Invitation to Tender (ITT)

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

The Garowe Municipality, in conjunction with the Puntland Government, invites bidders from eligible construction companies for the above-named project being implemented by the Garowe Municipality.

It should be noted that bidders are automatically disqualified from participating in this tender if they assisted with any part of this project or tender process, including the preparation of technical documents, or if they are related to a member of the Bid Committee without prior disclosure. Following any disclosure, the Bid Committee will assess whether the conflict is material. Small businesses, minority-owned firms, and women's business enterprises are encouraged to apply.

The mandatory criteria for bidders are as follows. FAILURE TO SUBMIT ANY OF THESE DOCUMENTS WILL LEAD TO AUTOMATIC DISQUALIFICATION:

a) Valid National certificate of registration from The Ministry of Commerce, Industries and Investment, Puntland; the Ministry of Public Works, Transport and Housing, Puntland, and Puntland National Tender Board (Bar Code matches with Certificate Information).
b) Valid Tax Compliance Certificate from The Ministry of Finance, Puntland (with a valid and readable QR Code, if applicable).
c) Filled, Signed, and Stamped Site Visit Certificate, signed at the site by the SINAAN Chief Engineer and stamped by the Garowe Mayor.
d) Completely Filled out, Signed and Stamped Financial Bid/BOQ. See Attachment M in the Bid Book.
e) Filled and Signed Bidder's Declaration Confirming the Absence of Any Conflict of Interest (See Annex I of the RFP).

Other relevant submission requirements related to the evaluation criteria are:

f) Technical Proposal outlining understanding of the assignment, implementation methodology, and implementation plan.
g) List of previous relevant experience indicating company name, project name, company representative (name, telephone number & email), and evidence (contracts, signed recommendation letters and signed Completion/Successful letters)
h) Audited financial reports and bank statements for the last three (3) years.

Submission (Physical & Electronic): Completed bid documents should be submitted in sealed envelopes addressed to: **The Bid Committee, Construction of Garowe Community Cohesion & Green Cultural Park (PR 050)**

Bids are to be delivered to and received at **the Garowe Municipality Office on or before 28 July 2026 at 11:00 am (East African Time).** Bidders are also required to submit their bids by email (sinaan.tender@dt-global.com) as two separate PDF files - Technical Proposal and Financial Proposal. Both files **MUST** be **password-protected**, with the passwords to be provided in person on the day of bid opening at the Garowe Municipality Office in Garowe. Bids received after the deadline date and time will not be considered and shall be returned to the bidders unopened.

Offers are to remain valid for 180 days from the closing date of this tender. The Bid Committee reserves the right to vary the quantity of work/materials specified in the tender document without any change in unit price or other terms and conditions, and to accept or reject any, all, or part of submitted offers.

Site Visit: Bidders are expected to be at the site on **Tuesday, 14 July 2026, from 10:00 am (East African Time)** where the bidder is expected to provide the Site Visit Certificate (mandatory document) to be signed by the Chief Engineer as well as to be signed and stamped by the Garowe Mayor.

Bidder's Conference: All bidders interested in applying will be required to attend the Bidder's Conference on **Wednesday, 15 July 2026, from 10:00 am at the Garowe Municipality Office**.

Questions Deadline: All questions relating to this solicitation must be submitted electronically via email to the SINAAN Procurement Team at sinaan.procurement@dt-global.com, no later than **19 July 2026, at 5:00 pm (East African Time)**.

Questions Response: All questions received electronically via email to the SINAAN Procurement Team at sinaan.procurement@dt-global.com, will be responded to bidders that attended the site visit on **21 July 2026.**

Bid Opening: Bids will be opened at the **Garowe Municipality office in Garowe on 28 July 2026 at 11:30 am (East African Time)** in the presence of the Bid Committee and applicants who wish to attend.

Evaluation Criteria: Offers will be evaluated against criteria including, but not limited to, financial and technical criteria, past performance, and integrity. Offers will NOT be awarded on the basis of Lowest Priced Technically Acceptable, but rather on a Trade-off/Value-for-Money evaluation process.

Women-owned construction companies are strongly encouraged to apply.

SINAAN Programme

Request for Proposals

Solicitation No.	**RFP #050**
Title:	**Construction of Garowe Community Cohesion & Green Cultural Park**
Issue Date:	**Saturday, July 4, 2026**
Closing Date:	**Tuesday, July 28, 2026**
Questions Due:	**Sunday, July 19, 2026**
Closing Time:	**1100 Hrs (11 am) East African Time**
Subject:	**FCDO Contract No. 6215** **SINAAN Programme**

DT Global, the implementer of the SINAAN Programme under FCDO Contract No. **6215**, invites proposals for the Construction of the Garowe Community Cohesion & Green Cultural Park as described in Attachment I, "Statement of Work."

The period of performance for this activity is anticipated to commence on August 10, 2026, and end on March 15, 2027 (excluding a 6-month DLP). The issuance of a subcontract is subject to the availability of funds, the successful negotiation of the subcontract terms and budget, and the receipt of FCDO's Contracting Officer subcontract consent, if required. The Contract resulting from this award is envisioned to be a FIRM FIXED PRICE (FFP) CONTRACTUAL AGREEMENT.

DT Global encourages your organisation to indicate its interest in this procurement by submitting a proposal in accordance with the instructions in Attachment II, "Instructions to Bidders". Proposals will be evaluated based on the evaluation criteria established in Attachment III of this solicitation. An award will be made to the Bidder whose proposal represents the best value to the project after evaluation in accordance with the criteria stated in the solicitation.

To be considered under the solicitation process, the Bidder should submit a complete proposal by the means indicated herein no later than the closing date and time indicated above. Bidders should ensure that the proposals are well written, easy to read and follow, and contain only the requested information.

Proposals should be submitted in a **sealed envelopes** to be delivered and received (fill in and sign the register to confirm delivery) at the Garowe Municipality Office on or before **28 July 2026; 1100 Hrs (East African Time)** and addressed to:

The Bid Committee, Garowe Community Cohesion & Green Cultural Park (PR 050)

Bidders are also required to submit their bids by email as two separate PDF files - Technical Proposal and Financial Proposal. Both files **MUST** be **password-protected**, with the passwords to be provided in person on the day of bid opening at the Garowe Municipality Office in Garowe.

If all envelopes are not sealed and marked as required, SINAAN Programme will assume no responsibility for the misplacement or premature opening of the Bids.

The solicitation number above must also be mentioned in the subject of the email.

All questions relating to this solicitation must be submitted **electronically** via email to:

> Procurement Team at sinaan.procurement@dt-global.com, no later than **July 19, 2026** at **1700 Hrs (5 pm)** East African Time.

Unless otherwise notified by an amendment to this RFP, no questions will be accepted after this date. No questions/clarifications will be entertained if received by means other than the specified email address. The solicitation number should be stated in the subject line.

Proposals must be submitted separately via two different documents. The first document shall include the technical proposal as an attachment and should be named "Technical Proposal – Name of Company", and the second document shall include the cost/business proposal and should be named "Business Proposal – Name of Company."

Attachments:

- Attachment I: Statement of Work
- Attachment II: Instructions to Bidders
- Attachment III: Evaluation Criteria
- Attachment IV: Guidance for Provision of Insurance Quotation with Policy Information
- Annex I: Filled and Signed Bidder's Declaration Confirming the Absence of Any Conflict of Interest
- Annex II: Bid Book

Sincerely,

SINAAN Procurement Team

ATTACHMENT I

STATEMENT OF WORK

Provided in the Bid Book

ATTACHMENT II

INSTRUCTIONS TO BIDDERS

General Instructions

These Instructions to Bidders will not form part of the offer or of the Subcontract. They are intended solely to aid Bidders in preparing their proposals.

- The proposals and all corresponding documents related to the proposal must be written in the English language unless otherwise explicitly allowed.
- No costs incurred by the Bidders in preparing and submitting the proposal are reimbursable by the SINAAN Programme. All such costs will be at the Bidder's expense.
- Proposals and all cost and price figures must be presented in US Dollars. All prices must be inclusive of all applicable taxes, duties, VAT, levies, fees, and other charges, which must be separately identified in the financial proposal.
- The Bidder must state in its Proposal the validity period of its offer. The minimum offer acceptance period for this RFP is **180 days** after the RFP closing date. Offers with a shorter acceptance period will be rejected. This RFP does not obligate DT Global to award a subcontract.
- Responsibility Determination: Award shall only be made to "responsible" prospective Bidders. To enable DT Global to make this determination, the Bidder must briefly describe in the Attachment Section of the proposal that it:

    - has adequate financial resources, including appropriate insurance coverage to perform the work stated herein, or the ability to obtain them;
    - is able to comply with the required or proposed delivery or performance schedule, taking into consideration all existing commercial and governmental business commitments;
    - has a satisfactory performance record;
    - has a satisfactory record of integrity and business ethics;
    - has the necessary technical capacity, equipment and facilities, or the ability to obtain them; and
    - is otherwise qualified and eligible to receive an award under applicable laws and regulations.
- Taxes: The SINAAN Programme is not exempt from the cooperating country taxes and duties. Therefore, Bidders must show taxes separately, but the evaluated bid price will be the total price inclusive of all applicable taxes, duties and fees.
- . Any fees, costs, taxes, duties, or other charges not disclosed in the quotation will not be considered for reimbursement or payment by the SINAAN Programme.
- Eligibility: By submitting an offer in response to this RFP, the Bidder certifies that it and its principal officers are not debarred, suspended, or otherwise considered ineligible for an award by the UK Government. DT Global will not award a contract to any firm that is debarred, suspended, or deemed ineligible by the UK Government.
- Late Offers: Bidders are wholly responsible for ensuring that their offers are received in accordance with the instructions stated herein. SINAAN Programme reserves the right to reject any offer not submitted by the indicated deadline, even if it was late due to circumstances beyond the Bidder's control.
- Modification/Withdrawal of Offers: Bidders have the right to withdraw, modify, or correct their offer after it has been emailed to SINAAN at the email addresses stated above, provided that the request is made before the RFP closing date.

- Disposition of Proposals: Proposals submitted in response to this RFP will not be returned. Reasonable efforts will be made to ensure the confidentiality of both Cost and Technical Proposals received from all Bidders. This RFP does not seek information of a highly proprietary nature, but if such information is included in the Bidder's proposal, the Bidder must alert SINAAN Programme and must annotate the material by marking it "Confidential and Proprietary" so that these sections can be treated appropriately.
- Regardless of the method used to submit the proposal, the Technical Proposal and Cost Proposal must be kept separate. Technical Proposals **must not** reference cost or pricing data so that the technical evaluation may be conducted strictly on the basis of technical merit.
- Clarification and Amendment to the RFP:
    - Any question raised regarding this solicitation should be received no later than 1700 Hrs (5 pm) East Africa Time (EAT) on **Sunday, July 19, 2026**. All questions must be **in writing and** emailed to the email addresses specified in the cover letter. No questions/clarifications will be entertained if they are received by means other than the aforementioned email addresses. The solicitation number should be stated in the subject line. Responses to questions received will be compiled and emailed to potential Bidders.
- If Bidder intends to submit a proposal in response to this solicitation and wishes to receive any updates thereto, Bidder is encouraged to confirm receipt of this solicitation by email to the email address specified in the cover memo.
- The Bidder's email message should state the solicitation number in the subject. Also, the email should include the name of your organisation, the name of the contact person, the email address, and the telephone number.
- SINAAN Programme anticipates that discussions with Bidders will be conducted following vendor Technical and Cost Proposal submission; however, SINAAN Programme reserves the right to make an award without discussions. Therefore, it is strongly recommended that Bidders submit their best offer as their initial Technical and Cost proposal.
- SINAAN Programme may waive informalities and minor irregularities in proposals received.

Submission of Proposal:

- Proposals must be submitted in an electronic format as an email attachment, sent to the email address specified in the cover letter, no later than the date and time specified in the cover letter.
- The email should state the solicitation number in the subject line as well as title.
- The file attachment should be in one of the following formats: PDF, MS Word, MS Excel, MS PowerPoint, or ZIP. The submission of attachments in any other format may result in the disqualification of the offer.
- Please note that the DT Global email server has a 20MB limit on the total attachment size per email. It is strongly recommended that the size of ALL attachments per a single email be less than 20MB.
- The technical and business proposals should be submitted as two separate documents. The first should be named "Technical Proposal – Name of Company" and the second "Business Proposal – Name of Company." If the submission is sent in several emails, the emails should be sequentially numbered to indicate the total number of emails to be submitted (e.g., 1/4, 2/4, 3/4, and 4/4).

Content of Proposal:

The proposal shall consist of five (5) sections. 1) The Cover Page-Technical, 2) The Technical Proposal, 3) The Cover Page-Cost, 4) the Cost/Business Proposal, and 5) The Attachments

1. ***The Cover Page-Technical:***

The cover page should be on the Bidder's letterhead and MUST contain the following information:

- Solicitation Number
- Company's Name:
- Company's Address
- Name of the Company's authorised representative
- Telephone No, Cellular Phone #, Email address
- Validity of Proposal
- Signature, Date and time

Below is the template to be filled, signed and submitted together with the proposal:

Proposal Cover Letter

[On Firm's Letterhead]

<Insert date>

TO: DT GLOBAL- SINAAN Programme

We, the undersigned, provide the attached proposal in accordance with **RFP PR 050 Construction of Garowe Community Cohesion & Green Cultural Park** issued on July 4, 2026. Our attached quoted proposal has fixed prices.

I certify that our proposal is valid for **180** days. Upon award, our proposal price shall be binding upon us, subject to the modifications resulting from any discussions and final negotiations. I certify our financial responsibility, as well as certify that we have the ability to pre-finance.

We understand that the SINAAN Programme is not bound to accept any proposal it receives.

Yours sincerely,

Signature

Name of Authorised Representative
Title of Authorised Representative
Company Seal/Stamp

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2. Technical Proposal:

The technical proposal shall describe how the Bidder intends to carry out the statement of work. It will also address the Bidder's corporate capabilities to carry out the work and the extent to which the Bidder has a demonstrated ability to provide the required services.

The Bidder will also include the CVs of all proposed personnel. The Bidder shall provide information about past performance in implementing similar work globally, and, in particular, in Puntland, within the last 3 years. Capacity to undertake the technical and administrative backstopping of all interventions described in the Scope of Work. The Bidder should also provide a detailed description of existing goods and services in Puntland.

The technical proposal should be divided into three sections, following the same order as the technical evaluation criteria in Attachment III. Failure to respond to any section will be the basis for disqualification of the Bidder from further consideration.

3. The Cover Page - Cost/Business:

The cover page should be on the Bidder's letterhead and MUST contain the following information:

- Solicitation Number
- Company's Name:
- Company's Address
- Name of the Company's authorised representative
- Telephone No, Cellular Phone #, Email address
- Total Proposed Price
- Validity of Proposal
- Acceptance of Tax Withholding Statement
- Name and address of the Government Audit Agency and name and phone number of the auditor
- A valid Business License or National Registration Certificate (with Readable QR Code)
- A valid Tax Compliance Certificate (with Readable QR Code)
- Signature, Date and Time

4. The Cost Proposal/BOQ:

The cost proposal/BOQ shall be submitted separately from the technical proposal. The budget will present the cost for performing the work specified in this solicitation. A template is provided for the pricing in the Bid Book (Annex II). At a minimum, the cost proposal will include the following information:

- A detailed cost breakdown of the proposed budget to the maximum extent practical, including using the template provided.
- A detailed and comprehensive budget narrative explaining the basis for the cost estimates.
- Valid certificate of registration from the Ministry of Commerce, Industries and Investment, Puntland; the Ministry of Public Works, Transport and Housing, Puntland, and Puntland National Tender Board (Bar Code matches with Certificate Information).
- Valid Tax Compliance Certificate from the Ministry of Finance, Puntland (with a valid and readable QR Code, if applicable).

- Completely filled out, signed and stamped Financial Bid/BOQ (please refer to Bid Book – Annex II for a budget template for the cost proposal).
- Filled and Signed Declaration Confirming the Absence of Any Conflict of Interest.
- If the Bidder does not have a cognisant audit agency, the Bidder must provide audited balance sheets and profit & loss statements for the last two complete years and current year-to-date.
- The most recent three fiscal-year pool and base cost compositions, along with derived rates, the bases for allocating these rates, and an independent certified audit of these rates by a certified accounting firm.

5. Attachments

This section will include any information or document that was not listed in the above sections and that the Bidder finds necessary to include in the proposal. In this section, the Bidder will also include the information that will assist the SINAAN PROGRAMME in determining the Bidder's responsibility. The following are **mandatory** documents to be submitted with the proposal:

a) Valid National certificate of registration from The Ministry of Commerce, Industries and Investment, Puntland; the Ministry of Public Works, Transport and Housing, Puntland, and Puntland National Tender Board (Bar Code matches with Certificate Information).
b) Valid Tax Compliance Certificate from The Ministry of Finance, Puntland (with a valid and readable QR Code, if applicable).
c) Filled, Signed, and Stamped Site Visit Certificate, signed at the site by the SINAAN Chief Engineer and stamped by the Garowe Mayor.
d) Completely Filled out, Signed and Stamped Financial Bid/BOQ. See Attachment M in the Bid Book.
e) Filled and Signed Bidder's Declaration Confirming the Absence of Any Conflict of Interest (See Annex I of the RFP).

This solicitation in no way obligates DT Global to award a subcontract, nor does it commit DT Global to pay any costs incurred in preparation and submission of a proposal in response to the RFP. Furthermore, DT Global reserves the right to reject any and all offers if doing so is in the best interests of DT Global.

Instructions for the Preparation of the Cost/Business Proposal

The subcontract type will be FIRM FIXED PRICE (FFP) CONTRACTUAL AGREEMENT.

A Firm Fixed Price Subcontract is an award for the provision of specific services, goods, or deliverables and is not adjusted if actual costs are higher or lower than the fixed price amount. Bidders are expected to include all costs, direct and indirect, in their total proposed price.

The Bidder must provide a completed budget using the provided template. If an Excel file, it should NOT be 'read only' or 'protected'. The proposal must include any necessary supporting information to substantiate the proposed costs. The Bidders must submit a detailed budget narrative that supports and clarifies, item for item, the cost estimates proposed in its budget. Narratives for individual cost items must include a discussion of any estimated escalation rates, where applicable. Estimated costs proposed to exceed ceilings imposed by FCDO or FCDO procurement policy must be fully explained and justified.

ATTACHMENT III

EVALUATION CRITERIA

Provided in the Bid Book

ATTACHMENT IV

GUIDANCE FOR INSURANCES REQUIRED TO PROVIDE INSURANCE QUOTATION WITH POLICY INFORMATION

The Bidder is required to engage a well-known, established tier 1 insurance company to provide a quotation with policy information. Bidder is required to provide a quotation from the insurance company with information for review and approval.

To enable the Bidder to engage the insurance company, the table below provides guidance on the recommended insurance to assist in determining the premiums for this activity and enable the Bidder to share a quotation with policy information from the insurance company.

Insurance Type	Y / N / N/A	Limits	Somali Insurance sufficient?	Notes
Employer's Liability / Workers' Compensation – Covering technicians and supervisors	Y	$15,000/ person	Y	Not including medical evacuation & repatriation. Only Somali national staff
Construction all risk insurance covering: The cost of unforeseen loss or damage to building works. Machinery and equipment movement. Public liability. Tools and Plant owned by the policy holder. Plant hired in. Equipment erection	Y	$1,000,000	Y	For 12 months after project ending. Alternatively consider Contractor All Risk Insurance, if available.
Motor / Vehicle Insurance – For project vehicles and transport to/from site	N	N/A	N/A	No transport provided
Marine / Transit Insurance – For equipment moved into Somalia	Y	N/A	N/A	All material will be procured locally and internationally
Professional Indemnity – Including long-tail risk and run-off cover	Y	$1,000,000	Y	Including 12 months run-off
Environmental / Pollution Liability – Groundwater, contamination, drilling fluids	Y	$100,000	Y	For damages waste management, soil disturbance, dust/noise

ANNEX I

BIDDER'S DECLARATION CONFIRMING THE ABSENCE OF ANY CONFLICT OF INTEREST

Subject: BIDDER'S DECLARATION CONFIRMING THE ABSENCE OF ANY CONFLICT OF INTEREST

Ref: PR 050 – Construction of Garowe Community Cohesion & Green Cultural Park (PR 050)

I/We, as authorised representative of_____ (**Insert Company Name Here, and Fill in and sign table below)** certify that:

- I/We do not have any material, personal or financial relationship with **SINAAN Programme/ GAROWE MUNICIPALITY**, or to its employees;
- I/We will uphold the integrity and impartiality of this procurement process in spirit and in fact;
- I/We will not engage in any corrupt practice during the procurement process i.e. solicit or accept, either directly or indirectly any gift, favour, loan, kickback, payment, commission or any other thing of monetary value from a potential or actual bidder;
- I/We will not engage in fraudulent practice (misrepresentation or omission of facts in order to influence a procurement process;
- I/We will immediately notify the **SINAAN Programme** of any attempt to influence me.

Signed:

NAME	ORGANISATION	TITLE	SIGNATURE

ANNEX II:

BID BOOK

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

BID BOOK

Summary of Bid Documentation

Attachment #	Instructions to Bidders	Attached or Filled, Stamped & Signed Checklist
A	Form of Bid	☐
B	Certification to Additional Agreements as Part of the Bid	☐
C	Company Registration	☐
D	Certificate of Bidder's Site Visit	☐
E	Certificates of Compliance to FCDO Regulations	☐
F	Summary of Past Performance, Experience & Technical Capability	☐
G	Key Site Staff (CV and Certificates Must be attached)	☐
H	List of Equipment	☐
I	Value of the works currently under contract (On-going Works)	☐
J	List of Local Labourers	☐
K	Methodology and Work Schedule	☐
L	Bank Details for Payments	☐
M	Cost Proposal - Bills of Quantities (to be filled, signed and stamped)	☐

Location	Garowe, Puntland	PNTB NO	#PNTB/19/2026
MONTH	July 2026	PR NO	050
PROJECT NAME	CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK		

Instructions to Bidders

Scope of Bid SINAAN PROGRAMME invites qualified construction bidders to submit a best-price proposal for this work funded by the UK Government as described in this bid document. Bidders are responsible for ensuring that their proposals are received by SINAAN PROGRAMME in accordance with the instructions, terms, and conditions described in this RFP. Failure to adhere to the instructions set out in this RFP may lead to disqualification of the proposal and/or Bidder from further consideration.

Source of Funds The Works are carried out under the SINAAN PROGRAMME.

Eligible Bidders The main criteria for admission to the tender are as follows:

a) All registered Businesses located or represented in Ministry of Commerce, Industries and Investment, Puntland; the Ministry of Public Works, Transport and Housing, Puntland, and Puntland National Tender Board, as well as a valid tax compliance certificate from the Ministry of Finance, Puntland - a copy to be attached to the bid documents and able to perform under the conditions required for the work covered by this RFP.
b) Bidders that comply with the applicable UK Government/ FCDO certifications.
c) Signed technical submission form and financial proposal.
d) Completed, filled and signed BOQ.
e) Filled, Signed and Stamped Site Visit Certificate.
f) Provide a company profile with a list of names of directors.
g) CVs of company's Key staff personnel (written into the bid book is acceptable).
h) Must have a minimum of 5 years of experience as a construction company in Puntland.
i) Adequate Equipment list.
j) Good track-record and references from previous clients.
k) A company bank account.

Ineligible to participate in the bidding process are:

1. Bidders (including all subcontractors which will be engaged) must not currently be associated with or have been associated with (or the affiliates of a business or company) the consultants or company which developed the specifications, plans, measurements, and other documents used in previous RFPs or as part of this RFP.
2. Bidders who are bankrupt or insolvent as determined by a judicial decision other than bankruptcy, resulting, in accordance with the applicable legislation, in total or partial seizure by the Administration and disposition of its property;
3. Bidders who are seriously guilty of false statements regarding information required for its participation in a Request for Quotations or an RFP;
4. Bidders who have not substantiated being in compliance with the Tax and Labour Administration;
5. Bidders who are related to a person employed by DT Global or the SINAAN PROGRAMME, or who is related to a person having a relationship with a person employed by DT Global or the SINAAN PROGRAMME.
6. Bidders who have connections with terrorist organisations or who finance acts of terrorism.

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
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PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

One Bid per Bidder	A firm shall submit only one bid in the same bidding process, either individually as a bidder or as a partner in a joint venture (with joint venture documentation). No firm can be a subcontractor while submitting a bid individually or as a partner of a joint venture in the same bidding process. A bidder who submits or participates in more than one bid will cause all the proposals in which the bidder has participated to be disqualified.
Cost of Bidding	The bidder shall bear all costs associated with the preparation and submission of its Bid. SINAAN PROGRAMME and the Bid Committee will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. No fees may be charged for the collection of a bid book.
Site Visit (Mandatory)	The bidder is advised to visit and examine the Site of Works and its surroundings and obtain, as their own responsibility, all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the site shall be at the bidder's own expense. Bidder is expected to be at the site on **Tuesday, July 14, 2026, from 10 am** where the vendor is expected to fill in and sign a site visit attendance sheet and will provide the Site Visit Certificate to be signed by the Chief Engineer as well as to be signed and stamped by the Garowe Mayor. There is no cost to be incurred for the signature of the site visit form.
Bidder's Conference	All bidders interested in applying will be required to attend the Bidder's Conference on **Wednesday, July 15, 2026 from 10 am** at the **Garowe Municipality Office.**
Language of Bid	The language of bid shall be in English ONLY.
Annexes Incorporated by Reference	The bidder is responsible for becoming familiar with Annex 1 (Quality Assurance Plan to be followed during construction)
Packaging and Marking of Proposal	Bid documents are to be delivered to and received at the **Garowe Municipality Office** on or before **July 28, 2026 at 11:00 am.** Bids received after this time will not be considered and shall be returned to the bidders unopened

RFP# - 050
Construction of Garowe Community Cohesion & Green Cultural Park

DUE: July 28, 2026, 1100 Hrs (East African Time)

Documents included in the Bid

The Bidder shall fill all the information requested in the Bidding Documents. The documents to be included in the bid are:

The Following describes the contents of the Technical Proposal:

Attachment A - Form of Bid
Attachment B - Certification to Additional Agreements as Part of the Bid
Attachment C - Company Registration
Attachment D - Certificate of Bidder's Site Visit
Attachment E - Certificates of Compliance to FCDO Regulations
Attachment F - Summary of Past Performance, Experience & Technical Capability
Attachment G - Key Site Staff (CV and Certificates Must be attached)
Attachment H - List of Equipment
Attachment I - Value of the works currently under contract (On-going Works)
Attachment J - List of Local Labourers
Attachment K - Methodology and Work Schedule (To be submitted)
Attachment L - Bank Details for Payments (Vendor Payment Information Form (to be Filled, stamped and signed)
Attachment M – Cost Proposal – Certificate of BOQ Quantities and Bills of Quantities (to be Filled, stamped and signed)

Bid Prices

Bidders are responsible for checking the accuracy of the BOQ. If significant deficiencies are identified, the bidder should reflect those discrepancies in the BOQ **as a separate line item and should bring to the attention of the evaluating committee with a foot note**. The Contract shall be for the whole Works computed based on the unit rates and prices in the Bill of Quantities submitted by the bidder. The bidder shall fill in prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the bidder will not be paid for when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.

Currency of the Bid and Payments

The currency of the Bid and payment for works executed shall be in Pounds (GBP).

Filling and Signing of the Bid

The bidder shall fill all the information requested in the bid documents. If additional pages are required, the same can be inserted and paged accordingly. All the information shall be typed or written in indelible ink and shall be signed by a person or persons duly authorised to sign on behalf of the bidder.

All pages of the bid where entries or amendments have been made shall be initialled by the person or persons signing the bid.

Bid Validity

The Bid shall remain valid for a period of 180 days from the date of this tender. Bidders may not alter their bids after submission.

Evaluation of Bids

The Bid Committee will have the responsibility to review, evaluate and qualify each of the criteria of all the offers received. As a result of the evaluation, the Bid Committee will jointly recommend the Bidder to be awarded the contract/contracts.

Please note that if there are significant deficiencies regarding responsiveness to the requirements of this RFP, a proposal may be deemed "non-responsive" and thereby disqualified from consideration.

TECHNICAL EVALUATION: The offers will first be evaluated on technical merits. The technical evaluation assesses the capacity of the company on the basis of submitted technical documents. Points will be allocated to a maximum indicated in the table below. If a company gains less than 70 points (out of 100), it will not be taken into consideration for financial evaluation.

S-1 Methodology and Work Schedule (15 points)
The Bidder should prepare a work schedule which shall describe a detailed breakdown of activities that will allow supervision to monitor weekly progress as well as should propose a payment schedule based on progress for each BOQ line item. The schedule should include breakdown by procurement, mobilisation to project site (including materials delivery and project office and housing for workers), all construction activities (excavation, demolition, floors, walls, ring beam, ceiling, finishing, water supply and distribution system, electrical supply and distribution system, and landscaping) and the duration for each activity with a planned start and end date.

S-2 Past Performance and Reference List (40 Points: 20 points [4 points for each valid project]; 15 points for turnover and current liquidity; and 5 points for Local Credibility)

- Projects identified should be at least five (5) current or previous contracts/projects of a similar type, with at least three (3) of these being in the last three (3) years of a similar size and value to the project activity.
- Projects identified should be of a similar type in nature such as construction of a park, government and commercial buildings, schools, community buildings, international or non-governmental organisation offices or compounds, health units or clinics, etc.
- Bidders must provide the location and contact details, phone number and email addresses, for any project listed. SINAAN PROGRAMME reserves the right to visit any site for inspection to evaluate a Bidder's technical capability.
- The Bidder is required to distinguish, between works performed as the prime Subcontractor or subcontractor; monetary values should be based on the portion of the project performed, i.e., works performed as a subcontractor should only include the monetary amount of the subcontract and not the prime contract.
- Projects identified should be of a monetary value equal to or greater than the magnitude for this RFP; less weight will be given for projects identified that are lower than the estimated value of this RFP.
- Recently completed (past 3 years) or current works will be given greater consideration than older projects and completed projects greater consideration than current projects. References for projects completed must be submitted on client letterhead to be considered valid.

- Turnover & Current Liquidity – Provide signed and stamped audited financial reports and bank statements for the last 3 years that have an annual average turnover of $1,500,000.

S-3 List of Key Personnel (20 points to be divided among requested key personnel)

The Bidder should describe the proposed technical and managerial team and attach copies of the CVs for the following key personnel:

- Company Director
- Project Manager: Should possess at least a bachelor's degree in civil engineering/ project management or its equivalent and preferably registered with the relevant registration bodies. Minimum of 8 years' experience including experience as a Site Agent / Subcontractor representative in construction projects of similar nature or large-scale buildings.
- Site Engineer: at least bachelor's degree in civil engineering with minimum 7 years of experience. The site engineer will remain at the site throughout the project duration.
- Construction Foreman (on site supervisor): Should possess at least a Diploma in construction or civil engineering with experience in handling earth works, electrical, plumbing and sewerage network, pavements and concrete works. Proven experience as construction foreman of not less than 5 years. Ability to read drawings, plans and blueprints. Problem-solving abilities.
- Health and Safety Officer – Bachelor's degree in environmental science and additional qualification in Occupational Health and Safety from a reputable institution, or bachelor's degree in occupational safety and health from a reputable institution. At least 3 years' experience in supervising infrastructure of similar scope.
- Electrical Supervisor: Diploma or equivalent in electrical engineering with 5 years of experience in electrical wiring and solar installations.
- Any other key personnel proposed by the Bidder.

Note: If one individual fills more than one of these roles, please state this in the proposal. Identifying an individual in the staffing plan and not utilising them in that capacity during the performance of the works may be grounds for Termination for Default of any contract resulting from this RFP.

S-4 List of Equipment (20 points)

It is anticipated that significant equipment, tools and materials are required for proper completion of the Construction of Garowe Community Cohesion & Green Cultural Park. The Bidder will confirm the availability of equipment as listed in Attachment H. The bidder will mention the make and model (brand), year of manufacture, indicate if it is in proper functioning condition, as well as ownership (or rental) of each required piece of equipment. SINAAN Team reserves the right to inspect the equipment and its documentation during due diligence.

The Bidder should also include information where all materials will be sourced and delivered to the project site, including specific borrow location for sand and aggregate materials, or clearly indicate that you do not have this information. Equipment used by the Bidder not listed in Annex 4 must be clearly marked and a detailed description/justification for their use should be provided. Failure to complete all blanks on this document may reflect negatively on a Bidder's proposal during the technical evaluation.

S-5 Number of Labourers (5 points)

The Bidder shall provide a realistic number of labourers proposed for each activity during project implementation. The recruitment and employment of local unskilled labour is highly encouraged. The number of women labourers shall not be less than 5% of the total workforce. Points will be awarded based on the adequacy and realism of the labour allocation for each activity, the percentage of women labourers, and the roles assigned to women on the project.

