agreement.

*** State the earliest date available on site or the number of days after award of contract.

The Contractor also undertakes to bring onto the site, without additional costs to the Employer, any additional construction equipment, which in the opinion of the Engineer is necessary for completing the contract within the tendered contract period.

Data Form 5

Schedule of Personnel Offered

The Bidder is to state below (in accordance with **ITB 6.3 (d)**) the number of each category of personnel who he intends to provide on Site for the execution of the Works and in the case of professional and technical staff the number of years of appropriate experience after qualification. Such staff shall be named and guaranteed.

PROFESSIONAL AND TECHNICAL	NATIONALITY		EXPERIENCE
	NAMIBIAN	NON-NAMIBIAN	
1. (a) Contractor's Representative Name: Qualifications: (b) Contractor's Superintendence (Site Agent) Name: Qualifications:			
2. Foreman			
3. Other (specify):			
4. NON-TECHNICAL STAFF			NO OF
(a) Clerical Staff			
(b) Artisans			
(c) Semi-skilled Labourers			
(d) Unskilled Labourers			

Data Form 6

Conventional Sub-Contractors

Schedule of Subcontractors

The bidder is to list below (in accordance with **ITB 6.2 (j)**) the Subcontractors as defined in Sub-Clause 4.4 of the General Conditions of Contract, which he intends to employ to carry out parts of the work. The acceptance of this bid shall not be construed as being approval of any or all of the listed subcontractors. Should any or all of the subcontractors not be approved subsequent to the acceptance of the bid, it shall in no way invalidate the bid, and the tendered unit rates for the various items of work shall remain final and binding even in the event of a subcontractor not listed below being approved by the Employer. The work to be subcontracted shall be restricted to work of specialist nature, normally not carried out by a general contracting firm.

Sub-Contractors:

NAME AND ADDRESS OF SUBCONTRACTOR	SECTION OF WORKS AND ESTIMATED VALUE	NATURE OF WORK SUB-CONTRACTOR SPECIALIZES IN:

NB: Should the Bidder intend to make use of Sub-contractors, all contractual agreements shall comply with the requirements of the Contract and shall be submitted to the Engineer for approval.

Data Form 7

Schedule of Work Satisfactorily Completed By Bidder

Bidders must insert in the space provided below and submit with the Bid the following statement, showing a list of work, similar in nature to the work defined in these documents, which they have successfully carried out. Present commitments shall also be listed, indicating the date due for completion. Absence of this statement may prejudice the tender as being submitted by an inexperienced contractor, and may be set aside.

FOR WHOM DONE	NATURE OF WORKS	VALUE OF WORKS	SCHEDULE COMPLETION	ACTUAL COMPLETION

PRESENT COMMITMENTS:

1.
2.
3.
4.
5.
6.
7.
8.

Data Form 8

Signing Authority

In the cases where the Bidder is a Company, Corporation or Firm, the person whose signature appears below must be duly authorised to do so, whether by Articles of Association, Resolution, Power of Attorney or otherwise.

I/We, the undersigned am/are authorized to enter into the Contract on behalf of:

by virtue of _____

dated _____ a certified copy of which is attached to the Bid Document.

AS WITNESSES:

1. _____ **SIGNATURE OF BIDDER ***

2. _____ **DATE**

- **Signature to correspond with that on Bidding Form**

Data Form 9

Example: Letter Of Intent From Financial Institution

Letter Head of Financial Institution

Date:

LETTER OF INTENT

This Serves to inform the Environmental Investment Fund that the Financial Institution, herein represented by(the undersigned) in his/her capacity as, is willing to issue a Demand Guarantee to the value of N\$ in favour of the Environmental Investment Fund in the event that Bid #### be awarded to

The Demand Guarantee will be in the same wording and format as the one included in the Bid Dossier.

Signed :

Data Form 10

Particulars of Bidder

1. Full names and postal and physical address of bidder:

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

2. Origin/registration/trade licence number:

(a) Namibian company/contractor/supplier/trader:

Registration number and date:

Trade licence or certificate number and date, and name and address of person who issued the licence or certificate:

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

Financial interests held by a foreigner/foreign company (Furnish details):

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

(b) Foreign company/contractor/supplier/trader:

Country of registration

Registration number and date:

Financial interests held by a Namibian/Namibia company (furnish details):

.....
.....

3. Capital structure:

Total equity capital N\$ _____

(Amount in words): _____

which total equity is made up as follows:

	<u>Amount</u> <u>N\$</u>	<u>Percentage of</u> <u>total capital</u>
(a) Capital owned by Namibians/Namibian companies
(b) Capital owned by foreigners/foreign companies

4 Particulars or business:

(a) Nature of activities:

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

(b) Is the business, according to the Ministry of Trade and Industry, a small scale industry?
..... (Yes/No)

If yes, give details and furnish documentary proof:

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

(c) Is the bidder located in communal areas/underdeveloped areas notified by the Ministry
of Trade and Industry? (Yes/No)

If yes, give details and furnish documentary proof:

.....
.....

5. Organisational structure:
Employees:

Category	Total Number	Number of Namibians	Number of formerly disadvantaged- Namibians	Number of foreigners
(a) Managing Director/ Directors				
(b) Managers				
(c) Office personnel/ staff				
(d) Skilled labour				
(e) Unskilled labour				
(f) Contract staff/labour				
Total				

No. of women
Included in above

No. of handicapped persons
included in above

6 Buildings and erven:

<u>Area used</u>	<u>(Total area (in square metres))</u>
Area of erf
Area of buildings on erf
Area of buildings used for Manufacturing/assembling
Area of buildings used as office space
Area of buildings used for storage

- 7 Is a subcontractor/sub vendor/sub supplier involved in the performance of the agreement? (Yes/No)

If "yes", state in an annexure the percentage of the total bid amount being performed by means of subcontracting, etc., and furnish in that annexure full particulars of the subcontractor/sub vendor/sub supplier concerned, including physical address or addresses.

Qualification Information

*[The information to be filled in by **bidders** in the following pages shall be used for purposes of post-qualification or for verification of prequalification as provided for in ITB Clause 6. This information shall not be incorporated in the Contract. Attach additional pages as necessary. Pertinent sections of attached documents should be translated into English. If used for prequalification verification, the Bidder should fill in updated information only.]*

- 1. Individual Bidders or Individual Members of Joint Ventures**
- 1.1 Financial reports for the last **3** years: Financial Statements, Audited Accounts, etc. *[attach copies.]*
 - 1.2 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. *[attach copies of support documents].*
 - 1.3 Name, address, and telephone, telex, and facsimile numbers of banks that may provide references if contacted by the Public Entity.
 - 1.4 Information on current litigation(s) in which the Bidder is involved to be listed in the preferred format below.

Preferred format

Other party(ies)	Cause of dispute	Amount involved
(a)		
(b)		

- 1.5 Proposed Program (work method and schedule). Descriptions, drawings, and charts, as necessary, to comply with the requirements of the Bidding Documents.
- 2. Additional Requirements**
- 2.1 Bidders should provide any additional information requested in the Bidding Document.

Bill of Quantities

In accordance with Particular Conditions, B 2.4.1, “The quantities appearing in the Schedule of Quantities are approximate only and are prepared for the comparison of tenders and award of contract. Payment will be made only for the quantities of work performed in accordance with the contract and it is understood that the scheduled quantities of work to be done and materials to be furnished may each be increased or decreased as herein provided”.

The prices and rates to be inserted in the Schedule of Quantities are to be the full inclusive prices to the Employer for the work described under the several items. Such prices shall cover all costs and expenses that may be required in and for the construction 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.

A price or rate is to be entered against each item in the Schedule of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Schedule.

PRELIMINARY AND GENERAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT N\$
1	SANS 1200 AA	PRELIMINARY AND GENERAL				
		Fixed charges				
1.1	8.3.1	Contractual Requirements	Sum	1		
		Facilities required by Contractor				
1.2		Equipment	Sum	1.0		
1.3		Storage Shed	Sum	1.0		
		Time-related charges (for duration of contract, unless otherwise stated)				
1.4	8.4.1	Contractual requirements	Days	243.0		
1.5	8.4.2	Facilities for Contractor	Days	243.0		
1.6	8.4.3	General responsibilities and other time related obligations	Days	243.0		
1.7		Locating of Existing Services	Sum	1.0	25000.00	25000.00
1.8		Provision to determine water quantity at existing fountain	Sum	1.0	25000.00	25000.00
Total Carried Forward To Summary						

WATER MAINS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT N\$
3		WATER MAINS				
3.1		EXCAVATION AND BACKFILLING				
	PSDB-1	Excavate in all materials for trenches, backfill, compact, and dispose of surplus material for pipes up to 90 mm diameter				
3.1.1		0.00m up to 1.00m for 90mm	m	5500.0		
3.1.2		0.00m up to 1.00m for 200mm	m	2900.0		
3.2	SANS 1200 L	MAIN PIPELINE				
	8.2.1	uPVC pipes Class 6: Supply, handle, lay above ground, joint with couplings, test, and disinfect (irrigation water pipelines)				
3.2.1		90 mm diam.	m	5896.0		
3.2.2		200 mm diam.	m	2900.0		
3.3	SANS 1200 L	SUB MAIN PIPELINE				
	8.2.1	LDPE pipes Class or Grade 4 with/without lining/coating: Supply, handle, lay above ground, joint with couplings, test, and disinfect (irrigation water pipelines)				
3.3.1		50 mm diam.	m	6 469		
3.4	SANS 1200 L	DRIPLINES				
	8.2.1	Soft polyethylene/LDPE pipes Class 5 with/ without lining/ coating: Supply, handle, lay above ground, joint with couplings and test (irrigation water pipelines)				
3.4.1		16 mm diam.	m	319 000		
3.5	SANS 1200 L	SPECIALS AND FITTINGS				
3.5.1		160mm x 110mm Tee-Piece Reducer	No.	28.0		
3.5.2		110mm x 90mm Reducer	No.	28.0		
3.5.3		160mm Upvc - 90 Degree Bend	No.	10		
3.5.4		160mm Upvc - 45 Degree Bend	No.	30.0		
3.5.5		160mm Upvc - 22.5 Degree Bend	No.	17.0		
3.5.6		160mm Upvc - 11.25 Degree Bend	No.	2		
3.6	8.2.3	PUMPS AND VALVES				
3.6.1		NB 150 Non-Return Valve	No.	4.0		
Total Carried Forward						

WATER MAINS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT N\$
Brought Forward						
3.6.2		Pumps shall be supplied complete with all pipework, fittings, control & protection gear as required				Rate Only
3.6.3		Supply,delivery and installation of the river solar pumps supplying 90 m3/h at 50m Pressure Head inclusive of solar panels.	No.	3.0		
3.6.4		Supply, design of the pumps abstraction structure	No.	3.0		
3.6.5		Supply,delivery and installation of the river solar pumps supplying 125 m3/h at 50m Pressure Head inclusive of solar panels.	No.	2.0		
3.7		CONTROL POINTS				
		MAIN CONTROL POINT - CP1				
3.7.1		Installation of Control Point (CP1) as per Drawing 19001-CW-02	No.	56.0		
3.7.2		90mm uPVC Threated Female Flanged Adaptor	No.	56.0		
3.7.3		90mm Equal 90 degree Galv. Elbow Flanged	No.	56.0		
3.7.4		90 x 50mm Reducing Flanged Bush	No.	56.0		
3.7.5		50mm dia. 1500mm Long Galv. Pipe Male Threaded	No.	56.0		
3.7.6		50mm dia. Equal Galv. Steel Tee F/F/F	No.	56.0		
3.7.7		50x25mm Galv. Reducing Bush M/F	No.	56.0		
3.7.8		25mm Air Valve ARI 10 Bar Automatic	No.	28.0		
3.7.9		50mm Galv. Short (about 30-50mm) Nipple Threaded m/m	No.	224.0		
3.7.10		50mm dia. Galv. Ball Valve Threaded	No.	56.0		
3.7.11		25mm dia. Galv. Ball Valve Threaded	No.	56.0		
3.7.12		50mm Galv. Check Valve / Pressure Regulator Threaded	No.	28.0		
3.7.13		50x25x50mm Galv. Reducing Tee Female Threated	No.	28.0		
3.7.14		25mm 0-1000kPa (10 Bar) Pressure Gauge	No.	28.0		
3.7.15		50mm Galv. Union Socket	No.	56.0		
3.7.16		130 Micron/Mesh Filter (25m^3/h)	No.	28.0		
Total Carried Forward						

WATER MAINS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT N\$
Brought Forward						
3.7.17		50mm 90 degree Galv. Elbow F/F	No.	28.0		
3.8		BLOCK CONTROL POINT - CP2				
3.8.1		Installation of Control Point (CP2) as per Drawing 19001-CW-02	No.	83.0		
3.8.2		90X50mm Clamp Saddle Flanged	No.	83.0		
3.8.3		50mm dia. 700mm Long Galv. Pipe Male Threaded	No.	83.0		
3.8.4		50mm 90 degree Galv. Elbow F/F	No.	166.0		
3.8.5		50mm Galv. Short (about 30-50mm) Nipple Threaded m/m	No.	166.0		
3.8.6		50mm Galv. Equal Tee Threaded	No.	83.0		
3.8.7		50mm Galv. Union Socket	No.	83.0		
3.8.8		50mm dia. Galv. Ball Valve Threaded	No.	83.0		
3.9		BLOCK CONTROL POINT- CP3				
3.9.1		Installation of Control Point (CP2) as per Drawing (19001-CW-02)	No.	28.0		
3.9.2		90mm uPVC Threaded Female Flanged Adaptor	No.	28.0		
3.9.3		90mm Equal 90 degree Galv. Elbow Flanged	No.	28.0		
3.9.4		90 x 50mm Reducing Flanged Bush	No.	28.0		
3.9.5		50mm dia. 700mm Long Galv. Pipe Male Threaded	No.	28.0		
3.9.6		50mm 90 degree Galv. Elbow F/F	No.	56.0		
3.9.7		50mm Galv. Short (about 30-50mm) Nipple Threaded m/m	No.	56.0		
3.9.8		50mm Galv. Short (about 200-350mm) Nipple Threaded m/m	No.	56.0		
3.9.9		50mm Galv. Union Socket	No.	28.0		
3.9.10		50mm dia. Galv. Ball Valve Threaded	No.	28.0		
3.10		FERTIGATION				
3.10.1		Installation of Fertigation Tank of 145 L Capacity	No.	56.0		
3.11		ANCILLARIES				
3.11.1	8.2.11	Anchor/Thrust blocks and pedestals	No.	33.0		
Total Carried Forward						

WATER MAINS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT N\$
Brought Forward						
3.11.2	8.2.12	Concrete casing	m ³	50.0		
3.12		GROUND WATER TANK				
3.12.1		880m3 Ground Water Storage Tanks	No.	1.0		
3.12.2		Tank Foundation as per DWG 19001-CW-04	No.	1.0		
3.13		FENCING				
		Supply, deliver and install security fencing around water tank , including the access gate as per fencing detail on drawing				
3.13.1		Supply and Installation of 2.8 km - Steel fencing Complete as per DWG 19001-CW-03	km	2.8		
3.14		FOUNTAIN WATER ABSTRUCTION STRUTURE				
3.14.1		Construct water abstruction structure with depth not exceeding 1-2m	No.	2.0	20000.00	40000.00
3.15		GARDEN NET SHADE				
3.15.1		Supply of all materials for construction or setting up of complete (with 40% or 50% shade netting for agricultural purposes) of the sizes (12m (w)*30m (l)*2.5m (h-above ground)) and an attached nursery size (3m (w)*3m (l)*2.5m (h- above ground)).	m2	720		
Total Carried Forward To Summary						

SUMMARY OF SECTIONS		AMOUNT N\$
SECTION	DESCRIPTION	
1	PRELIMINARY AND GENERAL	
2	SITE CLEARANCE	
2	WATER MAINS	
	SUBTOTAL	
	ADD CONTINGENCIES (10%)	
	SUBTOTAL	
	Add 15% VAT	
	Total Carried Forward To Summary Of Schedules	

Section IV - Evaluation Criteria

This section contains supplementary criteria that the Employer shall use to evaluate bids.

The Employer reserves the right to check the information provided by the bidders. In the event that the bidder supplied wrong information, the Employer reserves the right to reject the bid.

1. Evaluation Methodology

In addition to the criteria listed in ITB32 and ITB 33, the following criteria shall apply:

a) Open National Bidding

This bid is in terms of the National Bidding Procurement Act and in terms of Clause 29 is limited to the following entities:

1. Namibian citizens
2. Entities incorporated in Namibia with no less than 51 percent equity owned by Namibian citizens of which no less than 30% is owned by previously disadvantaged persons.

b) Range of Bid

Bids that fall within a range of 10% below or 10% above the estimated construction cost, including provisional sums, contingencies, escalation and VAT, will be adjudicated.

c) Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section V (Employer's Requirements).

d) Multiple Contracts

Pursuant to sub-clause ITB 1.1: If Works are grouped in multiple contracts or Contract Areas, evaluation will be carried out as follows:

Not applicable (N/A) to this Contract.

e) Completion Time

An alternative Completion Time is not permitted under ITB 15.1 will be evaluated as follows:

Evaluation will be based on the programme of works provided and proposed execution methodology and

Evaluation will be to the benefit of the project but not compromising on the project specifications and quality. The maximum intended completion period is **9 months** from the Contract commencement date.

f) Technical Alternatives

Technical alternatives are not permitted under ITB 15.1, will be evaluated as follows:

Evaluation of alternative proposal will be based on the following:

- (i) Viability of the technical methods and material specified as alternative;
- (ii) Benefits and economical values of the alternative proposal to the project, end-users and the Employer;
- (iii) SANS compliance with all required certification and accreditation of the alternative and
- (iv) Cost and savings detailed analysis of the alternative

g) Margin of Preference

A Margin of Preference shall be applied to all Bidders in terms of Sub-Clause ITB 32.1 of the BDS as follows:

Not applicable (N/A) for this Contract

2. A Technical Score

Is determined for each Bidder according to pre-determined Evaluation Criteria, including criteria for ‘Targeted Procurement’ as defined in (e) and (f) below.

3. A Price Score

Is determined for each Bidder with respect to each Contract Area.

4. A Bidder Index

Is calculated for each Bidder with respect to each Contract Area.

5. Evaluation Criteria

In addition to the mandatory documents listed under ITB 13 and the evaluation Criteria listed and defined under Section IV, the following evaluation criteria shall apply:

The Bids will be evaluated according to the following Evaluation Criteria, which assign merit

points to attributes relating to price and non-price factors. In this way a **Bid Index** is determined for each Bidder with respect to each Contract Area as described in (6) below.

6. Calculation of the Bidder Index

The **Bidder Index (B_T)** for each compliant Bid will be calculated **per each Contract Area** by weighted attributes using the formula below:

$$B_T = 0.3 \times P_s + 0.7 \times T_s$$

where:

P_s = the **Price Score** for the Bid under consideration, calculated **per each Contract Area**

T_s = the **Technical Score** for the Bid under consideration

The **Price Score** will be calculated for each Bidder in accordance with the following formula:

$$P_s = (P_C/P_N) \times 100$$

where:

P_C = Bid Price of the lowest acceptable Bidder, adjusted in terms of ITB 31.

P_N = Bid Price under consideration, adjusted in terms of ITB 31.1

Provided that the Bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:

- (a) Only for unit price contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
- (b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- (c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in

which case the amount in figures shall prevail subject to (a) and (B).

The **Technical Score** will be calculated for each Bid in accordance with the following formula:

$$T_s = (T_f + T_x + T_c + T_m)$$

Where the various elements of the equation are defined and derived as follows:

ITEM	NON-PRICE ATTRIBUTES TECHNICAL / CAPACITY/ PDN ATTRIBUTES	MAX. POINTS	CLAUSES IN SEC.
TF	Financial Resources / Capacity Bid Declaration Form Line of Credit / Bank Rating Letter of Intent from Financial Institution	5 10 10	ITB20.1 ITB6.3(g) Data form 9
TX	Relevant Experience Comply with Experience Requirements <ul style="list-style-type: none"> • References / Completion Certificates • Previous similar 3 Years Projects 	15 10	ITB6.2(b) ITB6.2(c)
TC	Relevant Competence: Staff <ul style="list-style-type: none"> • Contract Managers • Site Agents /Site Engineer • Foremen 	15 10 10	ITB6.2(e) ITB6.2(e) ITB6.2(e) ITB6.2(e)
TM	Plant Capacity <ul style="list-style-type: none"> • As per BDS ITB6.3(c) and Data Form 4 	15	ITB6.3(c) & ITB6.2(d)
TS	Technical Score	100	

Note: With reference to the Technical Score Table above, Bidders are required to fill in all the relevant Bidding Forms in Section III and to submit certified copies of supporting documentation that will enable the Evaluators to verify (and award points with regard to) the above-mentioned attributes.

Bidders that obtain more than 70% passing margin of the technical score shall qualify for the financial evaluation.

PART 2 – Employer's Requirements

Section VI – Employer’s Requirements

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Specifications

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SECTION 5 : PROJECT SPECIFICATIONS

SCOPE OF PROJECT SPECIFICATIONS

The Project Specifications consist of two Portions :

PORTION 1 covers a general description of the Works, Site, circumstances, site facilities available and required, aspects requiring specific attention and general requirements to be met by the Contractor.

PORTION 2 covers amendments and additions to the SABS 1200 Standardised Specifications applicable to the Contract.

STATUS OF PROJECT SPECIFICATIONS

The Project Specifications form an integral part of the Contract Document and shall be deemed to be included in and form part of the Specifications. In case of any discrepancy or conflict with any parts of the Standardised Specifications or the Drawings, the Project Specifications shall take precedence and shall govern.

PORTION 1 : THE WORKS – SUPPLY AND INSTALLATION OF IRRIGATION SYSTEM AT SESFONTEIN

PREFACE

The Project Specifications in Portion 1 are numbered consecutively with the number prefixed by the letters “PS”, followed by a description of the Clause.

PS 1 GENERAL DESCRIPTION OF THE WORKS

The Contract covers the supply and installation of the following work:

1. Water Storage and Pumps
2. Bulk Water Pipeline

3. Water Main and Servicing Pipes
4. Net Housing
5. Fencing of Community Garden
6. Testing and Commission

PS 2 DESCRIPTION OF THE SITE AND ACCESS

The work are spread over the entire Town of Sesfontein

PS 3 DETAILED DESCRIPTION OF THE PROJECT

The project covers the supply and installation works for irrigation drip water supply system for the old and new Sesfontein Community Gardens in the Kunene Region. Although this description serves to outline the extent of the Works it does not limit the amount of work which may be required to be carried out by the Contractor under this Contract. Approximate quantities of each type of work to be carried out in accordance with the Contract Documents are listed in the Schedule of Quantities of this Contract, however, quantities listed in Schedule of Quantities can increase or decrease to any extend, subsequently the total value of the works is subject to increase and decrease to any extend.

PS 3.1 General

The general items of work to be executed under this contract include the following :

- (a) establishment on Site of the Contractor's tools, moving of his plant, materials and personnel to Site; and the removal of all these items on completion of the Contract;
- (b) provision of construction water;
- (c) setting out of the Works;
- (d) maintenance of the works during and after construction;
- (e) testing of materials and control of workmanship;
- (f) complying with environmental requirements;

PS 4 CONSTRUCTION PROGRAMME

For each separate instruction given by the Engineer / Project Manager / delegated person a programme shall be submitted and agreed before commencing work.

Subsequent to determining powers of Engineer / Project Manager / Delegate instructions for the execution of work will be issued. Confirmation from the Contractor is obtained and standard mobilisation programme from the Contractor is submitted to the Engineer / Project Manager / Delegate, and work commences.

Upon completion of the work a taking over request is submitted for measurement and certification.

PS 5 SITE FACILITIES AVAILABLE**PS 5.1 Services**

The Contractor shall make his own arrangements for the acquisition of water, power and all other services for construction purposes and shall be responsible for the cost thereof.

The Contractor must ascertain the position of the nearest available municipal services to the Site, from the relevant Municipal Departments.

The use of household water for construction purposes will not be allowed. The contractor must liaise with the relevant services Department of the Municipal Council to obtain water for construction and shall provide his own pumping facilities.

PS 5.2 Camp Site and/or Base Camp

Areas which could be used for the possible establishment of the Contractor's camp will be pointed out during the site inspection.

The Contractor may be required to establish a storage yard, in which case the Engineer / Project Manager will, at the commencement of the works, point out the actual site to the Contractor. A special item in this regard is being specified in the Bill of Quantities. All existing buried cables, pipelines, boundary beacons and other works within or near the yard and generally wherever located, shall be protected at the Contractor's expense to the satisfaction of the Engineer / Project Manager.

The storage yard shall be neatly security fenced to the approval of the Engineer / Project Manager, and, in addition to open-air storage, the Contractor will be required to use the yard for the erection of presentable temporary buildings for the storage of perishable materials, cement, latrines and shelters.

PS 5.3 Survey Beacons, Bench Marks and Reference Pegs

Reference marks with co-ordinates and levels are shown on the Drawings and will be indicated to the Contractor before construction commences. The Contractor is responsible for the setting out of the Works as included in the tendered sum in Section A of the Schedule of Quantities. The Contractor is also responsible to see that no reference marks, beacons, erf pegs and bench marks are covered up or disturbed. In case of such disturbance, the Contractor shall arrange, at his cost, for the reinstatement thereof by a registered land surveyor. Any centreline pegs found by the Contractor are to be removed by him and must not be accepted as part of the setting out of the Works.

Areas for the temporary stockpiling of excavated material, whether it be topsoil, overburden or gravel from cuttings intended for later use, will be pointed out during the site inspection.

PS 6 SITE FACILITIES REQUIRED

PS 6.1 Facilities for Engineer / Project Manager

No Site facilities are to be provided for the Engineer / Project Manager. A site diary in A4-format shall be supplied and kept in the office of the Contractor. All major activities, events and achievements shall be recorded on a daily basis by the Contractor's Representative and co-signed by the Engineer / Project Manager's Representative or his delegate. A site instruction book shall also be kept in the office of the Contractor.

PS 6.3 Sanitary Facilities

The Contractor shall provide adequate toilet facilities for all personnel on Site.

PS 7 SOURCES OF NATURAL MATERIALS

PS 7.1 Road Pavement Material

Material for the selected layer shall as far as possible be sourced from cuts inside the construction area and topsoil removed. If so instructed to reduce on haul distance, material for selected layers shall also be obtained from specified cut areas outside the construction area, or from designated borrowpits. Material for subbase can also be obtained from designated borrowpits

PS 7.2 Aggregates

Aggregates for concrete are available at a number of commercial sources.
The Contractor should make provision in his tender rates to include overhaul.

PS 8 CONSTRUCTION NAMEBOARDS

Construction nameboards will be required.

PS 9 SITE MEETINGS

Site meetings, when requested by the Engineer / Project Manager shall be held and attended by an authorised representative of the Contractor with delegated authority to take contractually binding decisions. These meetings will be held to monitor progress and standards of work according to specified standards.

PS 10 ENVIRONMENTAL REQUIREMENTS**PS 10.1 General**

The Site of the Works is situated in an environment which is highly valued by the residents of Sesfontein. A special duty of care is laid upon the Contractor to conduct all his operations in a manner specifically calculated to restrict his operations to the Construction Area and existing tracks, except where he must unavoidably move outside the area for the sole purpose of essential actions necessary, in the opinion of the Engineer / Project Manager, for the execution of the Work.

The Contractor shall carry out the instructions of the Ministry of Environment and Tourism and the Ministry of Urban and Rural Development through the Engineer / Project Manager, as may be necessary for the preservation of the environment within which the Works are situated.

(a) Camp Site

The camp site shall be fenced in with a 5-strand stockproof fence and swing gate. A five (5) metre wide firebreak shall be provided around the perimeter of the camp outside the fence line. The firebreak shall at all times be kept free from vegetation and rubbish. Debris generated from clearing the camp site and firebreak shall be removed to a municipal refuse disposal site.

No fireplace in the camp shall be located within twenty (20) metres from the perimeter fence or from a fuel storage area. No open fire shall be permitted, unless made in a drum or similar container.

No informal settlement shall be allowed to establish at or near the camp site.

The Contractor shall be responsible for the establishment of a refuse control system for the collection and removal of refuse from the camp site and working areas.

No domestic animals shall be allowed in the camp, and no hunting, poaching, trapping or any other undue interference with the free movement of animals or birds will be allowed.

(b) Dumping of Material

Excess or unwanted natural materials shall not be spoiled indiscriminately, but shall be transported to and dumped in worked-out borrowpits or other sites acceptable to the Engineer / Project Manager. Such material shall be neatly flattened, trimmed and finished to a high standard as part of the finishing of the Works. On no account shall any material be buried in the Construction Area.

(c) Pollution of Soil

The Contractor shall take all possible precautions to avoid any pollution of the soil or stormwater which originates on or flows through, across or adjacent to the Works. Any accidental spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils or other objectionable or undesirable material must be removed immediately and adequate steps taken to prevent a recurrence.

In this regard at all stationary plant and refuelling tanks, pumps and motors shall be provided with drip trays or the potential spillage areas adequately banded by covering it with 0,250 mm PVC sheeting, covered with 100 mm of sand on an area of at least 1 metre wider than the potential spillage area.

(d) Soil Erosion

If soil erosion should start at any time due to unauthorised activities of the Contractor, he shall take prompt steps to repair the damage at his own cost and to the satisfaction of the Engineer / Project Manager.

Should the Contractor fail to do that, the Employer shall be entitled to have the damage repaired and to recover the repair costs from the Contractor. Except where so specified in the Contract or where specifically so instructed by the Engineer / Project Manager, no cutting and borrowing of material will be allowed outside the Construction Area.

(e) Cut Faces

Cut faces shall be trimmed and finished by the progressive contouring thereof while excavating the cutting, to create horizontal ripper or excavator bucket teeth lines. The contour lines and pockets so created in the cut faces shall be filled with topsoil by hand methods, to facilitate re-growth of vegetation against cut faces.

Topsoil shall be temporarily pre-stockpiled by removing topsoil to a depth of approximately 150 mm, but not exceeding 300 mm, at borrowpits, cuttings and the area between toe-of-fill lines prior to the construction of fills, where so instructed by the Engineer / Project Manager. Payment for temporary stockpiling, loading, transporting, off-loading, spreading and watering of topsoil will be made under item 3.1.4.

(f) Clearing of Street Reserve or Borrow Areas

Material generated from clearing, grubbing and trimming operations shall be disposed of as set out in (c) above, and burning thereof shall not be permitted.

If the Contractor wishes to use wood for cooking and heating purposes, he may use material generated by the clearing operation, or may collect dead wood. It is strictly forbidden to fell any living tree for any other purpose than that necessitated by the clearing of the street reserve or borrowpits as instructed by the Engineer / Project Manager.

No removal of any vegetation outside the construction area shall be allowed, unless specifically so instructed by the Engineer / Project Manager. The Contractor shall price his tender on the assumption that the existing tracks will be used for access to the Works.

The Contractor shall strictly comply with the requirements of the Forestry Act, especially in respect of the obtaining of a permit to fell certain trees.

(g) Survey Operations

Clearing of sight lines required for survey work shall be kept to a minimum, and shall be done by hand outside the construction area. Natural features including trees and rocks, may not be defaced, painted for benchmarks, or become otherwise damaged or defaced.

(h) Haul Roads

The Contractor shall submit to the Engineer / Project Manager for his approval full details of any haul road he proposes to build. Such details shall be submitted well in advance in order to afford the Engineer / Project Manager sufficient time to investigate the implications and to consult with the Employer.

Haul roads may not be constructed without the Engineer / Project Manager's prior approval, and the Engineer / Project Manager may require the Contractor to use sections of existing track roads instead of constructing new haul roads.

(i) Archaeological Sites

The Employer will arrange for a detailed inspection of all borrow areas by an archaeologist, before commencement of construction, to identify archaeological sites. When so instructed, the Contractor shall demarcate identified archaeological sites with safety tape and steel or wooden fence droppers during construction.

He shall take positive steps to prevent or discourage his employees to visit these sites. No more than ten sites will have to be demarcated.

(j) Noise

No excessive noise outside normal working hours, especially when working near built-up residential areas, will be allowed. Equipment and plant with defect exhaust systems shall be repaired on instruction of the Engineer / Project Manager.

(k) Dust

When so instructed by the Engineer / Project Manager, water shall be sprayed by hand or mechanically to form a crust on the surface of diversions, earthworks, layerworks or stockpiles, to avoid dust pollution caused by wind action. No dry compaction of earth and layerworks will be allowed. Payment for the spraying of water will be made separately under Dayworks.

PS 10.2

Default

Sub-Clause 4.18 [Protection of the Environment] is applicable. Failure to comply will place the Contractor in default.

PS 10.3

Payment

The cost of complying the environmental requirements listed above shall be paid for by way of fixed and time-related payment items included for this purpose under the Schedule of Quantities, if applicable.

PS 11

MAXIMISING USE OF LABOUR

This Contract has been written and shall be priced as a normal type of agricultural project. However, the Employer is desirous of making a contribution towards reducing

the level of unemployment in the Sesfontein area. To this end, the following items of work have been identified as suitable for hand labour:

- busch clearing and the removal of roots from the surface after grubbing has been done by machine, and loading of such roots for transport to disposal areas.;
- excavations and backfilling for erosion protection works, all to a maximum depth of 1.5 metres;
- mixing, transporting and placing of all concrete of low compressive strength in small quantities.

Bidders are required to submit their bids for the Works under the condition that at least the items listed above must be done by hand-labour, and that no gender restrictions shall apply in the recruitment of his workforce for the above activities.

PS 12

WORKMANSHIP AND QUALITY CONTROL

The onus rests with the contractor to produce work which conforms in quality and accuracy of detail to all the requirements of the specifications and drawings, and the Contractor shall, at his own expense, institute a quality-control system and provide experienced Engineer / Project Managers, foremen, surveyors, materials technicians, other technicians and other technical staff, together with all transport, instruments and equipment, to ensure adequate supervision and positive control of the works at all times.

The quality of all elements of the Works shall be checked on a regular basis by the Contractor to ensure compliance with the specified requirements. The intensity of inspections and tests shall be adequate to ensure that proper control is exercised.

The Contractor shall submit his measurements and test results, which shall adequately prove compliance of the Works with the specified requirements, to the Engineer / Project Manager for acceptance.

No specific pay items are provided as compensation for the above obligations, including the provision of all samples delivered to the Engineer / Project Manager, the

repair of places from which samples were taken, and the provision of the necessary personnel and testing apparatus and facilities, for which compensation shall be included in the tender rates of the Contractor for the various items of work to which these obligations apply.

PS 13 APPLICABLE STANDARD SPECIFICATIONS

For the purposes of this Contract the Standard Specifications shall be the SABS 1200 Standardised Specifications, as amended, repealed or replaced, and listed in the Schedule of Documents. These Standardised Specifications are not issued with the Contract Documents.

PS 14 OVERHAUL

A freehaul of 5 km will be applicable for the relevant items as indicated in the Schedule of Quantities. Provision for overhaul must be included in the remaining separate relevant payment items, since all the designated material and dump sites are specified and within the Sesfontein area.

PORTION 2 : AMENDMENTS AND ADDITIONS**PREFACE**

In the Project Specifications of Portion 2 below, the prefix "PS" is followed by the letter(s), number and name of the relevant Section, Clauses and Subclauses of the SABS 1200 Standardised Specification.

PSA GENERAL**PSA 3 MATERIALS****PSA 3.1 Quality**

All materials to be built into the Works have to be approved by the Engineer / Project Manager beforehand.

If required by the Engineer / Project Manager, the Contractor shall deliver samples of materials to be tested to the soil and concrete laboratory of the Town Council of Sesfontein.

PSA 4 PLANT**PSA 4.2 Contractor's Office, Stores and Services**

The extent of the Contractor's camp shall be restricted to the area allocated by the Engineer / Project Manager. No living quarters for the Contractor's employees shall be established in the Contractor's camp and squatting is strictly prohibited. The Contractor shall make his own arrangements to provide accommodation to his employees off Site and to transport them to the Site. Only two watchmen shall be allowed on Site overnight and over weekends.

The cost of the provision and removal of facilities under this Clause shall be paid for under the Pay Item "Facilities for Contractor", in respect of fixed costs and under the Pay Item "Contractual requirements" in respect of time-related costs.

PSA 4.3 Contractors plant and tools

The Contractor's plant and tools shall be off modern design and construction and adaptable to the duties required of them. They shall be in sound working condition and shall be sufficiently ample in capacity or number for carrying out the work in an efficient and expeditious manner.

Should the Engineer / Project Manager be of opinion that the plant used by the Contractor is insufficient or in any way unsuitable for carrying out the works in a manner or rate commensurate with the requirements, he shall have the right to call upon the Contractor to provide such additional or approved plant and tools as may, in his opinion, be necessary to attain these requirements.

PSA 5 CONSTRUCTION

PSA 5.4 Protection of Overhead and Underground Services

PSA 5.4.1 General

The location of existing powerlines, water mains and sewerlines in the construction area are shown on the Drawings obtainable from the relevant Department.

It is the responsibility of the Contractor to find the exact position of existing services. If it is required to relocate or change existing services, the Contractor must inform the Engineer / Project Manager immediately after having determined the location of the service, to enable him to make timeous arrangements with the relevant authorities for the relocation or changes to the service in question. The Contractor shall excavate the necessary trenches to enable the relocation of services by other departments. Having located a service, it shall be considered a known service and the Contractor must take extreme care to avoid damage to such a service as the cost for the repair of such a

service will be for the account of the Contractor. The Contractor must furthermore cooperate with the relevant departments of the Town Council of Sesfontein and allow them reasonable access and sufficient space and time to carry out the required work. Sewerage lines shall where and if required, be relocated by the Contractor.

A method has to be developed by the Contractor to search for all existing services with hand excavation. It is suggested that trenches are formed at intervals.

The Water Department is also prepared to point out the positions of the existing water pipelines. No guarantees are however given by the Water Department with respect to the accuracy of this, and those pointed out are not necessarily the only existing water pipelines. These services by the Water Department are offered only if and when their time permits. There may be other pipelines that are still in use, and not known by the Water Department.

The Contractor has to accept liability for the cost to repair known services damaged as a result of his operations, either by his authorised signature, or by admittance to the Engineer / Project Manager, who will confirm such admittance in writing to the Contractor. The Engineer / Project Manager reserves the right to deduct the cost to have such damaged services repaired by the relevant service departments, from payments due to the Contractor. The Contractor is also responsible for the cost of temporary arrangements for water supply if the time needed for repair exceeds 12 hours.

All exposed pipes, cables and appurtenant structures shall be backfilled before nightfall, and if this is not possible, watchmen shall be placed at the exposed services to ensure that

the exposed pipe, cable or other service is not damaged or stolen during the night. Should anything be stolen or damaged in this way, the Contractor is also responsible for the cost of the repair and replacement thereof.

Any damage or loss resulting from failure to comply with this Clause will be to the Contractor's account.

PSA 5.4.2 Measurement and Payment

The unit of measurement to expose existing services, or to provide trenches for the relocation thereof, in accordance with Clause PSA 5.4.1 shall be the cubic metre (m³) of material excavated in accordance with authorised dimensions, measured in place before excavation.

The tendered rate shall include full compensation for the detection, exposure, excavation, backfilling, watering and compacting the backfill to at least the same density as the in-situ material before excavation.

Payment for the relocation of sewerage lines or any other services ordered by the Engineer / Project Manager shall be done by a nominated Subcontractor or at rates approved by the Engineer / Project Manager.

In cases where an exposed service cannot be backfilled before nightfall due to delays thereof by a service department, payment for watchmen required to guard such exposed service after hours shall be made at daywork rates. The Engineer / Project Manager has to approve all work to be done at daywork rates beforehand.

PSA 5.4.3 Encasing of Pipes

The encasing of pipes, ducts or any other services in accordance with SABS 1200 L clause 5.4 shall only be done where and when instructed by the Engineer / Project Manager. Class 25 MPa concrete shall be used for all encasings. Measurement and payment shall be done in accordance with SABS 1200 L 8.2.12.

PSA 8 MEASUREMENT AND PAYMENT**PSA 8.2 Payment****PSA 8.2.1 Fixed-charge and Value-related Items**

Payment of the fixed charge and time related items will be made as follows:

The contractor shall tender a Percentage of the sub-total (A) on the summary page 2.15, for respectively Fixed Charge items and Time related Items. This percentage shall be shown on page 2.3 (SECTION 1 :PRELIMINARY & GENERAL). This percentage must be carried to the summary page 2.15.

Payment for fixed charge and time related items will be made with each Payment Certificate and according to the percentages tendered.

PSA 8.8 Temporary works

PSA 8.8.2 Accommodation of Traffic

PSA 8.8.2.1 General

The Contractor shall ensure that all Works are kept in a safe condition for pedestrians and vehicular traffic.

The Contractor shall plan his accommodation of traffic in accordance with the **Standard Traffic Accommodation Manual**, to be sourced by the Contractor elsewhere..

The Contractor shall organise his work so as to reduce the inconvenience to traffic to a minimum, and no public road or street shall be completely closed without prior approval. If so ordered, the Contractor shall provide suitable bridges at street and driveway crossings where traffic must cross open trenches. The Contractor shall construct temporary accesses to adjacent private properties if necessary to ensure access. Damage caused outside the control of the Contractor by public traffic on completed Base surfaces, in order to have access to properties adjacent to the streets under construction, shall be repaired by the Contractor at daywork rates, when so instructed by the Engineer / Project Manager. For such payment it will be a prerequisite that the Contractor shall satisfy the Engineer / Project Manager that his accommodation of traffic complies with the specified standard.

The Contractor shall provide and maintain in proper condition all necessary barricades,

lights, warning signals and all direction signs necessary to enable traffic to follow the routes of diversion throughout their length. The Contractor shall provide flagmen at all deviations and/or obstructions where deemed necessary by the Engineer / Project Manager.

All traffic signs and the control of traffic shall be in accordance with the SADC Road Traffic Signs Manual. The Contractor shall liaise and co-operate and obtain written approval from the relevant Traffic Authorities in each case where the Works affect existing roads. In addition, The Contractor's proposed accommodation of traffic must be signed off by Traffic Flow Section and Traffic. Work shall not be allowed to commence without these signs in place.

After the signs is put in place the Contractor shall get written confirmation from the Traffic Authorities to state that it is correct. This confirmation must be kept on site and produced on request by the Engineer / Project Manager at any time. The contractor must present the format of this written confirmation to the Engineer / Project Manager for approval. The Contractor shall sign an indemnity clearing the Local Authority, as applicable, from all liabilities in respect of excavations and works on or adjacent to trafficked roads. A detailed media release for work in excess of 3 days will be required - excluding week-ends and public holidays

PSA 8.8.2.2 Road Signs for the accommodation of Traffic

Unit: PC Sum

Payment for this item will be made on proof of purchase of the Road Signs. These signs will be stored at designated storage areas at the Municipal Council premises and will become the property of the Town Council of Sesfontein once bought. The replacement of signs stolen or damaged will be the Contractors responsibility. The use of "danger tape" will only be allowed in rare cases and only on approval by the Engineer / Project Manager and only when it is wrapped around binding wire. The Contractor must allow for PVC temporary barrier fencing to cordon off dangerous areas.