Schedule	Category	
	Technical	**Max Points**
S1	**Methodology and Work Schedule**	**15**
	Bidder demonstrates an understanding of the activities to be undertaken, the order in which they should occur and timeline by which they should be completed, through the submission of a Methodology and Work Schedule (Methodology 5 points; Work Schedule 10 points)	
S2	**Past Performance and Reference List**	**40**
	Bidder will be evaluated on quality of completed projects which are similar in size, complexity, and value. Bidder should list at least five (5) current or previous contracts/projects references undertaken in the region (Puntland), particularly at least 3 projects identified of a similar size, complexity and value in the last 3 years. Bidder is required to indicate company name, project name, company representative (name, telephone number & email), and evidence, that is contracts, signed recommendation letters and signed Completion/Successful letters. (4 points for those of similar size, complexity and value per project)	20
	Turnover & Current Liquidity – Bidder demonstrates an annual average turnover of $1,500,000 with the provision of signed and stamped audited financial report and bank statements for the last 3 years (15 Points)	15
	Local Credibility (5 points)	5
S3	**List of Key Personnel**	**20**
	Bidder's proposed technical and managerial staff has skills, education and experience necessary to complete the project. Points are awarded on the basis of the presentation of CVs signed and dated by key personnel, copies of diplomas, letters of commitment, and description of personnel allocation.	20
S4	**List of Equipment**	**20**
	Evaluation of the type, capacity, quantities, proof of availability, age and location of relevant equipment that the Bidder can use for the work.	
S5	**Number of Labourers**	**5**
	Number of local semi-skilled and skilled labours proposed for the project - list skills and level of effort needed	
	TOTAL MARKS	**100**

Once the Bid Committee has finished evaluating the technical proposal, it will proceed to evaluate the cost proposal (financial evaluation for those offers that present the best qualifications and reached a minimum score of **70 points**). Proposals that do not reach the minimum score will be disqualified and will not be considered for further evaluation.

Financial Evaluation

The Financial Evaluation will assess the reasonableness, realism, completeness, and value for money of each Cost Proposal against the Engineer's/Programme's Independent Cost Estimate (ICE).

The Independent Cost Estimate will be used as a benchmark to:

- Assess whether proposed prices are realistic and feasible for successful delivery of the works;
- Identify abnormally low or abnormally high bids that may present implementation risks;
- Evaluate the reasonableness of individual BOQ line items;
- Support clarification and negotiation of costs where necessary; and
- Determine overall value for money in conjunction with the Technical Evaluation.

Bids will not be awarded solely on the basis of the lowest price. The Bid Committee will consider both technical quality and cost to determine the proposal that offers the best overall value for money.

Where a bid is significantly above or below the Independent Cost Estimate, the Evaluation Committee may request clarification and supporting justification from the bidder. If the explanation provided does not demonstrate that the proposed price is realistic and achievable, the bid may be considered non-responsive and excluded from further consideration.

The passing technical bids shall be checked for any arithmetic errors and corrections made as follows:

a) Where there is a discrepancy between the amounts in figures and words, the amount in words will govern;
b) Where there is a discrepancy between the unit rate and the line item total derived from multiplying the unit rate by the quantity, the unit rate as quoted will govern unless in the opinion of the Bid Committee, there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line-item total as quoted will govern and the unit rate will be corrected;

If a bidder refuses to accept the correction, their bid may or will be rejected.

Award

The Bid Committee will recommend a bidder whose bid has been determined to:

- Be substantially responsive to the bidding documents.
- Received at least 70 points and above in the technical evaluation
- Presents the **best value/value for money** to the programme

SINAAN PROGRAMME shall then notify the successful bidder in writing that their Bid has been accepted before the expiry of the period of Bid validity. The Letter of Acceptance sent to the Bidder shall state the sum payable to the Bidder for execution, completion and maintenance of Works as per the Bid.

The Bid Committee will also propose as second and third alternatives the offers that occupy the second and third place in descending order.

SINAAN PROGRAMME shall then send the Subcontract Agreement to be signed by the selected Bidder. The Bidder should return the signed Contract Agreement within seven days of receiving the contract.

The Bidder attests to their ability to mobilise on site with all specified equipment within ten days of award and subsequent contract signing.

SINAAN PROGRAMME reserves the right to conduct any of the following:

- Conduct cost negotiations with Bidders and request best and final offers, and/or request clarifications from any Bidder prior to award.
- While preference will be given to Bidders who can address the full technical requirements of this RFP, SINAAN PROGRAMME may issue a partial award or split the award among various Bidders, if in the best interest of the programme.
- Cancel this RFP at any time.
- Reject any and all offers, if such action is considered to be in the best interest of SINAAN PROGRAMME or FCDO.

Bidders are reminded that DT Global is not obligated to award a negotiated subcontract based on lowest proposed cost or to the Bidder with the highest technical evaluation score. DT Global will make an award to the Bidder whose proposal offers the best value to the SINAAN Programme considering both technical and cost factors. When competing technical proposals are considered essentially equal, cost will become the determining factor.

Unsuccessful Bidders will be notified by email and provided with a seven (7) working days standstill period following notification. During this period, Bidders may submit any procurement complaints or challenges relating to the procurement process in writing to the SINAAN Tender email address (sinaan.tender@dt-global.com). Any complaints received within the standstill period will be reviewed in accordance with the SINAAN Programme's procurement procedures prior to contract award.

Modifications to the Contract

This is a fixed price Subcontract Agreement that can only be modified for the following reasons:

- When additional scope has been identified that was not contemplated in the original SOW and BOQ as necessary, modifications cannot exceed 15% of the contract value. Line items cost will be used as a base to calculate value of modification. It can only be modified by written instrument signed by both parties. The parties' right to modify or amend this Subcontract may be subject to approval by FCDO.
- DT Global may make adjustments for substitution of works that do not affect the total value of the contract. Only those changes in the works that are approved on a written change order by the Team Leader, shall be binding on the Subcontractor within the general scope of the Contract.

Performance outside Scope of Subcontract

The Subcontractor shall receive technical direction from the SINAAN PROGRAMME Team Lead (TL), SINAAN PROGRAMME Deputy Team Lead (DTL), or the SINAAN PROGRAMME Chief Engineer as authorised in writing. In no event shall any direction from SINAAN PROGRAMME (other than a formal, written modification issued by either SINAAN Programme or FCDO based on the threshold of the contract) increase the Not-to-Exceed cost of this Agreement. Evaluation shall not be compensated or reimbursed by SINAAN PROGRAMME for services performed or materials provided beyond those required to carry out the works.

Termination

SINAAN PROGRAMME shall have the right to terminate this Agreement at any time for any reasons provided all accepted materials and services completed prior to the termination notification have been paid to the Subcontractor.

SINAAN PROGRAMME shall also be entitled to terminate this contract upon the occurrence of any of the following:

- Termination of the Prime Contract between SINAAN PROGRAMME and FCDO for any reason whatsoever.
- Termination of funding for the project for any reason whatsoever.
- Failure by the Subcontractor to make immediate progress towards the cure of a default, or to cure the default under this contract within 10 days after written notice from SINAAN PROGRAMME. Grounds for default include but are not limited to: (1) failure by the Subcontractor to strictly adhere to the delivery schedule defined in the Statement of Work; and (2) any other material violation of this contract.

If SINAAN PROGRAMME has to terminate this Agreement, they will provide ten (10) days' prior written notice, provided all outstanding debts have been paid for services satisfactorily performed. In the event either party elects to terminate this Agreement for cause, they shall provide the other with written notice specifying the failure and a minimum period of ten (10) days in which to cure the failure. If reasonable progress towards satisfactory performance of the failed services is not made before expiration of the cure period, a notice of termination for cause may be issued.

The Subcontractor shall be reimbursed for services performed under this Agreement satisfactorily up to the notice of termination date. If the Agreement is terminated for cause, the Subcontractor shall not be reimbursed for any work not properly performed under this Agreement.

Location	Garowe, Puntland	PNTB NO	#PNTB/19/2026
MONTH	July 2026	PR NO	050
PROJECT NAME	CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK		

Documents to be included in the Bid Package

Attachment A - Form of Bid

To, The Bid Committee:

1. Having visited the above project site and examined the required bidding documents for the above-mentioned works, we offer to execute, complete and remedy any defects to the works therein for the sum of (Insert amount in figures) GBP £ _____ (insert amount in words) _____.

2. We undertake, if our bid is accepted, to mobilise on site with all respective equipment required to facilitate works and to begin said work within _____ calendar days of signing the official contract. We hereby further agree to complete and deliver the works in accordance with the contract within _____ calendar months calculated from the date of starting the works. Failure to maintain the approved timeline for delivery and schedule of works may result in the assessment of liquidated damages and possibly termination of the contract for cause. We understand and agree that DT Global and its SINAAN PROGRAMME representatives are not responsible for facilitating transport of equipment into areas of designated works.

3. We understand and accept that the Committee is not bound to choose the lowest price or any bid that may be received, and that any or all bids may be rejected without assigning any reason for such rejection.

4. The bid validity period is 180 days from the date of review and we agree to abide by this from the date fixed for receipt of the same.

5. Unless and until a formal Agreement is prepared and executed, this bid, together with your written acceptance thereof, shall constitute a binding contract between us.

Dated (day) _____ Day of (month)_____ (Year) 20_____

Signature_____ in the capacity of (Title) _____

Location	Garowe, Puntland	PNTB NO	#PNTB/19/2026
MONTH	July 2026	PR NO	050
PROJECT NAME	CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK		

Attachment B - Certification to Additional Agreements as Part of the Bid

Type of Contract to be Awarded	Fixed Price
Defects Liability Period	6 Months
Defects Liability	10 % to be presented at the end of the contract. DT Global will hold the retention payment till the successful completion of Defect and Liability period and fully signed Final Completion Certificate.
Percentage of Retention	10% from each deliverable payment (To be released upon presentation of fully signed Final Completion Certificate)
Time Allotted for Payment(s) once Payment Certificate is Approved	Forty-Five (45) Days from Receipt of Official Invoice
Local labour to be hired under the contract	50%
Percentage of Women to be Hired Under the Contract	Minimum of 5%
Late delivery; Liquidated Damages	For the first fifteen (15) calendar days of delay, liquidated damages shall be applied at a rate of 0.05% per calendar day of the outstanding contract value. For delays extending from day 16 to day 30, the daily liquidated damages rate shall increase to 0.10%. For delays extending from day 31 to day 45, the daily liquidated damages rate shall increase to 0.15%, each calculated against the outstanding contract value at the time the penalty is imposed. If the cumulative liquidated damages reach fifteen percent (15%) of the total contract value, DT Global reserves the right to terminate the contract for default.
Project Cancellation	Contract will be terminated for cause if Subcontractor defaults on agreement and will occur once all liquidated damages have been assessed and collected/deducted accordingly.
Contract Duration	_____ Months

Location	Garowe, Puntland	PNTB NO	#PNTB/19/2026
MONTH	July 2026	PR NO	050
PROJECT NAME	CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK		

Terms and Conditions of Award

The subcontract award will include, but not be limited to, the following provisions:

TYPE OF SUBCONTRACT

This is a Fixed Price subcontract. This fixed price includes, but is not necessarily limited to, all of the Subcontractor's labour, supervision, insurance, transport, fuel, oil, materials, tools, equipment, loading and offloading, handling, maintenance, testing, taxes, quality control, security, waste removal and other obligations to which the Subcontractor may be entitled, as well as all indirect costs such as overhead and profit. Payments to the Subcontractor cannot exceed the total contract award.

The subcontractor agrees that they shall bear the financial responsibility for any fines, fees, penalties, or corrective costs that result as a consequence of the subcontractor's failure to meet the local environmental city regulations concerning demolition and disposal in a manner consistent with the terms of this subcontract.

Any fines, fees, penalties, or corrective costs that are not paid by the Subcontractor directly, shall be deducted from the final contract value.

LIQUIDATED DAMAGES

Subcontractor shall adhere to the delivery schedule set forth in the contract. When the Subcontractor is delinquent in fulfilling its contractual obligations, DT Global, may terminate the contract or impose a fine for each calendar day of delay, in accordance with following:

> For the first fifteen (15) calendar days of delay, liquidated damages shall be applied at a rate of 0.05% per calendar day of the outstanding contract value. For delays extending from day 16 to day 30, the daily liquidated damages rate shall increase to 0.10%. For delays extending from day 31 to day 45, the daily liquidated damages rate shall increase to 0.15%, each calculated against the outstanding contract value at the time the penalty is imposed.

When the cumulative liquidated damages reach fifteen percent (15%) of the total contract value, DT Global reserves the right to terminate the contract for default.. The percentage of the fine previously established, shall apply to the total Contract value on the date the fine is imposed. The above penalties shall be determined and imposed following a meeting with the Subcontractor. The Subcontractor will be notified in writing of the meeting. Failure to attend the meeting will result in a forfeiture of any rights to discuss, contest, or negotiate the imposition of fines. DT Global's supervisory firm in the field will report indicating lack of satisfactory completion beyond the agreed and signed Delivery Schedule,

Unless the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Subcontractor the fine will not be applicable. Examples of such causes include Acts of God or the public enemy, acts of the government in either its sovereign or contractual capacity, fires, epidemics, quarantine restrictions, security strikes, unusually severe weather or delays of Subcontractor at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both DT Global and the Subcontractors.

Signature of Bidder: _____ Date _____

Location	Garowe, Puntland	PNTB NO	#PNTB/19/2026
MONTH	July 2026	PR NO	050
PROJECT NAME	CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK		

Attachment C - Company Registration

Certificate of National registration from (Bar Code matches with Certificate Information) from the Ministry of Commerce, Industries and Investment, Puntland; the Ministry of Public Works, Transport and Housing, Puntland, and Puntland National Tender Board; as well as a valid tax compliance certificate from the Ministry of Finance, Puntland - a copy to be attached to the bid documents

Name of Business or Firm: _____

Place of registration: _____

Exact Address: _____

Telephone: _____

Mobile: _____

Email: _____

Validity Date: _____

Principal Place of Business: _____

Name of Director: _____

Provide original or certified copy of all mandatory administrative documents: All valid registered Businesses located or represented in the region from the (Bar Code matches with Certificate Information) from the Ministry of Commerce, Industries and Investment, Puntland; the Ministry of Public Works, Transport and Housing, Puntland, and Puntland National Tender Board; as well as a valid tax compliance certificate from the Ministry of Finance, Puntland.

I do hereby certify that the **information** contained herein is **accurate**. I authorise DT Global to verify, as the need arises, the accuracy of this information, either through on-site visits to my place of business, or by enquiries through relevant and competent services.

Signed on (Date)_____ Name: _____

_____ Title: _____

Signature of authorised agent

Location	Garowe, Puntland	PNTB NO	#PNTB/19/2026
MONTH	July 2026	PR NO	050
PROJECT NAME	CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK		

Attachment D - Certificate of attendance of Bidders' site meeting signed by the Chief Engineer and signed and stamped by the Garowe Mayor/Municipality.

Certificate of Bidder's Visit to Site

This is to certify that

(Name/s): _____

Being the authorised representative(s) of (Name of Bidder): _____

Name of Organisation: _____

Participated in the organised visit to the works site for the above-named project, held on

_____ (date)

Signed & Stamped: _____ Signed: _____

Mayor, Garowe Municipality Chief Engineer, DT Global/SINAAN

Location	Garowe, Puntland	PNTB NO	#PNTB/19/2026
MONTH	July 2026	PR NO	050
PROJECT NAME	CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK		

Attachment E- Certificate of Compliance to FCDO Regulations

Certification Regarding Knowledge of FCDO Compliance

To: Team Leader, SINAAN PROGRAMME

I, _____ (FIRST NAME, LAST NAME), as _____

(TITLE), a legally Authorised representative of _____ (ORGANISATION

NAME) do hereby certify that, by signing below, we provide certification and assurance for the following:

(1) Organisational Conflicts of Interest Representation
(2) Disclosure of DT Global/FCDO-approved supplier declarations: sanctions, terrorism financing, fraud/bribery, modern slavery, safeguarding/SEA, conflicts of interest and eligibility.
(3) Key Individual Certification Narcotics Offences and Drug Trafficking
(4) The Sexual Abuse and Exploitation in Transition Assistance Operations

These certifications and assurances are given in consideration of and for the purpose of obtaining any and all UK Government/ FCDO grants, loans, contracts, property, discounts, or other UK Government/ FCDO financial assistance extended after the date hereof to the Bidder by DT Global, including instalment payments after such date on account of applications for UK Government/ FCDO financial assistance which was approved before such date. The Bidder recognises and agrees that such UK Government/ FCDO financial assistance will be extended in reliance on the representations and Subcontracts made in these assurances, and that the UK Government/ FCDO will have the right to seek judicial enforcement of these assurances. These assurances are binding on the Bidder, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorised to sign these assurances on behalf of the Bidder.

I, we, understand that a false, or intentionally misleading, certification could be the cause for possible actions ranging from being found not responsible for this award to suspension or debarment of this organisation in accordance with the provisions of FCDO Regulations.

I declare under penalty of perjury that the foregoing is true and correct.

Signature: _____

Date: _____

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

ORGANISATIONAL CONFLICTS OF INTEREST REPRESENTATION

1. (a) The Bidder represents that, to the best of its knowledge and belief, the award of this Subcontract or the modification of an existing contract does ☐ or does not ☐ (tick where appropriate) involve an organisational conflict of interest.

(b) The term "organisational conflict of interest" means that a relationship exists whereby a Bidder (including its chief executives, directors, proposed Bidder or Bidders) has an interest which (A) may diminish its capacity to give impartial, technically sound, objective assistance and advice or may otherwise result in a biased work product, or (B) may result in an unfair competitive advantage. It does not include the normal flow of benefits from the performance of a contract.

2. If the Bidder indicates that there are organisational conflicts of interest in the "Organisational Conflicts of Interest Representation", the Bidder shall provide a statement which describes in a concise manner all relevant facts concerning any present or current planned interest (financial, contractual, organisational, or otherwise) relating to the work to be performed in the proposed contract and bearing on whether the Bidder has a possible organisational conflict of interest with respect to being able to render impartial, technically sound, and objective assistance or advice, or being given an unfair competitive advantage. The Bidder may also provide relevant facts that show how its organisational structure and/or management systems limit its knowledge of possible organisational conflicts of interest relating to other divisions or sections of the organisation and how that structure or system would eliminate or neutralise such organisational conflicts.

Name: _____

Title: _____

Signature: _____

Date: _____

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

ATTACHMENT F - SUMMARY OF PAST PERFORMANCE, EXPERIENCE & TECHNICAL CAPABILITY
(Information to be provided by Bidder as part of the technical proposal)

Name of Business or Firm: _____

Previous works undertaken as prime Subcontractor, for works of similar type and size, from 2023 to 2026. Express monetary values in GBP £

Project name	Client name	Types of works and year of completion	Value of works (In GBP)	Certificate of completion Or copy of the contract attached (Yes/No)
1.				
2.				
3.				
4.				
5.				

[Include either a signed copy of each certificate of completion or copy of the contract for each project listed, please take note that if not included no points will be awarded]

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

For each project listed above, please complete a table such as that presented below and attach separately evidence of the signed agreement:

Project #1	
Project Name/Title	
Description Of Work	
Cost in GBP £	
Site Location (Region/District)	
Client	
Reference Name:	
Email:	
Telephone:	
Type of Contract (e.g. fixed price, time-and-materials, cost plus fixed fee, etc.)	
Were You a Prime Subcontractor or a Sub Subcontractor?	
Quality Assured Contract (Yes/No)	
Contract Awarded Value and Final Cost	
Start Date – End Date	
Contract Commencing Date	
Contract Period (No. Of Months)	
Actual Date of Practical Completion	
Applicant Performance Report Available?	
Delays – External Factors (Working Days)	
Delays – Internal Factors (Working Days)	
Final Completion/ Certificate of completion attached (yes/no)	

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

Project #2	
Project Name/Title	
Description Of Work	
Cost in GBP £	
Site Location (Region/District)	
Client	
Reference Name:	
Email:	
Telephone:	
Type of Contract (e.g. fixed price, time-and-materials, cost plus fixed fee, etc.)	
Were You a Prime Subcontractor or a Sub Subcontractor?	
Quality Assured Contract (Yes/No)	
Contract Awarded Value and Final Cost	
Start Date – End Date	
Contract Commencing Date	
Contract Period (No. Of Months)	
Actual Date of Practical Completion	
Applicant Performance Report Available?	
Delays – External Factors (Working Days)	
Delays – Internal Factors (Working Days)	
Final Completion/ Certificate of completion attached (yes/no)	

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

Project #3	
Project Name/Title	
Description Of Work	
Cost in GBP £	
Site Location (Region/District)	
Client	
Reference Name:	
Email:	
Telephone:	
Type of Contract (e.g. fixed price, time-and-materials, cost plus fixed fee, etc.)	
Were You a Prime Subcontractor or a Sub Subcontractor?	
Quality Assured Contract (Yes/No)	
Contract Awarded Value and Final Cost	
Start Date – End Date	
Contract Commencing Date	
Contract Period (No. Of Months)	
Actual Date of Practical Completion	
Applicant Performance Report Available?	
Delays – External Factors (Working Days)	
Delays – Internal Factors (Working Days)	
Final Completion/ Certificate of completion attached (yes/no)	

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

Project #4	
Project Name/Title	
Description Of Work	
Cost in GBP £	
Site Location (Region/District)	
Client	
Reference Name:	
Email:	
Telephone:	
Type of Contract (e.g. fixed price, time-and-materials, cost plus fixed fee, etc.)	
Were You a Prime Subcontractor or a Sub Subcontractor?	
Quality Assured Contract (Yes/No)	
Contract Awarded Value and Final Cost	
Start Date – End Date	
Contract Commencing Date	
Contract Period (No. Of Months)	
Actual Date of Practical Completion	
Applicant Performance Report Available?	
Delays – External Factors (Working Days)	
Delays – Internal Factors (Working Days)	
Final Completion/ Certificate of completion attached (yes/no)	

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

Project #5	
Project Name/Title	
Description Of Work	
Cost in GBP £	
Site Location (Region/District)	
Client	
Reference Name:	
Email:	
Telephone:	
Type of Contract (e.g. fixed price, time-and-materials, cost plus fixed fee, etc.)	
Were You a Prime Subcontractor or a Sub Subcontractor?	
Quality Assured Contract (Yes/No)	
Contract Awarded Value and Final Cost	
Start Date – End Date	
Contract Commencing Date	
Contract Period (No. Of Months)	
Actual Date of Practical Completion	
Applicant Performance Report Available?	
Delays – External Factors (Working Days)	
Delays – Internal Factors (Working Days)	
Final Completion/ Certificate of completion attached (yes/no)	

Location	Garowe, Puntland	PNTB NO	#PNTB/19/2026
MONTH	July 2026	PR NO	050
PROJECT NAME	CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK		

ATTACHMENT G - KEY SITE STAFF (CV AND CERTIFICATES MUST BE ATTACHED)

Please provide CVs indicating number of years of experience together with Educational and Technical Certificates and photo id.

#	Key Site Staff
1	Name: Title/ Position: Description of Education Qualification: Description of Relevant Work Experience:
2	Name: Title/ Position: Description of Education Qualification: Description of Relevant Work Experience:

3	Name: Title/ Position: Description of Education Qualification: Description of Relevant Work Experience:
4	Name: Title/ Position: Description of Education Qualification: Description of Relevant Work Experience:

5	Name: Title/ Position: Description of Education Qualification: Description of Relevant Work Experience:
6	Name: Title/ Position: Description of Education Qualification: Description of Relevant Work Experience:

I hereby certify that all CV's are attached.

SIGNED: _____

Location	Garowe, Puntland	PNTB NO	#PNTB/19/2026
MONTH	July 2026	PR NO	050
PROJECT NAME	CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK		

ATTACHMENT H - LIST OF EQUIPMENT

The Bidder will state the make and model (brand), year of manufacture, confirm whether each required piece of equipment is in proper working order, and indicate ownership (or rental) of each required piece of equipment.

Bidder must attach proof of lease or ownership documentation.

#	Equipment Name	Min Number required	Model	Year of manufacture	# allocated for the project	Owned/ Hired
1	Excavator/Back hoe	1				
2	Motor Grader	1				
3	Wheel loaders	1				
4	Roller Compactor	1				
5	Concrete Mixer	2				
6	Vibrator	2				
7	Water Tanker	1				
8	Hand tools such as Shovels, pick axe					
9	Wheel barrows	10				
10	Water pump	1				
11	Generator	1				
12	Welding plant	1				
13	Electrical Tools (Set)	2				
14	Dump Truck	2				

14	Pick up	1				
16	Surveying equipment: Total station GPS survey equipment Auto level / laser level Measuring tapes and marking tools					
17	Crane	1				

We hereby certify that notwithstanding the list of equipment detailed above, we will provide sufficient, suitable and adequate equipment in good working order for the successful completion of works.

Signature of Bidder

Date

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

ATTACHMENT I - VALUE OF THE WORKS CURRENTLY UNDER CONTRACT (ONGOING WORKS)

The bidder is to list the construction projects which he is currently executing, their value and the expected completion date.

#	Project Name	Date Completed	Contract Sum (Indicate GBP)	Clients' Name and Address
1				
2				
3				
4				
5				
6				
TOTAL				

Signature of Bidder

Date

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

ATTACHMENT J - LIST OF LOCAL LABOURERS

The bidder having worked a detailed methodology should have a clear view of the amount of labour effort required in completion of the works. It is recommended to use local labour as far as practicable in the works and additional scores will be obtained on use of female labour.

Type of Local Labour	Total Number of Local Males	Total Number of Local Females
Skilled		
Unskilled		
TOTAL LOCAL LABOUR		

Signature of Bidder

Date

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

ATTACHMENT K - METHODOLOGY WORK SCHEDULE

K.1 Methodology (describe major activities and how will they be implemented: procurement, mobilisation to project site (including materials delivery and project office and housing for workers), and all construction activities excavation, demolition, floors, walls, ring beam, ceiling, finishing, water supply and distribution system, electrical supply and distribution system, latrines, and landscaping) The duration for each activity with a planned start and end date, How supervision will be monitored weekly, proposed a payment schedule base on progress for each BOQ line item .

Major Activities (please describe how they will be implemented).

Supervision and Quality Control (please describe how is to be done)

Location	**Garowe, Puntland**	PNTB NO	**#PNTB/19/2026**
MONTH	**July 2026**	PR NO	**050**
PROJECT NAME	**CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK**		

K-2 Work Plan-The bidder shall break down their tasks and prepare a detailed resource-based programme of works on a Gantt chart to ensure completion within the stated time frame in the format shown below.

Note: The bidder is required to prepare their programme/ work plan and attach here.

ATTACHMENT L - BANK DETAILS FOR PAYMENTS (VENDOR PAYMENT INFORMATION)

VENDOR PAYMENT INFORMATION

Vendor/Beneficiary Information:	
Vendor Name:	
Vendor Address:	

Beneficiary Bank/Account Information:	
Bank Name:	
Bank Address:	
Full Name on the Account:	
Account Number:	
Routing Number:	
SWIFT Code:	
IBAN:	

Intermediary Bank Information:	
Bank Name:	
Bank Address:	
Account Number:	
Routing Number:	
Other Information:	

Special Instructions/Other Information:

SECTION 3: SUPPORTING DOCUMENTATION (Tick as applicable)

☐ Bank-stamped confirmation letter

☐ Copy of cancelled cheque

☐ Recent bank statement (amounts may be masked)

☐ Certificate of Registration

Location	Garowe, Puntland	PNTB NO	#PNTB/19/2026
MONTH	July 2026	PR NO	050
PROJECT NAME	CONSTRUCTION OF GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK		

SECTION 4: DECLARATION

I hereby confirm that the bank details provided above are accurate and correspond to the attached official bank documentation. I understand that providing incorrect information may result in payment delays. The organisation shall not be held liable for payments made to the bank account details provided in this form.

Authorised Signatory Name: _____

Title: _____

Signature: _____

Date: _____

ATTACHMENT M - COST PROPOSAL – BILL OF QUANTITIES (TO BE FILLED)

Bills of Quantities -Preamble

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Technical Specifications, Designs and Drawings.
2. The rates and prices bid in the Bill of Quantities should include all labour, supervision, materials, equipment, erection, maintenance, insurance, **taxes, and duties**, together with all general risks, liabilities, and obligations set out or implied in the Contract.
3. A rate or price shall be entered against each item in the Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Bidder has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
4. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the un-priced Bill of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
5. General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the Bill of Quantities.
6. The method of measurement of completed work for payment shall be in accordance with CESMM - Civil Engineering Standard Method of Measurement.

Errors will be corrected by the Employer for any arithmetic errors in computation or summation as follows: Where there is a discrepancy between amounts in figures and in words, the amount in words will govern; and the total amount derived from the multiplication of the unit price and the quantity, the unit rate as quoted will govern, unless in the opinion of the Bid Committee, there is an obviously gross misplacement of the decimal point in the unit price, in which event the total amount as quoted will govern and the unit rate will be corrected.

COST PROPOSAL TABLE - BILL OF QUANTITIES (BOQ)

BILL OF QUANTITY (BOQ)

Program Name:	**SINAAN**
Project Name:	**Garowe Community Cohesion and Green Cultural Park**
Project No:	**PR 050**
Project Location:	**Garowe, Somalia**

All quoted price shall include materials mobilization, transportation labor cost and applicable taxes.

The Bidder MUST provide Excel file and signed and stamp PDF copy of this document

Name of organization/firm:_____

BILL SUMMARY

S#	ITEM DESCRIPTION	AMOUNT (GBP)
1	Preliminaries	-
2	Entrance and Security Check	-
3	Mosque	-
4	Ablutions - 3 Nos	-
5	Kiosks - 5 Nos	-
6	Walkways and Sitting area	-
7	Out Door Lighting and Electrification	-
8	CCTV	-
9	Out door Plumbing and under ground water tank	-
10	Sewarage and Septic Tank	-
11	Boundary Wall	-
12	Towers	-
13	Children Play area	-
13	Nurseries	-
13	Cars Parking	-
13	Contractors All Risk Insurance	
GRAND TOTAL		**-**

Name of Company: _____

Name of Representative: _____

Title of Representative: _____

SIGNATURE: _____

STAMP

SINAAN
Garowe Community Cohesion and Green Cultural Park
PR 050

Preliminaries and General Items

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
PRELIMINARY AND GENERAL ITEMS					
	Testing of Materials				
1.1	Concrete, block, sand, water, soil and any other tests as directed.	Item	1.00		-
	Temporary Works				
	Generally: The Contractor shall be responsible for the construction, maintenance and removal of all temporary works, and shall be responsible for ensuring the safety of such works and compliance with appropriate regulations and Codes of Practice.				
	Mobilization/Demobilization				
1.2	Mobilization of equipment/plant and personnel including all associated costs and demobilizing of the same	Item	1.00		-
	SAFETY GEAR ASSORTED				
1.3	Reflector Jackets	L.S	1.00		-
1.4	Safety Shoes	L.S	1.00		-
1.5	Helmet	L.S	1.00		-
1.6	Safety Glasses	L.S	1.00		-
1.7	Gloves	L.S	1.00		-
GRAND TOTAL					**-**

SINAAN

Garowe Community Cohesion and Green Cultural Park

PR 050

Entrance and Security Check

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
A	**PRELIMINARIES - SITE CLEARANCE**				
A1	Site Clearance, levelling and Setting out	m^2	143.42		-
	Total A				**-**
B	**EARTHWORKS**				
	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor.				
B1	Strip Foundation	m^3	16.68		-
	Total B				**-**
C	**SUBSTRUCTURE**				
C1	Providing and laying Blinding plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including formwork, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) for the below.				
C1(a)	Strip footing	m^3	1.67		-
C2	**Strip Footing**				
C2(a)	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). for Strip Footing.	m^3	3.31		-
C2(b)	Supply and Fabrication of High Tensile Steel deformed bars conforming to ASTM-A615 Grade 60 (60,000psi) reinforcement for cement concrete, including cutting, bending, laying in position, over lapping, making joints, fastenings, wastage and including cost of binding wire & labors charges for binding of steel reinforcement in place (also includes removal of rust from bars) as per drawings	Kg	140.00		-
C3	**Foundation Wall**				
C3(a)	Construction of Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings				
	Building Foundation	m^2	22.08		-
C4	**Fill materials**				
C4(a)	Provide and lay hard core compacted to 98% modified Proctor density for Building floor	m^3	7.24		-
C4(b)	Provide and lay 50mm Murram Blinding for Floor Slab.	m^3	1.20		-
C5	**Concrete Slab for floor**				
C5(a)	Providing and laying 100 mm thick reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). for floor slab.	m^3	2.41		-
C5(b)	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position				
	Reinforcement (BRC Mesh A142)	m^2	24.14		-
	Total C				**-**

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
D	**SUPERSTRUCTURE**				
D1(a)	Construction of wall using Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings	m^2	86.22		-
D2	**Ring beam**				
D2(a)	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). **for Ring beam.**	m^3	1.62		-
D2(b)	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position as per drawings	Kg	250.00		-
	Total D				**-**
E	**ROOF**				
	Supply and constuct roof including wooden truss members,as per below specifications and drawings				
E1	Truss T1 - 7 Nos				
	Bottom Chord 100x50mm	m	20.00		-
	Top Chord 100x50mm	m	21.00		-
	Internal Web Members 75x50mm	m	31.50		-
E2	Purlins 100x50mm spaced at 500mm c/c	m	48.00		-
	100x50mm wall plate fixed onto blockwork with approved bolts and nuts as per Engineers detail	Lm	21.00		-
E3	Supply and Install galvanised iron sheets gauge 28 complete with all necessary fitting.	m^2	21.00		-
E4	Supply and install good quality Gypsum ceiling boards as per the satisfaction of the engineer finished with at least two coats of approved paint (Cost of paint with all necessary surface preparation should be included).	m^2	21.00		-
	Total E				**-**
F	**FITTINGS (DOORS, WINDOWS AND VENTS)**				
F1	Supply and install- WD1, 2400x900mm, hard wood framed door, 1 1/4" thick Imported wooden door sashes with a 200x50mm wood timber frame, 3 pairs of hinges. The door should have all necessary finishings such as painting, polishing as shown on drawings.	No.	3.00		-
F4	Supply and Install, ALW01, 800 x 1500mm high Aluminum window with 20mm bullet-resistant fixed laminated glass as shown on drawings including all necessary hinges, handles, locks and sealers.	No.	3.00		-
F5	Supply and Install, ALW02, 1500 x 1500mm high Aluminum window with 6mm thick laminated glass as shown on drawings including all necessary hinges, handles, locks and sealers.	No.	2.00		-
F6	Supply and Install, ALW03, 800 x 1500mm high Aluminum window with 6mm thick laminated glass as shown on drawings including all necessary hinges, handles, locks and sealers.	No.	1.00		-
	Total F				**-**
G	**FINISHES**				
G1	**Plastering/Rendering**				
G1(a)	20 mm thick Cement Sand plastering (1:3) finished smooth surface with wooden float for the internal and external walls, Columns , Grade beams and ring beams of the building including curing.	m^2	188.22		-
G1(b)	30mm thick Cement Sand floor screed (1:3) finished smooth for tiles and Supply and fixing of 600mm x 600mm no slippery- Ceramic floor tiles with approved tile bond as per drawings	m^2	21.00		-
G1(c)	Supply and fixing of 100mm high ceramic tile skirting along wall.	m	29.10		-
G2	**Painting**				

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
	PAINTING: Rate shall include for preparation of surface cleaning down, smoothing, knotting, stepping etc. protection of floors and fitting, and cleaning upon completion.				
G2(a)	Prepare surface, apply filler, apply one coat of primer and two coats of weather resistant externally and silk vinyl paint internally faces of walls (Contractor will submit the sample for Color and manufacturer approval)				
	Internal Walls	m^2	96.60		-
	External Walls	m^2	85.22		-
	Total G				**-**
H	**RAIN WATER ROOF DRAINAGE SYSTEM**				
	Rainwater goods: Unplasticized Polyvinyl Chloride (UPVC) Pipes, Gutters and Fittings Joined in Accordance with the Manufacturer's Instructions:-				
H1	300mm Wide RC Gutters as per drawings:	Lm	7.20		-
H2	100 mm Diameter Rain water down pipes complete with all fixing brackets and accessories to approval at site	Lm	11.40		-
	Total H				**-**
I	**ELECTRICAL INSTALLATIONS**				
	Note : unless other wise stated rates in Bill of quantities shall include all necessary material, cables, conduits, PVC sunk box, Bulbs switches etc. and labor required to complete the electrical installation. Testing and commissioning of electrical installations is to be carried out by contractor and cost of such testing and reports to be included in rates. All types of fittings shall be approved by engineer prior to installation				
I1	Lighting points wired in 3x1Cx1.5mm2 Cu/PVC/SC cables drawn in concealed 20mm dia. HG. PVC conduit complete with all wiring accessories for 1-way and 2-way switches, but excluding the switches and the luminaires.	No	20.00		-
I2	Type B fitting - Washroom - Surface mount LED downlight; 1600lm, 20W, 80 lm/W, 4000 K, Polycarbonate, IP54; dust accumulation-protected, splash-proof, IK02 (0.2 J) standard, Safety class II, 2 cables 0.15m with connectors 2-pole. As Tronic Round White LED Warm White Bulkhead 20 Watts or approved equivalent.	No	6.00		-
I3	Type C fitting - Office - Recessed LED downlight, Aluminum die cast, White, 1080 lm, 18 W, 88 lm/W, 4000 K, CRI>80, Beam angle 90°, IP20; Finger-protected; IK02 (0.2 J) standard, Safety class II, Connection unit 2-pole. As Tronic LED Recessed Downlight 12 Watts Daylight or approved equivalent.	No	6.00		-
I4	Type F fitting - Power Room - L1200 mm, Polycarbonate, White, 3600 lm, 36 W, 100 lm/W, 4000 K, Very wide beam, IP65 | Dust penetration-protected, jet-proof, IK08 | 5 J vandal-protected, Safety class I, Push-in connector 3-pole. As Tronic Waterproof 4 Feet LED TPIF Fitting or approved equivalent.	No	4.00		-
I5	Type G1 fitting - External Wall - Outdoor weatherproof wall mounted LED floodlight luminaire with 8000 lumen, 80lm/W, 100W, 6000K, CRI 80, IP65, IK10, complete with motion sensor and photocell, as Tronic Slim LED Floodlight or approved equivalent.	No	6.00		-
I6	Type EX fitting - Emergency Light LED Exit Sign, 2.2W, 19lm, 23.7lm/W, 7000K, CRI>70, UGR22, Clear, Finger-protected, IP20, IK03 (0.3J). As Philips or approved equivalent.	No	2.00		-
I7	10A switches complete with boxes and face plate, white colour, as Panasonic W2 type, or approved equivalent:				
	1 gang 1 way	No	6.00		-
	2 gang 2 way	No	2.00		-
I8	Twin socket points wired in 3x1Cx2.5mm2 Cu/PVC/SC cables drawn in 25mm dia. HG PVC conduit concealed within the wall.	No	6.00		-
I9	13A twin-switched socket-outlets complete with boxes and face plates, white colour, as Panasonic W2 Multi socket universal type, or approved equivalent.	No	6.00		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
I10	8-way TPN MCB Distribution Board as DB.GH.01-COMMON flush-mounted on the wall complete with 125A TP MCB integral isolator and all protective devices as Schneider Electric Acti 9 type or approved equivalent. All MCBs are Easy 9 Type C and as shown in the schematic wiring diagram.	No	1.00		-
I11	10A SP MCB - Lighting	No	2.00		-
I12	32A SP MCB - Socket Outlets	No	2.00		-
I13	Blanking plates	No	2.00		-
I14	Indoor AC point wired in 3x1Cx4.0mm2 Cu/PVC/SC cables drawn in 25mm HG. PVC duct concealed within the building fabric from the distribution board to fire alarm control panel DP switch.	No	1.00		-
I15	Outdoor AC points wired in 3x1Cx4.0mm2 Cu/PVC/SC cables drawn in 25mm HG. PVC duct concealed within the building fabric from the distribution board to fire alarm control panel DP switch.	No	1.00		-
I16	Ceiling sweep fan points wired in 3x1Cx2.5mm2 Cu/PVC/SC cables drawn in 25mm HG. PVC duct concealed within the building fabric from the distribution board to fire alarm control panel DP switch.	No	2.00		-
I17	5Cx16mm2 Cu/XLPE/PVC/PVC cable in cable trunking from the meter board to DB.GH.01	Lm	30.00		-
I18	6-way SPN MCB Consumer Unit as CU.GH.ELV flush-mounted on the wall complete with 100A DP MCB integral isolator and all protective devices as Schneider Electric Easy 9 type or approved equivalent. All MCBs are Easy 9 Type C and as shown in the schematic wiring diagram.	No	1.00		-
I19	10A SP MCB - Lighting	No	1.00		-
I20	20A SP MCB - FACP	No	1.00		-
I21	32A SP MCB - Socket Outlets	No	1.00		-
I22	Blanking plates	No	3.00		-
I23	Fire alarm control panel point wired in 3x1Cx2.5mm2 Cu/PVC/SC cables drawn in 25mm HG. PVC duct concealed within the building fabric from the distribution board to fire alarm control panel DP switch.	No	1.00		-
I24	20A DP Switch complete with box and neon indicator light for wiring the fire alarm control panel shown in the drawing, as Panasonic W2 type or approved equivalent	No	1.00		-
I25	3Cx10mm2 Cu/XLPE/PVC/PVC cable in cable tray from meter board to room Consumer Unit CU.GH-ELV	Lm	20.00		-
I26	Earthing of the Gatehouse DBs comprising 1m x 1m x 6mm earth mat and 25mm x 6mm copper tape in 50mm diameter HG. PVC conduit. Allow for bonding of the earthing system to the building's foundation steel structure - Ufer earthing	Sum	1.00		-
I27	Allow for earth resistivity testing and treatment to achieve ground resistance of not more than 1 ohm	Sum	1.00		-
I28	300mm x 300mm x 450mm Deep RC earth inspection chamber complete with RC cover. Manhole to be fitted with sleeves for 32mm diameter HG. PVC ducts for earth wire. Manhole to be constructed as per the Structural Engineer's details.	No	1.00		-
I29	Galvanised, powder coated 3-compartment 250mm x 50mm deep, angular, screwless metal cable trunking, complete with bends and all accessories for successful installation and operation	Lm	25.00		-
I30	Trunking knockouts for twin socket outlets	No	6.00		-
I31	Trunking knockouts for RJ45 outlets	No	6.00		-
I32	Allow for attendance to other services such as ICT structured cabling system, Fire detection and alarm system, CCTV system in 25mm dia. HG. PVC conduits. Provide 50mm dia. HG. PVC ducts for solar PV installation.	Sum	1.00		-
I33	Outdoor Signage Power Point	No	1.00		-
I34	LED Driver for GAROWE PARK Signage	Set	1.00		-
I35	Surge Protection Device (SPD)	No	1.00		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
I36	UPS Power Supply for CCTV & Fire Alarm	No	1.00		-
I37	Lightning Protection Terminal	Set	1.00		-
	Total I				**-**
J	**FIRE DETECTION AND ALARM SYSTEM**				
	Supply, install, test and commission the following:				
J1	Fire detection and alarm system points wired in 1.5mm² fire resistant cable (PH30) red drawn in concealed 25mm dia. HG. PVC conduits and in trunking complete with all accessories required for successful installation and operation.	No	8.00		-
J2	1-loop, 50 devices per loop, intelligent addressable fire alarm control panel, including display, all monitoring functions and communication interfaces to IP Network and RS-485 communication. As Eaton xDetect EFXD01020 series, or approved equivalent.	No	1.00		-
J3	Configuration and programming of the panel	No	1.00		-
J4	Intelligent addressable optical smoke detector complete with base, as Menvier or appoved equivalent.	No	3.00		-
J5	Intelligent addressable optical heat detector as Menvier or appoved equivalent	No	1.00		-
J6	Manual call point (red), surface mount, with resettable plastic element and hinged cover	No	2.00		-
J7	Loop powered addressable sounder-beacon complete with base and isolator	No	2.00		-
	Total J				**-**
K	**VIDEO SURVEILLANCE SYSTEM**				
	Supply, install, test and commission the following:				
K1	IP bullet camera, 4.0 MP, POE, 120dB WDR, 1/3 inch CMOS image sensor, up to 50m IR range, motion detection, video tampering alerts, IP67, IK10, as Hikvision DS-2CD1T47G2H-LIU(F) ColorVu	No	12.00		-
K2	IP dome camera, 4.0 MP, POE, 120dB WDR, 1/3 inch CMOS image sensor, up to 30m IR range, motion detection, video tampering alerts, IP67, IK10, as Hikvision DS-2CD1347G2-L(UF) ColorVu	No	4.00		-
K3	Junction box for the cameras.	No	6.00		-
K4	4-pair, 100-ohm Cat. 6A UTP cable for video surveillance system wiring, as Siemon type or approved equivalent	Lm	150.00		-
K5	16-channel Network Video Recorder, 16 independent PoE network interfaces; 16-ch synchronous playback; 4K, rack mount, POE, 160Mbps incoming, 160Mbps outgoing, up to 10TB capacity, up to 8MP resolution, as Hikvision DS-7616NI-K2/16P NVR	No	1.00		-
K6	Access: 16-Port POE switch, 19" rack-mount, licencing, stacking cables. Cisco Catalyst 2960-L Series, 2x1G SFP+ uplink ports for high-speed connectivity, 16x 10/100/1000 PoE+ Gigabit Ethernet switch. As Cisco WS-C2960L-16PS-LL or approved equivalent.	No	1.00		-
K7	16-port patch panel, as Siemon or approved equivalent	No	1.00		-
K8	Cat 6A 10G patch cords 1m, as Siemon or approved equivalent	No	6.00		-
K9	Workstation for GUI c/w 2xMonitors, complete as specified, as RM6-WKS-4MN-UK or approved equivalent. Final specifications to be confirmed prior to order	No	1.00		-
K10	55" Monitoring Screen	No	1.00		-
K11	3kVA UPS	No	1.00		-
K12	Equipment Rack Cabinet	No	1.00		-
K13	HDD 10TB Surveillance Grade	No	2.00		-
K14	RJ45 Information Outlet	No	6.00		-
	Total K				**-**
L	**FIRE FIGHTING**				
L1	9 litres carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	No.	2.00		-
L2	4.5 kg dry powder fire extinguisher complete with initial charge and mounting brackets.	No.	2.00		-
	Total L				**-**

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
M	**GATE, PLANTER AND NICHE FOR MAIN ENTRANCE**				
M1	Supply and Installation of metallic gate of dimension 4500 x 2700mm Powder-coated wood-grain aluminium slats, minimum 2.0mm thick, walnut finish, fixed to a marinegrade aluminium frame using 316 stainless steel fasteners, complete as specified and approved , connected to 300mm x 300mm x 2700mm RCC column with a base of 1000mm x 1000mm x300mm having steel reinforcement of 12mm @ 250c/c both ways and column reinforcement 6 nos 14mm dia vertical bars with 8mm stirrups @ 200mm c/c. The depth of footing should be 1000mm from the ground level. Refer to drawings for Gate details	No	1.00		-
M2	Excavation for walls of Planter 600mm wide and 800mm depth	m^3	2.22		-
M3	Excavation for Niche wall . Dimension of Excavation is 4300mm x 600mm x 1000mm	m^3	2.58		-
M4	Excavation for Niche wall . Dimension of Excavation is 1500mm x 600mm x 1000mm	m^4	0.90		-
M5	RCC Strip foundation for Niche wall having dimension 4300mmx600mm x 300mm and 1500mmx600mmx300mm. The reinforcement should be 14mm dia bar @ 150mm c/c both ways.	m^3	1.04		-
M6	RCC Strip foundation for Planter wall having dimension 400mm wide and 200mm deep. The reinforcement should be 12mm dia bar @ 200mm c/c both ways.	m^3	0.37		-
M7	Construction of wall using Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the Planter walls	m^2	5.54		-
M8	Construction of wall using Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the for Niche Wall	m^2	5.54		-
M9	Construction of wall using Solid Concrete masonry unit (CMU) wall of 400mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the for Niche Wall	m^2	5.40		-
M10	20 mm thick Cement Sand plastering (1:3) finished smooth surface with wooden float for the external wall of planter including curing.	m^2	5.82		-
M11	20 mm thick Cement Sand plastering (1:3) finished smooth surface with wooden float for including curing for Niche wall.	m^2	59.18		-
M12	Prepare surface, apply filler, apply one coat of primer and two coats of weather resistant paint for planter and niche walls (Contractor will submit the sample for Color and manufacturer approval)	m^2	65.00		-
M13	3000mm x 4000mm wide and 1000mm x 3000mm by 50mm deep niche filled with encraved masharabiya design to sample approval with Garowe Signage as per drawings	LS	1.00		-
	Total M				**-**
N	**GATE FOR ENTRANCE ON SOUTH EAST AND NORTH WEST SIDE**				
N1	Supply and Installation of metallic gate of dimension 4500 x 2700mm Powder-coated wood-grain aluminium slats, minimum 2.0mm thick, walnut finish, fixed to a marinegrade aluminium frame using 316 stainless steel fasteners, complete as specified and approved , connected to 300mm x 300mm x 2700mm RCC column with a base of 1000mm x 1000mm x300mm having steel reinforcement of 12mm @ 250c/c both ways and column reinforcement 6 nos 14mm dia vertical bars with 8mm stirrups @ 200mm c/c. The depth of footing should be 1000mm from the ground level. Refer to drawings for Gate details	No	2.00		-
	Total O				**-**
GRAND TOTAL					**-**

SINAAN

Garowe Community Cohesion and Green Cultural Park

PR 050

MOSQUE 5mx10m

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
A	**PRELIMINARIES - SITE CLEARANCE**				
A.1	Site Clearance and Setting out	m^2	50.00		-
	Total A				**-**
B	**EARTHWORKS**				
	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor.				
B.1	Strip Foundation for Building and Outer periphery	m^3	7.50		-
	Total B				**-**
C	**SUBSTRUCTURE**				
C1	Providing and laying Blinding plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including formwork, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) for the below				
C1(b)	Under the slab 5cm	m^3	2.50		-
C2	**Concrete Slab for floor and Stairs**				
C2(a)	Providing and laying 100 mm thick reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). for floor slab.	m^3	5.00		-
C2(b)	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position				
	Reinforcement (BRC Mesh A142)	m^2	50.00		-
	Total C				**-**
D	**SUPERSTRUCTURE**				
D1	Construction of wall using Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall.	m^2	75.00		-
	Total F				**-**
E	**FINISHES**				
E1	**Plastering/Rendering**				
E1(a)	20 mm thick Cement Sand plastering (1:3) finished smooth surface with wooden float for the internal and external walls, Columns , Grade beams and ring beams of the building including curing.	m^2	150.00		-
E1(b)	30mm thick Cement Sand floor screed (1:3) finished smooth for tiles and Supply and fixing of 600mm x 600mm no slippery- Ceramic floor tiles with approved tile bond as per drawings	m^2	50.00		-
G.2	**Painting**				
	PAINTING: Rate shall include for preparation of surface cleaning down, smoothing, knotting, stepping etc. protection of floors and fitting, and cleaning upon completion.				
G2(a)	Prepare surface, apply filler, apply one coat of primer and two coats of weather resistant externally and silk vinyl paint internally faces of walls (Contractor will submit the sample for Color and manufacturer approval)				
	Internal Walls	m^2	75.00		-
	External Walls	m^2	75.00		-
	Total G				**-**
GRAND TOTAL					**-**

SINAAN
Garowe Community Cohesion and Green Cultural Park
PR 050

ABLUTIONS BLOCKS - 3 Nos

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
A	**EARTHWORKS**				
A.1	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor.				
	Building Foundation	m^3	23.36		-
	Total A				**-**
B	**SUBSTRUCTURE**				
B.1	Providing and laying Blinding plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) for the below.				
B1(a)	Foundation Wall	m^3	1.17		-
B.2	**Strip Footing**				
B2(a)	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) **for Strip Footing**	m^3	3.50		-
B2(b)	Supply and Fabrication of High Tensile Steel deformed bars conforming to ASTM-A615 Grade 60 (60,000psi) reinforcement for cement concrete, including cutting, bending, laying in position, over lapping, making joints, fastenings, wastage and including cost of binding wire & labors charges for binding of steel reinforcement in place (also includes removal of rust from bars) .Contractor will submit bar bending schedule for approval before commencing the steel works.	Kg	127.92		-
B4	**Foundation Wall**				
B4(a)	Construction of Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings				
	Building Foundation	m^2	23.36		-
B.5	**Fill materials**				
B5(a)	Provide and lay hard core compacted to 98% modified Proctor density for floor and ramp	m^3	5.05		-
	Provide and lay 50mm Murram Blinding for Floor Slab and ramp.	m^3	0.84		-
B.6	**Floor slab and ramp**				
B6(a)	Providing and laying 125 mm thick reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). **for floor slab and Ramp**	m^3	4.90		-
B6(b)	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position				
	Reinforcement (BRC mesh A142)	m^2	39.20		-
B6(c)	Damp Proof Membrane (DPM) Gauge 1000	m^2	39.20		-
	Total B				**-**

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
C	**SUPERSTRUCTURE**				
C.1	**Main wall**				
C1(a)	Construction of Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM (C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings	m^2	55.56		-
	Construction of Solid Concrete masonry unit (CMU) wall of 150mm thickness blocks (Compressive strength 2000Psi as per ASTM (C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings	m^3	28.20		-
C.2	**Ring Beam**				
C2(a)	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). Ring beam as shown on drawings.	m^3	1.68		-
C2(b)	Supply and Fabrication of High Tensile Steel deformed bars conforming to ASTM-A615 Grade 60 (60,000psi) reinforcement for cement concrete, including cutting, bending, laying in position, over lapping, making joints, fastenings, wastage and including cost of binding wire & labors charges for binding of steel reinforcement in place (also includes removal of rust from bars) .Contractor will submit bar bending schedule for approval before commencing the steel works.	kg	195.82		-
	Total C				**-**
D	**ROOF**				
	Supply and construct roof including wooden truss members,as per below specifications and drawings				
D1	Truss T1 - 7 Nos				
	Bottom Chord 100x50mm	m	28.00		-
	Top Chord 100x50mm	m	29.05		-
	Internal Web Members 75x50mm	m	31.50		-
	Purlins 100x50mm	m	56.00		-
D2	100x50mm wall plate fixed onto blockwork with approved bolts and nuts as per Engineers detail	Lm	24.00		-
D3	Supply and Install galvanised iron sheets gauge 28 complete with all necessary fitting.	m^2	36.00		-
D4	Supply and install good quality Gypsum ceiling boards as per the satisfaction of the engineer finished with at least two coats of approved paint (Cost of paint with all necessary surface preparation should be included).	m^2	35.00		-
D5	225x25mm thick fascia board fixed in place including priming and finishing it in approved paint	Lm	8.50		-
	Total D				**-**
E	**FITTINGS (DOORS, WINDOWS AND VENTS)**				
E1	Supply and install UPVC, 900x2000mm, UPVC door, 3 pairs of stainless steel hinge and complete fittings	No.	6.00		-
E.2	Supply and Install, 3500x600mm pre cast concrete vent as per drawings	No.	2.00		-
	Total E				**-**

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
F	**FINISHES**				
	Plastering/Rendering				
F1	Apply 20mm thick cement sand plaster mortar mix (1:3) smoothly finish the surface in wooden float to internal walls. All walls must be cured for 7 days.	m^2	193.20		-
F2	Apply 20mm thick cement sand rendering mortar mix (1:3) smoothly finish the surface in wooden float to external walls. All walls must be cured for 7 days.	m^2	79.32		-
	Painting: Rates shall include for preparation of surface(sanding), protection of floors and fittings, and cleaning upon completion.				
F4	Prepare the surface by sanding and apply 1st coat of undercoat paint, smoothly skim the surface with white cement and/or lime and apply 2nd coat of undercoat. Finally apply two coats of vinyl silk emulsion paint. for internal walls. (Contractor will submit the sample of colors and manufacturer for approval)	m^2	96.60		-
F5	Prepare the surface by sanding apply filler where necessary to ensure smooth and even surface , two coats of undercoat paint and final three coats of weather guard paint for external walls. (Contractor will submit the sample of color and manufacturer for approval).	m^2	83.52		-
F.6	**Floor and Wall Tiles**				
F6(a)	30mm thick Cement Sand floor screed (1:3) finished smooth for tiles and Supply and fixing of 600mm x 600mm no slippery- Ceramic floor tiles with approved tile bond as per drawings	m^2	41.65		-
F6(b)	Supply and fix 300mm x 300mm Ceramic tiles over 1:3 cement sand mixture (all inclusive) in bathrooms walls upto1.5 m height	m^2	96.60		-
	Total F				**-**
G	**ELECTRICAL INSTALLATIONS**				
	Note : unless other wise stated rates in Bill of quantities shall include all necessary material, cables, conduits, PVC sunk box, Bulbs switches etc. and labor required to complete the electrical installation. Testing and commissioning of electrical installations is to be carried out by contractor and cost of such testing and reports to be included in rates. All types of fittings shall be approved by engineer prior to installation				
G1	Lighting points wired in 3x1Cx1.5mm2 Cu/PVC/SC cables drawn in concealed 20mm dia. HG. PVC conduit complete with all wiring accessories for 1-way and 2-way switches, but excluding the switches and the luminaires.	No	6.00		-
G2	Type B fitting - Washroom - Surface mount LED downlight; 1600lm, 20W, 80 lm/W, 4000 K, Polycarbonate, IP54; dust accumulation-protected, splash-proof, IK02 (0.2 J) standard, Safety class II, 2 cables 0.15m with connectors 2-pole. As Tronic Round White LED Warm White Bulkhead 20 Watts or approved equivalent.	No	6.00		-
G3	10A switches complete with boxes and face plate, white colour, as Panasonic W2 type, or approved equivalent:				
	1 gang 1 way	No	2.00		-
G4	6-way SPN MCB Consumer Unit as CU.AB.01 flush-mounted on the wall complete with 100A DP MCB integral isolator and all protective devices as Schneider Electric Easy 9 type or approved equivalent. All MCBs are Easy 9 Type C and as shown in the schematic wiring diagram.	No	1.00		-
G5	10A SP MCB - Lighting	No	2.00		-
G6	20A SP MCB - Hand Driers	No	2.00		-
G7	Blanking plates	No	2.00		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
G8	20A DP Switch complete with box and neon indicator light for wiring the hand drier, extract fan, outdoor AC units and ceiling fan as shown in the drawing, as Panasonic W2 type or approved equivalent	No	2.00		-
G9	Hand drier points wired in 3x1Cx4.0mm2 Cu/PVC/SC cables drawn in 25mm HG. PVC duct concealed within the building fabric from the distribution board to fire alarm control panel DP switch.	No	2.00		-
G10	**Testing and Commissioning, to include:**	Sum	1.00		-
	Develop Site Acceptance Test Schedule for the installation				
	Contractor's testing (labour and special test requirements)				
	Conduct SATs under Engineer's Supervision				
	Final Commissioning				
	Handover and soak test				
	Total G				**-**
H	**MECHANICAL WORKS AND ASSOCIATED SERVICES**				
	SANITARY FITTINGS INSTALLATIONS:Supply, deliver and install the following sanitary fittings including all the necessary fittings and jointing. IDEAL STANDARD has been used as benchmark for the selection.Tenderers to note that ANY ALTERNATIVE will ONLY be considerd if they MATCH of exceed the specified items interms of TECHNICAL capabilities and MUST be accompanied with PRODUCT CATALOGUES				
H1	**Squatting Water Closet** Squatting Vitreous China Water Closet in white Color as Duravit or any equal and approved equivalent.	No.	4.00		-
H2	7Ltrs High level flushing tank complete with 32mm Dia Flush pipe & handle Valve for the above WC Pan or any other approved equivalent.	No.	4.00		-
H3	**Disabled Toilet Suite** Disabled Floor Standing Gravena White Magic Close Coupled Toilet complet with Cistern in 'Vitreous China' , back inlet water closet pan in white Color, Horizontal outlet Complete with Soft Closing heavy-duty seat and cover complete with metal hinges or any equal and approved equivalent, 540mm Wide Wash Hand Basin with Semi-Pedestal, 2No. Straight Grab Rail, Adjustable Grab Rail, Arabic Showeer, Mirror, Paper Towel Dispenser and Soap Dispenser.	No.	2.00		-
H4	WC "S" or "P" connector to drain pipe for horizontal outlet WC Pan.	No.	4.00		-
H5	**Arabic Shower** Hansgrohe Shaffata Arabic Shower unit or any approved equivalent. Complete with flexible hose, angle valve, Non-Return Valve, shower head and any other necessary fittings for complete installation.	No.	6.00		-
H6	**Wash Hand Basin Tap:** Docol Single lever WHB Tap or an approved equivalent	No.	8.00		-
H7	Installation of Concrete wash up trough as per drawings (7mx900mm)	No	2.00		-
H8	**Paper Towel Dispenser:** Supply and installation of wall-mounted paper towel dispenser, fabricated from durable ABS plastic or stainless steel (304 grade), suitable for C-fold/M-fold paper towels, complete with locking mechanism, viewing window, fixing accessories, and all necessary fittings	No.	3.00		-
H9	**Receptable Bin**: 20Liters Plastic Receptable Bin as Kenpoly in White, with self closing lid, free standing or any other approved equivalent.	No.	3.00		-
H10	15mm dia Angle valves as Pegler or any equal and approved.	No.	10.00		-
H11	15mm dia 300mm Long Flexible pipe connector to Engineers approval.	No.	10.00		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
	INTERNAL PLUMBING INSTALLATIONS: Supply, deliver and install cold water polypropylene PP-R PN-16 pipes and fittings to relevant B.S DIN and local standards. Tenderers must allow in their pipework prices for all the couplings, unions, connectors, joints, bypass bends, loop expansion bends, etc. in running lengths of pipes. All pipe diameters are internal diameters. Only approved brands shall be accepted only with the Engineers approval. Tenderers must allow in their prices for all couplings, connectors, holding brackets expansion joints as required in the running lengths of pipes and sleeves through the structural members such as slabs and beams.				
H12	**Pipes**				
	a) 15mm Bore diameter PP-R pipe (25mm Outer Pipe diameter)	LM	8.00		-
	b) 20mm ditto (32mm ditto)	LM	20.00		-
	c) 25mm ditto (40mm ditto)	LM	8.00		-
	d) 32mm ditto (50mm ditto)	LM	12.00		-
	e) 40mm ditto (65mm ditto)	LM	12.00		-
	f) 50mm ditto (75mm ditto)	LM	24.00		-
	g) 65mm ditto (80mm ditto)	LM	30.00		-
H13	**Elbow and Bends**				
	a) 15mm Bore diameter PP-R elbow/bend (20mm Outer Dia)	No.	8.00		-
	b) 20mm ditto (32mm ditto)	No.	12.00		-
	c) 25mm ditto (40mm ditto)	No.	6.00		-
	d) 32mm ditto (50mm ditto)	No.	4.00		-
	e) 40mm ditto (65mm ditto)	No.	5.00		-
	f) 50mm ditto (75mm ditto)	No.	6.00		-
	g) 65mm ditto (80mm ditto)	No.	5.00		-
H14	**Reducers**				
	a) 65x50mm diameter PPR Reducer	No.	2.00		-
	b) 65x40mm ditto	No.	3.00		-
	c) 50x40mm ditto	No.	4.00		-
	d) 40x32mm ditto	No.	5.00		-
	e) 32x25mm ditto	No.	2.00		-
	f) 25x20mm ditto	No.	3.00		-
	g) 20x15mm ditto	No.	4.00		-
H15	Tees				
	a) 20mm diameter PP-R equal tee	No.	8.00		-
	b) 25mm ditto	No.	6.00		-
	c) 32mm ditto	No.	4.00		-
	d) 40mm ditto	No.	4.00		-
	e) 50mm ditto	No.	3.00		-
	f) 65mm ditto	No.	4.00		-
H16	**Female threaded joints**				
	a) 15mm diameter PP-R Female threaded joint	No.	10.00		-
	b) 20mm ditto	No.	2.00		-
	c) 32mm ditto	No.	10.00		-
H17	**Male threaded joints**				
	a) 15mm diameter PP-R Female threaded joint	No.	2.00		-
	b) 20mm ditto	No.	2.00		-
H18	**Isolation Valves**				
	a) 50mm diameter isolation valves as Pegler or any other approved brand	No.	2.00		-
	INTERNAL DRAINAGE INSTALLATIONS: Supply, Install, Test and Commission the installation in Upvc grey pipework as per BS 4660 with the wall thickness of minimum 3.8mm. All pipes to be as “Key Terrain” or “Metro” and prices to include connectors, adapters, socket, reducers, etc. The manufacturer`s recommendations shall be fully complied with				

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
H19	**Pipes**				
	a) 100mm diameter UPVC Grey pipe (heavy duty)	LM	50.00		-
	b) 50mm ditto	LM	20.00		-
	c) 40mm ditto	LM	10.00		-
	d) 32mm ditto	LM	6.00		-
H20	**Bends**				
	a) 100mm diameter UPVC Long Radius sweep bend	No.	12.00		-
	b) 50mm ditto	No.	6.00		-
	c) 40mm ditto	No.	7.00		-
	d) 32mm ditto	No.	6.00		-
H21	**Tees**				
	a) 100mm diameter sweep tee	No.	2.00		-
	b) 50mm ditto	No.	4.00		-
	c) 40mm ditto	No.	4.00		-
	d) 32mm ditto	No.	2.00		-
H22	**Reducing Sockets**				
	a) 50x40mm diameter reducing socket	No.	2.00		-
	b) 40x32mm ditto	No.	2.00		-
H23	**Inspection Plugs/Access caps**				
	a) 100mm diameter inspection cap	No.	2.00		-
	b) 32mm ditto	No.	4.00		-
H24	100X50mm Dia 4-Way Floor Trap with Stainless Steel Floor Drain Cover	No.	4.00		-
H25	100mm diameter WC connectors	No.	6.00		-
H26	100mm dia UPVC Vent Cowl	No.	1.00		-
H27	Weathering Slate	No.	1.00		-
H28	100mm Upvc Gulley Trap complete with Cover	No.	2.00		-
	MECHANICAL VENTILATION & AIRCONDITIONING INSTALLATIONS				
H29	Supply & Install Wall Mounted Washroom Extract Fan as Panasonic; 350m³/hr at a pressure of 100 pa with silencer, external louvre, electrical connection, speed regulator, surge protector and all mounting accessories to Engineer's approval	No.	2.00		-
	FIREFIGHTING INSTALLATIONS : Supply, deliver, install, test and commission the following portable fire extinguishers and conforming to BS EN 3 / BS 1449.				
H30	9 litres carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	No.	3.00		-
H31	4.5 kg dry powder fire extinguisher complete with initial charge and mounting brackets.	No.	3.00		-
	Total H				**-**
I	**RAIN WATER ROOF DRAINAGE SYSTEM**				
	Rainwater goods: Unplasticized Polyvinyl Chloride (UPVC) Pipes, Gutters and Fittings Joined in Accordance with the Manufacturer's Instructions:-				
I1	300mm Wide Dome Shaped PVC Roof Fulbora / Roof Gullycomplete with all fixing brackets and accessories to approval :	Lm	8.50		-
I2	100 mm Diameter Rain water down pipes complete with all fixing brackets and accessories to approval at site	Lm	6.50		-
	Total I				**-**
TOTAL					**-**
GRAND TOTAL FOR 3 X ABLUTION BLOCKS					**-**