PSA 8.8.2.3 Accommodation and Traffic**Unit:****PC Sum**

Payment for this item shall include for all work necessary to comply with this Project Specification, including the cost for detailed media releases. Subject to the provisions of Clauses 8.2.3 and 8.2.4 of SABS 1200 A, payment will be done as a value related item and will be authorised in accordance with the percentage tendered in the subsequent progress certificates.

PSC SITE CLEARANCE**PSC 2 INTERPRETATIONS****PSC 2.1 Supporting Specifications**

The Project Specifications under Clause PS 12 in respect of clearing operations shall be complied with strictly.

PSC 3 MATERIALS**PSC 3.1 Disposal of Material**

The specific borrow or other areas suitable for dumping of material obtained from clearing and grubbing operations, shall be indicated by the Engineer / Project Manager. Where a borrowpit have not been worked-out yet, the Contractor may be instructed to off-load cleared and grubbed material next to such a borrowpit, for dozing thereof into the pit and covering thereof with soil during the trimming of the borrowpit after it had been worked out.

PSC 5 CONSTRUCTION**PSC 5.1 Areas to be Cleared and Grubbed**

Areas to be cleared and grubbed will in general be the area required for exploitation of gravel in all designated borrowpits, and the construction area. No grubbing will however be required outside the toe of fill lines. No grubbing will similarly be required in areas where cut more than 200 mm deep is required.

PSC 5.6 Conservation of Topsoil

The spreading of topsoil will be required to rehabilitate worked-out borrowpits and cut faces, after the trimming thereof, to promote the re-growth of vegetation. Trimming

will include the spreading of overburden material over the floor and sides of worked-out borrowpits, over unwanted material dumped in the borrowpits and over cut faces.

Areas where topsoil have to be stockpiled separately to a depth not exceeding 300 mm, will be pointed out to the Contractor before the start of site clearing operations.

PSC 8 MEASUREMENT AND PAYMENT

PSC 8.2 Scheduled Items

PSC 8.2.1 Clear and Grub

The tendered rate shall also include the cost of loading material from clearing and grubbing operations.

PSC 8.2.9 Cart materials to unspecified Sites and Dump

The Engineer / Project Manager will instruct the Contractor to dispose of unsuitable backfill material to Municipal dump sites or designated stockpile sites. A freehaul of 7 km will be applicable.

PSDB EARTHWORKS (PIPE TRENCHES)**PSDB 1 MATERIAL (CLAUSE 3)****PSDB 1.1** Classes of Excavation (Clause 3.1)

The classification of "Soft", "intermediate", "boulder excavation class A" and "boulder excavation class B" in terms of sub-clause 3.1.2 of SABS 1200 D shall not be applicable. All material which does not classify as "hard rock excavation", in terms of sub-clause 3.1.2(c) of SABS 1200 D shall be classified as "soft excavation".

PSDB 1.2 Backfill Material (Clause 3.5)

All road reserves shall be considered as areas subject to traffic loads, and therefore the backfill shall be compacted in layers not more than 150 mm to a minimum of 93% of Modified AASHTO maximum density for gravel material and 100% of Modified AASHTO maximum density for sand. (See also clause 5.7.2)

PSDB 1.3 Safety of Excavations (Additional sub-clause)

It will be the full responsibility of the Contractor to ensure that all excavations are safe. See also SABS 1200 D Clause 5.1.1 Safety. The costs of all safeguarding of excavations will be deemed included in the rate for excavation.

PSDB 2 CONSTRUCTION**PSDB 2.1** Transport for Earthworks for Trenches (Clause 5.6.8)

No distinction shall be made or paid for overhaul, and freehaul shall be deemed to extend indefinitely.

PSDB 2.2 Accommodation of Traffic (Clause 5.1.3)

The provision of accommodation of traffic as set out in PSA 5 will also be relevant to this clause and no additional payment will be made for accommodation of traffic.

PSDB 3 TESTING (CLAUSE 7)**PSDB 3.1** Testing (Additional sub-clause)

The Contractor shall bear the cost of all tests regardless of whether the test indicate acceptable compaction or not, notwithstanding the contents of Sub-clause 7.1.

For this Contract the following minimum number of density tests shall be done by the Contractor:

- (a) Pipe Bedding: one density test per 50m of trench length or part thereof for each pipe scheduled separately.
- (b) Backfilling: one density test per 50m of trench length or part thereof for each 300 mm layer of backfill for each pipe scheduled.

The positions of these minimum number of density tests, shall be determined randomly by the Contractor, and shall be clearly documented with the results. The results of the tests shall be submitted to the Engineer and shall prove to the Engineer that the work as a whole was done satisfactorily.

Additional tests, over and above the minimum tests could be ordered by the Engineer. Payment for these tests will be made under Payment item PSA 7.2 (b) if the tests indicated that the density is as specified. If any tests fail, the cost of such tests shall be for the account of the Contractor.

PSDB 4 MEASUREMENT AND PAYMENT

PSDB 4.1 Excavation (Clause 8.3.2)

The rates shall cover the cost of safeguarding the excavations as well as interference (limiting working space) caused by pipe routes running close to existing services and structures.

Unit: Cubic meter (m³)

PSDB 4.2 Reinstate Road Surfaces complete with all courses (Clause 8.3.6.1)

The road layers shall conform to that of all the Cape Seal surfaces specified for construction under this contract. The following payment items will be relevant

- (a) Reinstate surfaced road complete with all layers

Unit: Square Meter (m²)

PSDB 4.3 Accommodation of Traffic (Clause 8.3.7)

Payment for this item will be as stated in PSA 5

PSL MEDIUM PRESSURE PIPELINES

PSL 1 MATERIALS

PSL 1.1 GENERAL (CLAUSE 3.1)

The materials for pipes and fittings shall be manufactured in accordance with the Codes of Practice listed in SABS 1200 L: Medium Pressure Pipelines.

Steel pipes and fittings **connection at the existing municipal line** shall be protected as specified, and where buried, shall be protected with a petrolatum mastic and tape such as Denso or similar. The application shall be carried out strictly in accordance with the manufacturer's instructions. Steel fittings and specials shall be manufactured from Grade B steel.

Pipes shall be delivered as indicated on the Drawings. Offers for pipes of alternative materials will be considered as provided for in the Conditions of Tender.

PSL 1.2 PIPES

Pressure pipes used shall be:

- Below ground 110 mm - uPVC Class 34 for the bulk line, Class 9 uPVC

PSL 1.3 VALVES

The following shall apply to valves:

- Gate Valves will be resilient seal gate valves
- Valves will close clockwise
- Valves will have a non-rising spindle, and fitted with a cap top
- Valves to be class 16 (PN16) valves and gate valves will comply with the requirements of SABS 664:1974
- Flanged valves will be drilled to the nominal pressure class of BS 4504 table 10 or SABS 1123, table 1000-3
- Valves will all receive an electrostatic epoxy powder coating as surface protection - internal and external.

All valves shall receive a body pressure test in the factory to 1,5 x the working pressure of the valve. All valves shall be accompanied by a test certificate. No valves will be accepted without such a certificate.

Due to problems encountered with TVT butterfly valves, these will not be accepted. Valves shall be Compact or equivalent.

PSL 1.4 PIPES OF NOMINAL BORE UP TO 150 MM (Clause 3.4.2)

Steel pipes and specials from 100 mm diameter upwards shall be flanged.

PSL 1.5 JOINTING MATERIALS

Jointing materials are not measured separately and all bolts, nuts, washers, gaskets, rubber rings, etc. are deemed to be included in the price for supply and installation of pipes and specials.

(a) Flexible Couplings (Clause 3.8.2)

All flexible couplings for steel pipes shall be "Viking Johnson" couplings without centre register, or approved similar.

Rubber rings shall be of the wedge type and shall be manufactured from natural or synthetic rubber only. Reclaimed rubber shall not be used in the manufacture of the rubber rings.

The use of flexible stepped couplings will not be permitted.

(b) Flanges and accessories (Clause 3.8.3)

All flanges, not jointing to existing flanges, shall be drilled in accordance with SABS 1123 Table 1000/3. The type, drilling pattern and sizes of flanges jointing to existing flanges shall match those of the existing flanges and shall be determined on Site. It is the responsibility of the Contractor to ensure the correct fit of all new flanges where they are jointed to existing flanges.

(c) Loose flanges (Clause 3.8.4)

All bolts and nuts shall comply with the requirements of SABS 135. Stainless steel bolts and nuts shall be used for all stainless steel pipes and fittings. All other bolts and nuts shall be cadmium coated. Gaskets shall be manufactured from "Klingerite" or approved similar material.

(d) Existing pipelines, flanges and fittings

It is the responsibility of the Contractor to establish the exact dimensions of all existing pipeline outer diameters, flanges and other fittings where these are to be connected to the new pipeline and appurtenant works. These shall be measured before orders for fittings, etc. are made. The Contractor shall carry the cost of all additional expenses if incorrect fittings are delivered to site.

PSL 1.6 QUALITY CONTROL

An independent inspector shall be appointed to carry out factory quality control tests during the manufacture and corrosion protection of steel pipes and specials. This shall cover welding, dimensional tolerances, surface preparation and coating procedures. A report from the independent inspector shall accompany all pipes and specials delivered to site.

The Contractor shall make available on site equipment to test for coating thickness and holidays. Tests shall be conducted on site under the supervision of the Engineer.

PSL 1.7 PROTECTION OF PIPES IN CONTACT WITH SOIL

All steel pipes, fittings and specials in contact with soil shall over and above the protection as described above be protected with "DENSO" tape and/or mastic or approved similar. Application shall be strictly in accordance with the manufacturer's instructions. A polyethylene tape of 300 microns minimum shall be spirally wrapped over the petrolatum tape and fixed to the clean pipe ends with pressure sensitive tape.

PSL 1.8 JOINTS, NUTS, BOLTS AND WASHERS (CLAUSE 3.9.5)

All nuts, bolts and washers shall be cadmium coated or hot dip galvanised. These items are not measured separately and shall be deemed to be included in the cost of jointing.

PSL 2 CONSTRUCTION

PSL 2.1 LAYING (Clause 5.1)

Vertical and horizontal deflections indicated on the drawings may be taken up by deflecting joints to the maximum allowed for the type and size of pipe in accordance with the manufacturer's instructions. These deflections will only be allowed at the positions indicated on the drawings and to the vertical and horizontal alignments given.

Bends shall be installed true to line, level and deflection and shall be anchored in concrete as indicated to counteract thrust. Tees for air valves and scours shall be constructed in accordance with the drawings.

PSL 2.2 KEEPING PIPELINES CLEAN (Clause 5.1.3)

The interior surfaces of all pipes, specials, valves and fittings shall at all times be kept free from dust, silt, foreign matter and access for rodents, animals and birds shall be prevented. Pipes and specials shall not be used as shelters by staff or for the storage of garments, tools, materials, food containers or similar goods.

Particular care shall be exercised at all times to prevent facial contamination of pipe interiors by staff, casual visitors, or passers-by.

The Contractor shall at his own expense make good any damage to valves and fittings or clogging of off-takes or malfunctioning of fittings which result from his failure to keep the pipeline in a thoroughly clean condition.

Metal night-caps shall be used to close off all ends of each laid section of pipeline when work is stopped at the end of the day or for longer periods and shall be left on the ends of sections

of completed pipe work until such sections are tied-in with the remainder of the completed pipeline. The night-caps shall consist of a steel plate welded into a half coupling which must be provided with a sufficient number of lugs to secure the ring and gasket and shall be strong enough to withstand external water and earth pressure in the event of flooding or collapse of earth and the joint shall be watertight.

The Contractor shall also, at his own expense, blank-off all air valves, scour valve and off-take tees with 3 mm thick blank flanges which shall be fixed to plain ended tee branches by half couplings welded to the blank flanges. These shall be watertight and shall not be removed until the valves or other fittings are about to be fitted.

Notwithstanding the use of night-caps the Contractor shall at his own expense make good all damage to pipe linings and fittings caused by the ingress of dirty water, silt, sand, debris, vermin, insects, and other foreign matter. The Contractor shall at his own expense and to the satisfaction of the Engineer clean the interior of the pipeline of such contaminants.

PSL 2.3 JOINTING METHODS (Clause 5.2)

All flanges shall be installed with bolt holes off-centre and symmetrically off-set from the vertical centre line of the flange. Flanges shall be installed truly square to the axis of the pipe.

The Contractor shall ensure that the correct jointing materials, i.e. gaskets, bolts and nuts are available when required. Only correct diameters and lengths of bolts and studs shall be used. Flat washers shall be used under all nuts. The length of bolts and studs shall be such that at least two threads and not more than four threads protrude from the nut when fully tightened. The threads of bolts, studs, and nuts shall be thoroughly cleaned and then coated with a graphite/grease compound immediately prior to assembly.

Flanged fittings shall be so installed that there are no stresses induced into the pipe work, specials, or fittings by forcing ill-fitting units into position or by bolting up flanges with faces not uniformly in contact with their gaskets over their whole faces.

PSL 2.4 SETTING OF VALVES, SPECIALS AND FITTINGS (Clause 5.3)

Valves and meters requiring special adjustment after installation shall be adjusted and commissioned by the respective suppliers, agents or municipality technical staff after installation. The Contractor, however, carries the responsibility to ensure that all components supplied and installed under the Contract meet all the performance requirements.

PSL 3 MISCELLANEOUS (NEW CLAUSE)**PSL 3.1 TRANSPORT, HANDLING AND STORAGE OF PIPES, SPECIALS AND FITTINGS**

The Contractor shall be responsible for the receipt, off-loading, safe storage and/or stringing and safe guarding of all materials delivered to Site. The Engineer shall be afforded every opportunity of inspecting such materials on their arrival at Site prior to them being off-loaded. If their condition is unacceptable to the Engineer on arrival, the Contractor shall remove them forthwith from the Site and replace such materials at his own cost and to the satisfaction of the Engineer.

Pipes and specials shall only be transported on properly constructed or adapted vehicles containing correctly shaped and padded cradles or with strong, sawdust filled bags separating pipes and vehicle body as well as individual pipes from each other.

Pipes, specials and fittings shall not be subjected to rough handling at any time. Under no circumstances shall same be dropped during loading or off-loading or be allowed to collide with each other.

Pipes shall generally be distributed and stored as close as possible to the laying position in order to minimise double handling. Where pipes are strung alongside the trench, they should be placed on the side away from excavated material.

Where pipes, specials and fittings are to be stockpiled in bulk storage yards, the Contractor shall make his own arrangements for a suitable area which shall meet with the Engineer's approval. The stockpiling area shall be adequately fenced and protected by a lockable gate and a watchman shall be maintained at all times.

Pipes and specials shall be strung or stockpiled on level, well drained ground in a manner such that they will not be in contact with the ground, tree stumps, or other sharp objects and all vegetation and other combustible material shall be completely removed to at least five (5) metres from the nearest pipe or special.

Pipes may be strung on soft sand mounds which support the pipe at one third pipe lengths to maintain it clear of the ground.

Each class and size of pipe shall be stored separately in its own stockpile.

All rubber rings or other materials which will deteriorate under the action of sunlight, ozone or inclement weather, shall be stored in permanent shade in lockable weatherproof sheds. Welding and the running of welding machines and electric machinery shall not be permitted in or near places where rubber or plastic products are stored and care shall be taken at all times to prevent contamination of these products by oil or other petroleum derived solvents.

Valves shall be stored in orderly groups on prepared floors to prevent damage, distortion or corrosion of flanges or working parts. All metal valves may be stored in the open but full protection shall be afforded to valves with non-metallic seals or working parts. Under no circumstances shall valves be stored in direct contact with the ground.

PSL 3.2 THRUST BLOCKS

Before any thrust block is cast, the pipe special or fitting shall be supported and secured in its correct alignment and shall be jointed to the adjacent pipe work.

Concrete faces of thrust blocks shall be a minimum of 225 mm from flanges and 300 mm from flexible coupling centres. The bearing face of thrust blocks shall be cast against undisturbed soil or rock.

PSL 3.3 FINAL PAINTING

After successful hydrostatic testing of the pipeline and after completion of all construction work under this contract all external steel pipe surfaces, fittings and valves shall be prepared and painted as directed by the Engineer on site. The cost of final painting shall be included in the cost of the supply and installation of the items to be painted.

PSL 3.4 PROTECTION DURING THE RAINY SEASON

The backfilling of the trench shall follow closely on the pipe laying operation, particularly in the rainy season, to avoid the pipeline floating should water enter the open trench.

Placing of the selected fill blanket in the rainy season should never lag behind the pipe laying operation and all exposed pipes should be backfilled before stopping work at the end of the day.

It is the Contractor's responsibility to ensure that the pipeline is adequately protected against flotation. Should the laid pipes be disturbed in any way, the Contractor shall remove all backfill material covering the pipe as well as the affected pipes and bedding material. Relaying of the pipes shall thus commence with replacing and re-compacting the pipe bedding.

PSL 3.5 INSTALLATION OF VALVES

The Contractor shall ensure that all fittings and Tee-pieces that are to be installed are delivered together with the pipes. Under no circumstances will the Contractor be allowed to leave a gap in the main pipeline in order to install any fittings at a later stage.

Pipeline markers shall be installed at all horizontal changes in pipe direction. Along straight lengths of pipe, they shall be installed every 200 metres.

PSL 4 TESTING

PSL 4.1 STANDARD HYDRAULIC PIPE TEST (Clause 7.3.1)

In addition to the requirements of Clause 7.3.1 the requirements below will also apply. The requirements given below shall replace any requirements of Clause 7.3.1 where applicable.

Pipelines shall be hydrostatically tested as pipe laying proceeds and after installation of all valves, specials and fittings.

The Contractor shall be responsible for providing all water required for testing and the cost shall be included in the cost for testing, the source of which shall be subject to approval by the Engineer. The Contractor shall supply and install a water meter for this purpose.

The Contractor shall submit his proposals for the length of pipeline to be tested in one operation to the Engineer for approval. This shall include the proposed pressure to be used in each section tested.

Where the method of testing varies from this specification in any way, the Contractor shall submit a detailed method statement to the Engineer and no test shall proceed before approval of such method statement by the Engineer.

Test pressures shall be as indicated by the Engineer. Test pressures shall generally be 1,5 times the pipeline design pressure but shall be not less than 6 bar.

The state of valves during the test shall be as follows:

- (a) in-line isolating valves open, except where used to isolate a test length
- (b) scour isolating valves closed
- (c) air valve isolating valves open
- (d) by-pass isolating valves to in-line isolating valves and reflux-valves closed.

The Contractor shall be permitted to test against a closed inline isolating valve. He should bear in mind however that valve gates and seals are not expected to close drop tight at differential pressures exceeding the design pressure of the valve. Design pressures of valves shall be 1,25 times pipeline design pressure. No relaxation of specified leakage rates shall be permitted due to leaks past gates, blades or seals of isolating valves.

PSL 4.2 Method of testing:

The Contractor shall provide an approved test pump, an accurate water meter, sealed pressure gauges and autographic pressure recorder, tested and certified by an independent testing organisation, and all other equipment, materials and labour required for the test.

The section of pipeline to be tested shall be clean and closed off at the ends by isolating valves, end caps or approved end-closure pieces. Free ends shall be firmly strutted against solid supports or thrust blocks designed to withstand safely two (2) times the calculated end

thrust under maximum test pressure. It shall be incumbent on the Contractor to establish the need for blank flanges on isolating valve flanges in order to limit leakage rates past gates, blades and seals.

Testing water may be introduced at any air valve within the portion of the pipeline under test. A test manifold shall be placed between the selected air valve and its isolating valve. The manifold shall be provided with three branches, each fitted with drop-tight valves. The main branch shall be sized to suit the Contractor's test pump connection. The two smaller branches shall not be less than 12 mm nominal bore fitted with heavy duty needle valves and reducers to suit pressure gauge connections. A data logger that records both flow and pressure shall be connected to each of the small branches. A water meter carrying a valid calibration certificate shall be installed between the pump and test manifold. The Contractor shall accurately determine the reduced level at the data logger connection point. The Contractor shall also record the reduced level of the highest and lowest invert level of the section under test.

The section of pipeline to be tested shall be slowly filled with clean water of quality to the Engineer's approval, great care being exercised to remove all air from the pipeline. The section of pipeline under test shall be completely filled with water and kept full for not less than two (2) days.

During this initial filling stage, the pipeline joints and all specials, fittings and valves shall be visually inspected for visible leaks and same rectified before proceeding with the test.

After the specified absorption period and with the pipeline full of water, the data logger shall be put into operation at least fifteen (15) minutes before pressurisation of the pipeline commences. Water shall be added until the required test pressure is reached whereupon the valve on the test manifold shall be closed and sealed. The reading on the water meter shall be recorded.

The pressure shall be maintained for one hour and if a pressure drop occurs, more water shall be added to reinstate the test pressure and the valve closed again.

The quantity of water added shall be measured by recording the readings before and after pumping. This procedure shall be repeated for a period of 24 hours, with water added at hourly intervals where necessary to reinstate pressure and water meter readings recorded. At the end of the 24 hours period, the aggregate quantity of water required to reinstate pressure over 24 hours shall be determined.

The Contractor shall give the Engineer 48 hours written notice of his intention to commence pressure testing and the Engineer may attend and supervise all or any part of tests. All records and recording graphs shall be handed to the Engineer as soon as tests over any section have been completed.

All valves, specials fittings and exposed joints, shall be inspected visually during the 24 hours pipeline test and all visible signs of leaks, sweating and distress shall be reported and attended to without delay.

PSL 4.3 Remedial measures:

Should the maximum leakage limits as specified be exceeded, the Contractor shall determine the position and cause of the leaks and shall take remedial measures at his own expense and to the satisfaction of the Engineer to stop such leaks and ensure the specified degree of water tightness.

If during the contract period of maintenance, the number of leaks and other defects is considered by the Engineer to be more than what could reasonably be expected from a well laid pipeline operating under normal conditions, he may order the Contractor to re-test parts or the whole of the pipeline at the Contractor's own expense and no claims for escalation in costs will be considered.

The Contractor shall be responsible for the repair of all pipe breakages that occur during hydrostatic testing of the pipeline and commissioning of control systems. The cost of the repair shall be borne by the Contractor.

PSL 5 MEASUREMENT AND PAYMENT (CLAUSE 8)**PSL 5.1 SCHEDULED ITEMS (Clause 8.2)**

(a) Supply, lay and bed pipes complete with couplings (Clause 8.2.1) Add the following:

The rates shall also cover the costs for the complete corrosion protection of steel pipes and fittings as specified in PSL-1, including Denso wrapping where applicable. The corrosion protection shall not be measured separately.

The Contractor shall ensure that he has sufficient spare pipes and couplings for his own use if required during pipeline testing and commissioning.

The rates shall cover the supply and installation of all bolts, nuts, washers and gaskets.

(b) Testing

No extra payment will be made for testing of pipelines.

(c) Anchor Blocks / Thrust Blocks and Pedestals (Clause 8.2.11)

Insert "concrete" before "and" in the last line of the last paragraph.

PSLA FITTINGS AND ANCILLARY ITEMS**PSLA 1 PIPEWORK****PSLA 1.1 General**

The general arrangement of pipes and specials shall be as shown on the drawing. Pipes and fitting flanges to be in accordance with SABS 1123, table 1000-3

PSLA 1.2 Bend and Branches

Bend and branches to be gusseted.

PSLA 1.3 Flanges

Flanges shall conform to SABS 1123 (1000/3) unless otherwise specified. All flanges shall be completed with bolts, nuts, washers and gaskets which are measured separately. Flanges mating to the water meter shall be drilled to SABS 1123 Table 1600.

PSLA 1.4 The water is expected to be mildly corrosive.

All buried steel pipes and fittings shall be wrapped with Denso Tape. All bolts and flanges to be packed with Denso mastic and then covered with Denso Tape. A polyethylene tape of 300 microns minimum shall be spirally wrapped over the petrolatum tape and fixed to the clean pipe ends with pressure sensitive tape.

PSLA 2 RESILIENT SEAL GATE VALVES

Resilient seal valves shall be of the flanged type and shall close clockwise.

The materials shall be:

Make	:	COMPACT or similar and approved by Engineer
Body, Bonnet, Gate	:	Spheroidal graphite iron SABS 936 Grade 42
Spindle	:	Stainless steel

PSLA 3 BALL ISOLATING VALVES

To be equal to Itap

PSLA 4 VIKING JOHNSON FLANGE ADAPTERS

Viking Johnson type flange adapters to be equal to Klamflex or similar and approved by Engineer and are to be provided as shown. The tie rods are to be secured to weld-on restraining flanges being part of the pipework. Four nuts per tie rod shall be provided one at each side of the flange and one at each side of the restraining flange. The number and size of the tie rods to be based on the design water pressure and approved by the Engineer.

PSLA 5 NUTS, BLOTS AND GASKETS

All nuts shall receive a washer.

The bolt assembly material shall be hot dipped galvanised. (Zinc).

PSLA 6 ALTERNATIVE OFFERS

Any alternative offers shall be priced separately and full specification sheets to be submitted with the tender.

PSLB BEDDING (PIPES)**PSLB 1 DEFINITIONS**

Main fill (Sub clause 2.3)

Delete "150 mm" in line and substitute "300 mm"

PSLB 2 MATERIALS**PSLB 2.1 SELECTION (Clause 3.4.2)**

It is the Contractor's responsibility to find suitable sources of selected granular and selected fill material.

Suitable material excavated from trenches can be used for bedding material. Otherwise bedding material shall be transported from borrow pits or commercial sources. Only one payment item has been included for selected granular material and one for selected fill material, irrespective of the source.

The free haul distance for obtaining material for bedding shall be 5km.

PSLB 3 CONSTRUCTION**PSLB 3.1 DETAILS OF BEDDING (Clause 5.1.2)**

Pipe bedding shall be in accordance with the bedding for flexible pipes Drawing LB-2.

PSLB 3.2 PLACING (Clause 5.1.3)

Placing and compaction of the pipe bedding shall be regarded as the most critical phase of the backfilling operation. Backfilling beyond the bedding cradle and thereafter the selected fill blanket shall only proceed after approval by the Engineer.

As soon as possible after trench bottoms have been passed by the Engineer, compacted material forming the bedding cradle shall be placed and trimmed to the required grade and level over the full width of the trench. Before laying the pipe, bell-holes for the couplings shall be excavated to ensure that the pipe is supported on the trench bottom over its full length and not on the coupling. The bell-hole shall be deep enough so that the coupling is at least 50 mm from the trench bottom. Under no circumstances may bricks, stones or pieces of timber be used for supporting pipes in the trench.

Bedding material shall be placed and compacted evenly on both sides of the pipe. The method adopted shall be subject to the Engineer's approval. Whatever method is adopted and approved, great care shall be exercised at all times to prevent damage to the pipe or disturbance of the pipe level and grade. The top of the completed bedding shall form a level surface completely filling the space between the pipe and trench walls, including any cavities that might exist in the trench walls.

Compaction shall be in layers not exceeding 150mm measured in the loose and watered to optimum moisture content and compacted to 93% of modified AASHTO maximum density. Particular care shall be taken to compact the material in the "wedges" formed by the curvature of pipe bottoms.

The Contractor may use his discretion as to whether he will backfill around joints before the pipeline is hydrostatically tested. The Contractor shall be responsible for the location and repair of any leaks on the pipeline under hydrostatic test and no extra payment will be made for any re-excavation and subsequent reinstatement which may be necessary to locate and remedy leaks. Should the Contractor elect to leave joint holes open until after the hydrostatic test, he shall provide at his own expense effective and approved barricades and fences around each hole for the protection of persons and animals. In built-up areas, barricades shall be clearly marked at night time with red warning lights.

PSLB 4 TOLERANCES

PSLB 4.1 MOISTURE CONTENT AND DENSITY (Clause 6.1)

Degree of accuracy II shall be applicable to bedding material.

PSLB 5 MEASUREMENT AND PAYMENT

PSLB 5.1 PRINCIPLES (Clause 8.1)

PSLB 5.2 Volume of Bedding Material (Clause 8.1.3)

Add the following to Clause 8.1.3

- (c) the area of the pipe will be subtracted from the area of the trench in the calculation of the volume of bedding.

PSLB 5.3 FREEHAUL DISTANCE (Clause 8.1.6)

The free haul distance for acquiring bedding material shall be 5km.

PSLB 6 MATERIALS

PSLB 6.1 Bedding (Clause 3.4)

All pipes shall be laid on Class B bedding in accordance with SABS 1200 LB.

PSLB 7 TESTING

PSLB 7.1 Tests and acceptance/rejection criteria: (Clause 7.2)

- (a) Air Test: (Clause 7.2.1)

PSLC2 TESTING

PSLC1.2 Tests and acceptance/rejection criteria: (Clause 7.2)

- (a) Air Test: (Clause 7.2.1)

All pipe lines are to be subjected to the specified air test.

PSLC3 MEASUREMENT AND PAYMENT

PSLC1.3 House connections

The specified house connections are split into single and double connections and are measured and paid separately.

Unit: Number (No)

PSGA: CONCRETE (SMALL WORKS)

The following variations are applicable to the standardised specification SABS 1200 GA:

PSGA-1 **CONSTRUCTION**

PSGA 1.1 Clause 5.2.1 Classification of finishes

All formwork for concrete surfaces which are visible and will not be covered will be "smooth". Formwork for concrete to be covered will be classified as "rough". Degree of accuracy II. All exposed corners shall be provided with a 25 mm chamfer for which no additional payment shall be made and the cost thereof shall be included in the rate for formwork.

PSGA 1.2 Clause 5.4.1.5 Strength concrete

All mix designs shall be submitted to the Engineer for approval.

PSGA 1.3 Clause 5.4.1.6 Ready mixed concrete

Ready mix concrete will only be allowed if the mix has been evaluated to the Engineer's satisfaction. The Contractor will be responsible to present all relevant test results and shall be responsible for all costs incurred in obtaining such results.

PSGA-2 **TESTS**

PSGA 2.1 Clause 7.1.2 Frequency of sampling

The Contractor shall take test samples consisting of three cubes, at times and at a frequency as instructed by the Engineer. Each cube must be marked with a date and number. A record shall be kept of each cube indicating for which portion of the work it is representative. Test samples taken on the Engineer's instruction does not relieve the Contractor of his responsibility for taking his own test samples for quality control.

PSGA-3 **MEASUREMENT AND PAYMENT**

PSGA 3.1 The cost of all sampling and testing of concrete cubes shall be included in the rate for concrete.

Drawings

LEGEND:

FONT: HELVETICA

COLOUR SPECIFICATION:

WHITE : CLOUD WHITE, SABS 1091, COLOUR G80
 BLUE : MIDDLE BLUE, SABS 1091, COLOUR F07
 RED : SIGNAL RED, SABS 1091, COLOUR A11
 GREEN : BRILLIANT GREEN, SABS 1091, COLOUR H10
 GREY : LIGHT GREY, SABS 1091, COLOUR G29
 BLACK :

COLOUR SCHEME:

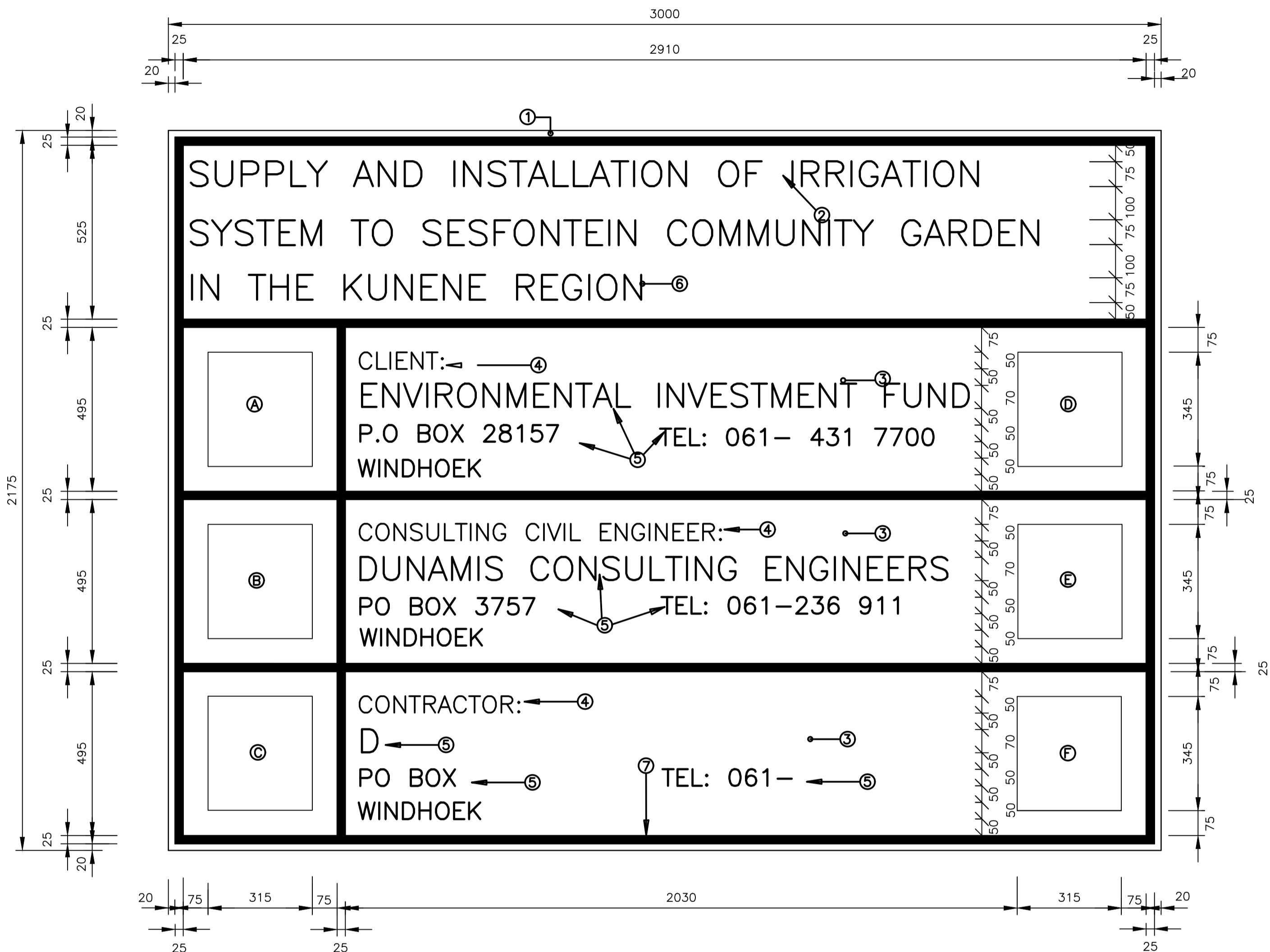
- 1) WHITE BORDER
- 2) WHITE LETTERS ON BLUE BACKGROUND
- 3) WHITE BACKGROUND
- 4) BLACK LETTERS
- 5) BLACK LETTERS (CONSULTANT & CONTRACTOR'S NAME)
- 6) BLUE BACKGROUND
- 7) BLUE PAINTED MARGIN



EMBLEM:

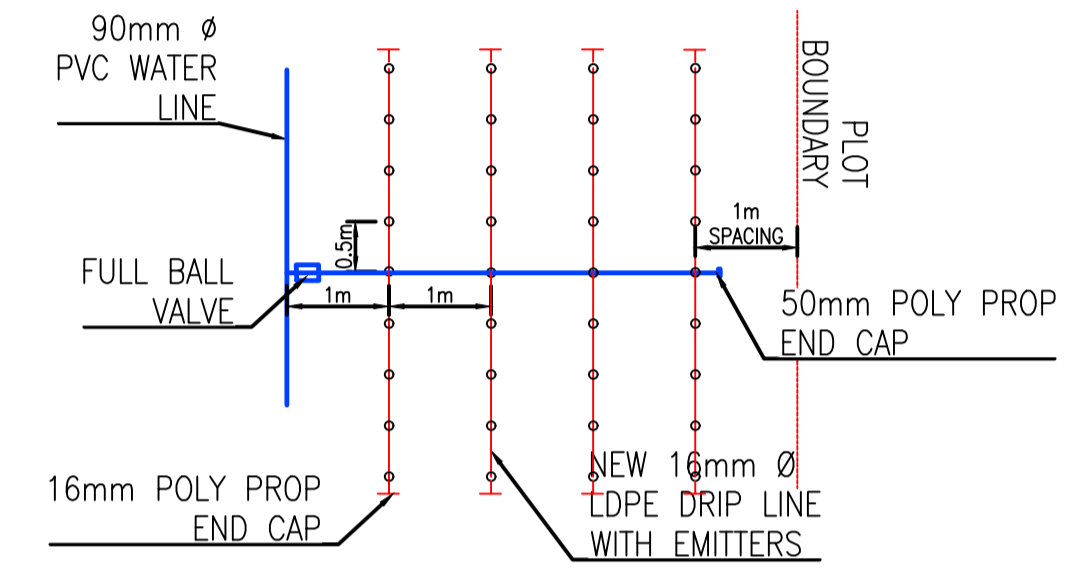
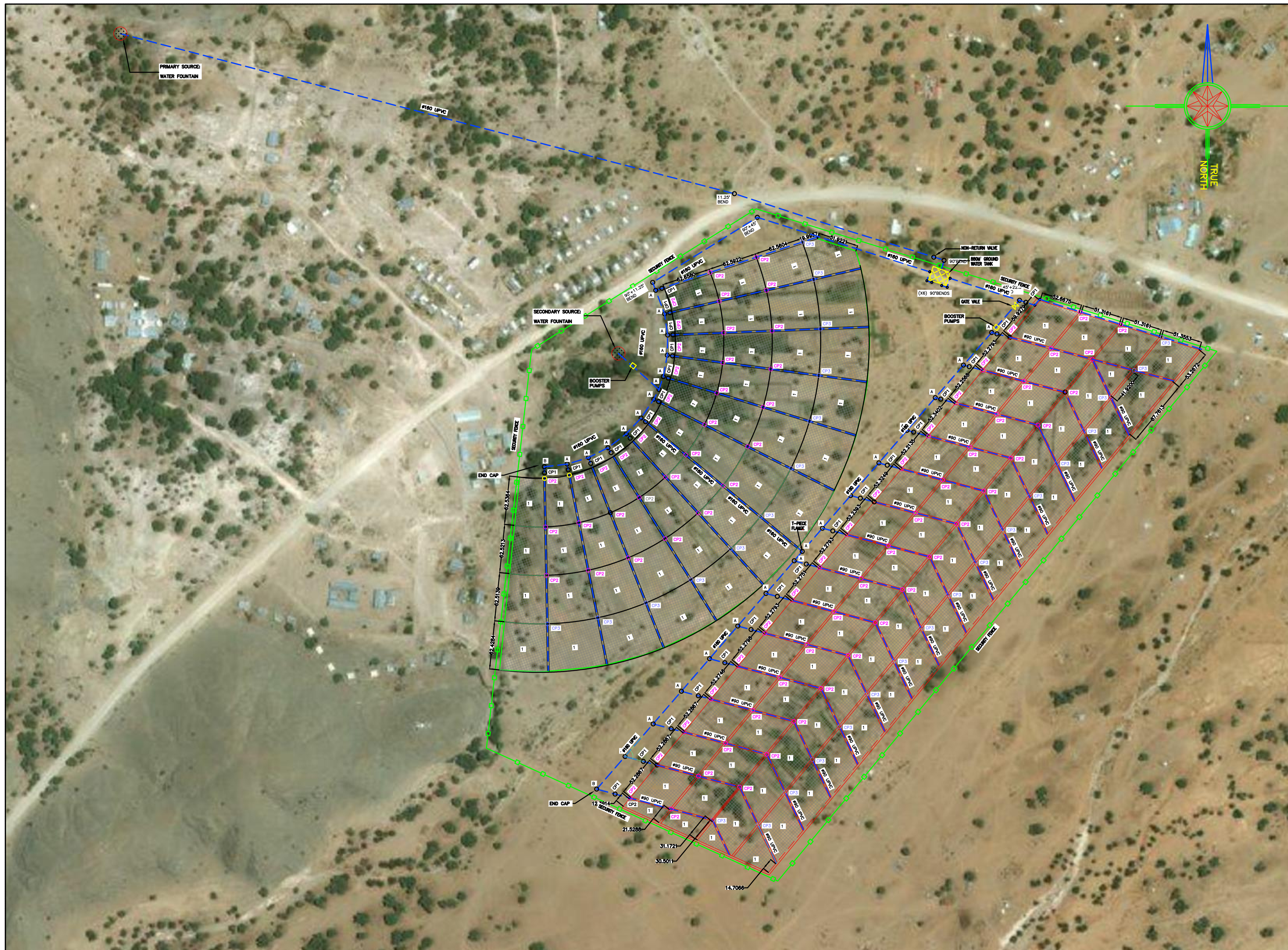
- A) COAT OF ARMS (GRN) LOGO (345mm LONG x 315mm WIDE)
- B) DUNAMIS CONSULTING ENGINEERS LOGO (345mm LONG x 315mm WIDE)
- C) CIF LOGO (345mm LONG x 315mm WIDE)
- D) ENVIRONMENTAL INVESTMENT FUND LOGO (345mm LONG x 315mm WIDE)
- E) ACEN LOGO (345mm LONG x 315mm WIDE)
- F) CONTRACTOR'S LOGO (345mm LONG x 315mm WIDE)

GENERAL NOTES:



- 1) ALL PAINTS WILL BE GLOSS PAINT AND MUST COMPLY WITH SABS 1091 / 1975.
- 2) EITHER STRUCTURAL STEEL OR TIMBER MAY BE USED FOR THE SUPPORT STRUCTURE FOR NAME BOARD IN POSITIONS INDICATED OR APPROVED. DETAILED SKETCHES OF THE PROPOSED SUPPORT STRUCTURE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