SINAAN					
Garowe Community Cohesion and Green Cultural Park					
PR 050					
KIOSKS AND SEATING AREA					
Item	**Description**	**Unit**	**Qty**	**Unit Price (GBP)**	**Total Price (GBP)**
A	**EARTHWORKS**				
A.1	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor.				
	Building Foundation	m^3	14.00		-
	Total A				**-**
B	**SUBSTRUCTURE**				
B1	Providing and laying Blinding plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) for the below.				
B1(a)	Foundation Wall	m^3	0.70		-
B2	**Strip Footing**				
B2(a)	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). **for Strip Footing.**	m^3	2.80		-
B2(b)	Supply and Fabrication of High Tensile Steel deformed bars conforming to ASTM-A615 Grade 60 (60,000psi) reinforcement for cement concrete, including cutting, bending, laying in position, over lapping, making joints, fastenings, wastage and including cost of binding wire & labors charges for binding of steel reinforcement in place (also includes removal of rust from bars) .Contractor will submit bar bending schedule for approval before commencing the steel works	Kg	107.48		-
B3	**Foundation Wall**				
B3(a)	Construction of Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings				
	Building Foundation	m^2	14.00		-
B4	**Fill materials**				
B4(a)	Provide and lay hard core compacted to 98% modified Proctor density for floor and ramp	m^3	3.04		-
	Provide and lay 50mm Murram Blinding for Floor Slab and ramp.	m^3	0.51		-
B5	**Floor slab and ramp**				
B5(a)	Providing and laying 125 mm thick reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). **for floor slab and Ramp**	m^3	1.27		-
B5(b)	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position				

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
	Reinforcement (BRC mesh A142)	m^2	10.12		-
B5(c)	Damp Proof course (DPM) Gauge 1000	m^2	10.12		-
	Total B				**-**
C	**SUPERSTRUCTURE**				
C1	**Main wall**				
C1(a)	Construction of Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM (C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings	m^2	33.75		-
C2	**Ring Beam**				
C2(a)	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). Ring beam as shown on drawings.	m^3	0.99		-
C2(b)	Supply and Fabrication of High Tensile Steel deformed bars conforming to ASTM-A615 Grade 60 (60,000psi) reinforcement for cement concrete, including cutting, bending, laying in position, over lapping, making joints, fastenings, wastage and including cost of binding wire & labors charges for binding of steel reinforcement in place (also includes removal of rust from bars) .Contractor will submit bar bending schedule for approval before commencing the steel works.	kg	116.90		-
C3	**Concrete Counter**				
C3(a)	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.).Concrete Counter as shown on drawings.	m^3	0.14		-
C3(b)	Supply and Fabrication of High Tensile Steel deformed bars conforming to ASTM-A615 Grade 60 (60,000psi) reinforcement for cement concrete, including cutting, bending, laying in position, over lapping, making joints, fastenings, wastage and including cost of binding wire & labors charges for binding of steel reinforcement in place (also includes removal of rust from bars) .Contractor will submit bar bending schedule for approval before commencing the steel works.	kg	16.36		-
C4	**Floor slab**				
C4(a)	Providing and laying 125 mm thick reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). **for floor slab**	m^3	1.32		-
C4(b)	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position				
	Reinforcement (BRC mesh A142)	m^2	10.57		-
	Total C				**-**

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
D	**ROOF**				
	Supply and construct roof including wooden truss members, as per below specifications and drawings				
D1	Timber Rafters - 6 Nos	m	21.00		-
D2	Supply and Install galvanised iron sheets gauge 28 complete with all necessary fitting.	m^2	15.75		-
D3	Supply and install good quality Gypsum ceiling boards as per the satisfaction of the engineer finished with at least two coats of approved paint (Cost of paint with all necessary surface preparation should be included).	m^2	15.75		-
D4	225x25mm thick fascia board fixed in place including priming and finishing it in approved paint	Lm	12.00		-
	Total D				**-**
E	**FITTINGS (DOORS, WINDOWS AND VENTS)**				
E1	Supply and install 2100mmx 2250mm,UPVC Shutter at front side of Kiosk	No.	2.00		-
E.2	Supply and install 3000mmx 2250mm,UPVC Shutter at rear side of Kiosk	No.	2.00		-
	Total E				**-**
F	**FINISHES**				
	Plastering/Rendering				
F1	Apply 20mm thick cement sand plaster mortar mix (1:3) smoothly finish the surface in wooden float to internal and external walls. All walls must be cured for 7 days.	m^2	67.50		-
F2	**Painting: Rates shall include for preparation of surface(sanding), protection of floors and fittings, and cleaning upon completion.**				
F3	Prepare the surface by sanding and apply 1st coat of undercoat paint, smoothly skim the surface with white cement and/or lime and apply 2nd coat of undercoat. Finally apply two coats of vinyl silk emulsion paint. for internal walls and two coats of undercoat paint and final three coats of weather guard paint for external walls. (Contractor will submit the sample of colors and manufacturer for approval)	m^2	67.50		-
F4	**Tiles**				
F4(a)	30mm thick Cement Sand floor screed (1:3) finished smooth for tiles and Supply and fixing of 600mm x 600mm no slippery- Ceramic floor tiles with approved tile bond as per drawings	m^2	11.25		-
F4(b)	Supply and Fix 10 mm thick ceramic tile for counter slab top and sides	m^2	4.00		-
	Total F				**-**
G	**ELECTRICAL INSTALLATIONS**				
	Note : unless other wise stated rates in Bill of quantities shall include all necessary material, cables, conduits, PVC sunk box, Bulbs switches etc. and labor required to complete the electrical installation. Testing and commissioning of electrical installations is to be carried out by contractor and cost of such testing and reports to be included in rates. All types of fittings shall be approved by engineer prior to installation				
G1	Lighting points wired in 3x1Cx1.5mm2 Cu/PVC/SC cables drawn in concealed 20mm dia. HG. PVC conduit complete with all wiring accessories for 1-way and 2-way switches, but excluding the switches and the luminaires.	No	2.00		-
G2	Type F fitting - Power Room - L1200 mm, Polycarbonate, White, 3600 lm, 36 W, 100 lm/W, 4000 K, Very wide beam, IP65 | Dust penetration-protected, jet-proof, IK08 | 5 J vandal-protected, Safety class I, Push-in connector 3-pole. As Tronic Waterproof 4 Feet LED TPIF Fitting or approved equivalent.	No	2.00		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
G3	10A switches complete with boxes and face plate, white colour, as Panasonic W2 type, or approved equivalent:				
	1 gang 1 way	No	2.00		-
G4	4-way SPN MCB Consumer Unit as CU.KK.01 flush-mounted on the wall complete with 100A DP MCB integral isolator and all protective devices as Schneider Electric Easy 9 type or approved equivalent. **All MCBs are Easy 9 Type C and as shown in the schematic wiring diagram.**	No	1.00		-
G5	10A SP MCB - Lighting	No	1.00		-
G6	20A SP MCB - Socket Outletss	No	1.00		-
G7	Blanking plates	No	2.00		-
G8	Twin socket points wired in 3x1Cx2.5mm^2 Cu/PVC/SC cables drawn in 25mm dia. HG PVC conduit concealed within the wall.	No	2.00		-
G9	13A weatherproof IP65 twin-switched socket-outlets complete with boxes and face plates, white colour, as Windsor type, or approved equivalent.	No	2.00		-
G10	**Testing and Commissioning, to include:**	Sum	1.00		-
	Develop Site Acceptance Test Schedule for the installation				
	Contractor's testing (labour and special test requirements)				
	Conduct SATs under Engineer's Supervision				
	Final Commissioning				
	Handover and soak test				
	Total G				**-**
H	**MECHANICAL WORKS AND ASSOCIATED SERVICES**				
	FIREFIGHTING INSTALLATIONS : Supply, deliver, install, test and commission the following portable fire extinguishers and conforming to BS EN 3 / BS 1449.				
H1	9 litres carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	No.	1.00		-
H2	4.5 kg dry powder fire extinguisher complete with initial charge and mounting brackets.	No.	1.00		-
	Total H				**-**
I	**RAIN WATER ROOF DRAINAGE SYSTEM**				
	Rainwater goods: Unplasticized Polyvinyl Chloride (UPVC) Pipes, Gutters and Fittings Joined in Accordance with the Manufacturer's Instructions:-				
I1	300mm Wide Dome Shaped PVC Roof Fulbora / Roof Gullycomplete with all fixing brackets and accessories to approval :	Lm	10.00		-
I2	100 mm Diameter Rain water down pipes complete with all fixing brackets and accessories to approval at site	Lm	12.00		-
	Total I				**-**
J	**PLANTERS AND SITTING AREA**				
J1	Earthwork in the excavation of the trench for the foundation of the wall, in all kinds of soil and not exceeding 100cm depth and 80cm wide, including dressing of the bottom and sides of trenches. Stack excavated soil clear from edges of excavation and subsequent backfilling around masonry in 15cm layers with compaction and including disposal of surplus soil out of site as directed by engineer.. Surplus materials should be removed from the site or as advised by Construction Supervisor for Planter foundation	m^3	14.56		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
J2	Providing and laying Blinding plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) for the Foundation Wall	m^3	0.73		-
J3	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). **for Strip Footing.**	m^3	2.92		-
J4	Supply and Fabrication of High Tensile Steel deformed bars conforming to ASTM-A615 Grade 60 (60,000psi) reinforcement for cement concrete, including cutting, bending, laying in position, over lapping, making joints, fastenings, wastage and including cost of binding wire & labors charges for binding of steel reinforcement in place (also includes removal of rust from bars) .Contractor will submit bar bending schedule for approval before commencing the steel works	Kg	147.00		-
J5	Construction of Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the foundation wall as per the drawings	m^2	14.56		-
J6	Construction of Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the planter and bench support walls as per the drawings	m^2	15.26		-
J7	Apply 20mm thick cement sand plaster mortar mix (1:3) smoothly finish the surface in wooden float to internal and external walls. All walls must be cured for 7 days.	m^2	30.52		-
J8	Supply and Fix 10 mm thick ceramic tile for Planter side walls, top of wall, Concrete table and benches top and support walls	m^2	25.56		-
J9	Filling of planter with soil and fertilizers	m^3	2.80		-
	Total J				**-**
TOTAL					**-**
GRAND TOTAL FOR 5 X Kiosks and seating area					**-**

SINAAN

Garowe Community Cohesion and Green Cultural Park

PR 050

Out door walkways and Sitting area

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
A	**Murram Filled areas**				
A1	Site Clearance, levelling Excavation of top soil upto 100mm depth and Setting out	m^3	5415.83		-
A2	Supply, spread and compact to 95% M.D.D. (AASHTO T.180) and shape to level and tolerance100mm thick murram base course as shown on drawings.	m^3	5415.83		-
A3	Provide and install 600mm X 600mmx50mm precast reinforced concrete slabs(coloured) on the walkways and paved areas (9.4 m width) as indicated on drawings	Nos	10050.00		-
A4	Excavation of ground , provision of 5cm lean concrete under each kerbstone and Supply and Install 1000mmx200mmx300mm concrete kerb stones as shown on drawings. The spacing between each kerbstone should be 20cm and the top of kerbstone should be 5cm above the adjacent tiles	Nos	1265.00		-
	Total for Murram Filled areas				**-**
B	**Circular Walk Ways around middle island and up to nursery**				
B1	Site Clearance, levelling Excavation of top soil upto 100mm depth and Setting out	m^3	985.71		-
B2	Supply, spread and compact to 95% M.D.D. (AASHTO T.180) and shape to level and tolerance100mm thick murram base course as shown on drawings.	m^3	985.71		-
	Total for Walkways				**-**
C	**Jogging Track**				
C1	Site Clearance, levelling Excavation of top soil upto 100mm depth and Setting out	m^3	343.70		-
C2	Compaction of existing subgrade to 95% M.D.D.	m^2	3437.00		-
C3	Supply, spread and compact to 95% M.D.D. (AASHTO T.180) and shape to level and tolerance100mm thick murram base course as shown on drawings.	m^3	343.70		-
C4	Providing and laying 150 mm plain cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design with expasion joints at appropriate intervals, including formwork, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.)	m^3	515.55		-
C8	Line marking for running lanes, start/finish lines, exchange zones, and all athletics markings using specialized polyurethane line-marking paint in accordance with World Athletics standards.	Item	1.00		-
	Total for Jogging Track				**-**
D	**Seating area around Sports grounds (24mx6m) -12 Nos**				
D1	Site Clearance, levelling Excavation of top soil upto 100mm depth and Setting out	m^3	25.92		-
D2	Compaction of existing subgrade to 95% M.D.D.	m^2	144.00		-
D3	Supply, spread and compact to 95% M.D.D. (AASHTO T.180) and shape to level and tolerance 130 mm thick murram base course as shown on drawings.	m^3	18.72		-
D4	Providing and laying 50mm Sand cushion for Interlocking concrete pavers	m^3	7.20		-
D5	Providing and laying 180 mm thick reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete and finished for edge protection of Sitting area	m^3	2.16		-
D6	Supply and Lay 80mm thick Interlocking concrete pavers	m^2	144.00		-
D7	Supply and Install reinforced concrete tables and Benches with 4m wide Umbrella in Mvule pole with Canvas shade on each reinforced concrete table.	Nos	4.00		-
	Total for Seating Area -1 No				**-**
	Total for Seating Area -12 No				**-**
GRAND TOTAL					**-**

SINAAN					
Garowe Community Cohesion and Green Cultural Park					
PR 050					
Out Door Lighting and Electrification					
Item	**Description**	**Unit**	**Qty**	**Unit Price (GBP)**	**Total Price (GBP)**
A	**EXTERNAL ELECTRIFICATION**				
	Purchase, Supply, install, test and commission the following:				
A1	100mm dia. HG. PVC duct for power distribution as shown in the drawing complete with draw wires and all accessories for successful installation and operation	m	6592.00		-
A2	50mm dia. HG. PVC duct and accessories for power distribution to various radial circuits as shown in the drawing complete with all accessories for successful installation and operation	Lm	1550.00		-
A3	1000 x 1000 x 1200mm deep RC manhole complete with RC cover to the Structural Engineer's detail for electrical services as shown in the drawing	No	68.00		-
A4	600 x 600 x 800mm deep RC manhole complete with RC cover to the Structural Engineer's detail for electrical services as shown in the drawing	No	26.00		-
A5	450 x 450 x 600mm deep RC manhole complete with RC cover to the Structural Engineer's detail for electrical services as shown in the drawing	No	10.00		-
A6	Trenching to 7m below finished grade, laying, backfilling and tiling for power and ELV services reticulation.	Lm	8142.00		-
A7	Kiosk Feeder Pillar 1 - FP.01 - Purpose-built outdoor IP54 free-standing electrostatically powder coated Form 2B vandal-protected feeder pillar kiosk, complete with 63A 3-pole MCB isolator, 63A 400V 50Hz copper busbars, Type 2 SPD, and outgoing RCBOs as shown in the drawing. Feeder Pillar to have a hinged lockable door and interior viewing window, powder coated to approved shade. Feeder pillar to be raised 300mm above finished grade. Bottom cable entry.	No	1.00		-
A8	1x1Cx16mm^2 Cu/XLPE/PVC/SC earth cable to Feeder Pillar 1	Lm	250.00		-
A9	3Cx10mm^2 Cu/XLPE/SWA/PVC cable from Feeder Pillars to Kiosk Consumer Units CU.KK.01 to CU.KK.5	Lm	500.00		-
	Total A				**-**
B	**GARDEN LIGHTS**				
B1	Purchase Supply and Install - Walkway/Garden Light - Outdoor weatherproof solar powered LED bollard light. D260; H800mm; 15W; 8000mAH LiFePO4 battery; 5V/4.5W monocrystalline solar panel; CCT 3000K; IP65, IK10; Lighting up to 15 hours. Automatic photocell sensor. Die-cast aluminium body. Elegant modern design suitable for pathways and gardens. 2-year warranty. As Dong Solar or approved equivalent.	No	270.00		-
	Total B				**-**
C	**SOLAR STREET LIGHTS FOR PARKING AND ENTRANCE AREA**				
C1	Exacavtion for foundation of the pole, in all kinds of soil and not exceeding 1.1m depth and the Area is (0.7*0.7)m^2, including dressing of bottom and sides of trenches. Stack excavated soil clear from edges of excavation, disposal of surplus soil out of site as directed by engineer.	m^3	9.70		-
C2	Reinforced Cement concrete for foundation of pole including 15mm dia, 1.5 m long anchor bolts bars welded/ tied with Y10 stirrups @ 200mm c/c to hold the base plate of the pole, depth for Anchor bolts bar is 0.8m inside the hole plus 0.7m above the ground level, at the top the area is (0.5*0.5)m^2 and total area up to the surface is (0.7*0.7)m^2. The strength of foundation concrete should not be less than 3000 Psi (1 cement : 1.5 clean coarse sand : 3 stone aggregate of 25mm down). The rate shall include Bindling/welding of stirrups 10 numbers Y10mm dia steel bar, stirrups @20cm c/c including centering and shuttering complete.	m^3	9.70		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
	PURCHASE, SUPPLY AND INSTALLATION OF COMPLETE STANDARD STREET LIGHT SET (Fixture + Panel + Battery + 6m pole + Wiring)				
C3	LED Luminaire: 150W, >150 lm/W efficacy, 5000K-6500K CCT (cool white), IP66, aluminum alloy housing.	Pcs	18.00		-
C4	PV panel: 150Wp mono-crystalline, 20% efficiency, 18V nominal voltage, tempered glass/anodized aluminum frame with all necessay fittings	Pcs	18.00		-
C5	Battery: 12.8V 150Ah LiFePO4, 80% DOD, >2000 cycles, pole	Pcs	18.00		-
C6	Controller: 10A MPPT with automatic dusk-to-dawn activation and comprehensive electrical protections.	Pcs	18.00		-
C7	Pole: 6 m HDG steel; baseplate 300×300×20 mm; 4×M24 anchor bolts, wind load compliant, integrated bracket for PV and luminaire.	Pcs	18.00		-
C8	Supply and installation 2/24 V DC , with a mimum detection range of 15m, weatherproof passive infrared (PIR) motion sensor suitable for outdoor solar street lighting applications, fully compatible with solar charge controller and LED luminaire. Sensor shall enable automatic light intensity control based on motion detection. Includes mounting, cabling, programming, testing, and commissioning complete in all respects.	Pcs	18.00		-
	Total C				**-**
D	**TOWER FLOOD LIGHTS - 4Nos**				
D1	Exacavtion for foundation of the pole, in all kinds of soil and not exceeding 2.68 m depth and the dimension is (3mX3m), including dressing of bottom and sides of trenches. Stack excavated soil clear from edges of excavation,backfill and disposal of surplus soil out of site as directed by engineer.	m^3	96.48		-
D2	Reinforced Cement concrete for foundation of pole including M27*1500 anchor bolts and steel reinforcement as per design. The strength of foundation concrete should not be less than 3000 Psi (1 cement : 1.5 clean coarse sand : 3 stone aggregate of 25mm down). The rate shall include Binding/welding of stirrups and complete form work	m^3	54.78		-
	PURCHASE, SUPPLY AND INSTALLATION OF 18m HIGH MAST COLUMN WITH ALL IN ONE INTEGRATED FLOOD LIGHTS				
D3	18m high mast column made from Class C galvanised steel of polygonal cross-section, root-mounted, continuous taper to 20m above finished grade, complete with ladder and a circular plateform for . 200W LED bifacial integrated solar floodlights and all other accessories necessary for installation and operation of the high mast, including foundation structure and all civil works. The high mast to be painted reflective red and white colours to in accordance with Somalia Civil Aviation Authority's requirements.	Pcs	4.00		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
D4	Purchase Supply and Installation of an integrated all-in-one solar LED floodlight with IP66 and IK10 rating for outdoor use. Luminaire to be designed with appropriate brackets for 20m high mast pole mounting and to allow different tilt angles. as Scowatt SC-SMS-F200W or approved equivalent, with the following features: **1.**LED Module: 200W, 37200 lumen, 186lm/W, CCT: 6500K, CRI: 80; Lifespan: 80000hrs; Beam angle: 60 deg.; Material: Die cast aluminum alloy shell + PMMA Lens. 5 years warranty. 10 years lifespan. **2.**In-built monocrystalline solar panel: 550W, 20.31% efficiency. 12 years warranty, 25 years lifespan. **3.**Lithium Ferro Phosphate (LiFePO4) battery: 50Ah, 25.6V, 2048Wh, 100% depth of discharge, 5000 charge and discharge cycles. 5 years warranty, 10 years lifespan. **4.**MPPT controller with embedded motion sensor, 20A, 30m remote control distance. 5 years warranty, 10 years lifespan. **5.**Protection: overcurrent, short circuit, overvoltage, over discharge, overheating. **6.**Output: 100% for 5hrs and 30% for 7hrs	Pcs	24.00		-
	Total D				**-**
E	**LIGHTNING PROTECTION SYSTEM**				
	Purchase, Supply, install, test and commission the following:				
E1	1.2m copper bonded air terminal conductor complete with base as shown in the drawing	No	1.00		-
E2	25mm x 3mm bare copper tape down conductor as shown in the drawing	M	25.00		-
E3	1500mm long x 16mm diameter threaded copper bonded earth rod as shown in the drawing	No	2.00		-
E4	Tape clamp, as Furse	No	5.00		-
E5	Rod to tape clamp 16mm, as Furse	No	2.00		-
E6	300mm x 300mm x 450mm Deep RC Manhole complete with RC cover for earthing of the Lighning Protection System as shown in the drawing. Manhole to be fitted with sleeves for 38mm diameter HG. PVC ducts as shown in the drawings. Manhole to be constructed as per the Structural Engineer's details.	No	1.00		-
	Total D				**-**
GRAND TOTAL					**-**

SINAAN					
Garowe Community Cohesion and Green Cultural Park					
PR 050					
CCTV					
Item	**Description**	**Unit**	**Qty**	**Unit Price (GBP)**	**Total Price (GBP)**
A	**VIDEO SURVEILLANCE SYSTEM**				
	Purchase, Supply, install, test and commission the following:				
A1	PTZ camera with up to 150m IR range; 5MP; 1/1.9″ CMOS; IP66; IK10; facial recognition; supports face capture to detect, motion detection, video tampering, intrusion detection, line crossing detection; 4K resolution; 120dB WDR; 30× IR Network PTZ camera; 5.9–177mm motorized lens; H.265+, WDR, IP66, 24 VAC/Hi-PoE, complete with pole-mount bracket and accessories. As Hikvision DS-2DE7530IW-AE or approved equivalent. Complete with mounting brackets and accessories suitable for vertical pole mount.	No	6.00		-
A2	IP bullet camera, 4.0 MP, POE, 120dB WDR, 1/3 inch CMOS image sensor, up to 50m IR range, motion detection, video tampering alerts, IP67, IK10, as Hikvision DS-2CD1T47G2H-LIU(F) ColorVu 4 MP ColorVu with Smart Hybrid Light Fixed Bullet Network Camera. Complete with mounting brackets suitable for vertical pole mount.	No	24		-
A3	Outdoor 4-pair, 100-ohm Cat. 6A UTP cable for video surveillance system wiring, as Siemon type or approved equivalent	Rolls	6		-
A4	64-channel Network Video Recorder; 512Mbps bandwidth; 16 sata interfaces supporting hot plug; 64TB; synchronous playback up to 16 channels; multi-protocal; 2xHDMI outpus; as DS-96064NI-I16 64-ch 3U 4K Super NVR, or approved equivalent	No	1		-
A5	Video management software	No	1		-
A6	GUI Maps overlays of all buildings, areas and site for all subsystems, e.g. alarm icons, camera icons, etc	No	1		-
A7	Configuration and programming	Sum	1		-
A8	Access: 16-Port POE switch, 19" rack-mount, licencing, stacking cables. Cisco Catalyst 2960-L Series, 2x1G SFP+ uplink ports for high-speed connectivity, 16x 10/100/1000 PoE+ Gigabit Ethernet switch. As Cisco WS-C2960L-16PS-LL or approved equivalent.	No	4		-
A9	16-port patch panel, as Siemon or approved equivalent	No	4		-
A10	Cat 6A 10G patch cords 1m, as Siemon or approved equivalent	No	30		-
A11	Armoured 24-core G657.A2 Single Mode Fibre (SMF), including hauling, blowing and microduct in 100mm sleeve. For linking all CCTV switches back to the control room in the Main entrace CCTV room.	Lm	3000		-
A12	Outdoor 22U free standing network cabinet, 600W x 600D x 1200H deep consisting of the following: 1 x 10 way dedicated power distribution unit, 2 x fans, glass door with split perforated rear doors (black).	No	4		-
A13	Weatherproof IP54 galvanised steel housing painted to approval, measuring 1000W x 1000D x 1500H to house the above network cabinet, ground mounted on a plinth raised 200mm above finished grade. Bottom cable entry. The exact location of the network cabinet housing to be determined on site to meet the maximum 90m Cat 6A horizontal cabling requirement from any CCTV pole.	No	4		-
A14	Suitable 6m galvanised steel pole complete with brackets to approval, for the pole mount PA speakers and CCTV cameras	No	11		-
A15	Allow for civil works for the above including excavation of pits for mounting of columns at 1.0m depth below the finished grade complete with concrete backfill and compact to natural ground level.	No	11		-
A16	**Testing and Commissioning, to include:**	Sum	1		-
	Develop Site Acceptance Test Schedule for the installation				
	Contractor's testing (labour and special test requirements)				
	Conduct SATs under Engineer's Supervision				
	Final Commissioning and handover				
	Total A				**-**
GRAND TOTAL					**-**

SINAAN					
Garowe Community Cohesion and Green Cultural Park					
PR 050					
Out Door Plumbing					
Item	**Description**	**Unit**	**Qty**	**Unit Price (GBP)**	**Total Price (GBP)**
A	**Setting Out as per Drawings**				
	Setting out entire pipeline route, taking and recording invert levels upon excavation and preparation of As Built Drawings to be submitted for approval to the Engineer.				
A1	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor.	m^3	3123.60		-
A2	Provide, transport to site, place and compact with imported selected fill (granular material) for bed and surround to pipes not less than 150mm thick or as specified and as directed by the Engineer.	m^3	468.54		-
B	**CLASS I - PIPEWORK - HDPE PIPES**				
	Supply, Transport to site and install at site as per drawings. Rate to include excavation,trench bed preparation, pipe laying and jointing and back filling as per given levels. Disposal of excess material to designated site.				
B1	Outer Diameter PN10 - 90mm	m	1198.00		-
B2	Outer Diameter PN10 - 50mm	m	629.00		-
B3	Outer Diameter PN10 - 32mm	m	3379.00		-
C	**CLASS J - PIPEWORK - FITTINGS AND VALVES**				
	Supply, Transport to site , Excavation of Trench including Trench Bed preparation, Pipe Laying and Jointing, Backfilling, Final reinstatement and Disposal of excess Excavated material all as per the specifications				
C1	**Bends -PN 10- Plain Ended Bends**				
	90mm 90° bend	Nos	4.00		-
	90mm 45° bend	Nos	3.00		-
	90mm 30° bend	Nos	2.00		-
	50mm 45° bend	Nos	2.00		-
	32mm 90° bend	Nos	3.00		-
	32mm 45° bend	Nos	16.00		-
C2	**Junctions and Branches - PN10 - Tees**				
	90mm x 90mm Equal Tee	Nos	2.00		-
	90mm x 50mm Equal Tee	Nos	7.00		-
	50mm x 32mm Reducing Tee	Nos	6.00		-
	32mm x 32mm Equal Tee	Nos	22.00		-
C3	**Tees for Fire Hydrants**				
	90mm x 75mm Reducing Tee-for Fire Hydrants	Nos	5.00		-
	75mm x 75mm Equal Tee-for Fire Hydrants	Nos	5.00		-
C4	**Tees for Air Valve**				
	90mm x 20mm Reducing Tee_for Airvalve	Nos	1.00		-
	32mm x 20mm Reducing Tee_for Airvalve	Nos	1.00		-
C5	**Tee for Washout**				
	50mm x 50mm Equal Tee_for Washout	Nos	3.00		-
C6	**HDPE Reducer_ PN10**				
	90 X 50mm Reducer	Nos	4.00		-
	50 X 32mm Reducer	Nos	2.00		-
	75 X 32mm Reducer_ for Fire Hydrants	Nos	10.00		-
C7	**HDPE Stub ends_ PN10- All inclusive of backing ring and associated bolts and nuts.**				
	90mm stub end with backing ring_For Bulk Meter	Nos	2.00		-
	90mm stub end with backing ring_For Gate Valve	Nos	4.00		-
	32mm stub end with backing ring_For Gate Valve	Nos	58.00		-
	75mm stub end with backing ring_For Fire Hydrants	Nos	20.00		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
C8	**Adaptors_ PN10 'Flexible (VJ) Adaptor**				
	100mm flanged adaptor	Nos	6.00		-
	32mm flanged adaptor	Nos	58.00		-
	20mm male threaded adapter_for Air Valve - Male BSP x HDPE	Nos	2.00		-
	50mm flanged adaptor_for Fire Hydrant	Nos	20.00		-
C9	**End Caps_ PN10**				
	32mm End cap	Nos	32.00		-
C10	**Rubber Gaskets**				
	100mm Rubber Gasket_For Bulk Meter	Nos	2.00		-
	100mm Rubber Gasket_For Gate Valve	Nos	4.00		-
	32mm Rubber Gasket_For Gate Valve	Nos	58.00		-
	75mm Rubber Gasket_For Fire Hydrants	Nos	20.00		-
C11	**Pipe Pieces_ PN10**				
	1200mm long open ended 75 mm HDPE riser pipe_for Fire Hydrant	Nos	5.00		-
	1200mm long open ended 20 mm HDPE riser pipe_for Air Valve	Nos	2.00		-
	1200mm long open ended 50 mm HDPE pipe to drain_for Washout	Nos	13.00		-
D	**VALVES AND PENSTOCKS_ PN10**				
	Gate Valves for washout and line valves to be supplied complete with extension spindle n.e 2m and Tee-key. Air Valve isolating valves to be supplied with wheel only. All rates to be inclusive of these add-ons.				
D1	100mm flanged sluice valve for_Tee-off	Nos	2.00		-
	100mm flanged sluice valve for_Bulk Meter	Nos	1.00		-
	32mm flanged sluice valve for_Tee-off	Nos	16.00		-
	32mm flanged sluice valve for_Bulk Meter	Nos	9.00		-
	50mm flanged sluice valve for_Washout	Nos	13.00		-
	20 mm threaded ball valve for_Air Valve - Female BSP X Female BSP	Nos	2.00		-
D2	**Air Valves as specified**				
	20mm Combination air valve_Male BSP	Nos	2.00		-
D3	**Bulk Meter as specified**				
	100mm flanged Water Meter Woltmann Type,CI Body, Flanged Type, Class B	Nos	1.00		-
	32mm Multi-Jet, BrassBody, Screw Type,Class B, PN18	Nos	9.00		-
D4	**Fire Hydrant as specified**				
	75mm flanged Fire Hydrant	Nos	5.00		-
E	**CLASS K - PIPEWORK - MANHOLES AND PIPEWORK ANCILLARIES**				
	Construction of chambers, chamber ducts, culverts, crossings, thrust, anchor blocks, reinstatement and other pipework ancillaries Note:- Items for Work in this class shall include: - Excavation, preparation of surfaces, disposals of surplus excavated material, shoring sides of excavation, backfilling andremoval of redundant services. - Concrete, Reinforcement, Formwork, joints and Finishes. -Trips for disposals of excavated material of debris to be identified by the Contractor in liaison with the Local Authorities				
E1	**Masonry Works - Valve Chambers**				
E1(a)	Plastered Masonry chamber, internal size 1000mm x 1000mm, depth not exceeding 2.0m, all inclusive of GRP rectangular access covers of 450mm x 600mm	Nos	60.00		-
E1(b)	Plastered Masonry Wing walls for Wash out as per detail_ inclusive of 1.5m long and 300mm thick of riprap covering the width of the base at outlet	Nos	13.00		-
E2	**Marker Posts**				
E2(a)	Marker post for Air Valve inscribed 'AV'	Nos	2.00		-
E2(b)	-Ditto- but Washout inscribed 'WO'	Nos	13.00		-
E2 (c)	-Ditto- but Water Main inscribed 'WM'	Nos	26.00		-
E2(d)	-Ditto- but for Firehydrant inscribed 'FH'	Nos	5.00		-
F	**DRIP IRRIGATION SYSTEM**				