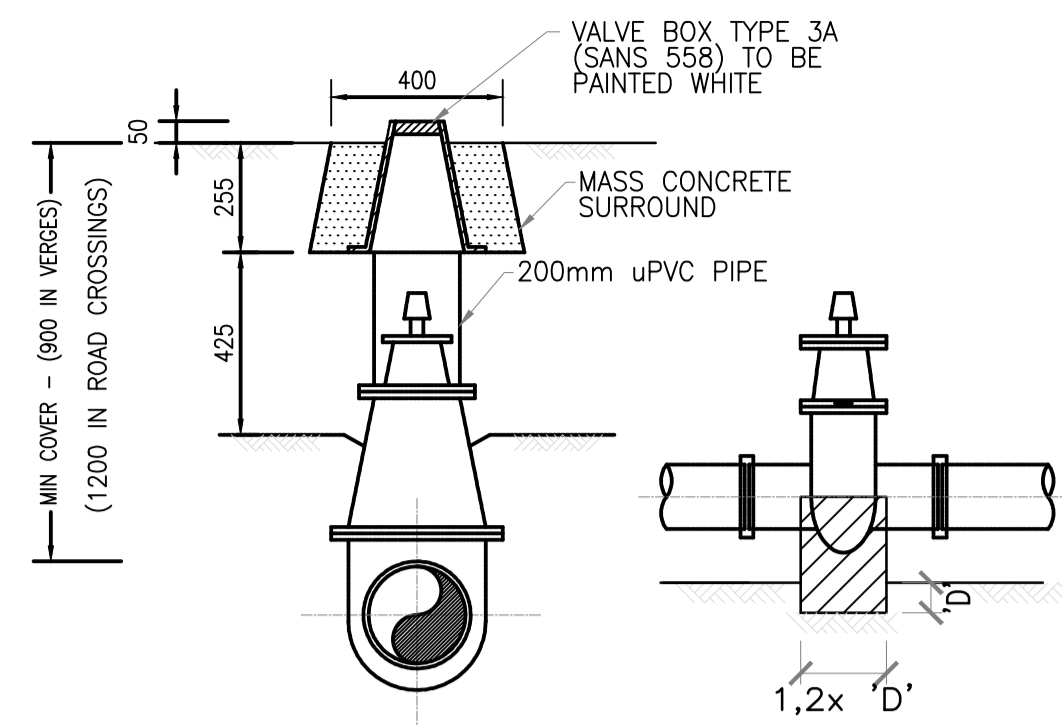


CLIENT: 	PROJECT SUPPLY AND INSTALLATION OF IRRIGATION SYSTEM TO SESFONTEIN COMMUNITY GARDEN IN THE KUNENE REGION	CONSULTANTS DUNAMIS CONSULTING ENGINEERS PO BOX 3757 WINDHOEK TEL: +264 (61) 236 911 FAX: +264 (61) 256 777 	GENERAL NOTES: 1) COPYRIGHT IS RESERVED ON ALL DRAWING AND DESIGNS. 2) NO PART OF THIS DRAWING MAY BE SCALED. 3) ALL DIMENSION AND LEVEL GIVEN MUST BE CHECKED BEFORE COMMENCING ANY WORK. ANY DISCREPANCIES MUST BE REPORT TO THE ENGINEER WITHOUT DELAY. 4) USE COORDINATE SYSTEM Lc 24/17.	<table border="1"> <tr><td>DESIGNED</td><td>K.A</td></tr> <tr><td>DRAWN</td><td>K.A</td></tr> <tr><td>CHECKED</td><td>A.U</td></tr> <tr><td>SCALE</td><td>AS SHOWN</td></tr> <tr><td>COMPUTER PRINT</td><td>19001-C-00</td></tr> <tr><td>DATE</td><td>03-09-2020</td></tr> </table>	DESIGNED	K.A	DRAWN	K.A	CHECKED	A.U	SCALE	AS SHOWN	COMPUTER PRINT	19001-C-00	DATE	03-09-2020	MUNICIPAL APPROVAL DATE CLIENT'S APPROVAL DATE	DRAWING TITLE NAME BOARD DETAILS <table border="1"> <tr> <td>DRAWING NUMBER</td> <td>REVISION</td> <td>DEPARTMENT</td> </tr> <tr> <td>19001-C-00</td> <td>0</td> <td>CIVL</td> </tr> </table>	DRAWING NUMBER	REVISION	DEPARTMENT	19001-C-00	0	CIVL
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19001-C-00	0	CIVL																						



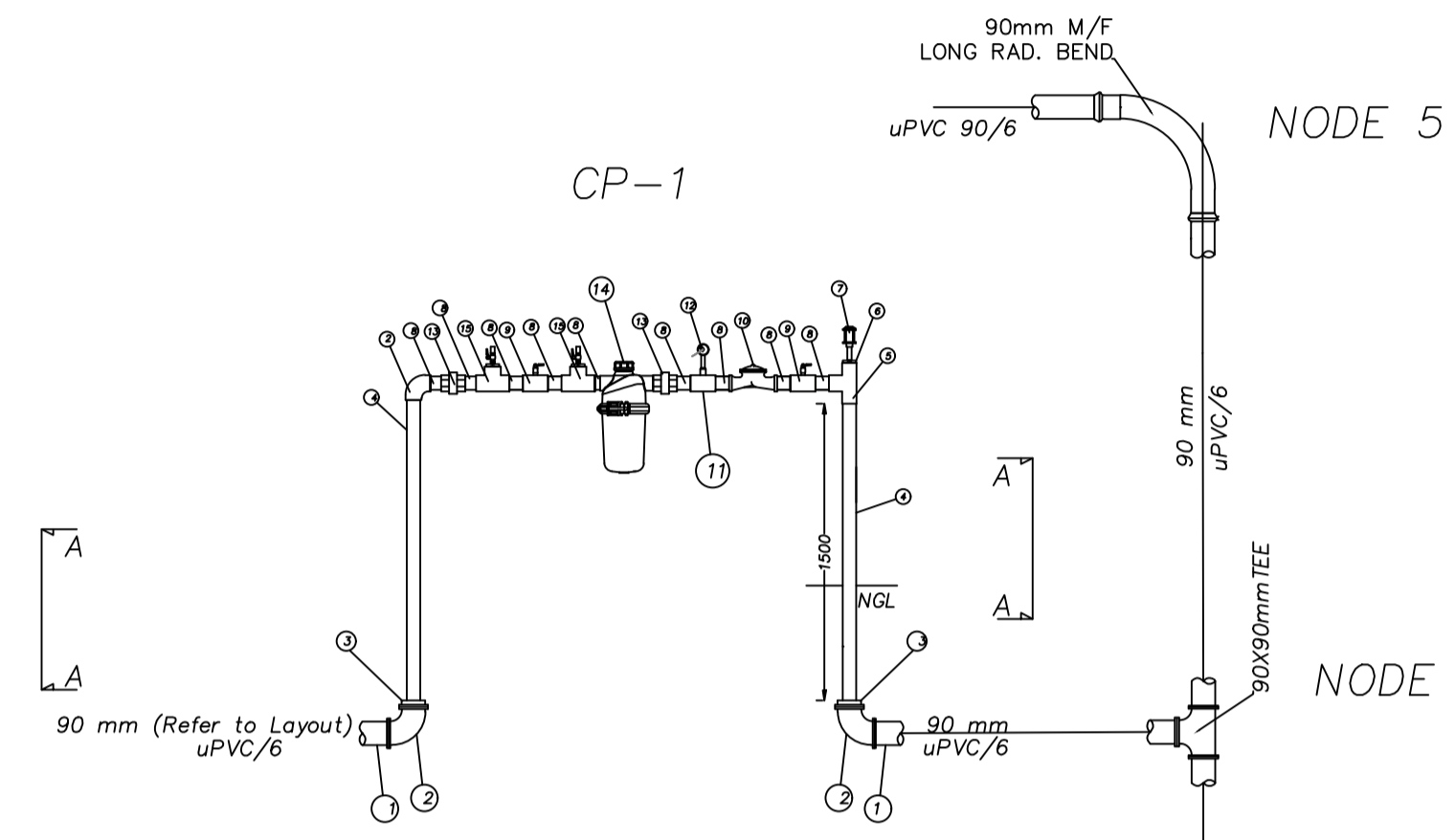
DRIP CONNECTION DETAIL

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					CLIENT'S APPROVAL DATE:	DRAWING NUMBER: 19001-CW-01 REVISION: 0 DEPARTMENT: CIVIL	



TYPICAL VALVE BOX
SCALE 1 : 20

VALVE ELEVATION
SCALE 1 : 20

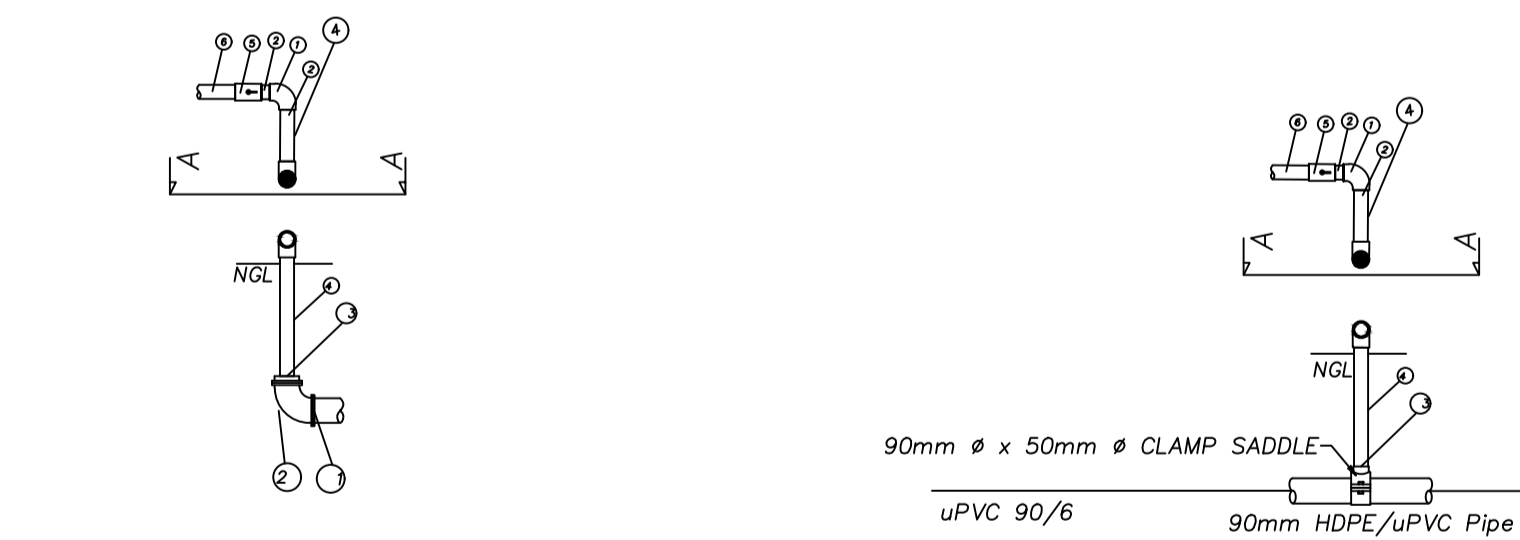


SCHEMATIC SIDE VIEW OF FIELD CONTROL POINTS CP1

- 90mm HDPE THREADED FEMALE FLANGED ADAPTOR
- 90mm EQAUL 90deg GALV ELBOW FLANGED
- 90mm x 50mm REDUCING FLANGED BUSH
- 50mm GALV STEEL PIPE - 1500mm LONG, MALE THREADED
- 50mm GALV EQUAL TEE, THREADED FEMALE
- 50mm x 25mm GALV REDUCING BUSH MALE / FEMALE
- 25mm AIR VALVE ARI 10BAR AUTOMATIC
- 50mm GALV STEEL SHORT NIPPLE MALE/MALE
- 50mm BALL VALVE
- 50mm PRESSURE REGULATOR/CHECK VALVE FLANGED
- 50mm x 25mm x 50mm GALV REDUCING TEE THREADED FEMALE
- 25mm 1000kPa PRESSURE GAUGE

- 50mm EQAUL 90deg GALV ELBOW THREADED FEMALE
- 50mm GALV STEEL SHORT NIPPLE MALE/MALE
- 50mm GALV UNION SOCKET
- 50mm GALV EQUAL TEE, THREADED FEMALE
- 50mm BALL VALVE
- 50mm LDPE PIPE ABOVE GROUND FOR DRIP TAKE OFF

- 50mm EQAUL 90deg GALV ELBOW THREADED FEMALE
- 50mm GALV STEEL SHORT NIPPLE MALE/MALE
- 50mm GALV UNION SOCKET
- 50mm GALV EQUAL TEE, THREADED FEMALE
- 50mm BALL VALVE
- 50mm LDPE PIPE ABOVE GROUND FOR DRIP TAKE OFF



- 90mm HDPE THREADED FEMALE FLANGED ADAPTOR
- 90mm EQAUL 90deg GALV ELBOW FLANGED
- 90mm x 50mm REDUCING FLANGED BUSH
- 50mm GALV STEEL PIPE - 700mm LONG, MALE THREADED

DETAIL OF LAST CONTROL POINT CP 2

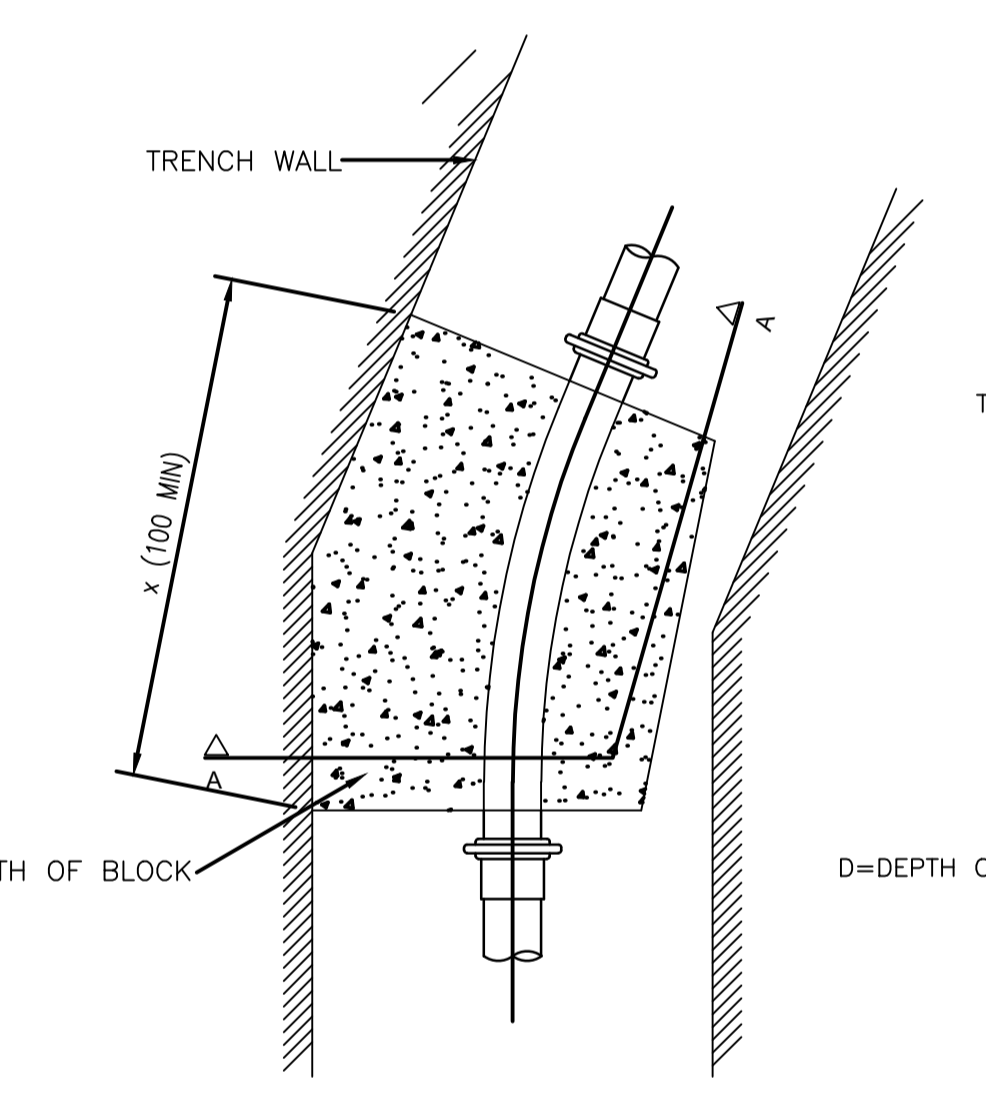
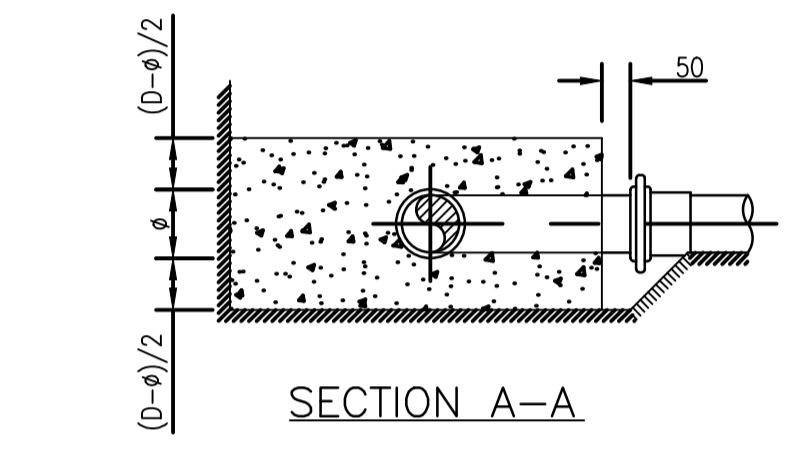
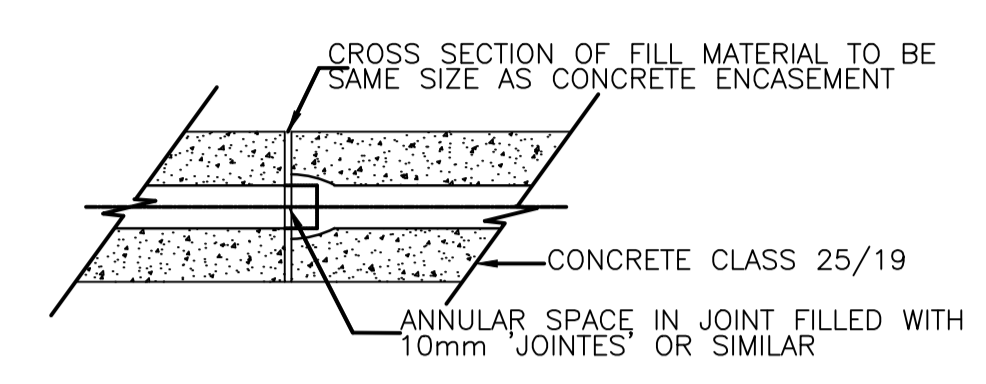
DETAIL OF CONTROL POINT CP 2

NODE 8

NODE 7

DIA	X
ø100	100
ø150	100
ø200	150
ø250	150
ø300	200

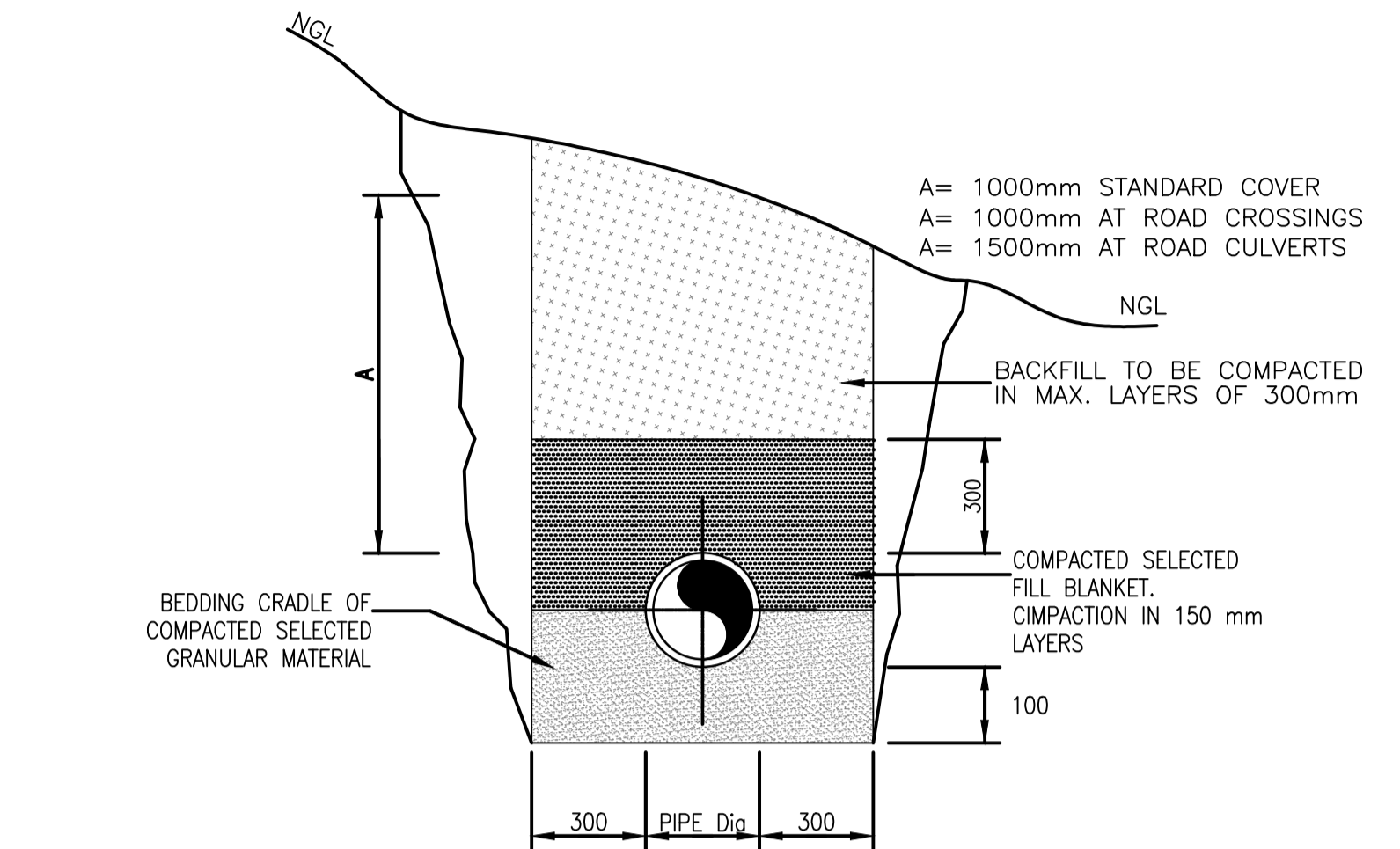
DETAIL OF CONCRETE ENCASEMENT
N.T.S



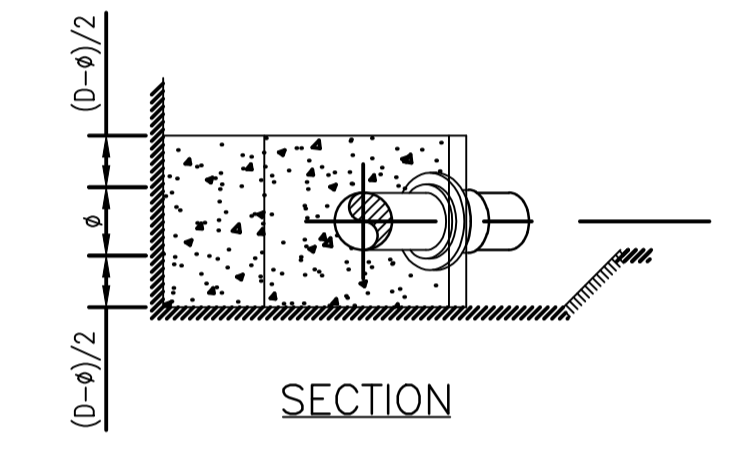
PLAN VIEW OF 22.5° AND 11.25° BEND

THRUST BLOCK TABLE FOR 11.25° AND 22.5° BENDS

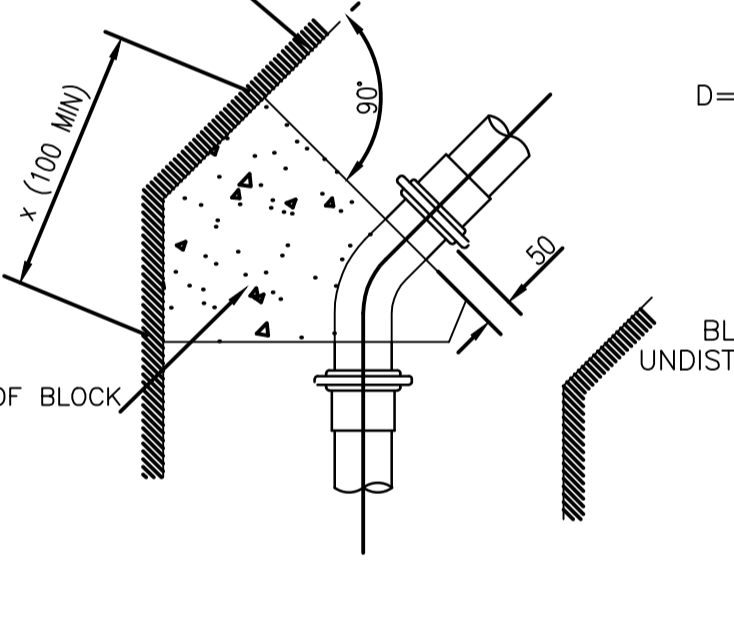
NOMINAL DIAMETER ø(mm)	DEPTH OF BLOCK D(mm)	MAXIMUM TESTING PRESSURE	
		1350 kPa	X(mm)
315	1200	352	
200	800	250	
160	640	210	
110	440	120	
90	360	100	
63	252	100	



PIPE IN CLASS B BEDDING
N.T.S



PLAN OF 45° BEND



PLAN VIEW OF 90° BEND

THRUST BLOCK TABLE FOR 45° BENDS

NOMINAL DIAMETER ø(mm)	DEPTH OF BLOCK D(mm)	MAXIMUM TESTING PRESSURE	
		1350 kPa	X(mm)
315	1200	652	
200	800	450	
160	640	370	
110	440	270	
90	360	210	
63	252	126	

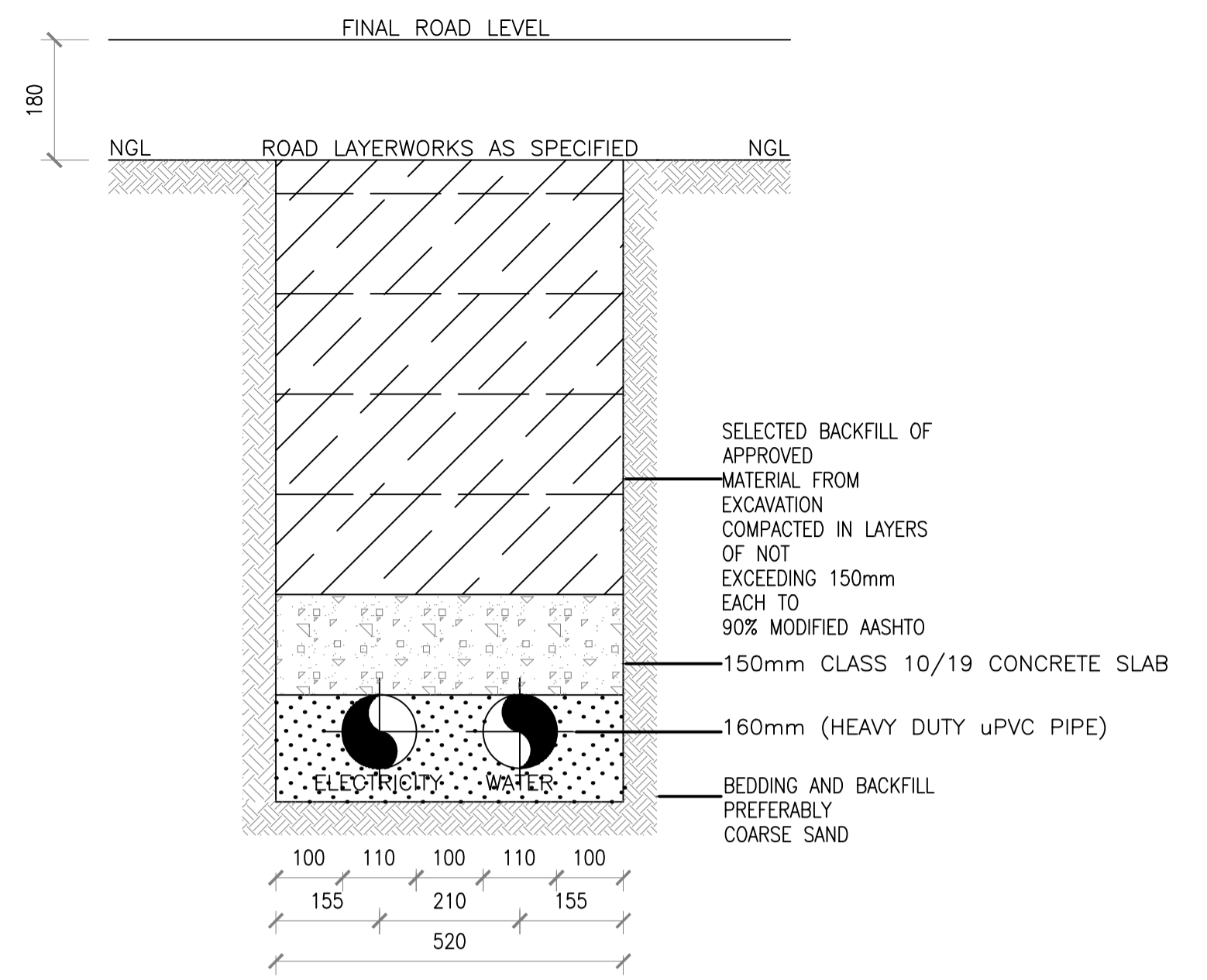
THRUST BLOCK TABLE FOR 90° BENDS

NOMINAL DIAMETER ø(mm)	DEPTH OF BLOCK D(mm)	MAXIMUM TESTING PRESSURE	
		1350 kPa	X(mm)
315	1200	1200	
200	800	750	
160	640	630	
110	440	440	
90	360	360	
63	252	252	

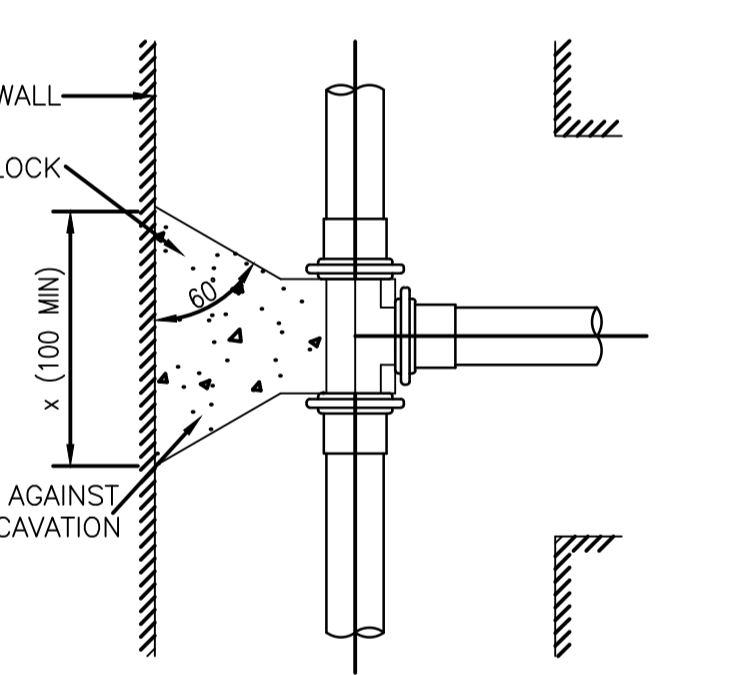
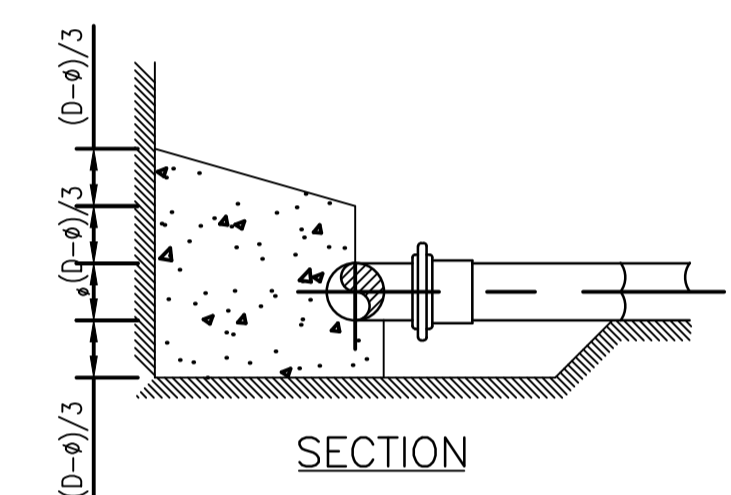
THRUST BLOCK TABLE FOR TEE'S, END CAPS AND REDUCERS

NOMINAL DIAMETER ø(mm)	DEPTH OF BLOCK D(mm)	MAXIMUM TESTING PRESSURE	
		1350 kPa	X(mm)
315	1200	840	
200	800	550	
160	620	427	
110	420	330	
90	380	270	
63	252	189	

* NOMINAL FOR REDUCERS = øA

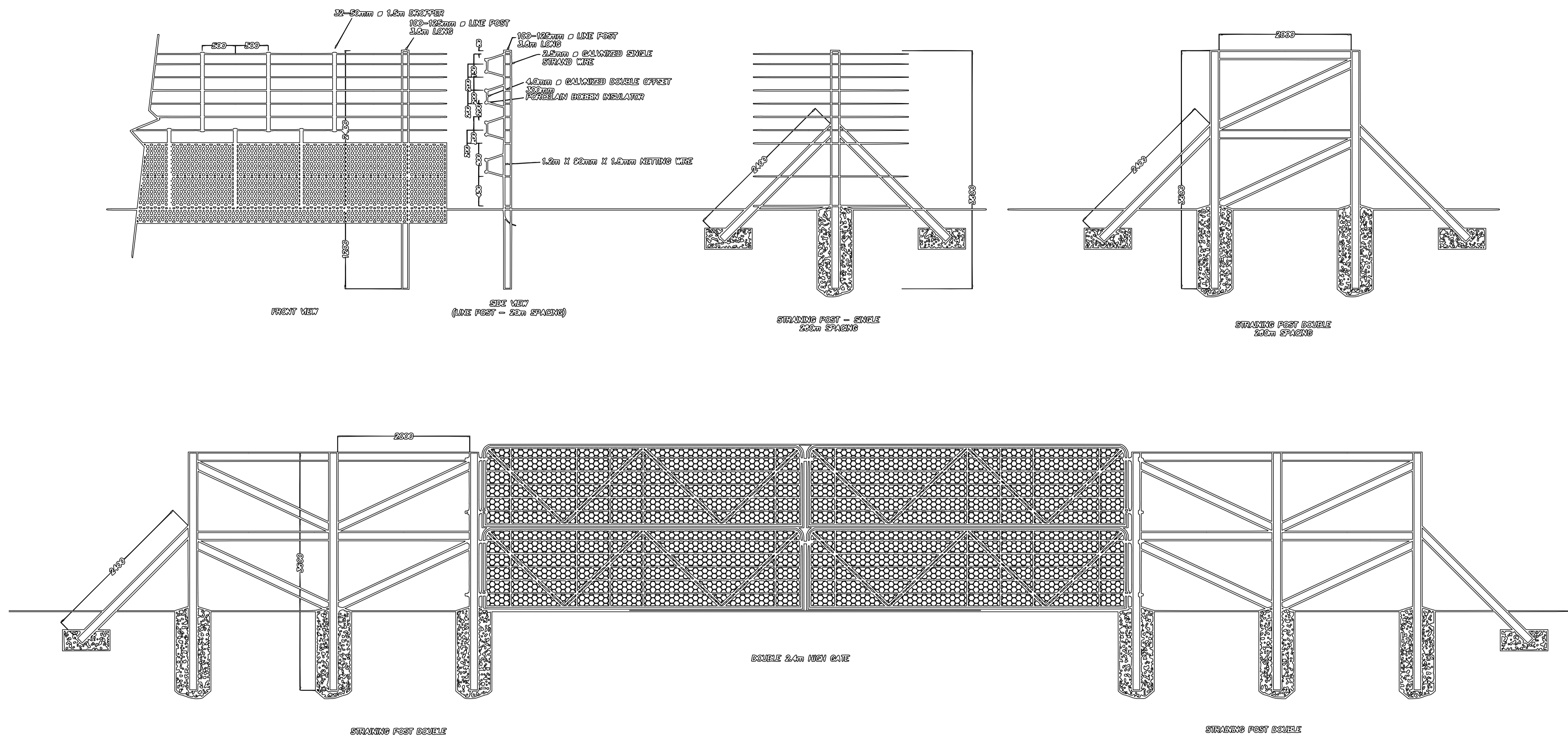


CABLE DUCT / SLEEVE DETAIL
SCALE 1 : 10




PLAN VIEW OF TEE'S, END CAPS AND REDUCERS

CLIENT: 	PROJECT: SUPPLY AND INSTALLATION OF IRRIGATION SYSTEM TO SESFONTEIN COMMUNITY GARDEN IN THE KUNENE REGION	CONSULTANTS: DUNAMIS CONSULTING ENGINEERS PO BOX 3757 WINDHOEK TEL:+264 (61) 236 911 FAX:+264 (61) 256 777	GENERAL NOTES: 1) COPYRIGHT IS RESERVED ON ALL DRAWING AND DESIGNS. 2) NO PART OF THIS DRAWING MAY BE SCALED. 3) ALL DIMENSION AND LEVEL GIVEN MUST BE CHECKED BEFORE COMMENCING ANY WORK. ANY DISCREPANCIES MUST BE REPORT TO THE ENGINEER WITHOUT DELAY. 4) USE COORDINATE SYSTEM Lo 24/17.	DESIGNED: K.A DRAWN: K.A CHECKED: S.K SCALE: AS SHOWN COMPUTER PRINT: 19001-CW-02 DATE: 09-09-2020	MUNICIPAL APPROVAL: DATE: CLIENT'S APPROVAL: DATE:	DRAWING TITLE: WATER TYPICAL DETAILS - FOR SESFONTEIN
				DRAWING NUMBER: 19001-CW-02	REVISION: 0	DEPARTMENT: CIVIL



CLIENT:



Environmental Investment Fund of Namibia | ensuring sustainability


PROJECT

SUPPLY AND INSTALLATION OF IRRIGATION SYSTEM TO SESFONTEIN COMMUNITY GARDEN IN THE KUNENE REGION

CONSULTANTS

DUNAMIS CONSULTING ENGINEERS

PO BOX 3757
WINDHOEK
TEL:+264 (61) 236 911
FAX:+264 (61) 256 777



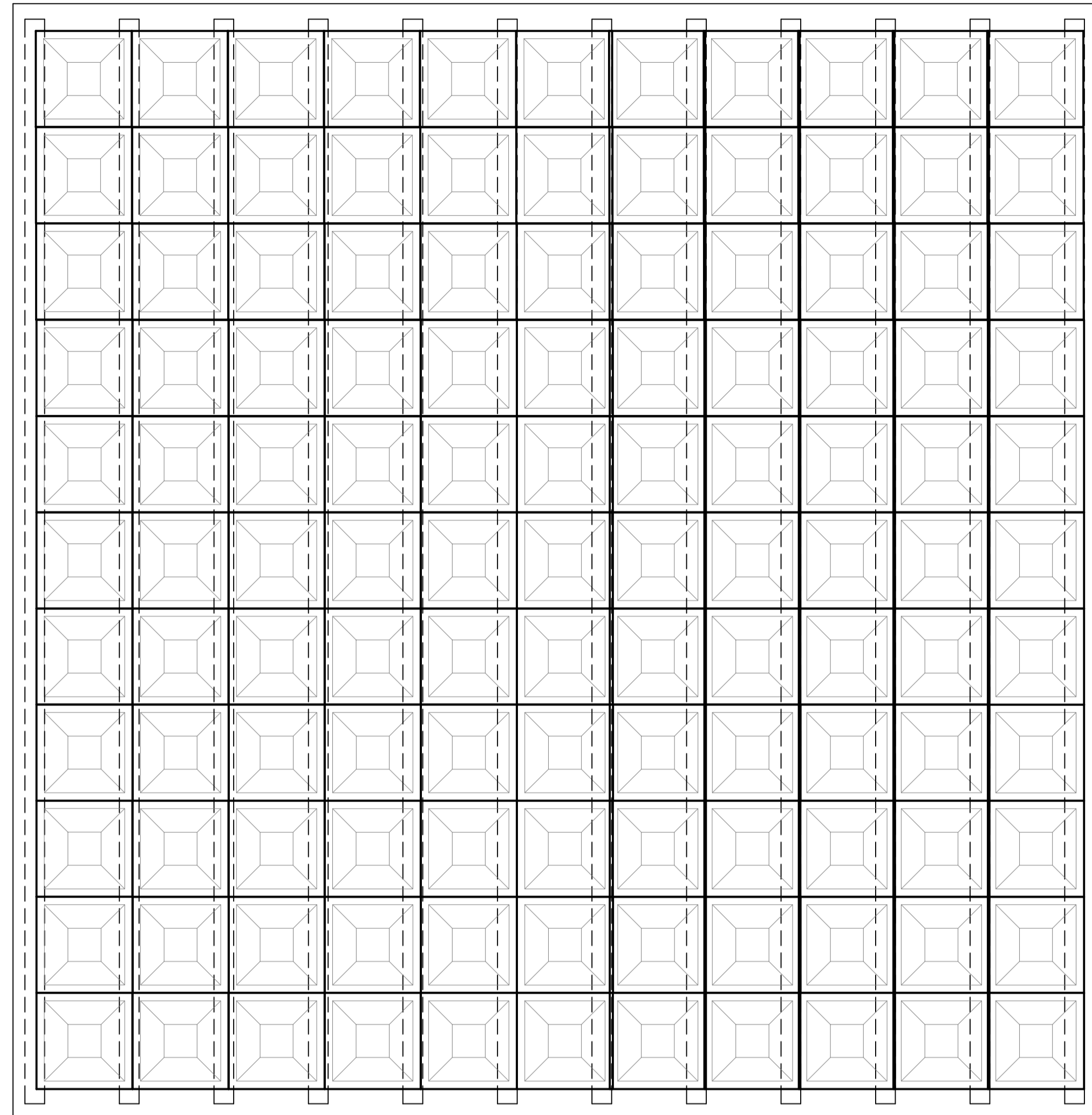
DUNAMIS
CONSULTING ENGINEERS & PROJECT MANAGERS (PTY) LTD

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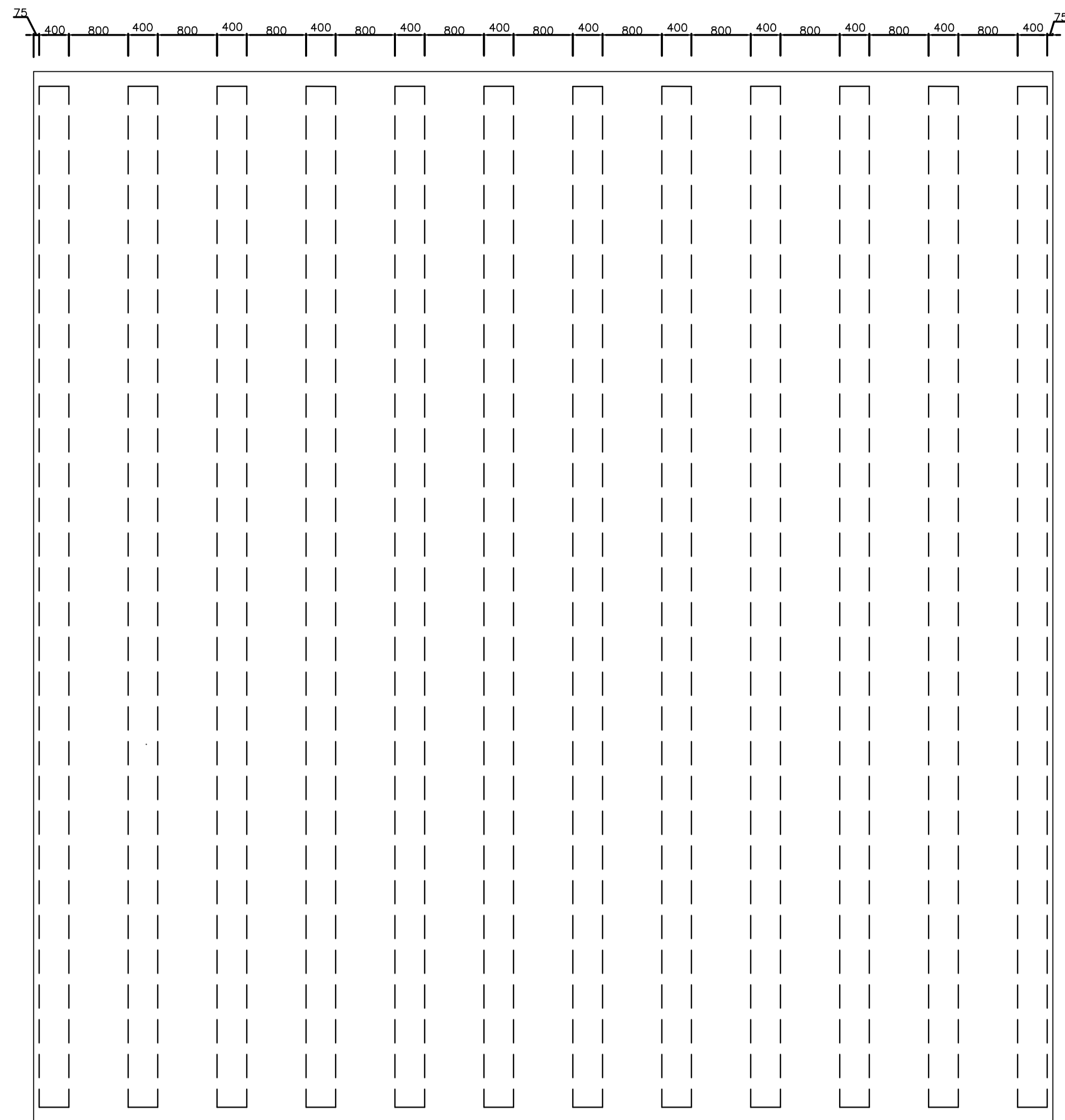
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DATE	03-09-2020	