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
F1	Supply, deliver, lay, install, test and commission 16mm diameter UV-stabilized LDPE drip irrigation lateral pipes @0.4m with factory-integrated pressure-compensating emitter holes at 0.4m spacing, each emitter hole releasing approximately 2l/hr, complete with all fittings and accessories including connectors, tees, elbows, end caps, take-offs, grommets, stakes/anchors, flushing valves, and 120-mesh inline screen/disc filters to prevent clogging of emitter holes, including connection to sub-mains, flushing, testing, and commissioning complete to the satisfaction of the Engineer.	Acre	50.00		-
F2	**Emitter** - Irrigation Quick Coupling Valve Box – Supply and install complete 32 mm quick coupling valve assembly in plastic valve box, including gate valve, brass hose adapter, swivel elbow, epoxy-coated riser pipe, GI elbow, compression fittings, concrete base, gravel drainage layer, and connection to irrigation main, complete and functional.	Nos	60.00		-
G	**Under Ground Water Tank**				
G1	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor.	m^3	195.35		-
G2	Providing and laying Blinding plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) as per drawing	m^3	3.32		-
G3	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.).				
	Base Slab	m^3	14.00		-
	Roof Slab including beams	m^3	10.00		-
	Side Walls	m^3	38.00		-
	Column	m^3	1.00		-
G4	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position for bottom slab				
	Reinforcement (BRC Mesh A193)	m^2	44.22		-
G5	Damp Proof Membrane (DPM) Gauge 1000	m^2	45.22		-
G6	Plaster walls internally with 1:4 - 20mm thick in two layers each 10mm of Sikagard - 63 N, 2-PART EPOXY PROTECTIVE COATING	m^2	118.00		-
G7	Supply and Install Expansion joint between wall base and floor slab. Include 240mm rearguard water stops	m	40.00		-
G8	Roof vents made of DN100 galvanised iron-complete with elbows and nylon insect proof screen including puddle flanges	Nos	4.00		-
G9	Roof access 700x700 opening complete with steel cover and lock as per detail on dwg.	Nos	1.00		-
G10	4.0m high Stainless steel internal ladder 400mm wide	Nos	1.00		-
G11	Construction of Plastered Masonry chamber, internal size 1000mm x 1000mm, depth not exceeding 2.0m, all inclusive of GRP 450mm x 600mm medium duty manhole covers for storm water drains as per drawings	Nos	9.00		-
G12	**CLASS J: PIPEWORK - FITTINGS AND VALVES-HDPE PIPES FITTING**				
	Inlet pipe DN160				
G 12.1	Bends DN 90 - 90°	Nos	5.00		-
G 12.2	Junctions and Branches- DN 90x 90mm	Nos	2.00		-
G 12.3	HDPE Stub ends_ PN10 inclusive of backing ring and associated bolts and nuts - DN 90 stub end with backing ring	Nos	12.00		-
G 12.4	DN 90 HDPE pipe, length n.e 1.0m	Nos	1.00		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
G 12.5	DN 90 HDPE pipe, length n.e 1.5m	Nos	2.00		-
G 12.6	DN 90 HDPE pipe, length n.e 2.5m	Nos	1.00		-
G 12.7	DN 90 HDPE pipe, length n.e 5.0m	Nos	1.00		-
G 12.8	DN 100 flanged sluice valve, completely fitted with handwheels mounted on headstock and extenstion spindle	Nos	1.00		-
	Outlet pipework DN 90				
G 12.9	DN 90 in trenches depth 1-3m	m	10.00		-
G 12.10	HDPE Stub ends_ PN10 inclusive of backing ring and associated bolts and nuts - DN 90 stub end with backing ring	Nos	16.00		-
G 12.11	Bellmouths - DN 90	Nos	1.00		-
G 12.12	DN 90 HDPE pipe, length n.e 1.0m	Nos	2.00		-
G 12.13	DN 90 HDPE pipe, length n.e 1.5m	Nos	1.00		-
G 12.14	DN 90 HDPE pipe, length n.e 3.0m	Nos	3.00		-
G 12.15	DN 90 HDPE pipe, length n.e 5.0m	Nos	3.00		-
G 12.16	Gate valve - Hand operated - DN 90 flanged sluice valve completely fitted with handwheels mounted on headstock and extenstion spindle and concrete stand	Nos	1.00		-
G 12.17	Flowmeter - DN 100 flanged Water Meter Woltmann Type, Cl Body, Flanged Type, Class B	Nos	1.00		-
	Washout pipe DN90				
G 12.18	DN 90 short radius 90^{o} bend	Nos	1.00		-
G 12.19	DN 90 stub end with backing ring, all inclusive of backing ring and associated bolts and nuts.	Nos	10.00		-
G 12.20	DN 90 bellmouth	Nos	1.00		-
G 12.21	DN 90 plain ended HDPE pipe piece, length n.e 3.3m	Nos	1.00		-
G 12.22	DN 90 plain ended HDPE pipe piece, length n.e 5.6m	Nos	1.00		-
G 12.23	DN 90 plain ended HDPE pipe piece, length n.e 1.0m	Nos	1.00		-
G 12.24	Gate valve - Hand operated - DN 90 flanged sluice valve completely fitted with handwheels mounted on headstock and extenstion spindle and concrete stand	Nos	1.00		-
	Overflow Pipe DN 90mm				
G 12.25	DN 100 short radius 90^{0} bend	Nos	1.00		-
G 12.26	DN 90 stub end with backing ring, all inclusive of backing ring and associated bolts and nuts.	Nos	12.00		-
G 12.27	DN 90 bellmouth	Nos	1.00		-
G 12.28	DN 90 plain ended pipe piece, length n.e 6m	Nos	2.00		-
G 12.29	DN 90 plain ended pipe piece, length n.e 2.0m	Nos	1.00		-
G 12.30	DN 90 plain ended pipe piece, length n.e 1.0m	Nos	1.00		-
	TANK VALVE CHAMBER				
G 12.31	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor	m^3	65.00		-
G 12.32	Providing and laying Blinding plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) as per drawing	m^3	11.00		-
G 12.33	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.).				
	Base Slab	m^3	2.00		-
	Roof Slab including beams	m^3	1.50		-
	Side Walls	m^3	8.00		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position	Kg	800.00		-
H	**Water tanks , Water Pump and PV System**				
H1	Supply, deliver, install, 5000 litres water tank with all required plumbing on the top of observation tower	Nos	2.00		-
H2	Supply, deliver, install, test and commission a horizontal high-pressure multistage booster pump set for pumping water from the proposed concrete tank to the proposed elevated tank, duty point Q = 25m³/hr and H =15m, complete with 15kW electric motor, stainless-steel pump casing and impellers, mechanical shaft seal, base frame, isolation valves, non-return valve, pressure gauge/s, flexible connectors, electrical connections, and all necessary fittings and pipe connections (90mm inlet&outlet), including connection to the suction and delivery pipelines, testing and commissioning complete to the satisfaction of the Engineer.	Nos	1.00		-
H3	SOLAR POWER SYSTEM FOR NEW PUMP: Supply, deliver, install, connect, test, and commission a complete solar photovoltaic system sized to power a 15 kW horizontal high-pressure multistage booster pump. The system includes approximately 32 × 550 W monocrystalline PV panels, suitable inverter (≥18.5 kW), smart meter, DC and AC isolators, distribution board, combiner boxes, DC and AC cabling, cable trays, signal cabling, earthing, lightning protection, mounting structures, all associated accessories, and all civil, electrical, and mechanical works to deliver a fully operational system as per Engineer's requirements.and fully operational for powering the booster pump installation to the satisfaction and approval of the Engineer.	Nos	1.00		-
I	**Testing and Commissioning**				
I1	Testing and Commissioning of the Pipeline and water tank including flushing and sterlising in accordance with the Specification	Ls	1.00		-
Total for Out Door Plumbing works, Water Tank, Water Pump and PV System					**-**

SINAAN

Garowe Community Cohesion and Green Cultural Park

PR 050

Sewerage and Septic Tank

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
A	**Setting Out as per Drawings**				
	Setting out entire pipeline route, taking and recording invert levels upon excavation and preparation of As Built Drawings to be submitted for approval to the Engineer.				
A1	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor for Sewer Pipes.	m^3	2160.00		-
A2	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor for Manholes.	m^3	122.46		-
A3	Provide,fill and compact with excavated selected fill (granular material) for bed and surround to pipes not less than 300 mm thick or as specified and as directed by the Engineer,	m^3	27.00		-
	Total A				**-**
B	**MAN HOLES**				
B1	Providing and laying Blinding plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) for the Manhole base.	m^3	4.08		-
B2	Provide & place precast manhole molds made of reinforced concrete class 25/20 with minimum cube crushing strength of 25N/mm2 at 28 days in : - Rate to Include Purchase of Concrete Molds all inclusive with fasteners, bolts etc for complete casting of the manhole rings and covers	m^3	66.91		-
B3	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position for Manholes				
	Reinforcement (BRC Mesh A193)	m^2	198.00		-
B4	Supply and install triangular medium-duty Glass Reinforced Plastic (GRP) access covers complete with matching frames, suitable for sewer manholes	Nos	13.00		-
B5	Supply and Install for all Manholes during casting of Manhole Rings G.M.S step irons as shown in the Manhole Details Drawing, inclusive of all associated items	Nos	13.00		-
	Total B				**-**
C	**PIPEWORK - FITTINGS AND VALVES**				
C1	Supply and lay 100mm DWC "push fit' jointed for sewer line in trenches depth not exceeding 1.5 m	m	50.00		-
C2	Supply and lay 150mm DWC "push fit' jointed for sewer line in trenches depth not exceeding 1.5 m	m	550.00		-
C3	100X100mm DWC tees for drop manholes_ to be used only if drop exceeds 600mm	Nos	3.00		-
C4	150X150mm DWC tees for drop manholes_ to be used only if drop exceeds 600mm	Nos	5.00		-
C5	PCC Back Drop Pipes of 100mm made to suit manhole depth	Nos	3.00		-
C6	PCC Back Drop Pipes of 150mm made to suit manhole depth	Nos	5.00		-
	Total C				**-**

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
D	**SEPTIC TANK**				
D1	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor for Septic tank	m^3	140.00		-
D2	Providing and laying Blinding plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) for the base of Septic Tank	m^3	1.40		-
D3	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.).				
	Base Slab 200mm thick	m^3	5.60		-
	Roof Slab 200mm thick	m^3	5.60		-
	Vertical faces to inlet and outlet chamber	m^3	0.50		-
D4	Soffit of top slab including vertical support	m^2	12.00		-
D5	Supply and Fabrication of High Tensile Steel deformed bars conforming to ASTM-A615 Grade 60 (60,000psi) reinforcement for cement concrete, including cutting, bending, laying in position, over lapping, making joints, fastenings, wastage and including cost of binding wire & labors charges for binding of steel reinforcement in place (also includes removal of rust from bars) .Contractor will submit bar bending schedule for approval before commencing the steel works.	kg	1890.00		-
D6	BRC A193 welded wire mesh reinforcement as per drawings for the Base slab	m^2	38.50		-
	Masonary Work				
D7	Construction of wall using Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings (Septic Tank)	m^2	115.00		-
D8	Construction of wall using Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings (Soak away)	m^2	18.84		-
D9	Plaster walls internally with 1:4 - 20mm thick in two layers each 10mm of Sikagard - 63 N, 2-PART EPOXY PROTECTIVE COATING	m^2	115.00		-
D10	Supply and Install for the chamber accesses as shown in the Septic Tank Drawing, inclusive of all associated items 600 X 450 X 200mm opening	Nos	4.00		-
	Total D For One Septic Tank				-
Total for Out door Sewarage and Septic Tank					**-**

SINAAN					
Garowe Community Cohesion and Green Cultural Park					
PR 050					
Boundary Wall and Gate					
Item	**Description**	**Unit**	**Qty**	**Unit Price (GBP)**	**Total Price (GBP)**
A	**EARTHWORKS**				
A.1	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor.				
	Foundation Wall	m^3	1336.80		-
	Total A				**-**
B	**SUBSTRUCTURE**				
B.1	Providing and laying 50mm thick plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). **for wall and Column foundation**	m^3	83.55		-
B.2	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) . reinforced strip footing.	m^3	278.50		-
B.3	Supply and Fabrication of High Tensile Steel deformed bars conforming to ASTM-A615 Grade 60 (60,000psi) reinforcement for cement concrete, including cutting, bending, laying in position, over lapping, making joints, fastenings, wastage and including cost of binding wire & labors charges for binding of steel reinforcement in place (also includes removal of rust from bars) .Contractor will submit bar bending schedule for approval before commencing the steel works.				
	3Y10 rebar & Y10 @ 300mm c/c in strip footing.	Kg	9200.00		-
B.4	Construction of Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings for footing wall	m^2	1671.00		-
	Total B				**-**
C	**SUPERSTRUCTURE**				
C.1	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) for **Columns @ 3m c/c**	m^3	74.32		-
C.2	Steel reinforcement - High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position				
	4Y12 in **Column** rebar *(cost includes binding wire)*.& R8 links/stirrups @ 250mm c/c in column links/stirrups.	kg	9220.00		-
C.3	Construction of Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings for footing and super structure wall	m^2	7241.00		-
C.4	Providing and laying RCC cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) for **Concrete Cap** on top of columns and walls (250mm wide and 100mm thick) with 3 nos of 10mm bar on longer side and 10mm bar @ 300mm clc on shorter side	m^3	70.00		-
C.5	20 mm thick Cement Sand plastering (1:3) finished smooth surface with wooden float for the internal and external side of wall and columns including curing.	m^2	14482.00		-
C.6	Prepare surface, apply filler, apply one coat of primer and two coats of weather resistant paint for both sides of wall. (Contractor will submit the sample for Color and manufacturer approval)	m^2			
	Total C				**-**
GRAND TOTAL					**-**

SINAAN					
Garowe Community Cohesion and Green Cultural Park					
PR 050					
Towers - 2 Nos					
Item	**Description**	**Unit**	**Qty**	**Unit Price (GBP)**	**Total Price (GBP)**
A	**PRELIMINARIES - SITE CLEARANCE**				
A.1	Site Clearance, levelling and Setting out	m^2	26.01		-
	Total A				**-**
B	**EARTHWORKS**				
B1	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor.	m^3	28.33		-
	Total B				**-**
C	**SUB STRUCTURE**				
C1	Providing and laying Blinding plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including formwork, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.)	m^3	1.18		-
C2	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). for Strip Foundation	m^3	2.44		-
C3	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position for Strip Foundation	Kg	146.00		-
C4	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). for Column Base	m^3	2.19		-
C5	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position for Column Base	Kg	102.00		-
C6	Construction of wall using Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the foundation wall as per the drawings	m^2	31.20		-
C5	**Fill materials**				
C5(a)	Provide and lay hard core compacted to 98% modified Proctor density for Building floor	m^3	7.80		-
C5(b)	Provide and lay 50mm Murram Blinding for Floor Slab.	m^3	1.30		-
C6	Providing and laying 125 mm thick reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). for floor slab.	m^3	3.25		-
C7	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position				
C8	Reinforcement (BRC Mesh A142)	m^2	26.01		-
	Total B				**-**

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
D	**SUPER STRUCTURE**				
D1	Construction of wall using Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the tower wall as per the drawings	m^2	63.84		-
D2	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.).for Column	m^3	3.81		-
D3	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position for Column	Kg	950.00		-
D4	Providing and laying 150 mm thick reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). for first floor slab	m^3	1.09		-
D5	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position for first floor slab	Kg	215.00		-
D6	Providing and laying 150 mm thick reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). for roof slab	m^3	3.90		-
D7	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position for roof slab	Kg	215.00		-
D8	Providing and layingreinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). for Beam B1	m^3	1.95		-
D9	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position for Beam B1	Kg	335.70		-
	Total D				**-**
E	**WALLS AND FINISHING**				
E1	20 mm thick Cement Sand plastering (1:3) finished smooth surface with wooden float for the internal and external walls, Columns , Grade beams and ring beams of the building including curing.	m^2	127.68		-
E2	Prepare surface, apply filler, apply one coat of primer and two coats of weather resistant at external faces of walls (Contractor will submit the sample for Color and manufacturer approval)	m^2	146.60		-
	TotalE				**-**
F	**DOORS AND OPENINGS**				
F1	Supply and install Steel, 900x2400mm, 3 pairs of stainless steel hinge and complete fittings	No	1.00		-
F2	Supply and Install, 2000x6000mm pre cast concrete calligraphy vent as per drawings	No.	4.00		-
F3	Supply and Install Steel vertical ladder as per drawings	No.	1.00		-
	Total F				**-**

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
G	**ELECTRICAL INSTALLATIONS**				
	Note : unless other wise stated rates in Bill of quantities shall include all necessary material, cables, conduits, PVC sunk box, Bulbs switches etc. and labor required to complete the electrical installation. Testing and commissioning of electrical installations is to be carried out by contractor and cost of such testing and reports to be included in rates. All types of fittings shall be approved by engineer prior to installation				
G1	Lighting points wired in 3x1Cx1.5mm2 Cu/PVC/SC cables drawn in concealed 20mm dia. HG. PVC conduit complete with all wiring accessories for 1-way and 2-way switches, but excluding the switches and the luminaires.	No	1.00		-
G2	Type F fitting - Power Room - L1200 mm, Polycarbonate, White, 3600 lm, 36 W, 100 lm/W, 4000 K, Very wide beam, IP65 | Dust penetration-protected, jet-proof, IK08 | 5 J vandal-protected, Safety class I, Push-in connector 3-pole. As Tronic Waterproof 4 Feet LED TPIF Fitting or approved equivalent.	No	1.00		-
G3	10A switches complete with boxes and face plate, white colour, as Panasonic W2 type, or approved equivalent:				
G4	1 gang 1 way	No	1.00		-
G5	4-way SPN MCB Consumer Unit as CU.KK.01 flush-mounted on the wall complete with 100A DP MCB integral isolator and all protective devices as Schneider Electric Easy 9 type or approved equivalent. **All MCBs are Easy 9 Type C and as shown in the schematic wiring diagram.**	No	1.00		-
G6	10A SP MCB - Lighting	No	1.00		-
G7	20A SP MCB - Socket Outletss	No	1.00		-
G8	Blanking plates	No	2.00		-
G9	Twin socket points wired in 3x1Cx2.5mm^2 Cu/PVC/SC cables drawn in 25mm dia. HG PVC conduit concealed within the wall.	No	2.00		-
G10	13A weatherproof IP65 twin-switched socket-outlets complete with boxes and face plates, white colour, as Windsor type, or approved equivalent.	No	2.00		-
G11	**Testing and Commissioning, to include:**	Sum	1.00		-
	Develop Site Acceptance Test Schedule for the installation				
	Contractor's testing (labour and special test requirements)				
	Conduct SATs under Engineer's Supervision				
	Final Commissioning				
	Handover and soak test				
	Total G				**-**
GRAND TOTAL FOR 1 TOWER					**-**
GRAND TOTAL FOR 2 TOWERS					**-**

SINAAN					
Garowe Community Cohesion and Green Cultural Park					
PR 050					
Children Play Area 9151m^2					
Item	**Description**	**Unit**	**Qty**	**Unit Price (GBP)**	**Total Price (GBP)**
A	**PLAYING EQUIPMENT**				
A1	Site Clearance, levelling and Setting out	m^2	9151.00		-
A2	Supply and Install Large multi-play towers with slides and climbers	Nos	2.00		-
A3	Toddler multi-play units	Nos	2.00		-
A4	Swing sets (4-seat commercial)	Nos	3.00		-
A5	Toddler swing sets	Nos	2.00		-
A6	Seesaws	Nos	4.00		-
A7	Monkey bars	Nos	2.00		-
A8	Merry-go-rounds	Nos	2.00		-
A9	In-ground trampolines	Nos	4.00		-
	Total A				**-**
B	**CONCRETE BENCHES**				
B1	Provide and Install concrete bench having below specifications 1,800 mm long 450 mm seat height 450 mm seat depth 450 mm backrest height	Nos	15.00		-
	Total B				**-**
	TOTAL PLAY AREA				**-**
INFANT CARE ROOM					
A	**PRELIMINARIES - SITE CLEARANCE**				
A.1	Site Clearance and Setting out	m^2	19.04		-
	Total A				**-**
B	**EARTHWORKS**				
	Excavation and back fill in all kind of sub-surface material complete in all respects as shown on the drawings, specifications and/or as directed by the Engineer. Surplus materials should be removed from the site or as advised by Construction Supervisor.				
B.2	Strip Foundation	m^3	25.68		-
	Total B				**-**
C	**SUBSTRUCTURE**				
C.1	Providing and laying Blinding plain cement concrete mix to obtain 1500 psi (Cylinder Strength at 28 days) (1:3:6) using coarse sand and screened graded and washed aggregate, in required shape and design, including formwork, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) for the below.				
C1(b)	Strip footing	m^3	0.86		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
C.3	**Strip Footing**				
C3(a)	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). for Strip Footing. (60cm wide, 30cm depth)	m^3	3.85		-
C3(b)	Supply and Fabrication of High Tensile Steel deformed bars conforming to ASTM-A615 Grade 60 (60,000psi) reinforcement for cement concrete, including cutting, bending, laying in position, over lapping, making joints, fastenings, wastage and including cost of binding wire & labors charges for binding of steel reinforcement in place (also includes removal of rust from bars) as per drawings(12mmbars @ 200mmc/c both ways)	Kg	165.00		-
C.6	**Foundation Wall**				
C6(a)	Construction of Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings				
	Building Foundation	m^2	24.61		-
C.7	**Fill materials**				
C7(a)	Provide and lay 150mm thick hard core compacted to 98% modified Proctor density for Building floor	m^3	2.86		-
C7(b)	Provide and lay 50mm Murram Blinding for Floor Slab.	m^3	0.96		-
C8	**Concrete Slab for floor and Ramp**				
C8(a)	Providing and laying 100 mm thick reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). for floor slab.	m^3	1.91		-
C8(b)	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position				
	Reinforcement (BRC Mesh A142)	m^2	19.04		-
	Total C				**-**

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
D	**SUPERSTRUCTURE**				
D1(a)	Construction of wall using Solid Concrete masonry unit (CMU) wall of 200mm thickness blocks (Compressive strength 2000Psi as per ASTM C90-16a) bedded in cement/sand mortar mix 1:4. Note: Blocks to be cured for at least 7 days and tested prior to laying in for the wall as per the drawings	m^2	55.00		-
D.3	**Ring beam**				
D3(a)	Providing and laying reinforced cement concrete mix to obtain 3000 psi (Cylinder Strength at 28 days) (1:1.5:3) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.). **for Ring beam.** width 200mm, height 300mm	m^3	1.29		-
D3(b)	High tensile deformed steel bars to ASTM A615 Grade 60 (60000 psi) :- including bending, hooking, tying wire, cutting spacers and supporting all in position as per drawings	Kg	122.50		-
	Total D				**-**
E	**ROOF**				
E1(a)	Truss T1 - 5 Nos				
	Bottom Chord 100x50mm	m	20.00		-
	Top Chord 100x50mm	m	22.00		-
E1(a)	Internal Web Members 75x50mm	m	125.00		-
	Purlins 100x50mm	m	32.40		-
	100x50mm wall plate fixed onto blockwork with approved bolts and nuts as per Engineers detail	Lm	18.00		-
E1(b)	Supply, deliver and install pre-painted galvanized steel insulated sandwich roof panels comprising 0.45–0.50 mm thick color-coated steel outer sheets with 50 mm thick PUF/EPS insulation core (density as specified), complete with self-drilling screws, weatherproof sealants, side/end laps, flashings, ridge caps, closures, lifting, handling, and all accessories required for a complete watertight roofing system.	m^2	22.00		-
E1(c)	Supply and install good quality Gypsum ceiling boards as per the satisfaction of the engineer finished with at least two coats of approved paint (Cost of paint with all necessary surface preparation should be included).	m^2	19.04		-
E1(d)	225x25mm thick fascia board fixed in place including priming and finishing it in approved paint	Lm	6.00		-
	Total E				**-**
F	**FITTINGS (DOORS, WINDOWS AND VENTS)**				
F.1	Supply and install WD1, 900x2400mm, hard wood framed door, 1 1/4" thick Imported wooden door sashes with a 200x50mm wood timber frame, 3 pairs of stainless steel butt hinge ball bearing. The door should have all necessary finishings such as painting, polishing as shown on drawings	No.	3.00		-

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
F.2	Supply and Install, 1000 x 1200mm high Aluminum sliding window with 6mm tinted glass fixed with micro film inter layer as shown on drawings including all necessary hinges, handles, locks and sealers	No	1.00		-
F.3	Supply and Install, 1500 x 1800mm high Aluminum sliding window with 6mm tinted glass fixed with micro film inter layer as shown on drawings including all necessary hinges, handles, locks and sealers	No	1.00		-
	Total F				**-**
G	**FINISHES**				
G.1	**Plastering/Rendering**				
G1(a)	20 mm thick Cement Sand plastering (1:3) finished smooth surface with wooden float for the internal and external walls, Columns , Grade beams and ring beams of the building including curing.	m^2	94.00		-
G1(b)	30mm thick Cement Sand floor screed (1:3) finished smooth for tiles and Supply and fixing of 600mm x 600mm no slippery- Ceramic floor tiles with approved tile bond as per drawings	m^2	19.04		-
G1(c)	Supply and fixing of 100mm high ceramic tile skirting along wall.	m	11.10		-
G1(d)	Supply and fix 300mm x 300mm Ceramic tiles over 1:3 cement sand mixture (all inclusive) in bathrooms walls upto1.5 m height in toilet	m^2	18.30		-
G.2	**Painting**				
	PAINTING: Rate shall include for preparation of surface cleaning down, smoothing, knotting, stepping etc. protection of floors and fitting, and cleaning upon completion.				
G2(a)	Prepare surface, apply filler, apply one coat of primer and two coats of weather resistant externally and silk vinyl paint internally faces of walls (Contractor will submit the sample for Color and manufacturer approval)				
	Internal Walls	m^2	64.08		-
	External Walls	m^2	59.40		-
	Total G				**-**
H	**RAIN WATER ROOF DRAINAGE SYSTEM**				
	Rainwater goods: Unplasticized Polyvinyl Chloride (UPVC) Pipes, Gutters and Fittings Joined in Accordance with the Manufacturer's Instructions:-				
H1	300mm Wide Dome Shaped PVC Roof Fulbora / Roof Gullycomplete with all fixing brackets and accessories to approval :	Lm	6.00		-
H2	100 mm Diameter Rain water down pipes complete with all fixing brackets and accessories to approval at site	Lm	7.00		-
	Total H				**-**

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
I	**ELECTRICAL INSTALLATIONS INCLUDING TESTING AND COMISSIONING**				
	Note : unless other wise stated rates in Bill of quantities shall include all necessary material, cables, conduits, PVC sunk box, Bulbs switches etc. and labor required to complete the electrical installation. Testing and commissioning of electrical installations is to be carried out by contractor and cost of such testing and reports to be included in rates. All types of fittings shall be approved by engineer prior to installation				
I.1	Allow sum for wiring, conduiting, chasing, making good to all finishes, connection and testing to the whole building to approved standards including earthing with standard electrode.	Item	1.00		-
I.2	Supply and fixing Control panel box complete with main switch and circuit breakers separate for the lighting and socket power system as per engineers approval	No.	1.00		-
I.3	Supply and fixing Meter box including the provision of main switch and cut-outs at the meter box as per engineers approval	No.	1.00		-
I.4	Supply and fixing one gang one way switch as per engineers approval	No.	3.00		-
I.6	Supply and fixing 13A Twin Socket as per engineers approval	No.	2.00		-
I.7	Supply and fixing 18 watt LED fitting 4ft in length having minimum of 2775 lumens, luminous efficacy 150lm/watt having lamp life at least 50000 hours complete as per engineers approval	No.	3.00		-
I.8	Supply and fixing Overhead fans "Oriental" or equal approved including the control and wiring as per engineers approval	No.	1.00		-
I.11	Supply, Lay and connect 25mm2 PVC/Cu cable from meter box to Infant care room. Complete job including excavation and back filling	Item	1.00		-
	Total I				**-**
J	**PLUMBING AND DRAINAGE**				
J1	Supply and Install Vitreous China ceramic wash hand basin complete with tap and trap including all necessary plumbing, connections and connections to main drainage as per the satisfaction of engineer	No.	3.00		-
J2	Supply and Install complete toilet seats with flushing system of 20 liter water tank and shower for washing including all necessary plumbing, connections to water supply network, and connections to main drainage as per the satisfaction of engineer	No.	1.00		-
	Total J				**-**

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
K	**FURNISHING**				
K1	Supply and installation of 5-seater sofa, comprising a hardwood/engineered wood frame, high-density foam cushions, upholstered in approved fabric/leatherette finish, complete with seat, backrest, armrests, stitching, and all accessories required for a complete installation, in accordance with approved drawings, specifications, and manufacturer's recommendations	No.	1.00		-
K2	Supply and installation of wall-mounted diaper changing shelf (baby changing station), manufactured from high-density polyethylene (HDPE), molded plastic, stainless steel, or approved equivalent material, with smooth, easy-to-clean surfaces, safety straps, protective side barriers, load-bearing hardware, and all necessary brackets, anchors, fixings, and accessories. Complete with installation, testing, and commissioning in accordance with the manufacturer's recommendations and approved specifications.	No.	1.00		-
	Total K				**-**
	TOTAL LACTATION ROOM				**-**
	GRAND TOTAL PLAY AREA AND LACTATION ROOM				**-**

SINAAN

Garowe Community Cohesion and Green Cultural Park

PR 050

Nursery, External Plantation and Land Scaping

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
	Nursery 50m x 50m				
A	**EARTHWORKS**				
A1	Site clearing, setting out and simple formation to receive works with 5m offset on each side	m²	3025.00		-
A2	Excavation for isolated column base pad footings and perimeter strip footing and dispose within site	m³	65.34		-
	Total A				**-**
B	**SUBSTRUCTURE**				
B1	Providing and laying reinforced cement concrete mix to obtain 2500 psi (Cylinder Strength at 28 days) (1:2:4) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (including cost of form work, its fabrication and placing in position, etc.) for Pad, strip footing and Pedestal	m³	20.06		-
B2	Supply and Fabrication of High Tensile Steel reinforcement Grade 60(6000 Psi) deformed bars for pad, strip footing and pedestal, including cutting, bending, laying in position, over lapping, making joints, fastenings, wastage and including cost of binding wire & labors charges for binding of steel reinforcement in place (also includes removal of rust from bars) .	kg	1892.00		-
B4	Supply and fix Anchor bolts M16 with nuts/washers (4 per column)	Set	121.00		-
					-
C	**SUPERSTRUCTURE**				
C1	Supply, Fabrication and Installation of SHS steel including all necessary bolts and weldings for (columns + beams +Trusses + Girders + bracing) including 5% wastage as per attached schedule. Contractor will submit shop drawings for approval. All SHS steel members will be painted with minimum 3 coats of anti corrosion paint	Kg	9822.00		-
C2	Base plates 200×200×10 mm (1 per column)	pcs	121.00		-
C3	Bolts/nuts/washers for beam connections (M12/M16)	LS	1.00		-
	Total C				**-**
D	**Walling (Chicken Wire Mesh + Rails + Fixings)**				
D1	Provide and install chicken wire mesh walling (perimeter area including 10% waste)	m²	704.00		-
	Total D				**-**
E	**Roof (UV Shade Net + Lacing + Accessories)**				
E1	Provide and install UV-stabilized high-quality shade net, (Green in colour and 75% Shading) to the roof, including fixing wire/twine and fasteners	m²	2750.00		-
	Total E				**-**
	GRAND TOTAL FOR Nursery				**-**

SINAAN

Garowe Community Cohesion and Green Cultural Park

PR 050

Public Car Parking 350m x 12 m

Item	Description	Unit	Qty	Unit Price (GBP)	Total Price (GBP)
A1	Site clearance and stripping	m^2	5047.50		-
A2	Supply , lay and compact to 95% M.D.D. (AASHTO T.180) 150mm thick gravel base, shape to level and tolerance.	m^3	757.13		-
	Total A				**-**
GRAND TOTAL					**-**

Specifications – Builders Works

The works shall involve the Construction of Garowe Community Cohesion & Green Cultural Park as detailed in the drawing and outlined in the BOQ.

The Bidder shall undertake the Construction of Garowe Community Cohesion & Green Cultural Park as shown on the designs and drawings in conformity with the Specifications. The Bidder shall at all times use the best available materials and use only suitable construction methods.

SINAAN PROGRAMME will provide detailed Specifications for Construction of Garowe Community Cohesion & Green Cultural Park after the contract is awarded. No separate payment and mode of measurement will be made and given to any separate payment rather than contract payment.

ANNEXES – The following annexes are incorporated as reference as they will apply to the contract award.

Annex 1 - Scope of Work (SOW) & Technical Specifications
Annex 2 - Design Drawings
Annex 3 - Quality Assurance & Control Plan
Annex 4 - Environmental Mitigation Requirements
Annex 5 - Health, Environmental, Safety & Security Plan (HESSP) Guide

ANNEX 1- Statement of Works (SOW) & Technical Specifications

THE SCOPE OF WORK (SOW)

CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

TABLE OF CONTENTS

Acronyms **3**

SCOPE OF WORKS **4**

A. General Description **4**

B. Background **4**

C. Objective **4**

D. Expected Outcomes and Targets **5**

E. Activities **6**

E.1. Main Construction Activities 6

E.2. Site Security During Construction 6

E.3. Sampling and Testing 6

E.4. Other anticipated activities 7

F. Monitoring and Evaluation **8**

F.1. Contractor Quality Control Plan (QCP) 8

F.2. Health, Safety & Security Plan (HSSP) 9

F.3. Environmental Mitigation and Monitoring 9

H. Special Instructions **10**

I. Deliverables **10**

J. Submittals **11**

K. Period of Performance **11**

L. Anticipated Payment Schedule **11**

M. Coordination **12**

N. Applicable Codes and Standards **12**

ACRONYMS

CC	Construction Contractor
CFR	Code of Federal Regulations
CIP	Construction Implementation Plan
EMMP	Environmental Mitigation and Monitoring Plan
ERR	Environmental Review Report
FAA	Fixed Amount Award
GIS	Geographic Information Systems
HSSP	Health, Safety and Security Plan
POC	Point of Contact
QA	Quality Assurance
QC	Quality Control
QCP	Quality Control Plan
RFP	Request for Proposals
FC	Field Coordinator
SMT	Senior Management Team
SOW	Scope of Work

SCOPE OF WORKS

Project Name: **SINAAN**

Sub Project: GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

Location: Garowe

Project Geographic Coordinates:

A. GENERAL DESCRIPTION

The Sinaan Programme, supported by the UK Government, is a transformative initiative aimed at improving urban development in Somali cities. The programme addresses rapid urbanization, climate risks, and governance issues by transforming clusters of Somalian cities into inclusive, resilient, and sustainable economic hubs.

B. BACKGROUND

The programme aims to promote equitable service delivery, nature-based solutions (NbS), and economic opportunities for all socioeconomic groups, adopting both an inclusive and transformational approach.

The programme aims to unlock access to climate-resilient basic services and promote green economic opportunities in Somalian cities through:

- Resilient urban planning that reduces conflict, enhances climate resilience and supports integration of Internally Displaced Peoples (IDPs).
- Developing a pipeline of climate-resilient infrastructure projects that drive systemic change and promote economic growth; and,
- Mobilizing finance (including climate finance) for sustainable, inclusive and climate-resilient infrastructure to support green growth.

The programme aims to enhance access to sustainable services, strengthen resilience among IDPs and the urban poor, and reduce long-term displacement risks. The initiative seeks to identify opportunities in Somali cities to catalyze investments from the government, private sector, development partners, non-governmental or not-for-profit organizations, aligned with the UK's International Development Strategy and the International Climate Finance Strategy.

The programme has three pre-identified outcomes, including:

- Improved urban planning, land use control and decision making.
- Improved institutional processes and systems.
- Increased sources of finance (including climate finance) for sustainable, inclusive and resilient urban infrastructure and ecosystems.

C. OBJECTIVE OF THE SUB PROJECT

The main objective of the Garowe Community Cohesion and Green Cultural Park is to create a safe and environmentally sustainable public space where people of all ages and backgrounds can come together to engage in recreational, cultural, social, and healthy activities, thereby strengthening community cohesion and social harmony.

The park is envisioned as a multifunctional community hub that promotes physical well-being, mental health, and social interaction through a diverse range of facilities and activities in multiple phases of construction, including:

- Walking and jogging tracks designed for daily exercise, leisure walks, and fitness routines.
- Sports and play fields, including football grounds, paddle courts, and volleyball courts, providing opportunities for organized sports, informal games, youth engagement, and community tournaments.
- Children's play areas that offer safe and stimulating environments for younger users, supporting family-oriented recreation.
- A mosque, serving as a spiritual anchor within the park, enabling worship, reflection, and community gatherings, while reinforcing shared values and social unity.
- A cultural and community center capable of accommodating a wide range of social, cultural, and civic events such as community dialogues, cultural performances, exhibitions, workshops, trainings, celebrations, and public meetings.
- Green open spaces and landscaped areas that offer shaded seating, relaxation zones, and picnic areas, enhancing environmental quality and providing spaces for informal social interaction.

The Specific scope for **Phase 1** of the project is

- Ground Preparation, levelling of the complete site, preliminaries
- Boundary wall, entrance gate and security check
- Nursery establishment, including sprinkler system and landscaping
- Children's Play Area
- Outdoor lighting and electrification
- Walkways and sitting area
- Ablutions (2 Nos)
- Kiosks (5 Nos)
- Sewage and Septic Tank
- Car Parking (for 50 cars front gate)

Through the integration of recreational, cultural, spiritual, and social facilities within a green and accessible environment, the Garowe Community Cohesion and Green Cultural Park aim to foster social inclusion, promote healthy lifestyles, preserve cultural identity, and strengthen bonds among community members, making it a vital public asset for the city of Garowe.

D. EXPECTED OUTCOMES AND TARGETS

- Ground Preparation, levelling of the complete site,
- Boundary wall, entrance gate and security check
- Nursery establishment, including sprinkler system and landscaping
- Children's Play Area
- Outdoor lighting and electrification
- Walkways and sitting area
- Ablutions (2 Nos)
- Kiosks (5 Nos)
- Sewage and Septic Tank
- Car Parking (for 50 cars front gate)

E-ACTIVITIES

E.1. MAIN CONSTRUCTION ACTIVITIES

The main activities that will be performed to complete this job include:

- **Site clearance & setting out** of buildings as per the issued drawings. Excavations for foundation trenches to proceed after the SINAAN site engineer has approved and signed off.
- **Leveling** off the field to get proposed elevations to be signed off by the SINAAN site engineer.
- **Excavation** of trenches for the foundation of all proposed structures as per drawings and BOQs
- **Construction** of Substructure (Foundations) and superstructure (Walls above grade) of all proposed structures as per issued drawings and specifications
- **Backfilling after leveling set** Compaction of soil with maximum compaction and to 98% MDD.
- **Ring beams** of wall, Forms, Ironwork and PCC concrete work of all proposed structures
- **Construction of Roof Structure** including Installation of trusses GI sheets for roofing & Internal false ceiling of all proposed structures as per issued drawings and specifications
- **Finishing for walls** and floor of all proposed structures
- **Electrical work** of all proposed structures as per issued drawings and specifications
- **Installations of Windows and Doors** of all proposed structures as per issued drawings and specifications
- **Mechanical and Plumbing** works for all structures of all proposed structures as per issued drawings and specifications
- **Septic tanks/Soak Pits** and all connections of Plumbing as per issued drawings and specifications
- Any Other construction structures as shown on drawings, and other activities as directed by the DT GLOBAL- SINAAN

E.2. SITE SECURITY DURING CONSTRUCTION

The main activities that will be performed to ensure site security during construction include:

- Enclose the job site with a security fence.
- Provide night time lighting of the site.
- Provide limited access to the site at all times, preferably with lockable gates.
- Maintain a clear zone adjacent to fencing.
- Post warning signs to help keep unauthorized persons off the site.
- Use only high quality locks – never leave keys in locks or leave locks in an open position.
- Inspect the site at the end of each day before securing it, to assure nothing has been compromised.
- Provide parking areas outside of the site for employees and visitors.
- Use security guards, and have them patrol the site on designated rounds. Provide all security guards with a means of communication.
- Consider limiting vehicle access to the site to one designated entrance through which all vehicle traffic flows.
- Providing light, warning boards and refluxing plates and tools to be visible near to excavations and risk area.

E.3. SAMPLING AND TESTING

The main activities that will be performed to conduct adequate sampling and testing of materials and works during construction include:

- Taking samples of sand, aggregate from different sources and sending them to a well-known and qualified laboratory to determine their qualities to be used in concrete. Sampling should be done

according to **AASHTO** and **ASTM.** The testing laboratories will be verified by **DT GLOBAL SINAAN** before any testing to be undertaken.

- Performing onsite tests for determining the slump of concrete and laboratory test for the strength of the concrete.

No	Tests Description	Standard
1	Sieve Analysis Coarse & Fine Aggregate	AASHTO- T27 ASTM- C136
2	Moisture Density Relationship	AASHTO- T199 ASTM- D1557
3	Atterberg Limits	AASHTO- T89, T90 ASTM- D4318
4	Soil Density in place by Sand-Cone Method	AASHTO- T70 ASTM- D1556
5	Compressive Strength Test (incl. Sampling and Curing)	AASHTO- T22 ASTM- C39
6	Slump Test	AASHTO- T119 ASTM- C143
7	Specific Gravity	AASHO T 228 ASTM-D-70
8	Water	AASHO T 55 ASTM-D-95
5	Distillation	AASHO T 78 ASTM-D-402
6	Penetration	AASHO T 49 ASTM-D-5
7	Ductility	AASHO T 51 ASTM-D-113
8	Solubility in Trichloroethylene	AASHO T 44 ASTM-D-2042
9	Water	AASHO T 55 ASTM-D-95
10	Thin Film Oven Test	AASHO T 179 ASTM-D-1754

E.4. OTHER ANTICIPATED ACTIVITIES

As per request by DT GLOBAL SINAAN, sub-contractor shall provide sufficient site security for DT GLOBAL SINAAN site teams to do their site works as to be defined by the Health, Safety and Security Plan (HSSP).

The Contractor shall be entirely responsible for the security of all the works, stores, materials, plant, personnel, etc., both his own and any sub-contractors and shall provide all necessary watching, lighting, site and other precautions as necessary to ensure the security and the protection of the public as mentioned in section E.2.

F. MONITORING AND EVALUATION

F.1. CONTRACTOR QUALITY CONTROL PLAN (QCP)

DT GLOBAL SINAAN will provide the CC with the QCP Template as guidance for preparing QCP specific to the technical specifications and site characteristics unique to this construction activity.

A comprehensive QCP that follows this template shall be prepared by and to be submitted for approval to DT GLOBAL SINAAN. The CC shall acquire written approval of the QCP from DT GLOBAL SINAAN before commencing construction activities.

The QCP shall include all quality control (QC) activities for this project. Non-specific Plans that do not include testing plans, materials submittal plans, schedules, personnel, and other non-project-specific information will be rejected. Construction work will not be allowed to proceed without a project-specific, DT GLOBAL SINAAN approved QCP. The CC shall carefully review all QC requirements shown in the Specification for use as the basis for developing the QCP.

All activities and workmanship, labors and construction materials shall be continuously checked and monitored by qualified QC engineers employed by the CC. DT GLOBAL SINAAN reserves the right to demand the replacement of unqualified CC's QC personnel.

The minimum requirements of the CC's QCP are as follows:

- Organization Chart and Responsibilities of Key Management Staff
- Individual responsibilities with regard to QC for the following:
    - Director of the Company
    - CC's Quality Control Manager (QCM)
    - CC's Quality Control Engineer (QCE)
    - Project Manager
    - Outside Organizations (if any)
- Activities and Procedures adequate to demonstrate that all of the quality control requirements of the Specifications will be met by the procedures, schedules, and personnel shown in the plan.
- Testing Plan
- Testing Laboratory Information
- Procedures for completing Deficiencies/Rework Items
- List of definable features of work (DFOW)
- Procedures for Three Phase Control system.

F.2. HEALTH, SAFETY & SECURITY PLAN (HSSP)

DT GLOBAL SINAAN will provide the CC with the HSSP Template as guidance for preparing HSSP specific to the technical specifications and site characteristics unique to this activity.

A comprehensive HSSP that follows this template shall be prepared by and to be submitted for approval to DT GLOBAL SINAAN. The CC shall acquire written approval of the HSSP from DT GLOBAL SINAAN before commencing sub project physical activities.

At a minimum the CC's HSSP plan should address the following:

- Compliance with laws, rules, and regulations, including any updates.
- Duties and responsibilities of CC's Construction Manager and Safety Officer/representative, etc.
- Infractions of safety rules (timely correction, serious hazards; defined at first safety meeting, etc.)
- Details on Personal Protective Equipment (PPE) for all skilled and unskilled labor on the job site

- Housekeeping (continuous cleaning, final clean-up, designated staging plan, etc.)
- Means of implementing the program (weekly toolbox meeting, emergency procedures, emergency phone numbers, project bulletin board w/policies, Employees first aid info, tracking and report keeping procedure, etc)
- Accident investigation (investigation and reporting procedure, notification and distribution manuals, etc.)
- Safety Training for both skilled and unskilled laborers on the job site.
- The CC must maintain a well-equipped First Aid's Kit that contains all necessary medicines and medical tools should be provided on work site, and a person shall be trained to use first aid's kit, properly.
- A car must always be present in the site to transfer the injured person to the nearest hospital or clinic in the case of serious injury.

The HSSP will include the following plans for the CC's Site Security Program:

- Project site entry control and entry restrictions to be maintained.
- Site security services
- Security Organization Chart
- CV of a head security staff person
- Provided facilities/ equipment
- Emergency procedures
- Procedural manual for movement of vehicles
- Parking of Machinery at site
- Procedures to ascertain the nature of security threats in advance.
- Reporting requirements
- Evacuation Plan.

F.3. ENVIRONMENTAL MITIGATION AND MONITORING

The CC must consider potential environmental impacts of construction related activities and implement the Environmental Mitigation and Monitoring Plan (EMMP) provided by DT GLOBAL SINAAN.

In order to document implementation of mitigation measures in compliance with the EMMP, the CC will complete Daily and Weekly Environmental Monitoring Checklists provided by DT GLOBAL SINAAN.

At a minimum, the EMMP will include specific mitigation measures that the CC must implement for the following:

- Hydrology, Floodplains, and Impacts to Surface Water Quality:
    - If project activities are located within floodplains or nearby surface water bodies, design structures appropriately to not cause upstream or downstream impacts, and design to withstand flood situations.
- Waste, Soil and Groundwater Contamination:
    - If chemicals are used during construction or if there is an oil or gas leak from the machinery, collect impacted soil and dispose of in approved municipal disposal area.
    - Avoid areas near wells and surface water, as well as areas that could drain into waterways or other sensitive areas.
    - Dispose of solid waste including machinery maintenance materials, such as oily rags, used oil filters, and used oil, as well as spill cleanup materials in the approved municipal disposal area.
- Borrow Pits and Quarries:

- Document the quantity of construction material needed and its potential sources, based on the quantity and quality of material at various sites.
- Identify locations, specify amounts to be removed from each site, and provide specific instructions for rehabilitation at each site.
- Borrow pits must be located outside of an active watercourse, or located away from sensitive areas and agricultural land, and be collected in a manner that does not damage existing natural resources, if possible, locate on barren land.

- Dust Control:
  - Use water trucks/water to spray down dusty surfaces to reduce fugitive dust emissions.
- Erosion Control:
  - Use hay bales and silt fences for Erosion and Sedimentation Control
  - Replant vegetation of previously vegetated areas and embankments
  - Use riprap, gabions, fiber mats to control erosion and wash-out
  - Compensation for loss of land and resources, if negotiated with private parties

H. SPECIAL INSTRUCTIONS

- In order to complete this job in anticipated time duration, the CC should use well-equipped work teams simultaneously.
- The line items in the BOQ for the QCP and HSSP plans MUST include, at a minimum, costs related to all requirements detailed in this SOW.
- Unskilled labor will be recruited and employed from the region to the maximum extent practical. It is highly preferred that 100% of all unskilled labor be from the local District; however, should this prove unfeasible, under no circumstances may the unskilled labor rate from the province be below 90%, and the CC must demonstrate to the satisfaction of DT GLOBAL SINAAN why the rate is below 100%.
- The CC will pay all the related taxes or fees to Govt for all the material for the project and this point to be specified in the bid documents.
- Bidders will be required to attend a bidder's conference physically or virtually in order for bids to be considered.

I. DELIVERABLES

The following deliverables are required:

- QCP
- HSSP
- Work Schedule
- Machinery and Equipment List with documents proving they are available for the duration of project.
- Weekly and Monthly Progress Report including photos with embedded date and time.
- Weekly Environmental Monitoring Checklists to document compliance with the EMMP
- Imported Construction materials certificates (Cement, Steel, Pipes, Paints, etc.)
- Materials Testing Results
- Proposal for Changes, Revisions, Time Extension, etc.
- Complete Invoices According to DT GLOBAL SINAAN requirements.
- Documents such as ad hoc Special Reports, justifications, Prices of Construction Materials and Human Resources in Work Site, Agreements, and Certificates of CC's subcontractors, etc.
- Request for a final check of the punch list

- Final Status report.

J. SUBMITTALS

- A complete set of drawings provided by DT GLOBAL SINAAN include the followings:
- Cover Sheet,
- Typical Section Sheet,
- Project Plan,
- Building Elevations and Sections
- Relevant Structural Drawings
- Necessary Detail Drawings.
- Necessary Building Massing Views
- Necessary pictures and related notes,

All materials shall be new and free of defects and in good condition. The final product, materials, and construction must meet the minimum standards as described in the contract documents and technical specification. The DT GLOBAL SINAAN may call for the contractor to provide and supply samples of all materials and equipment proposed for this work in order to review and approve them on site.

The contractor shall obtain DT GLOBAL SINAAN written verification for all submittals before installation. Material product sheets for all materials shall be delivered to DT GLOBAL SINAAN.

The Subcontractor shall also maintain a record of all these material and equipment specification sheets.

K. PERIOD OF PERFORMANCE

- The Subcontractor shall complete this assignment within a period as per the Project Schedule Timeline from the time of issuance of Notice to Proceed and shall expeditiously work to complete the project to the standards and quality that the contract stipulates.
- The subcontractor shall prepare detailed work plans (Schedule) for each item for submission to DT GLOBAL SINAAN during the pre-construction meetings.

L. ANTICIPATED PAYMENT SCHEDULE

1	Mobilization, Submission of QCP, HESP, Security Plan, Work Schedule, Machinery and Equipment List	1 week from NTP	
2	Progress Payment #1 on BOQ amounts of actual quantities verified by DT GLOBAL SINAAN	2 weeks from NTP	
3	Progress Payment #2 on BOQ amounts of actual quantities verified by DT GLOBAL SINAAN	1 month after NTP	
4	Progress Payment #3 on BOQ amounts of actual quantities verified by DT GLOBAL SINAAN	2 months after NTP	

5	Progress Payment #4 on BOQ amounts of actual quantities verified by DT GLOBAL SINAAN	3 months after NTP	
6	Progress Payment #5 on BOQ amounts of actual quantities verified by DT GLOBAL SINAAN	Completion of all physical works anticipated in 6-8 months	
7	Final Retention Payment pending expiration of the warranty period	Two months after completion of physical work	
		Total	100%

Progress Payments need to be submitted on 25th days of each month.

M. COORDINATION

The CC shall attend a "Pre-construction Conference with DT GLOBAL SINAAN to discuss the Start Date, Schedules for Submittals, Quality Control Plan, HSSP and Site Security, EMMP and overall project implementation plan and schedule.

During construction, the CC shall have in his possession on site a copy of the SOW, the Drawings, Technical Specifications, the HSSP, the EMMP and Environmental Monitoring Checklists, and other documents which will be required by DT GLOBAL SINAAN.

N. APPLICABLE CODES AND STANDARDS

In the absence of other Standards being required by the Specifications and Contract Documents, all work and materials shall meet the requirement of the International Building Code (IBC), and/or applicable British Construction Standards (BS) CODES, American Society for Testing Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO) Specifications, American Concrete Institute Manual of Concrete Practice and American Institute of Steel Construction (AISC) Manual relevant to the Works. Where the abbreviations listed below are used, it refers to the latest code, standards, or publication of the following organizations:

BS	British Standards
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
ASA	American Standard Association
ASCE	American Society of Civil Engineers
ASTM	American Society for Testing and Material
AWS	American Welding Society

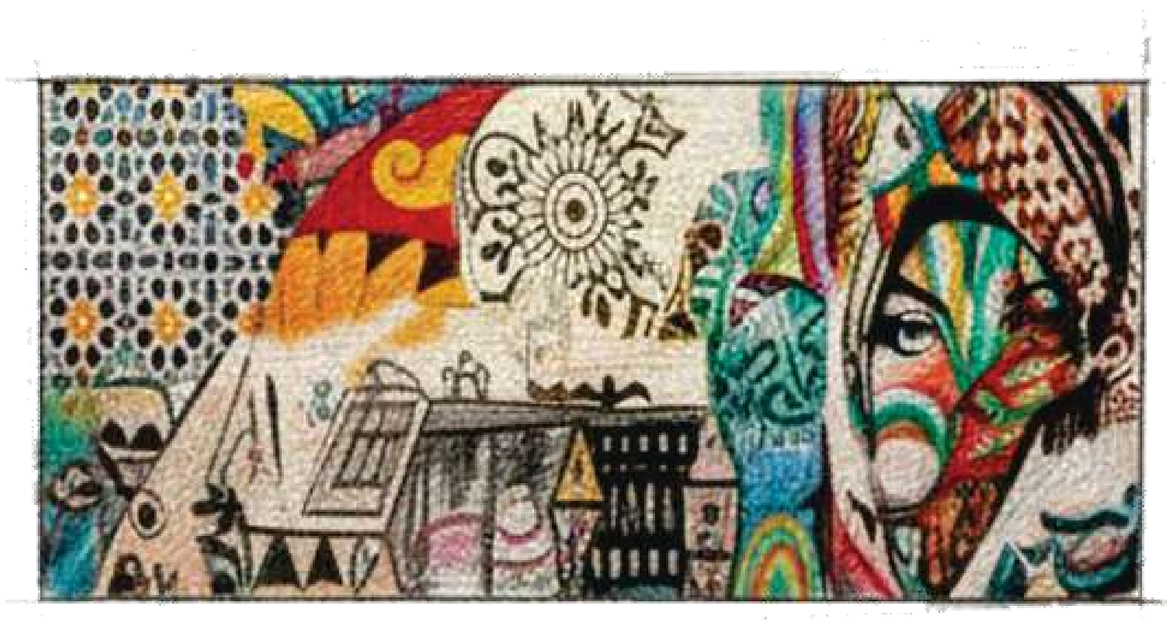
CFR	Code of Federal Regulation
IBC	International Building Code
ICAO	International Civil Aviation Organization Practice
FIDIC	Fédération Internationale Des Ingénieurs-Conseils
FAA	Federal Aviation Administration
PCA	Portland Cement Association
UBC	Uniform Building Code

Should the CC, at any time and for any specific reasons, wish to deviate from the above standards or desires to use materials or equipment other than those provided for by the above standards, then he shall state the exact nature of the change giving the reasons for making the change and shall submit complete specifications of the materials and descriptions of the equipment to DT GLOBAL SINAAN verification, whose decisions shall be conclusive and binding upon the CC.

ANNEX 2 - DESIGNS AND DRAWINGS

sinaan

Project Title: Community Cohesion and Green Cultural Park
Location (City): Garowe
Sector: Economic Development and Nature Based Solution

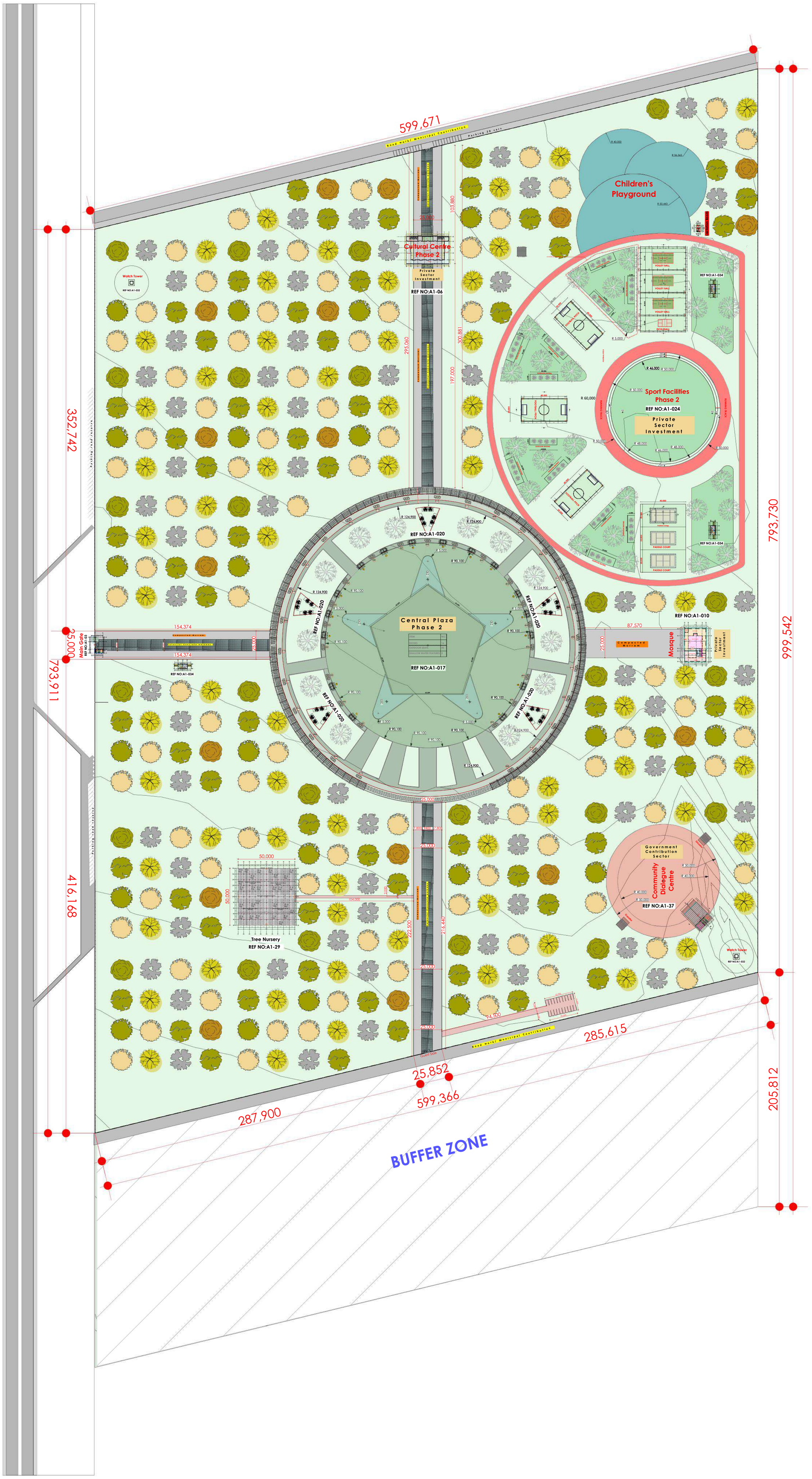




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GENERAL NOTES

1.ALL DIMENSIONS TO BE CHECKED ON SITE. WRITTEN DIMENSIONS RULES OVER SCALED DRAWINGS.
ANY DISCREPANCY IN DIMENSIONS TO BE REPORTED TOTHE ARCHITECT BEFORE PROCEEDING.
2.DEPTH AT FOUNDATION TO BE DETERMINED ON SITE ALL FOUNDATIONS R.C. COLUMNS AND R.C. WORKS TO STRUCTURAL ENGINEERS' DETAIL.
3.HEAVY DUTY POLYTHENE SHEETING AND TERMITE TREATMENT TO BE PROVIDED UNDER GROUND FLOORSLAB. DPC TO BE THREE PLY BITUMINOUS FELT LAID UNDER ALL WALLS.
4. P.V DENOTES PERMANENT VENTILATION. F.L DENOTES FANLIGHT ABOVE.
5. ALL WALLS TO BE REINFORCED WITH HOOP IRON AT EVERY ALTERNATIVE COURSE.
6. ALL SANITARY WORKS TO BE EXECUTED IN ACCORDANCE WITH M.O.H. RULES AND REGULATIONS.
7. ALL DRAINS UNDER BUILDING, DRIVEWAY, AND PARKING TO BE 150mm CAST IRON PIPE ENCASED
IN 150mm CONCRETE INSPECTION CHAMBERS WITHIN BUILDING TOBE FITTED WITH HEAVY DUTY DOUBLE SEAL AIR TIGHT COVERS

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FIRE FIGHTING NOTES

1.ALTERNATIVE MEANS OF LIGHTING USING SECONDARY MEANS TO BE INSTALLED.
2.HEAT/SMOKE DETECTORS TO BE INSTALLED.
3.BREAK-GLASS FIRE ALARM SYSTEM TO BE INSTALLED.
4.4500LTR WATER TANK WITH A BOOSTER PUMP TO BE PROVIDED.
5.1x9LTR WATER/CO2 AT EACH FIRE POINT TO BE PROVIDED.
6.1x10KG DRY POWDER AT EACH FIRE POINT TO BE PROVIDED.
7.FIRE NOTICE AND FIRE EXIT SIGNS AT STRATEGIC POSITIONS TO BE PROVIDED.
8.1000 GALLON WATER FOR FIRE FIGHTING TO BE PROVIDED.
9.1 NO. 4.5KG FIRE EXTINGUISHER AND 1 NO. BLANKET TO BE PROVIDED.
10.SPRINKLER SYSTEM TO BE INSTALLED IN THE PARKING.
11.6 NO. HYDRAULIC HOSE REELS 30 METRES LONG WITH OPEN SHUT OFF JET NOZZLE TO BE PROVIDED.