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BOUNDARY FENCE DETAILS		
DRAWING NUMBER	REVISION	DEPARTMENT
19001-CW-03	0	CIVIL

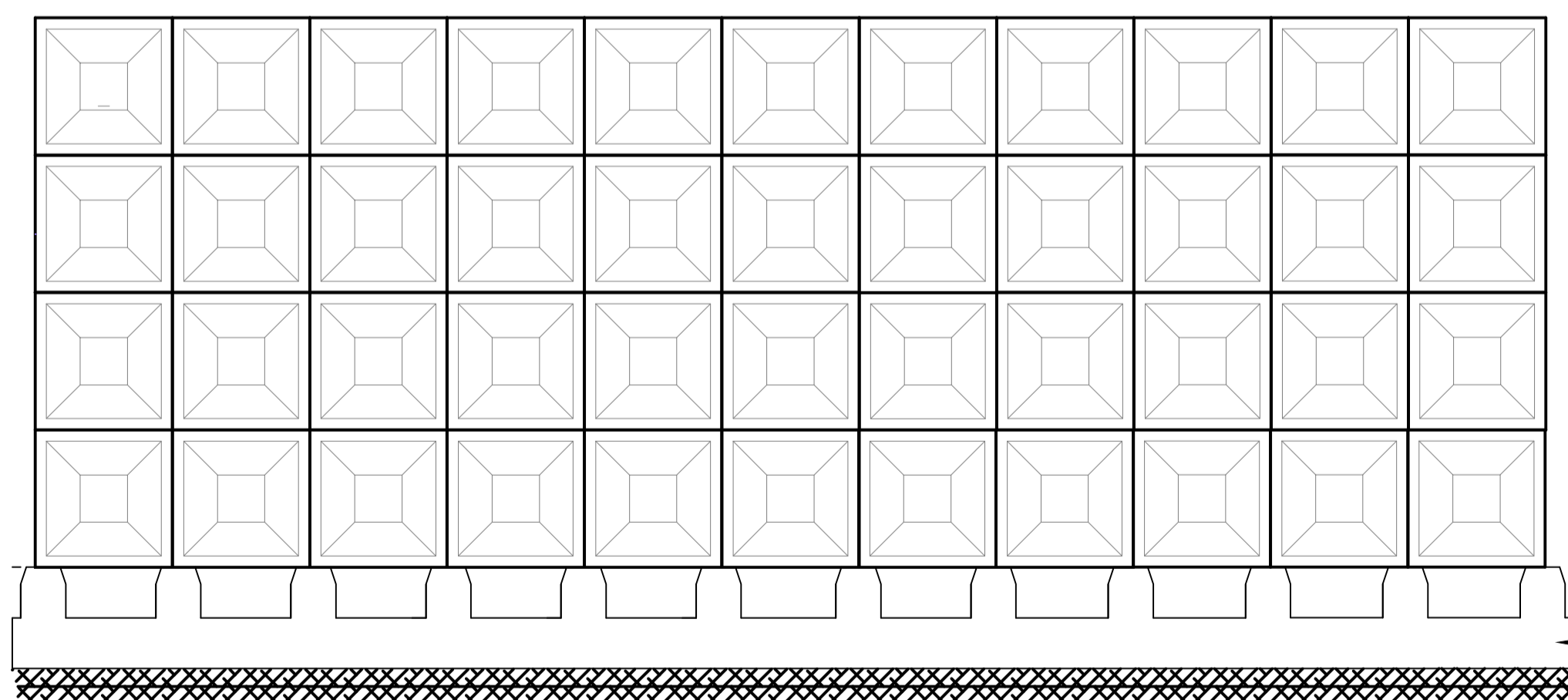


TANK size: 11 X 11 X 4 x 1.2 (880m³)
**880m³ WATER TANK CONNECTION
 DETAILS AND LAYOUT**



SCALE 1:50

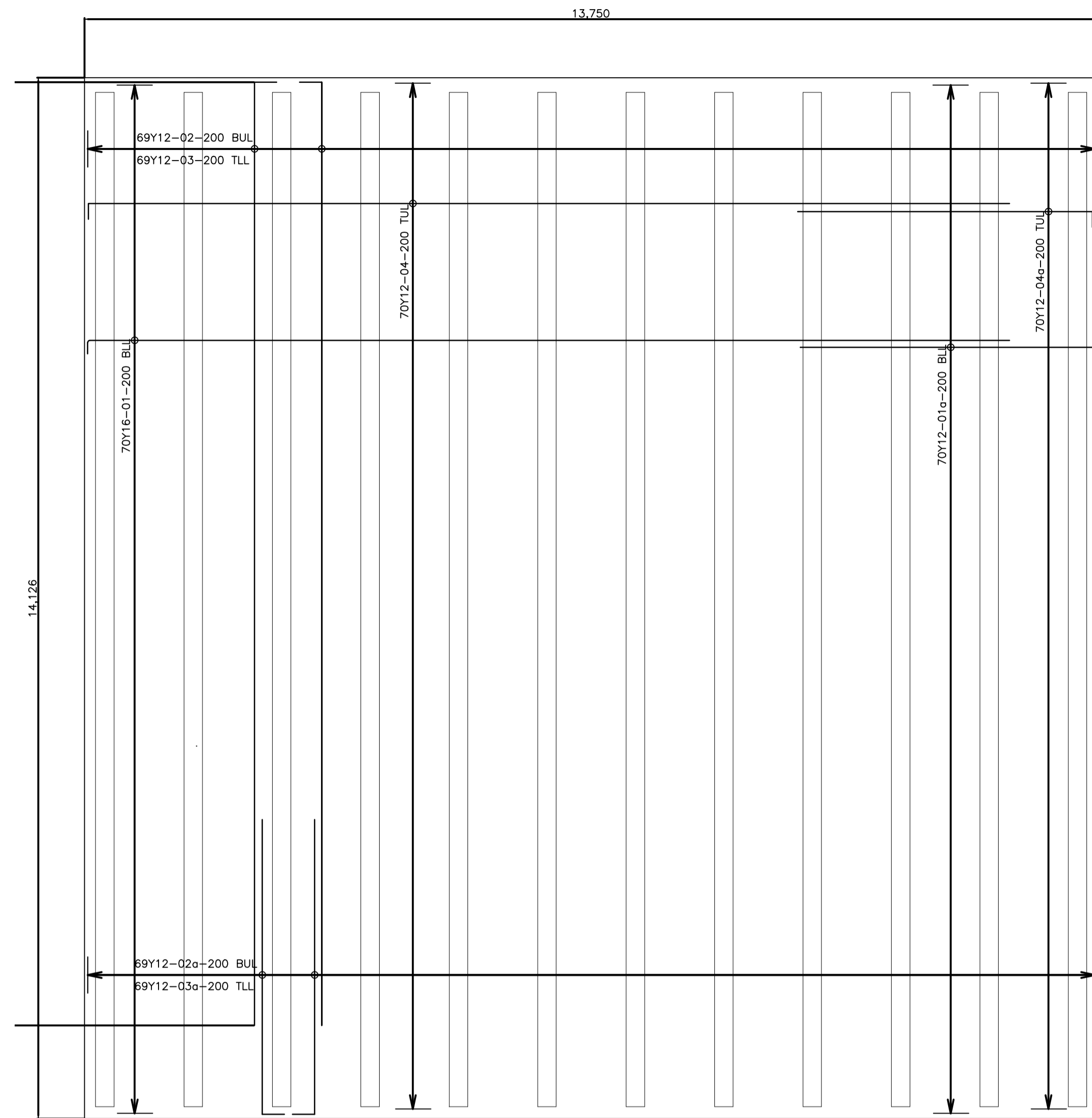


PLAN ON PLINTH
 SCALE 1:50



**880m³ WATER TANK SIDE
 ELEVATION**

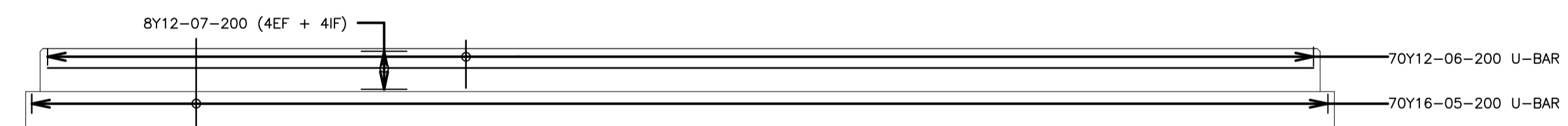
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					DRAWING NUMBER: 19001-CW-04	REVISION: 0	DEPARTMENT: CIVIL



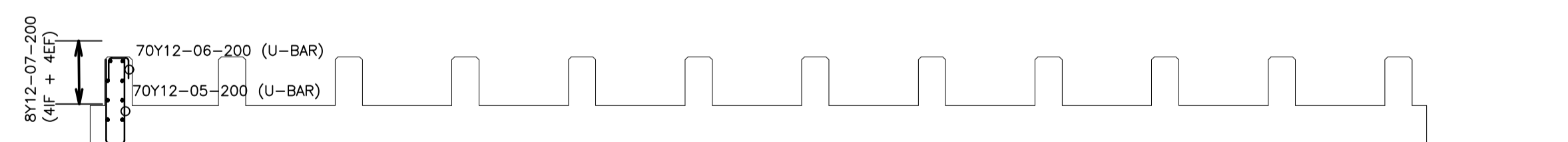
MEMBER	No OF	BARS PER MEMB	DIA	LENGTH	TOTAL NUM-BER	MARK	S C	B E N D I N G					
								A	B	C	D	E	
BASE		70	Y12	12800	70	01	37	12500					
		69	Y12	13000	69	02	37	12800					
		69	Y12	13000	69	03	37	12800					
		70	Y12	12800	70	04	37	12500					
		70	Y12	4200	70	01a	37	4000					
		69	Y12	4200	69	02a	37	4000					
		69	Y12	4200	69	03a	37	4000					
PIER	12	70	Y12	1950	840	05	38b	800	350				
		70	Y12	1350	840	06	38b	500	350				
		8	Y12	13000	96	07	20	13000					

	8	10	12	16	20	25	32	40	TOT
R									
Y									
TOT									

GROUND TANK REBAR



TYPICAL PIER REBAR - ELEVATION



TYPICAL PIER REBAR - SECTION

<p>CLIENT:</p> <p>Environmental Investment Fund of Namibia ensuring sustainability</p>	<p>PROJECT</p> <p>SUPPLY AND INSTALLATION OF IRRIGATION SYSTEM TO SESFONTEIN COMMUNITY GARDEN IN THE KUNENE REGION</p>	<p>CONSULTANTS</p> <p>DUNAMIS CONSULTING ENGINEERS</p> <p>PO BOX 3757 WINDHOEK TEL:+264 (61) 236 911 FAX:+264 (61) 256 777</p>	<p>GENERAL NOTES:</p> <p>1) COPYRIGHT IS RESERVED ON ALL DRAWING AND DESIGNS.</p> <p>2) NO PART OF THIS DRAWING MAY BE SCALED.</p> <p>3) ALL DIMENSION AND LEVEL GIVEN MUST BE CHECKED BEFORE COMMENCING ANY WORK. ANY DISCREPANCIES MUST BE REPORT TO THE ENGINEER WITHOUT DELAY.</p> <p>4) USE COORDINATE SYSTEM Lo 24/17.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>DESIGNED</td><td>K.A</td></tr> <tr><td>DRAWN</td><td>K.A</td></tr> <tr><td>CHECKED</td><td>S.K</td></tr> <tr><td>SCALE</td><td>AS SHOWN</td></tr> <tr><td>COMPUTER PRINT</td><td>19001-CW-05</td></tr> <tr><td>DATE</td><td>09-09-2020</td></tr> </table>	DESIGNED	K.A	DRAWN	K.A	CHECKED	S.K	SCALE	AS SHOWN	COMPUTER PRINT	19001-CW-05	DATE	09-09-2020	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>MUNICIPAL APPROVAL</td><td></td></tr> <tr><td>DATE</td><td></td></tr> <tr><td>CLIENT'S APPROVAL</td><td></td></tr> <tr><td>DATE</td><td></td></tr> </table>	MUNICIPAL APPROVAL		DATE		CLIENT'S APPROVAL		DATE		<p>DRAWING TITLE</p> <p>WATER TANK TYPICAL DETAILS 2 OF 2- FOR SESFONTEIN</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DRAWING NUMBER</td> <td>REVISION</td> <td>DEPARTMENT</td> </tr> <tr> <td>19001-CW-05</td> <td>0</td> <td>CIVIL</td> </tr> </table>	DRAWING NUMBER	REVISION	DEPARTMENT	19001-CW-05	0	CIVIL
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DRAWING NUMBER	REVISION	DEPARTMENT																														
19001-CW-05	0	CIVIL																														

PART 3 – Conditions of Contract

Section VII. General Conditions of Contract

Table of Clauses

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General Conditions of Contract

PREAMBLE, the Environmental Investment Fund of Namibia on behalf of the Ministry of Agriculture, Water and Land Reform enters into this agreement through funding from the Green Climate Fund under the project entitled the Improving Rangeland and Ecosystem Management Practices of Smallholder Farmers Under Conditions of Climate Change In Sesfontein, Frasnfontein and Warmquelle Areas (IREMA). The Environmental Investment Fund of Namibia will therefore not be liable of any financial loss in the event of non- funding by the donors, delayed disbursements, and unsatisfactory project performance as deemed by the Ministry of Agriculture, Water and Land Reform.

A. General

1. Definitions

1.1 Boldface type is used to identify defined terms.

- (a) The Accepted Contract Amount means the amount accepted in the Notification of award for the execution and completion of the Works and the remedying of any defects.
- (b) The Activity Schedule is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity.
- (c) The Adjudicator is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.
- (d) Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.
- (e) Compensation Events are those defined in GCC Clause 41 hereunder.
- (f) The Completion Date is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 53.1.
- (g) The Contract is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.
- (h) The Contractor is the party whose Bid to carry out the Works has been accepted by the Employer.
- (i) The Contractor's Bid is the completed bidding document submitted by the Contractor to the Employer.
- (j) The Contract Price is the Accepted Contract Amount stated in the Notification of award and thereafter as adjusted in accordance with the Contract.

- (k) Days are calendar days; months are calendar months unless otherwise stated.
- (l) Dayworks are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
- (m) A Defect is any part of the Works not completed in accordance with the Contract.
- (n) The Defects Liability Certificate is the certificate issued by Project Manager upon correction of defects by the Contractor.
- (o) The Defects Liability Period is the period **named in the SCC** pursuant to Sub-Clause 33.1 and calculated from the Completion Date.
- (p) Adjudicator means the single person appointed under Clause 23.
- (q) Drawings means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract, include calculations and other information provided or approved by the Project Manager for the execution of the Contract.
- (r) The Employer is the party who employs the Contractor to carry out the Works, **as specified in the SCC**.
- (s) Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- (t) "In writing" or "written" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
- (u) The Initial Contract Price is the Contract Price listed in the Employer's Notification of award.
- (v) The Intended Completion Date is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is **specified in the SCC**. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
- (w) Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- (x) Plant is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
- (y) The Project Manager is the person **named in the SCC** (or any other competent person appointed by the Employer

and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.

- (z) SCC means Special Conditions of Contract
- (aa) The Site is the area **defined as such in the SCC**.
- (bb) Site Investigation Reports are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- (cc) Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
- (dd) The Start Date is **given in the SCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- (ee) A Subcontractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
- (ff) Temporary Works are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- (gg) A Variation is an instruction given by the Project Manager which varies the Works.
- (hh) The Works are what the Contract requires the Contractor to construct, install, and turn over to the Employer, **as defined in the SCC**.

2. Interpretation

2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.

2.2 If sectional completion is **specified in the SCC**, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

2.3 The documents forming the Contract shall be interpreted in the following order of priority:

- (a) Agreement,

- (b) Notification of award,
 - (c) Contractor’s Bid,
 - (d) Special Conditions of Contract,
 - (e) General Conditions of Contract,
 - (f) Specifications,
 - (g) Drawings,
 - (h) Bill of Quantities,¹ and
 - (i) any other document **listed in the SCC** as forming part of the Contract.
- 3. Language and Law** 3.1 The language of the Contract must be English and the law governing the Contract is the Law of Namibia.
- 4. Project Manager’s Decisions** 4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.
- 5. Delegation** 5.1 Otherwise **specified in the SCC**, the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.
- 6. Communications** 6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing to the addresses **specified in the SCC**. A notice shall be effective only when it is delivered.
- 7. Subcontracting** 7.1 The Contractor may subcontract with the approval of the Project Manager but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor’s obligations.
- 8. Other Contractors** 8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as **referred to in the SCC**. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors and shall notify the Contractor of any such modification.
-

- 9. Personnel and Equipment**
- 9.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.
- 9.2 If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.
- 10. Employer's and Contractor's Risks**
- 10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.
- 11. Employer's Risks**
- 11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:
- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to
 - (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or
 - (ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.
 - (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.
- 11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to
- (a) a Defect which existed on the Completion Date,
 - (b) an event occurring before the Completion Date, which was not itself an Employer's risk, or
 - (c) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.

13. Insurance

13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles **stated in the SCC** for the following events which are due to the Contractor's risks:

- (a) loss of or damage to the Works, Plant, and Materials;
- (b) loss of or damage to Equipment;
- (c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- (d) personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval within 21 days after issue of notification of award. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager.

13.5 Both parties shall comply with any conditions of the insurance policies.

13.6 The policies which are in the joint names of the Contractor and the Employer shall contain a clause to include a waiver of subrogation of the Contractor's rights to the insurance carrier against the Employer.

14. Site Data

14.1 The Contractor shall be deemed to have examined any Site Data **referred to in the SCC**, supplemented by any information available to the Contractor.

- 15. Contractor to Construct the Works** 15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.
- 16. The Works to Be Completed by the Intended Completion Date** 16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.
- 17. Approval by the Project Manager** 17.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.
- 17.2 The Contractor shall be responsible for design of Temporary Works.
- 17.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.
- 17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.
- 18. Safety** 18.1 The Contractor shall be responsible for the safety of all activities on the Site.
- 19. Discoveries** 19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.
- 20. Possession of the Site** 20.1 The Employer shall, after receiving the Performance security, the insurance covers and the Program for the Works all as per requirements, give possession of all parts of the Site to the Contractor within thirty days for execution of works in accordance to the Program for the Works. If possession of a part is not given by the date **stated in the SCC**, the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.
- 21. Access to the Site** 21.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

- 22. Instructions**
- 22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.
- 22.2 The Contractor shall permit persons appointed by the Employer to inspect the Site and/or the accounts and records of the Contractor and its sub-contractors relating to the performance of the Contract, and to have such accounts and records audited by auditors appointed by the Employer if required by the Employer. The Contractor's attention is drawn to Sub-Clause 57.1 which provides, inter alia, that acts intended to materially impede the exercise of the inspection and audit rights provided for under Sub-Clause 22.2 constitute a prohibited practice subject to contract termination.
- 23. Appointment of the Adjudicator**
- 23.1 The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Notification of award. If, in the notification of award, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority **designated in the SCC**, to appoint the Adjudicator within 15 days of receipt of such request.
- 23.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority **designated in the SCC** at the request of either party, within 30 days of receipt of such request.
- 24. Procedure for Disputes**
- 24.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 15 days of the notification of the Project Manager's decision.
- 24.2 The Adjudicator shall give a decision in writing within 30 days of receipt of a notification of a dispute.
- 24.3 The Adjudicator shall be paid by the hour at the **rate specified in the SCC**, together with reimbursable expenses of the types **specified in the SCC**, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within thirty (30) days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above thirty (30) days, the Adjudicator's decision shall be final and binding.

24.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place specified **in the SCC**.

B. Time Control

25. Program

25.1 Within the time **stated in the SCC**, after the date of the Notification of award, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.

25.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

25.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period **stated in the SCC**. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount **stated in the SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 15 days of being instructed to by the Project Manager.