CLIENT : **SINAN PROJECTS**

PROJECT : **GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

PROJECT MANAGER/ARCHITECT: **IRFAN HOBAYA**

DRAWING TITLE : **MASTER PLAN** | SCALE: **AS SHOWN**

DRAWING NO:	PROJECT NO:	REV NO:
AA-308-	AA-308-GP-SM	-------

DRAWN BY:	CHECKED BY :	DATE :
	I.H	24/06/2026

PC | MAC | CAD FILE:

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Project Title: Community Cohesion and Green Cultural Park
Location (City): Garowe
Sector: Economic Development and Nature Based Solution



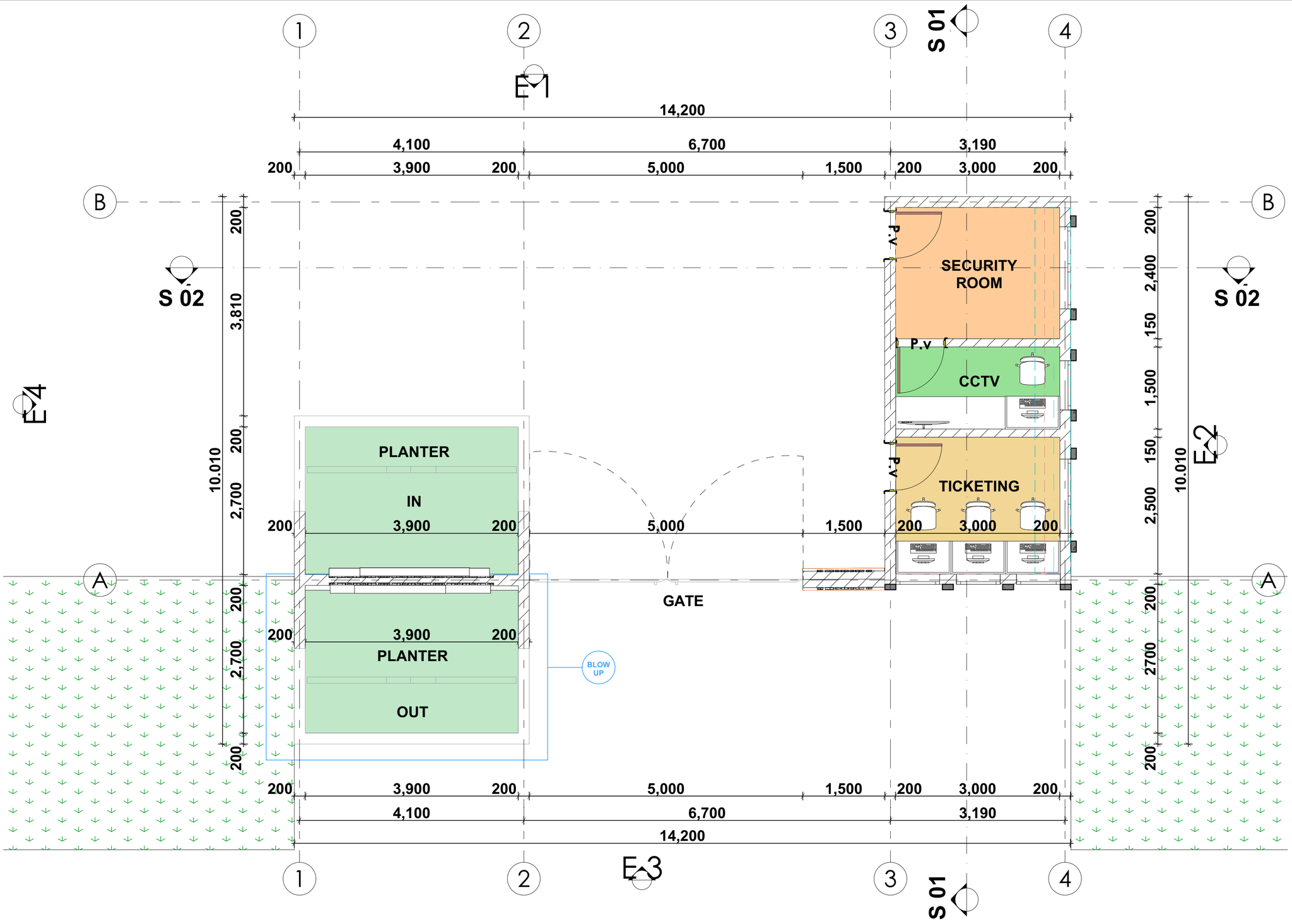


Entrance Gate Drawings

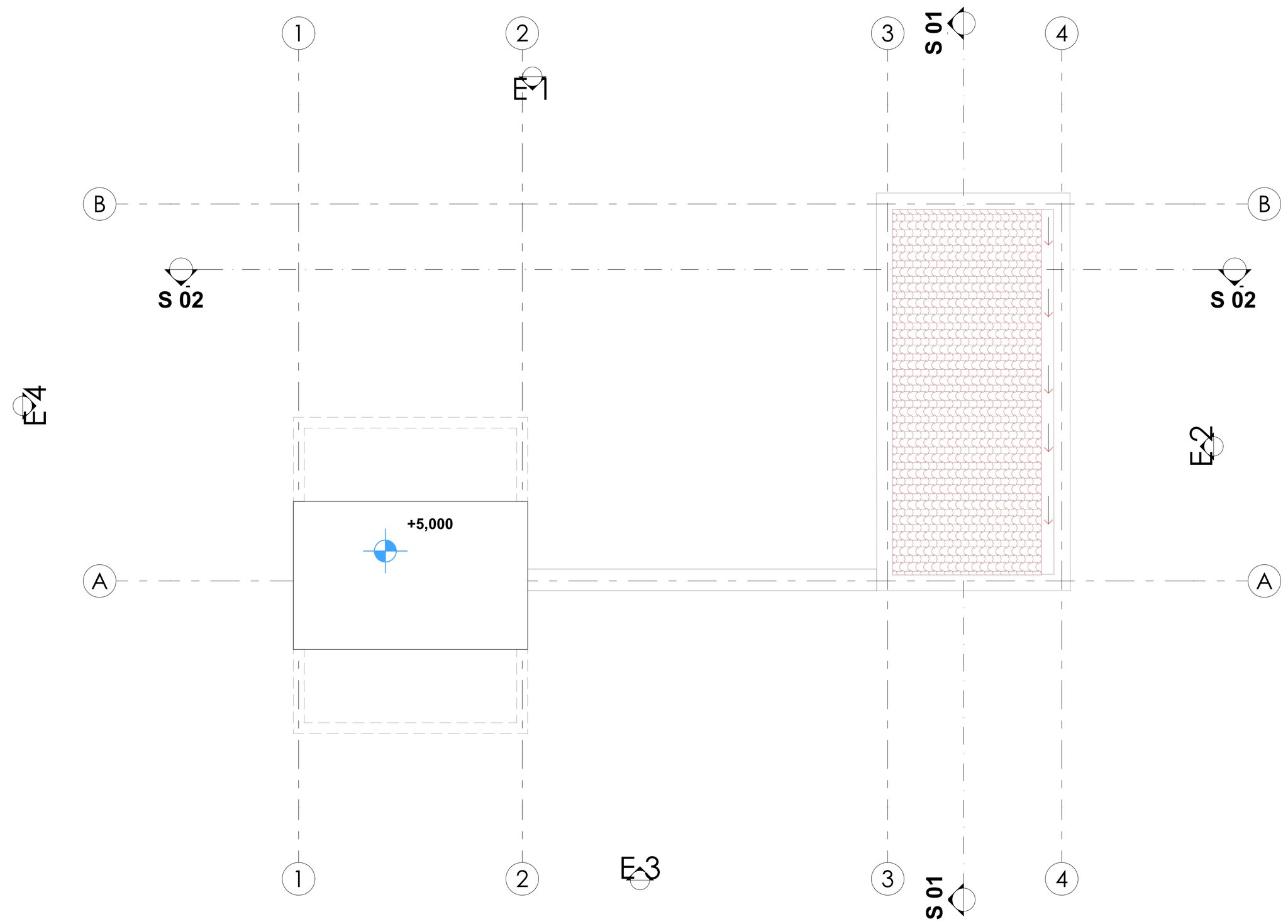
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Partnership | Progress | Prosperity



GAROWE GATE FLOOR PLAN SCALE 1:100



GAROWE ROOF PLAN SCALE 1:100

GENERAL NOTES

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IN 150mm CONCRETE INSPECTION CHAMBERS WITHIN BUILDING TOBE FITTED WITH HEAVY DUTY DOUBLE SEAL AIR TIGHT COVERS

FIRE FIGHTING NOTES

1.ALTERNATIVE MEANS OF LIGHTING USING SECONDARY MEANS TO BE INSTALLED.
2.HEAT/SMOKE DETECTORS TO BE INSTALLED.
3.BREAK-GLASS FIRE ALARM SYSTEM TO BE INSTALLED.
4.4500LTR WATER TANK WITH A BOOSTER PUMP TO BE PROVIDED.
5.1x9LTR WATER/CO2 AT EACH FIRE POINT TO BE PROVIDED.
6.1x10KG DRY POWDER AT EACH FIRE POINT TO BE PROVIDED.
7.FIRE NOTICE AND FIRE EXIT SIGNS AT STRATEGIC POSITIONS TO BE PROVIDED.
8.1000 GALLON WATER FOR FIRE FIGHTING TO BE PROVIDED.
9.1 NO. 4.5KG FIRE EXTINGUISHER AND 1 NO. BLANKET TO BE PROVIDED.
10.SPRINKLER SYSTEM TO BE INSTALLED IN THE PARKING.
11.6 NO. HYDRAULIC HOSE REELS 30 METRES LONG WITH OPEN SHUT OFF JET NOZZLE TO BE PROVIDED.

CLIENT : **SINAN PROJECTS**

PROJECT : **Garowe Community Cohesion and Green Cultural Park**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

PROJECT MANAGER/ARCHITECT: **IRFAN HOBAYA**

DRAWING TITLE : **PLANS** | SCALE: **AS SHOWN**

DRAWING NO:	PROJECT NO:	REV NO:
AA-308-0	AA-308-GP-SM	-------

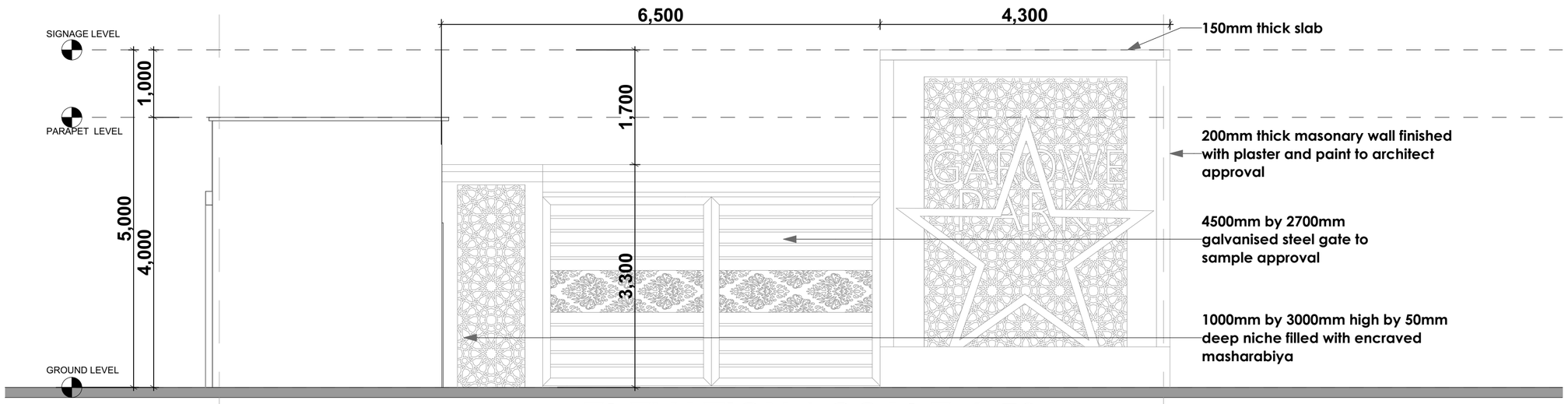
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	I.H	12/24/2025

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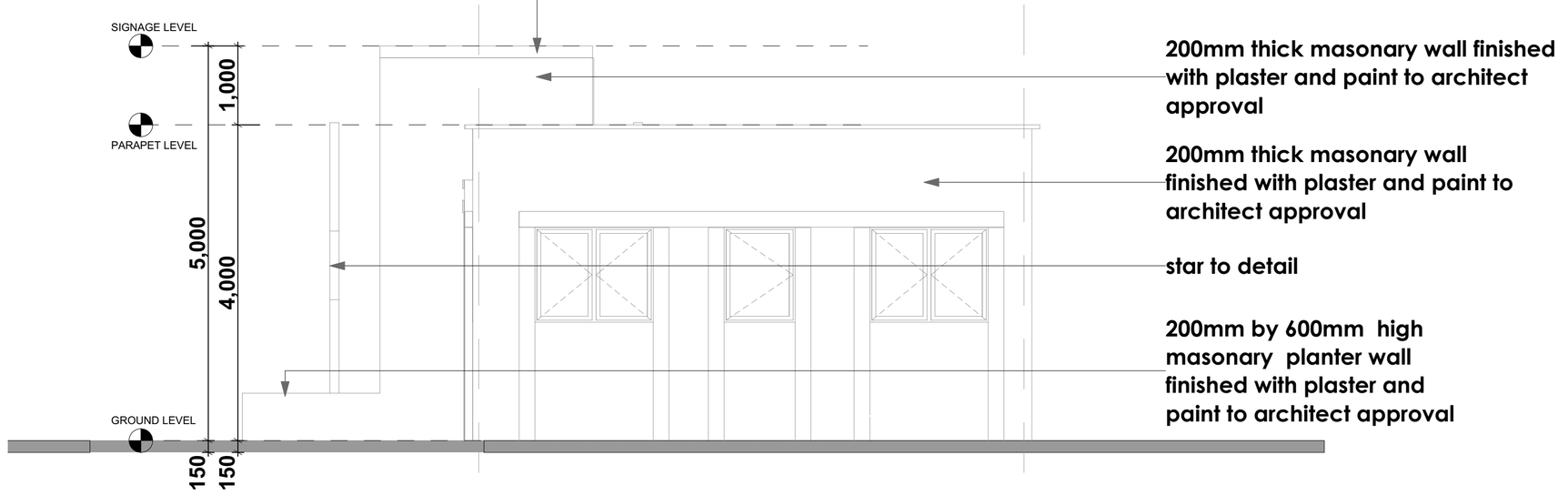
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sikastaba | in every way

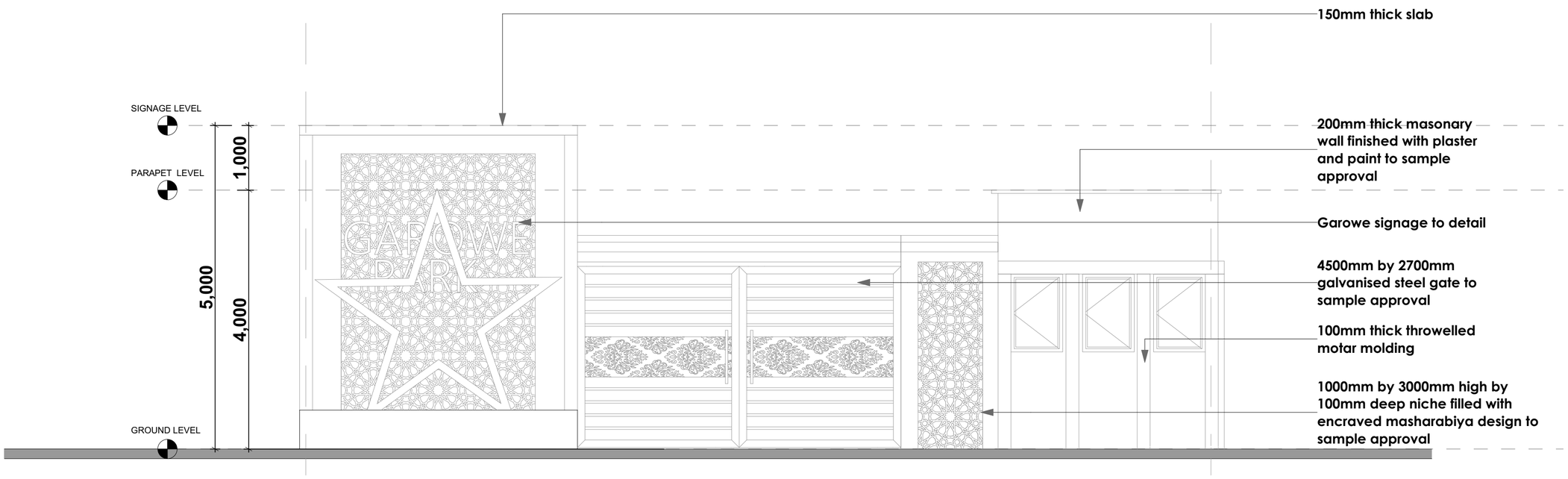
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Partnership | Progress | Prosperity



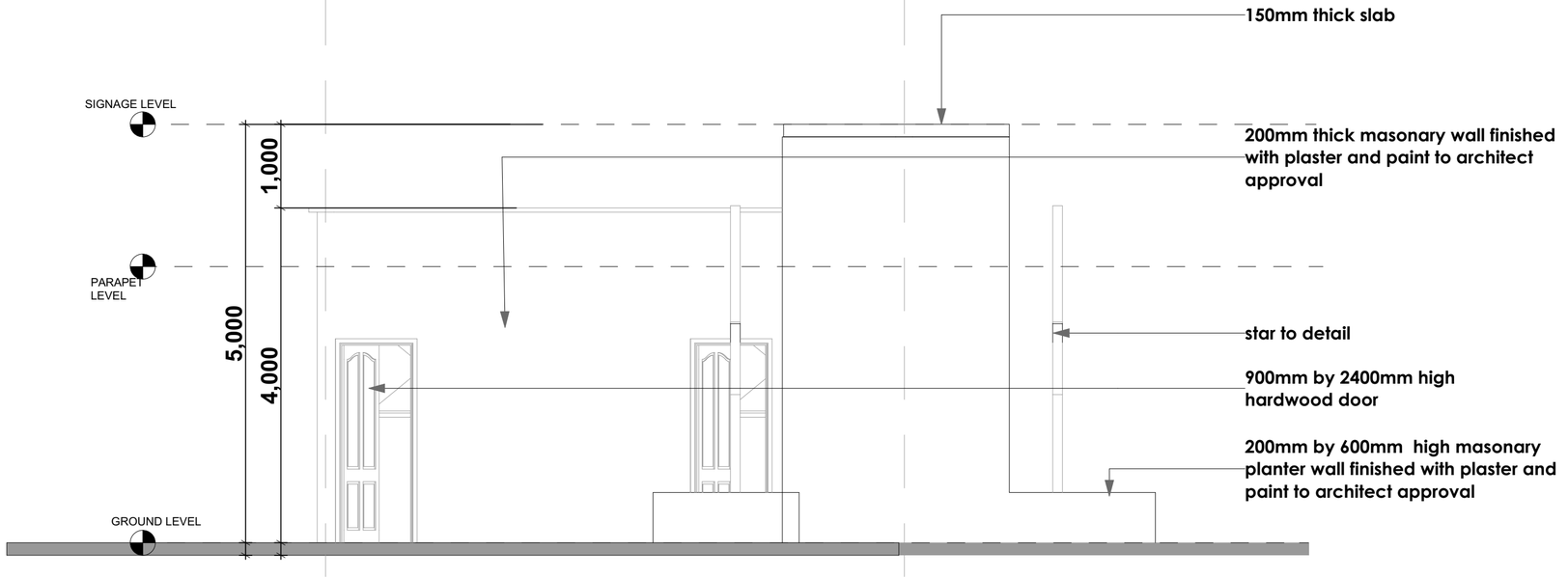
ELEVATION 1 SCALE 1:50



ELEVATION 2 SCALE 1:50



ELEVATION 3 SCALE 1:50



ELEVATION 4 SCALE 1:50

GENERAL NOTES

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3.HEAVY DUTY POLYTHENE SHEETING AND TERMITE TREATMENT TO BE PROVIDED UNDER GROUND FLOORSLAB. DPC TO BE THREE PLY BITUMINOUS FELT LAID UNDER ALL WALLS.
4. P.V DENOTES PERMANENT VENTILATION. F.L DENOTES FANLIGHT ABOVE.
5. ALL WALLS TO BE REINFORCED WITH HOOP IRON AT EVERY ALTERNATIVE COURSE.
6. ALL SANITARY WORKS TO BE EXECUTED IN ACCORDANCE WITH M.O.H. RULES AND REGULATIONS.
7. ALL DRAINS UNDER BUILDING, DRIVEWAY, AND PARKING TO BE 150mm CAST IRON PIPE ENCASED
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CLIENT : **SINAN PROJECTS**

PROJECT : **Garowe Community Cohesion and Green Cultural Park**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

PROJECT MANAGER/ARCHITECT: **IRFAN HOBAYA**

DRAWING TITLE : **PLANS** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-0** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

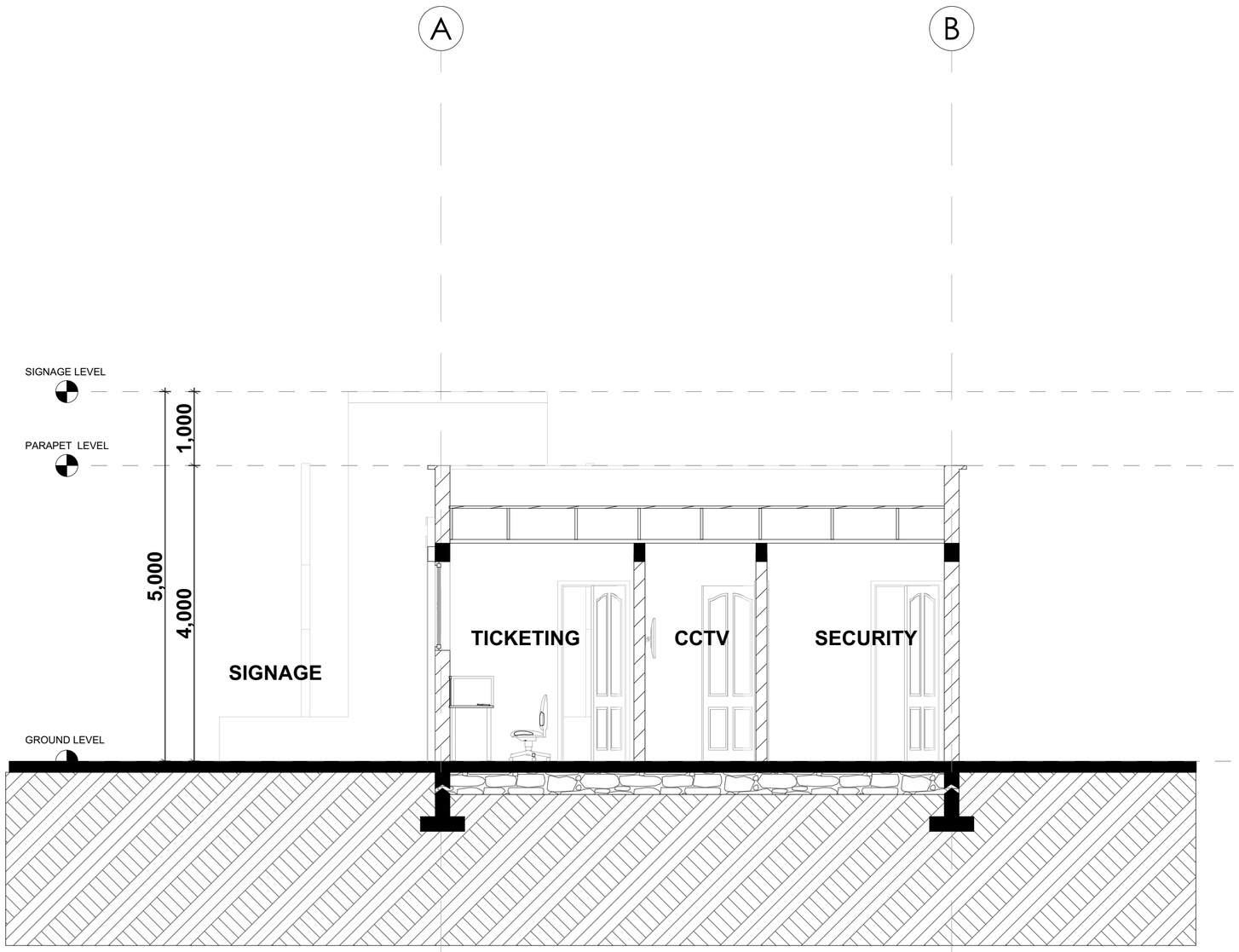
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PC | MAC | CAD FILE:

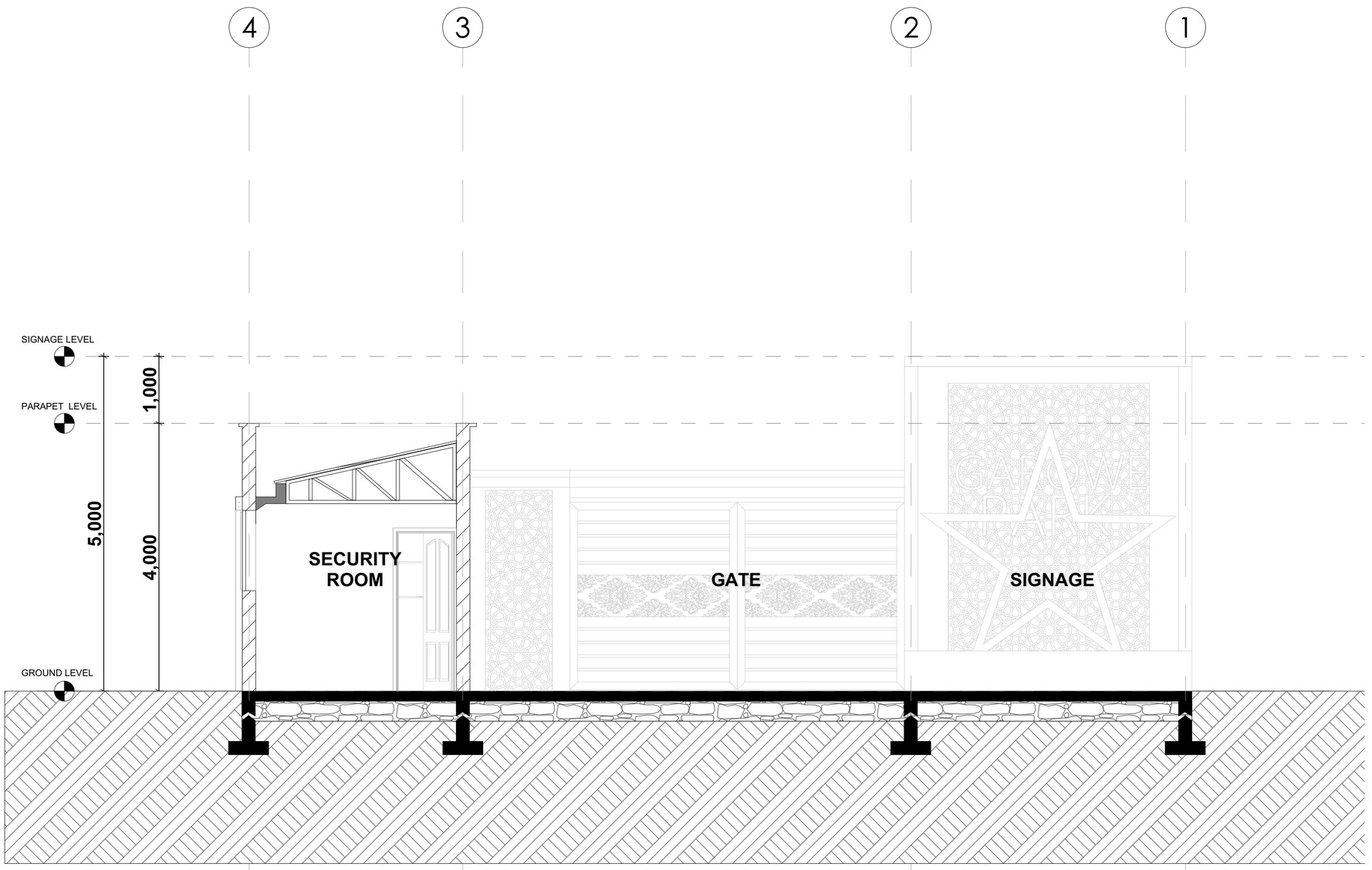
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UK International Development
Partnership | Progress | Prosperity



SECTION 1 SCALE 1:50



SECTION 2 SCALE 1:50

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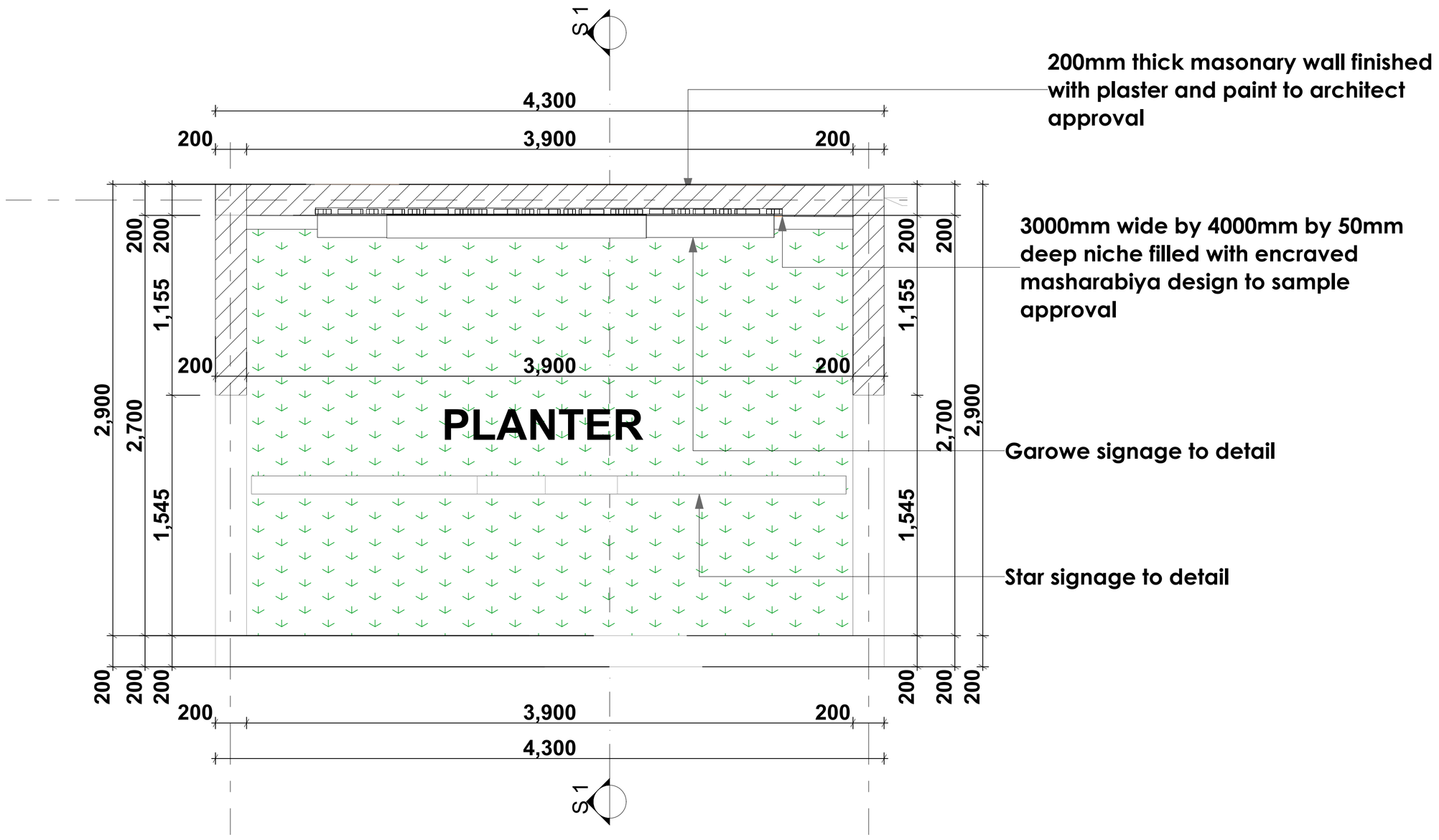
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DT Global

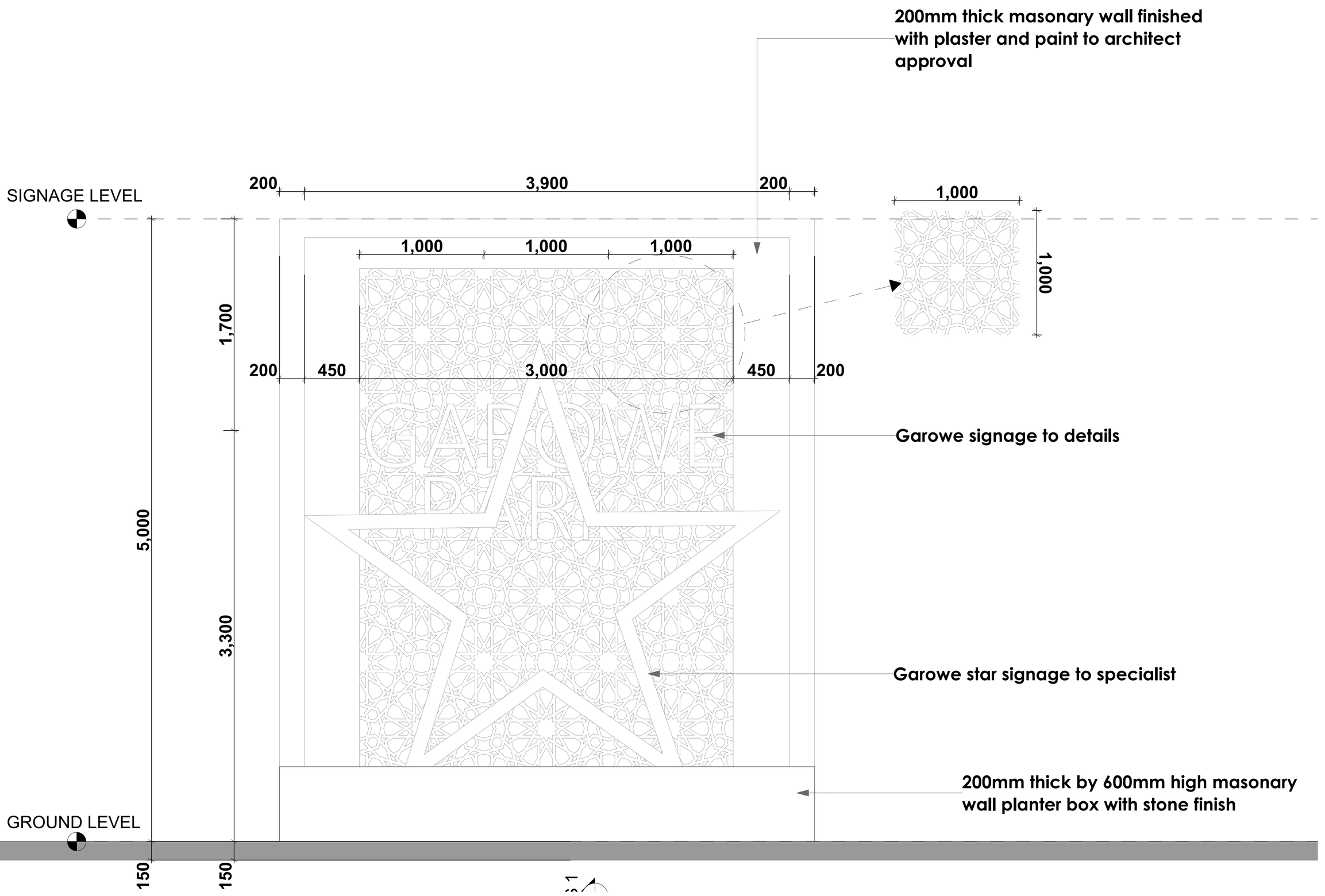
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SIGNAGE BLOW UP