25.4 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

26. Extension of the Intended Completion Date

26.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event(as defined in GCC 41) occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.

26.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

- 27. Acceleration**
- 27.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.
- 27.2 If the Contractor's priced proposals for acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.
- 28. Delays Ordered by the Project Manager**
- 28.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.
- 29. Management Meetings**
- 29.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 29.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.
- 30. Early Warning**
- 30.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
- 30.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Quality Control

- 31. Identifying Defects**
- 31.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover

and test any work that the Project Manager considers may have a Defect.

- 32. Tests** 32.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.
- 33. Correction of Defects** 33.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is **defined in the SCC**. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 33.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.
- 34. Uncorrected Defects** 34.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

- 35. Contract Price** 35.1 In the case of an admeasurement contract, the Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.
- 35.2 In the case of a lump sum contract, the Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to prepare interim valuations of works done.
- Any errors or inconsistencies including front loading detected in the Activity Schedule at any time during the execution of the project shall be resolved as directed as by the Project Manager.
- 36. Changes in the Contract Price** 36.1 In the case of an admeasurement contract:
- (a) If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.
 - (b) The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by

more than 15 percent, except with the prior approval of the Employer.

- (c) If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

36.2 In the case of a lump sum contract, the Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

37. Variations

37.1 All Variations shall be included in updated Programs, and, in the case of a lump sum contract, also in the Activity Schedule, produced by the Contractor.

37.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

37.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.

37.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

37.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

37.6 In the case of an admeasurement contract, if the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in Sub-Clause 38.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.

38. Cash Flow Forecasts

38.1 When the Program, or, in the case of a lump sum contract, the Activity Schedule, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast.

**39. Payment
Certificates**

- 39.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 39.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 39.3 The value of work executed shall be determined by the Project Manager.
- 39.4 The value of work executed shall comprise:
- (a) In the case of an admeasurement contract, the value of the quantities of work in the Bill of Quantities that have been completed; or
 - (b) In the case of a lump sum contract, the value of work executed shall comprise the value of completed activities in the Activity Schedule.
- 39.5 The value of work executed shall include the valuation of Variations and Compensation Events.
- 39.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
- 39.7 Unless **otherwise specified in the SCC** Interim Payment may be made for Plant and Material delivered on site ready for incorporation within reasonable period of time in the permanent works, subject to the Contractor transferring ownership to the Employer and providing, where applicable, the right of the transfer of ownership vested upon the Contractor by its supplier.

Notwithstanding the transfer of ownership, the responsibility for care and custody thereof together with the risk of loss or damage thereto shall remain with the Contractor until taking over of the works or part thereof in which such Plant and Materials are incorporated and shall make good at its own cost any loss or damage that may occur to the works or part thereof from any cause whatsoever during such period prior to the taking over.

40. Payments

- 40.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 30 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest at the legal rate.

- 40.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.
- 40.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions to the Contract Price.
- 40.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

**41. Compensation
Events**

- 41.1 The following shall be Compensation Events:
- (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.
 - (b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.
 - (c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
 - (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
 - (e) The Project Manager unreasonably does not approve a subcontract to be let.
 - (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Notification of award from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.
 - (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
 - (h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
 - (i) The advance payment is delayed.

- (j) The effects on the Contractor of any of the Employer's Risks.
- (k) The Project Manager unreasonably delays issuing a Certificate of Completion.
- (l) In situations of Force Majeure which makes the contractor's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances. Such events shall be limited to:
 - (a) reason of any exceptionally adverse weather conditions (as specified in the BDS) and
 - (b) reason of civil commotion, strike or lockout affecting any of the trades employed upon the Works or any of the trades engaged in the preparation, manufacture or transportation of any of the goods or materials required for the Works.

41.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

41.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

41.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

42. Tax

42.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 30 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 44.

- 43. Currencies** 43.1 Where payments are made in currencies other than the currency of the Employer’s country **specified in the SCC**, the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor’s Bid.
- 44. Price Adjustment** 44.1 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the SCC**. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:

$$P_c = A_c + B_c \text{ Imc/Ioc}$$

where:

P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency “c.”

A_c and B_c are coefficients² **specified in the SCC**, representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency “c;” and

Imc is the index prevailing at the end of the month being invoiced and Ioc is the index prevailing 28 days before Bid opening for inputs payable; both in the specific currency “c.”

- 44.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected, and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

- 45. Retention** 45.1 The Employer shall retain from each payment due to the Contractor the proportion **stated in the SCC** until Completion of the whole of the Works.
- 45.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 53.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an “on demand” Bank guarantee.
- 46. Liquidated Damages** 46.1 The Contractor shall pay liquidated damages to the Employer at the rate per day **stated in the SCC** for each day that the Completion Date is later than the Intended Completion Date. The

total amount of liquidated damages shall not exceed the amount **defined in the SCC**. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

46.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 40.1.

47. Bonus

47.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the SCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

48. Advance Payment

48.1 The Employer shall make advance payment to the Contractor of the amounts **stated in the SCC** by the date **stated in the SCC**, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.

48.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

48.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

49. Securities

49.1 The Performance Security shall be provided to the Employer no later than the date specified in the Notification of award and shall be issued in an amount **specified in the SCC**, by a bank and denominated in the Namibian Dollars. The Performance Security shall be valid until a date 30 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee.

49.2 (a) Where the contractor has benefitted from the application of the Margin of Preference for employment of local manpower, it shall:

- (i) in the execution of the contract, fulfill its obligation of maintaining local manpower force for 80 % or more of the man-days deployed in the execution of the Works with which it satisfied the criteria of eligibility for being awarded the contract in application of the Margin of Preference; and
 - (ii) concurrently with the above performance security, provide a preference security to guarantee it will fulfill its obligation in that respect.
- (b) For contracts above N\$ 5 M, the preference security shall be in the form of an “on demand” bank guarantee for an amount in a convertible currency equivalent to the difference between its bid price and the bid price of the lowest bid if the Margin of Preference was not applicable. It shall be issued by a commercial bank located in the Republic of [Insert name of country].
- (c) For contracts up to N\$ 5 M, an amount equal to the value of the preference security shall be retained from progressive payments to the contractor, to constitute the guarantee for the preference security.
- (d) The preference security shall be valid until the Contractor has completed the Works and a Completion Certificate has been issued by the Employer’s Representative as per GCC 53.
- (e) The cost of providing the security shall be borne by the Contractor.

49.3 Where a Preference Security is applicable:

- (i) the Employer’s Representative shall monitor the employment of local manpower throughout the execution of the contract and shall from time to time request a report from the contractor on the percentage of total man-days deployed using local manpower.
- (ii) the Contractor shall submit the local manpower employment reports as often as it is reasonably requested by the Employer’s Representative.
- (iii) the Employer’s and Contractor’s representatives shall consult each other to ensure that the Contractor’s obligation towards local manpower employment is met during the Works execution.
- (iv) At the time of works completion, the Contractor shall submit a certified audited report to the Employer to substantiate the actual

percentage of local manpower employed throughout the execution of the works.

(v) The preference security shall be forfeited by the employer in case of failure on the part of the contractor to employ at least 80% of the local manpower in the execution of the Works.

50. Dayworks

50.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

50.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.

50.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

51. Cost of Repairs

51.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

52. Labour Clause

52.1 (a) The rates of remuneration and other conditions of work of the employees of the Contractor shall not be less favorable than those established for work of the same character in the trade concerned-

(i) by collective agreement applying to a substantial proportion of the workers and employers in the trade concerned;

(ii) by arbitration awards; or

(iii) by Remuneration Regulations made under the Labour Act, 2007.

(b) Where remuneration and conditions of work are not regulated in a manner referred to at (a) above, the rates of the remuneration and other conditions of work shall be not less favorable than the general level observed in the trade in which the contractor is engaged by employers whose general circumstances are similar.

52.2 No Contractor shall be entitled to any payment in respect of work performed in the execution of the contract unless he has, together with his claim for payment, filed a certificate:

(a) stating the rates of remuneration and hours of work of the various categories of employees employed in the execution of the contracts;

(b) stating whether any remuneration payable in respect of work done is due;

(c) containing such other information as the Chief Executive Officer of the Public Body administering the contract may require to satisfy himself that the provisions under this clause have been complied with.

52.3 Where the Chief Executive Officer of the Public Entity administering the contract is satisfied that remuneration is still due to an employee employed under this contract at the time the claim for payment is filed under subsection *[Insert number]*, he may, unless the remuneration is sooner paid by the Contractor, arrange for the payment of the remuneration out of the money payable under this contract.

52.4 Every Contractor shall display a copy of this clause of the contract at the place at which the work required by the contract is performed.

E. Finishing the Contract

- 53. Completion** 53.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.
- 54. Taking Over** 54.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.
- 55. Final Account** 55.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 60 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 60 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.
- 56. Operating and Maintenance Manuals** 56.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates **stated in the SCC**.
- 56.2 If the Contractor does not supply the Drawings and/or manuals by the dates **stated in the SCC** pursuant to GCC Sub-Clause 55.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount **stated in the SCC** from payments due to the Contractor.

57. Termination

57.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

57.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:

- (a) the Contractor stops work for 30 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;
- (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days;
- (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 60 days of the date of the Project Manager's certificate;
- (e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
- (f) the Contractor does not maintain a Security, which is required;
- (g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as **defined in the SCC**; or
- (h) if the Contractor, in the judgment of the Employer, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, pursuant to GCC Clause 57.1.

57.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 56.2 above, the Project Manager shall decide whether the breach is fundamental or not.

57.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

57.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

58. Fraud and Corruption

58.1 If the Employer determines that the Contractor has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Employer may, after giving 15 days' notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from

the Site, and the provisions of Clause 57 shall apply as if such expulsion had been made under Sub-Clause 57.5 [Termination by Employer].

58.2 Should any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Works, then that employee shall be removed in accordance with Clause 9.

58.3 For the purposes of this Sub-Clause:

- (i) “corrupt practice” is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- (ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
- (iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- (iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- (v) “obstructive practice” is
 - (a) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (b) acts intended to materially impede the exercise of an inspection and audit rights provided for under Sub-Clause 22.2.

59. Payment upon Termination

59.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as **indicated in the SCC**. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

59.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

60. Property

60.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.

61. Release from Performance

61.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

Section VIII. Special Conditions of Contract

These clauses should be read in conjunction with the General Conditions of Contract

A. General	
SCC 1.1 (r)	The Employer is: Enviromental Investment Fund
SCC 1.1 (v)	The Intended Completion Date for the whole of the Works shall be: 9 months after contract signing date
SCC 1.1 (y)	The Project Manager is: DUNAMIS Consulting Engineers & Project Managers PO Box 3757, Windhoek
SCC 1.1 (dd)	“The Start Date shall be: Not more than 14 calendar days after site handover
SCC 1.1 (hh)	The Works consist of: <i>Supply and installation of Irrigation Kits to Sesfontein Community Garden.</i>
SCC 2.2	Sectional Completions are: <i>Not Applicable</i>
SCC 2.3(i)	The following documents also form part of the Contract: <ol style="list-style-type: none"> 1) <i>Notification of award</i> 2) <i>The bid</i> 3) <i>The Conditions of Contract</i> 4) <i>The Drawings</i> 5) <i>The Bills of Quantities</i> 6) <i>Project Specifications</i> 7) <i>Any addendum</i>
SCC 5.1	The Project manager may delegate any of his duties and responsibilities.
SCC 6.1	Delivery address for notices is: Employer: Environmental Investment Fund, 8933 Heinitzburg Heights, c/o Hienitzburg & Burg Streets, Klein Windhoek Windhoek, Namibia
SCC 8.1	Schedule of other contractors: <i>Not Applicable</i>

SCC 13.1	<p>Except for the cover mentioned in (d)(i) hereunder, the other insurance covers shall be in the joint names of the Contractor and the Employer and the minimum insurance amounts shall be:</p> <p>(a) The amount of insurance required shall be (public liability) N\$ 2,000,000.00 (Two Million Namibia Dollars) for each and every occurrence without limit to the number of occurrences</p> <p>(b)The amount of liability and insurance required shall be (replacement) equal to the contract sum plus 25%.</p>
SCC 14.1	Site Data are: Site Conditions to be verified by Contractor on pre-bid clarification meeting
SCC 20.1	The Site Possession Date(s) shall be: at Sesfontein on date to be confirmed
SCC 23.1 & SCC 23.2	Appointing Authority for the Adjudicator: <i>No Adjudicator shall be appointed under this Contract.</i>
SCC 24.	<p>In case a dispute of any kind arises between the Employer and the Contractor in connection with, or arising out of, the contract or the execution of works or after completion of works and whether before or after repudiation or other termination of Contract, including any dispute as to any opinion, instruction, determination, certificate or valuation of the Employer’s Representative, the matter in dispute shall, in the first place, be referred in writing to the employer’s representative, with a copy to the other party.</p> <p>The Employer and the Contractor shall make every effort to resolve the dispute amicably by direct informal negotiation. If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Public Entity or the Contractor may give notice to the other party of its intention to refer the matter to:</p> <p><i>The President of the Engineering Professions Association of Namibia</i></p> <p>“commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.</p> <p style="text-align: center;"><i>or</i></p> <p>“the competent courts of Namibia”</p>
SCC 24.3	Hourly rate and types of reimbursable expenses to be paid to the Adjudicator: Not applicable.
SCC 24.4	<p><i>For large contracts with domestic contractor or for contract with foreign contractor:</i></p> <p>Not Applicable</p>

B. Time Control	
SCC 25.1	The Contractor shall submit for approval a Program for the Works within 21 days from the date of the Notification of award.
SCC 25.3	The period between Program updates is 28 days. The amount to be withheld for late submission of an updated Program is <i>N\$10,000.00</i>
C. Quality Control	
SCC 33.1	The Defects Liability Period is: 365 days.
SCC 39.7	Interim Payment for Plant and Material on site “is” applicable.
D. Cost Control	
SCC 41.1 (l)	<i>Namibia Meteorological Services to define adverse weather conditions</i>
SCC 43.1	The currency of the Employer’s country is: Namibian Dollars
SCC 45.1	The proportion of payments retained is: <i>10% up until maximum retention is reached</i> <i>The maximum retention is calculated as 10% of the contract amount (excluding VAT and Escalation)</i>
SCC 46.1	The liquidated damages for the whole of the Works are: applicable to contractors for non-completion of Government Projects (Directive No. MWT 01/2015-2016): Penalty calculations per calendar day to be determined at contract signing, being calculated on the <u>Tendered Amount</u> <u>A) PENALTY CALCULATIONS PER CALENDAR DAY</u> <u>Contract value under N\$ 20 million</u> <i>Penalties calculation is fixed at N\$ 1000.00 per calendar day</i>
SCC 47.1	The Bonus for the whole of the Works is: Not Applicable
SCC 48.1	The Advance Payments shall be: 20% of the contract amount denominated in Namibian Dollars
SCC 49.1	The Performance Security amount is 10% of the contract amount denominated in Namibian Dollars (a) Bank Guarantee: <i>The full security for the due fulfilment of all obligations under this contract is to remain in force for sixty days after practical completion.</i> <i>No guarantee containing any clause that allows the financial institution providing such guarantee to either withdraw from their undertaking before</i>

	<p><i>sixty days after practical completion or that stipulates an expiry date is acceptable.</i></p> <p><i>Said guarantee must be from the same Institution that has issued the letter of intent to provide a guarantee as referred to in the General Conditions of Contract (GCC).</i></p> <p><i>Notwithstanding the above, the guarantee will only be returned to the contractor after receipt of satisfactory proof that the contractor has met all his obligations under any and all agreements applicable to this contract.</i></p>
E. Finishing the Contract	
SCC 55.1	<i>The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 60 days of receiving the Contractor’s account if it is correct and complete. If it is not, the Project Manager shall issue within 60 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the remedial action.</i>
SCC 56.1	Operating and maintenance manuals should be supplied to the employer by the contractor no later than: <i>upon completion of the project.</i>
SCC 56.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required in GCC 55.1 will be <i>5% of the contract amount.</i>
SCC 57.2 (g)	The maximum number of days is: <i>30 days</i>
SCC 59.1	The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is <i>to be determined.</i>

Part 3: Contract Forms

Section IX. Contract Forms

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Typical Notification of Award

[on letter head of the Employer]

..... *[date]*.

To: *[name and address of the Contractor]*

Subject: *[Notification of Award Contract No]*.

This is to notify you that your Bid dated *[insert date]* for execution of the
.....*[insert name of the contract and identification number, as given in the Appendix to Bid]* . .
..... for the Accepted Contract Amount of.*[insert amount in numbers and*
words in Namibian Dollars], as corrected and modified in accordance with the Instructions
to Bidders is hereby accepted by *(insert name of Public Entity)*.

You are requested to furnish the Performance Security within 21 days in accordance
with the General Conditions of Contract, using for that purpose of the Performance
Security Form included in Section VIII (Contract Forms) of the Bidding Document.

Authorized Signature:

Name and Title of Signatory:

Name of Public Entity:

Attachment: Contract Agreement

[This form is simply a guide and may be amended as far as possible to suit requirements of the public entity]

Typical Contract Agreement

THIS AGREEMENT made on theday of,, between **Environmental Investment Fund** . (hereinafter “the Employer”), of the one part, and (hereinafter “the Contractor”), of the other part:

WHEREAS the Employer desires that the Works known as **Supply and Installation of Irrigation System to Sesfontein Community Garden, Kunene Region** should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - (a) the Notification of award (Letter of Acceptance)
 - (b) Bid Submission Form
 - (c) the Bid
 - (d) the Addenda Nos
 - (e) Bidding data Sheets
 - (f) Appendix to Tender
 - (g) the Conditions of Contract;
 - (h) the Specification
 - (i) the Drawings; and
 - (j) the completed Schedules,
3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

5. IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Namibia on the day, month and year indicated above.

Signed by:		Signed by:	
for and on behalf of the Employer		for and on behalf the Contractor	
in the presence of:		in the presence of:	
Witness, Name, Signature, Address, Date		Witness, Name, Signature, Address, Date	

Performance Security (Bank Guarantee)

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]

Date: *[insert date (as day, month, and year) of Bid Submission]*

Procurement Reference No. and title: *[insert no. and title of bidding process]*

Bank’s Branch or Office: *[insert complete name of Guarantor]*

Beneficiary: *[insert complete name of Purchaser]*

PERFORMANCE GUARANTEE No.: *[insert Performance Guarantee number]*

We have been informed that *[insert complete name of Supplier]* (hereinafter called "the Supplier") has entered into Contract No. *[insert number]* dated *[insert day and month]*, *[insert year]* with you, for the supply of *[description of goods and related services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a Performance Guarantee is required.

At the request of the Supplier, we hereby irrevocably undertake to pay you any sum(s) not exceeding *[insert amount(s)³ in figures and words]* upon receipt by us of your first demand in writing declaring the Supplier to be in default under the Contract, without cavil or argument, or your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This Guarantee shall expire no later than the *[insert number]* day of *[insert month]* *[insert year]*,⁴ and any demand for payment under it must be received by us at this office on or before that date.

.....**Bank’s seal and authorized signature(s)**
.....

³ The Bank shall insert the amount(s) specified in the SCC and denominated, as specified in the SCC, in the currency of the Contract.

⁴ Dates established in accordance with Clause 18.4 of the General Conditions of Contract (“GCC”), taking into account any warranty obligations of the Supplier under Clause 16.2 of the GCC intended to be secured by a partial Performance Guarantee. The Purchaser should note that in the event of an extension of the time to perform the Contract, the Purchaser would need to request an extension of this Guarantee from the Bank. Such request must be in writing and must be made prior to the expiration date established in the Guarantee. In preparing this Guarantee, the Purchaser might consider adding the following text to the Form, at the end of the penultimate paragraph: “We agree to a one-time extension of this Guarantee for a period not to exceed [six months] [one year], in response to the Purchaser’s written request for such extension, such request to be presented to us before the expiry of the Guarantee.”

Appendix to Bid

*[Note: with the exception of the items for which the Employer's requirements have been inserted, the following information, indicated by an *, must be completed before the Bid is submitted]*

Item	Sub-Clause	Data
Validity period of Bid	ITB19.1	90 days from closing date
Employer's name and address	ITB8.1/SCC6.1	The Accounting Officer of the Environmental Investment Fund P.O. Box 28157, Auas Valley, Namibia
Contractor's name and address*	SCC6.1	*
Time for Completion of the Works	ITB 6.3(b)	__9 months
Governing Law		Republic of Namibia
Language for communications	GCC3	English
Time for access to the Site	SCC20.1	N/A
Amount of Performance Security	ITB40.1 / SCC49.1	10% of Accepted Contract Amount
Normal working hours	GCC52	as per Labour Act 11 of 2007

INITIALS OF SIGNATORY OF BIDDER _____

Extension of Time: maximum cost		N/A	
Late completion	SCC46.1	N\$ 1000 per calendar day	
Maximum amount of delay damages	SCC46.1	N\$ 30,000.00	
Adjustments for Changes in cost	GCC36/GCC42/GCC44.1/ SCC44.1	For payments each Month in Namibian Dollar	
Coefficient; Scope of index	Country of origin; Currency of index	Source of index; Title / definition	Value on stated date(s)* Value Date
a = 0.55 CPI	Namibia	Central Bureau of Statistics	
b = 0.35 Wages	Namibia	Government Gazette	
c = 0.1 Fuel	Namibia	Sesfontein Diesel Pumps	

*These values and dates confirm the definition of each index, but do not define Base Date indices

Total advance payment	SCC48.1	N/A
Interim payment instalments	GCC39	28 days after delivery of each statement
Currencies and proportions	GCC43.1	Namibian Dollars

Minimum amount of Interim Payment Certificates		N\$ 100 000.00
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INITIALS OF SIGNATORY OF BIDDER _____