PLAN SCALE 1:20



ELEVATION SCALE 1:20

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FIRE FIGHTING NOTES

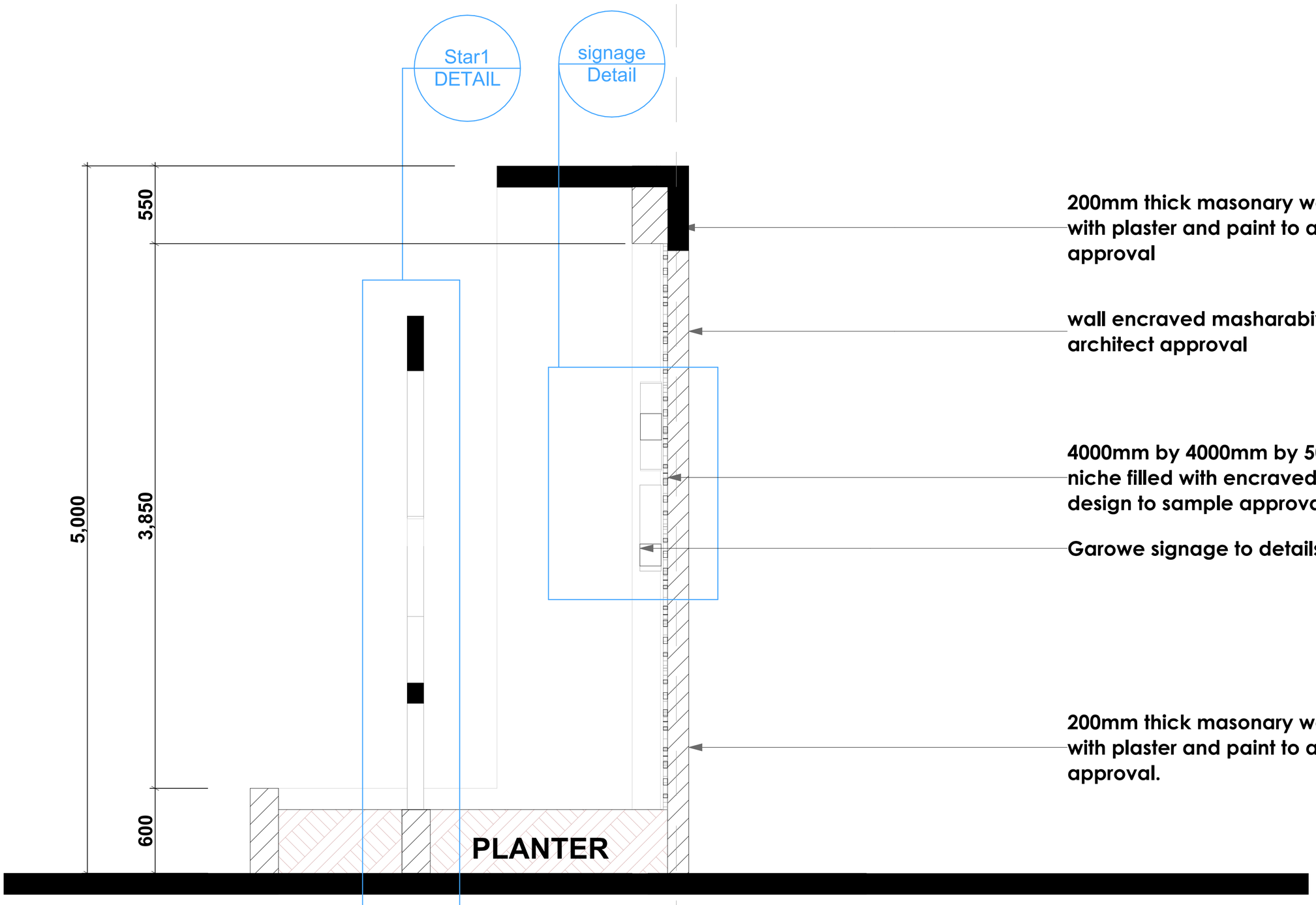
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CLIENT : SINAN PROJECTS	DRAWING TITLE : PLANS / SCALE: AS SHOWN
PROJECT : Garowe Community Cohesion and Green Cultural Park	DRAWING NO: AA-308-0 / PROJECT NO: AA-308-GP-SM / REV NO: -------
PLOT NO: / ROAD:	DRAWN BY: / CHECKED BY : I.H / DATE : 12/24/2025
LOCATION: SOMALIA / TOWN: GAROWE	PC / MAC / CAD FILE:
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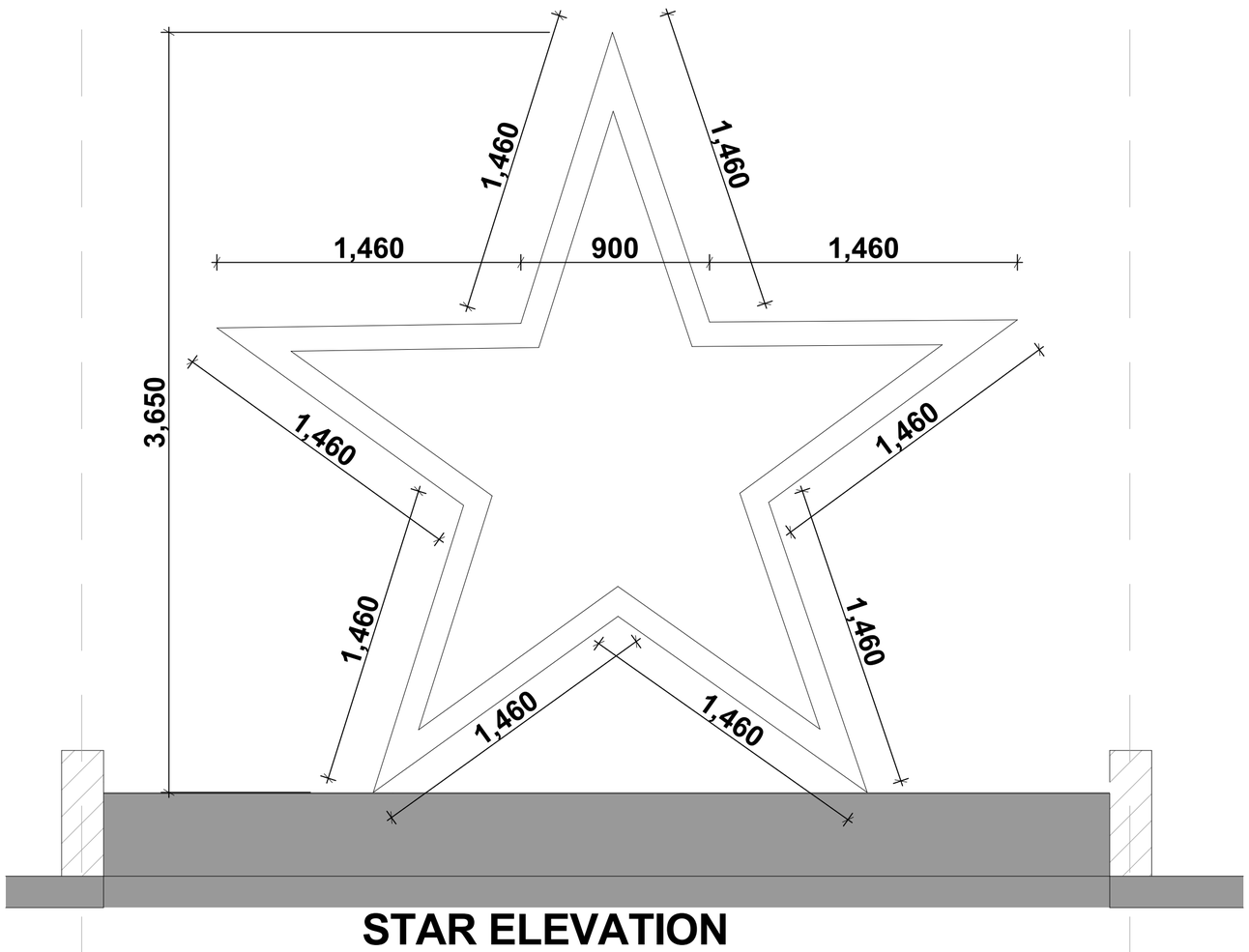
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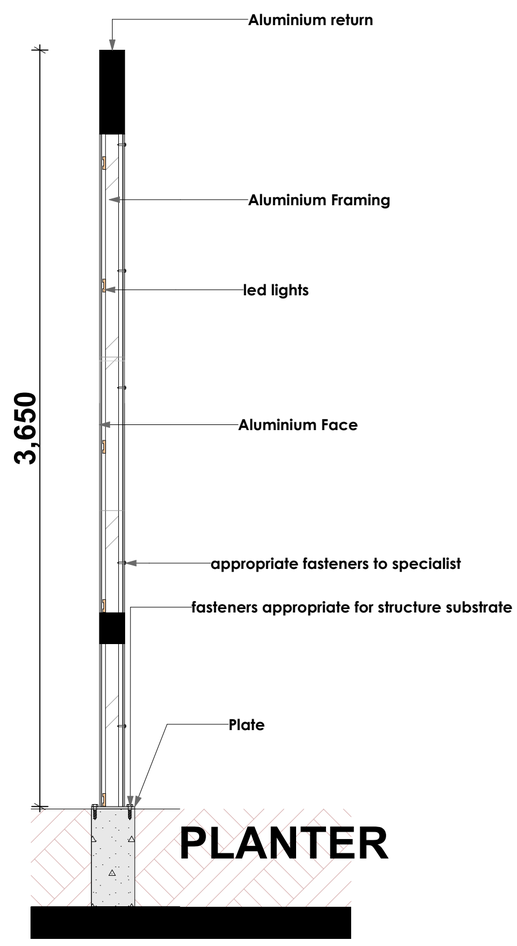
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SECTION 1 SCALE 1:20



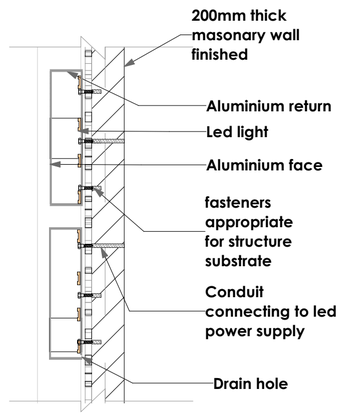
STAR ELEVATION
DETAIL SCALE 1:20



STAR SECTION DETAIL



GAROWE SIGNAGE ELEVATION
SCALE 1:20



GAROWE SIGNAGE SECTION
DETAIL SCALE 1:20

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CLIENT : **SINAN PROJECTS**

PROJECT : **Garowe Community Cohesion and Green Cultural Park**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

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DRAWING TITLE : **PLANS** | SCALE: **AS SHOWN**

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AA-308-0	AA-308-GP-SM	-------

DRAWN BY:	CHECKED BY :	DATE :
	I.H	12/24/2025

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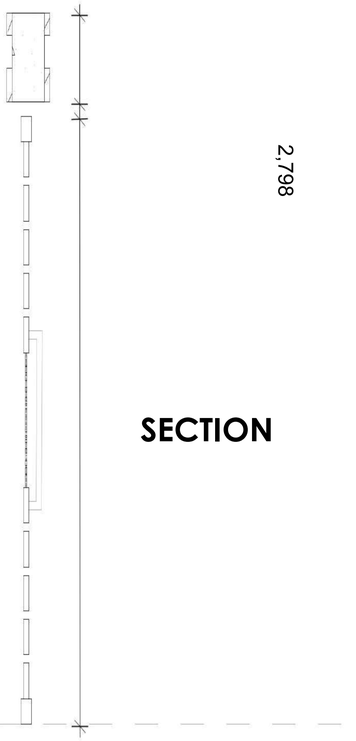
DOOR SCHEDULES

GENERAL NOTES

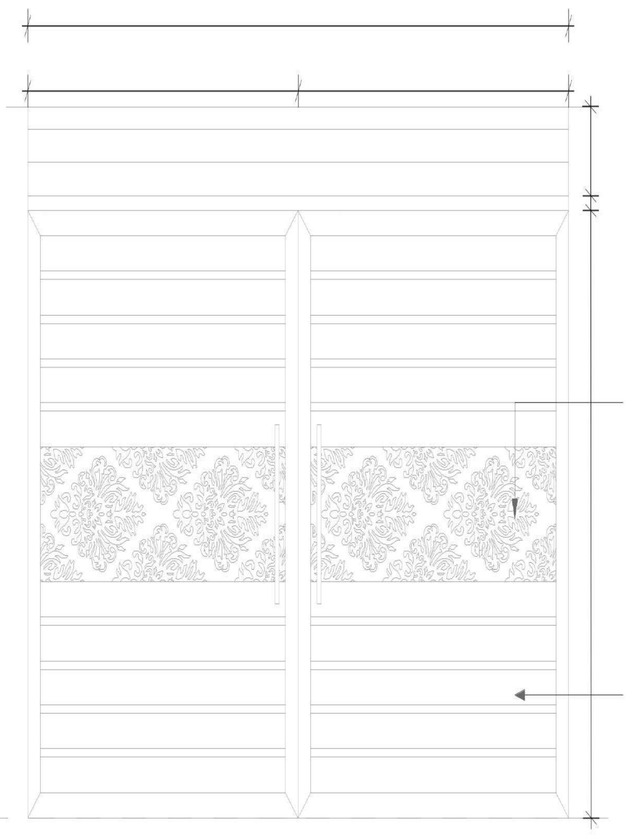
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DIMENSIONS AND DISCREPANCY IN DIMENSIONS TO BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING
2.ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH STRUCTURAL ENGINEER'S DETAIL. ALL FOUNDATIONS & C. COLUMN
AND R.C. WORKS TO STRUCTURAL ENGINEER'S DETAIL.
3.HEAVY DUTY POLYTHENE SHEETING AND TERMITE TREATMENT TO BE PROVIDED.
4.DAMP PROOF COURSE TO BE PROVIDED IN ALL EXTERNAL WALLS AT 150mm ABOVE FINISHED GROUND LEVEL.
5.ALL WINDOWS REMAINDER VENTILATION ALL EXPOSED TIMBER WORK TO BE PAINTED AS PER SPECIFICATION
6. ALL SANITARY WORKS TO BE EXECUTED IN ACCORDANCE WITH M.O.H. RULES AND
REGULATIONS.
7.ALL MASONRY WORKS ABOVE DPC LEVEL TO BE IN 225mm THICK SANDCRETE BLOCKS.
8.ALL SANITARY WARE TO BE WHITE IN COLOUR.
9.ALL EXTERNAL DOOR BUILDING, DRIVEWAY AND PARKING TO BE 150mm CAST IRON PIPE
ENCASED
10.ALL ELECTRICAL WORKS TO BE IN ACCORDANCE WITH THE REGULATIONS
11.ALL ELECTRICAL WIRES TO BE CONCEALED IN PVC CONDUITS
12.ALL DOORS TO BE FLUSH DOORS AND SHALL BE PAINTED WITH TWO COATS OF APPROVED PAINT
13.ALL WINDOWS TO BE PROVIDED WITH MOSQUITO PROTECTION CHAMBERS WITHIN BUILDING TO BE FITTED WITH HEAVY
DUTY DOUBLE SEALAR TIGHT COVERS

FIRE FIGHTING NOTES

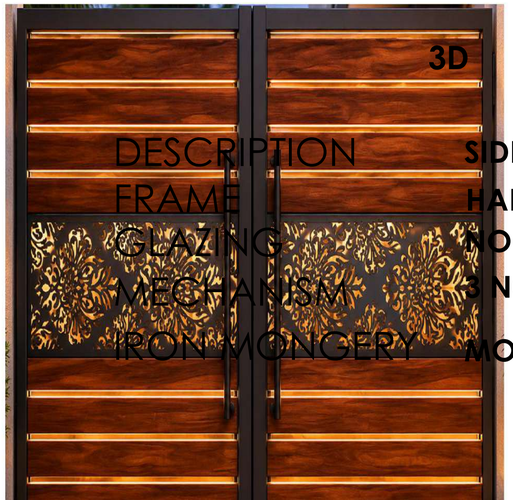
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2.HEAT/SMOKE DETECTORS TO BE INSTALLED.
3.EMERGENCY EXIT SIGNS TO BE PROVIDED.
4.400LTR WATER TANK WITH A BOOSTER PUMP TO BE PROVIDED.
5.1NO. WATER POINT/200 M AT EACH FIRE POINT TO BE PROVIDED.
6.FIRE BELL TO BE PROVIDED.
7.FIRE NOTICE AND FIRE EXIT SIGNS AT STRATEGIC POSITIONS TO BE PROVIDED.
8.1NO. 4.5KG. FIRE EXTINGUISHER AND 1NO BLANKET TO BE PROVIDED.
9.1 NO. 4.5KG. FIRE EXTINGUISHER AND 1 NO BLANKET TO BE PROVIDED.
10.SPRINKLER SYSTEM TO BE INSTALLED IN THE PARKING.
11.FIRE HOSE REEL TO BE PROVIDED WITH 30M LENGTH OF HOSE PIPE AND
SHUT OFF JET NOZZLE TO BE PROVIDED.



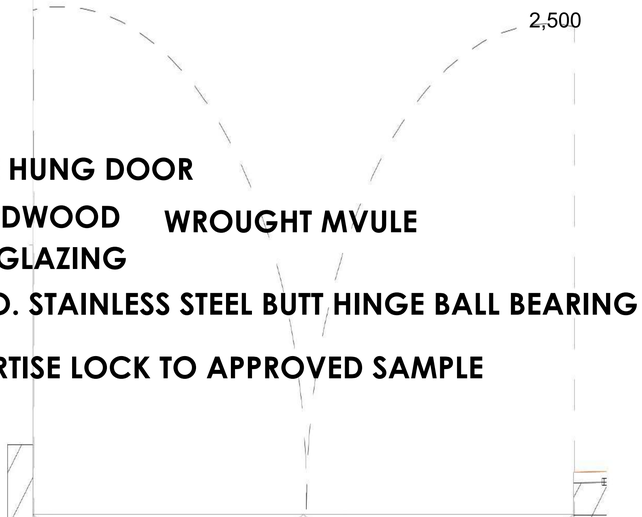
SECTION



ELEVATION



3D



PLAN

DESCRIPTION	SIDE HUNG DOOR
FRAME	HARDWOOD WROUGHT MVULE
GLAZING	NO GLAZING
MECHANISM	3 NO. STAINLESS STEEL BUTT HINGE BALL BEARING
IRONMONGERY	MORTISE LOCK TO APPROVED SAMPLE

CLIENT :
SINAN PROJECTS

PROJECT :
Garowe Community Cohesion and Green Cultural Park

PLOT NO: ROAD:

LOCATION: TOWN:
SOMALIA **GAROWE**

PROJECT MANAGER/ARCHITECT:
IRFAN HOBAYA

DRAWING TITLE :
PLANS

DRAWING NO: **AA-308-0**
PROJECT NO: **AA-308-GP-SM**
REV NO: **.....**
SCALE: **AS SHOWN**

DRAWN BY: PC MAC
CHECKED BY: LH
DATE: **12/24/2025**
CAD FILE:

DT Global

TOTAL

1

GATE 01

3mm thick laser-cut marine-grade aluminium decorative panel, polyester powder-coated matte charcoal black, fixed within a powder-coated aluminium gate frame.

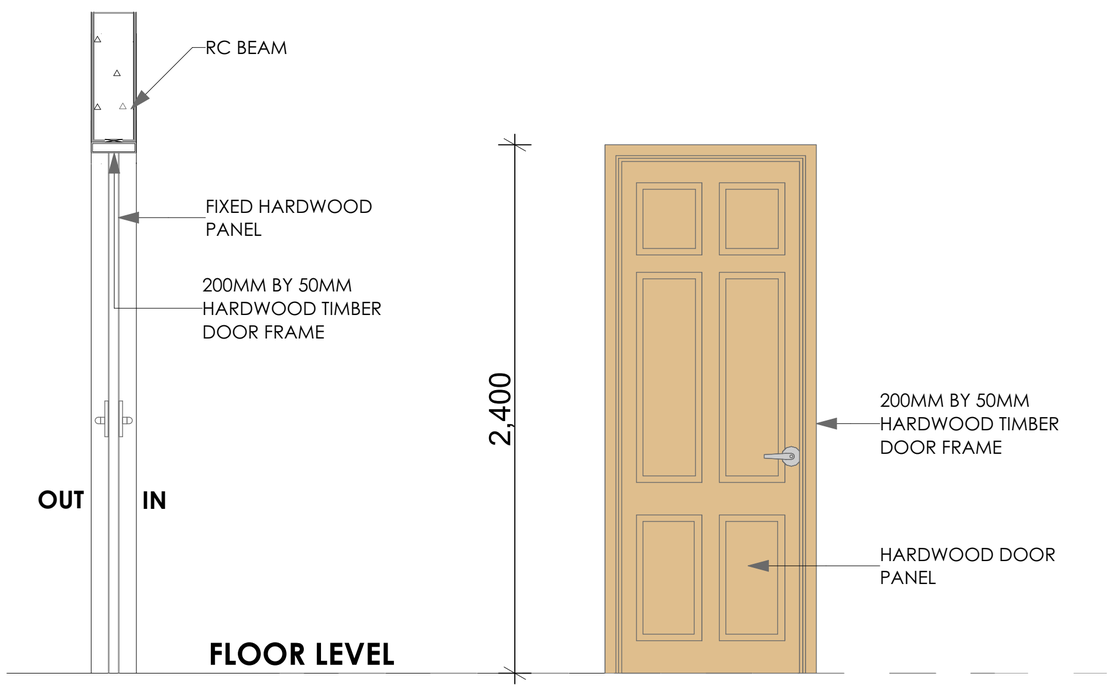
Powder-coated wood-grain aluminium slats, minimum 2.0mm thick, walnut finish, fixed to a marine-grade aluminium frame using 316 stainless steel fasteners, complete as specified and approved.

SCALE 1: 20
LOCATION
GATE

DOOR SCHEDULES

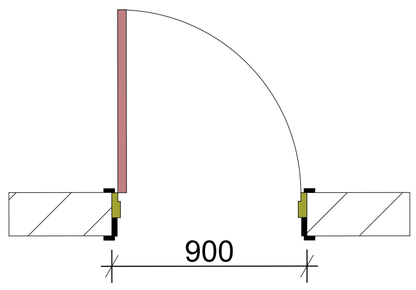
TOTAL
3

WD
01



SECTION

ELEVATION



PLAN

SCALE 1:20

LOCATION

TICKETING,CCTV & SECURITY ROOM

DESCRIPTION	SIDE HUNG DOOR
FRAME	HARDWOOD WROUGHT MVULE
GLAZING	NO GLAZING
MECHANISM	3 NO. STAINLESS STEEL BUTT HINGE BALL BEARING
IRON MONGERY	MORTISE LOCK TO APPROVED SAMPLE

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IN 150mm CONCRETE INSPECTION CHAMBERS WITHIN BUILDING TOBE FITTED WITH HEAVY DUTY DOUBLE SEAL AIR TIGHT COVERS

FIRE FIGHTING NOTES

1.ALTERNATIVE MEANS OF LIGHTING USING SECONDARY MEANS TO BE INSTALLED.
2.HEAT/SMOKE DETECTORS TO BE INSTALLED.
3.BREAK-GLASS FIRE ALARM SYSTEM TO BE INSTALLED.
4.4500LTR WATER TANK WITH A BOOSTER PUMP TO BE PROVIDED.
5.1x9LTR WATER/CO2 AT EACH FIRE POINT TO BE PROVIDED.
6.1x10KG DRY POWDER AT EACH FIRE POINT TO BE PROVIDED.
7.FIRE NOTICE AND FIRE EXIT SIGNS AT STRATEGIC POSITIONS TO BE PROVIDED.
8.1000 GALLON WATER FOR FIRE FIGHTING TO BE PROVIDED.
9.1 NO. 4.5KG FIRE EXTINGUISHER AND 1 NO. BLANKET TO BE PROVIDED.
10.SPRINKLER SYSTEM TO BE INSTALLED IN THE PARKING.
11.6 NO. HYDRAULIC HOSE REELS 30 METRES LONG WITH OPEN SHUT OFF JET NOZZLE TO BE PROVIDED.

CLIENT :
SINAN PROJECTS

PROJECT :
Garowe Community Cohesion and Green Cultural Park

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

PROJECT MANAGER/ARCHITECT:
IRFAN HOBAYA

DRAWING TITLE : **PLANS** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-0** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

DRAWN BY: | CHECKED BY : **I.H** | DATE : **12/24/2025**

PC | MAC | CAD FILE:

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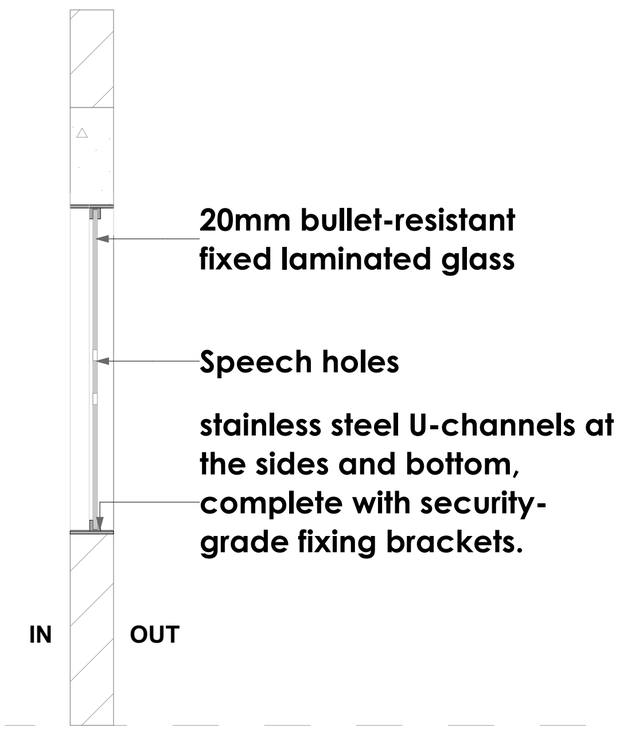
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Partnership | Progress | Prosperity

WINDOW SCHEDULES

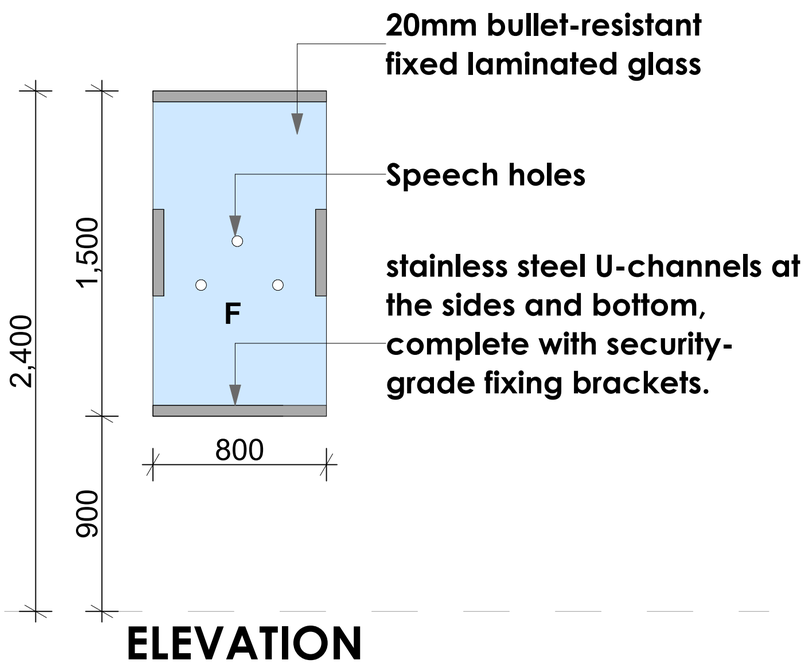
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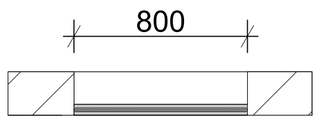
AL W
01



SECTION



ELEVATION



PLAN

SCALE 1:20

LOCATION

TICKETING AREA

DESCRIPTION	**TELLER SECURITY GLASS**
FRAME	**STAINLESS STEEL U CHANNELS COMPLETE WITH SECURITY-GRADE FIXING BRACKETS**
GLAZING	**20MM THICK BULLET PROOF CLEAR LAMINATED GLASS**
IRON MONGERY	**ALUMIL SMARTIA S440 SERIES PERIMETRICAL LOCKING SYSTEMS**

GENERAL NOTES

1.ALL DIMENSIONS TO BE CHECKED ON SITE. WRITTEN DIMENSIONS RULES OVER SCALED DRAWINGS.
ANY DISCREPANCY IN DIMENSIONS TO BE REPORTED TOTHE ARCHITECT BEFORE PROCEEDING.
2.DEPTH AT FOUNDATION TO BE DETERMINED ON SITE ALL FOUNDATIONS R.C. COLUMNS AND R.C. WORKS TO STRUCTURAL ENGINEERS' DETAIL.
3.HEAVY DUTY POLYTHENE SHEETING AND TERMITE TREATMENT TO BE PROVIDED UNDER GROUND FLOORSLAB. DPC TO BE THREE PLY BITUMINOUS FELT LAID UNDER ALL WALLS.
4. P.V DENOTES PERMANENT VENTILATION. F.L DENOTES FANLIGHT ABOVE.
5. ALL WALLS TO BE REINFORCED WITH HOOP IRON AT EVERY ALTERNATIVE COURSE.
6. ALL SANITARY WORKS TO BE EXECUTED IN ACCORDANCE WITH M.O.H. RULES AND REGULATIONS.
7. ALL DRAINS UNDER BUILDING, DRIVEWAY, AND PARKING TO BE 150mm CAST IRON PIPE ENCASED IN 150mm CONCRETE INSPECTION CHAMBERS WITHIN BUILDING TOBE FITTED WITH HEAVY DUTY DOUBLE SEAL AIR TIGHT COVERS

FIRE FIGHTING NOTES

1.ALTERNATIVE MEANS OF LIGHTING USING SECONDARY MEANS TO BE INSTALLED.
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3.BREAK-GLASS FIRE ALARM SYSTEM TO BE INSTALLED.
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CLIENT : **SINAN PROJECTS**

PROJECT : **Garowe Community Cohesion and Green Cultural Park**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

PROJECT MANAGER/ARCHITECT: **IRFAN HOBAYA**

DRAWING TITLE : **PLANS** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-0** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

DRAWN BY: | CHECKED BY : **I.H** | DATE : **12/24/2025**

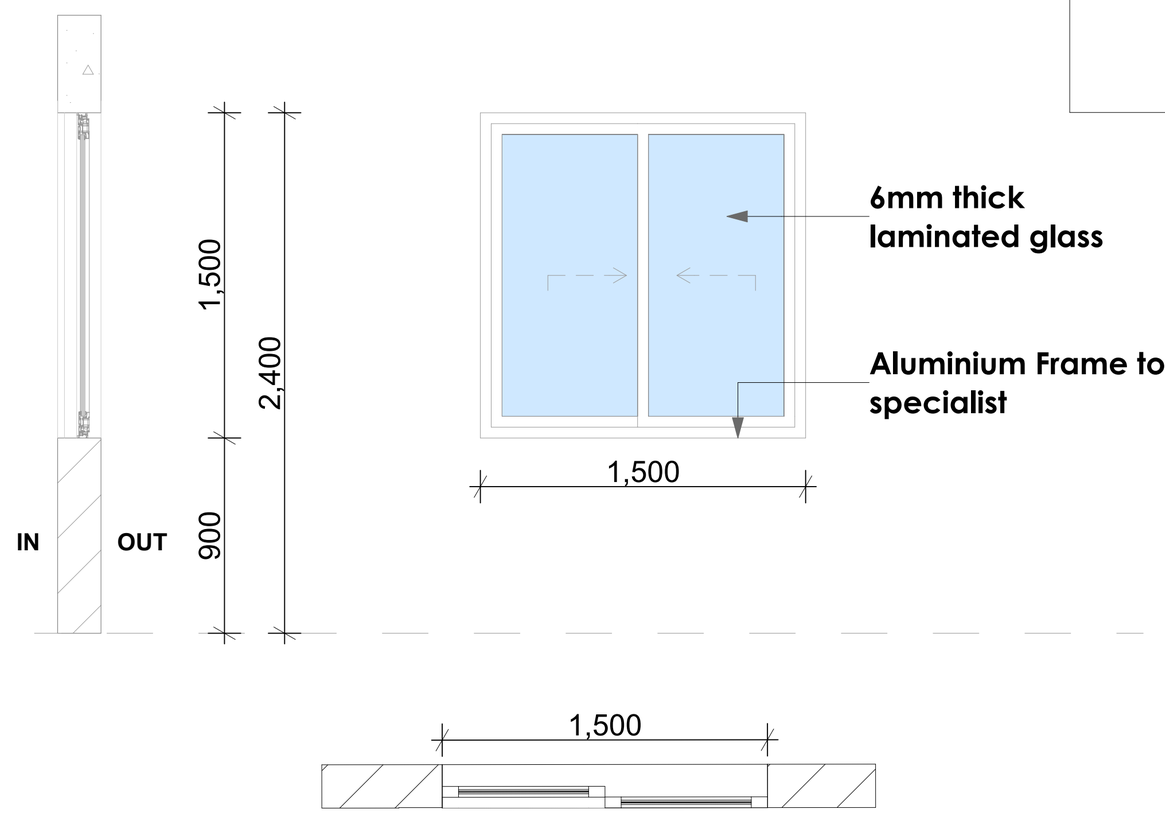
PC | MAC | CAD FILE:

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WINDOW SCHEDULES		TOTAL NO
		2



AL W
02

SCALE 1:20

LOCATION

TICKETING & SECURITY

DESCRIPTION	**ALUMINIUM SLIDING WINDOW**
FRAME	**GREY POWDER COAT RAL 7016 FINE TEXTURE**
GLAZING	**6MM CLEAR LAMINATED GLASS**
IRON MONGERY	**ALUMIL SMARTIA S440 SERIES PERIMETRICAL LOCKING SYSTEMS**

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PROJECT MANAGER/ARCHITECT: **IRFAN HOBAYA**

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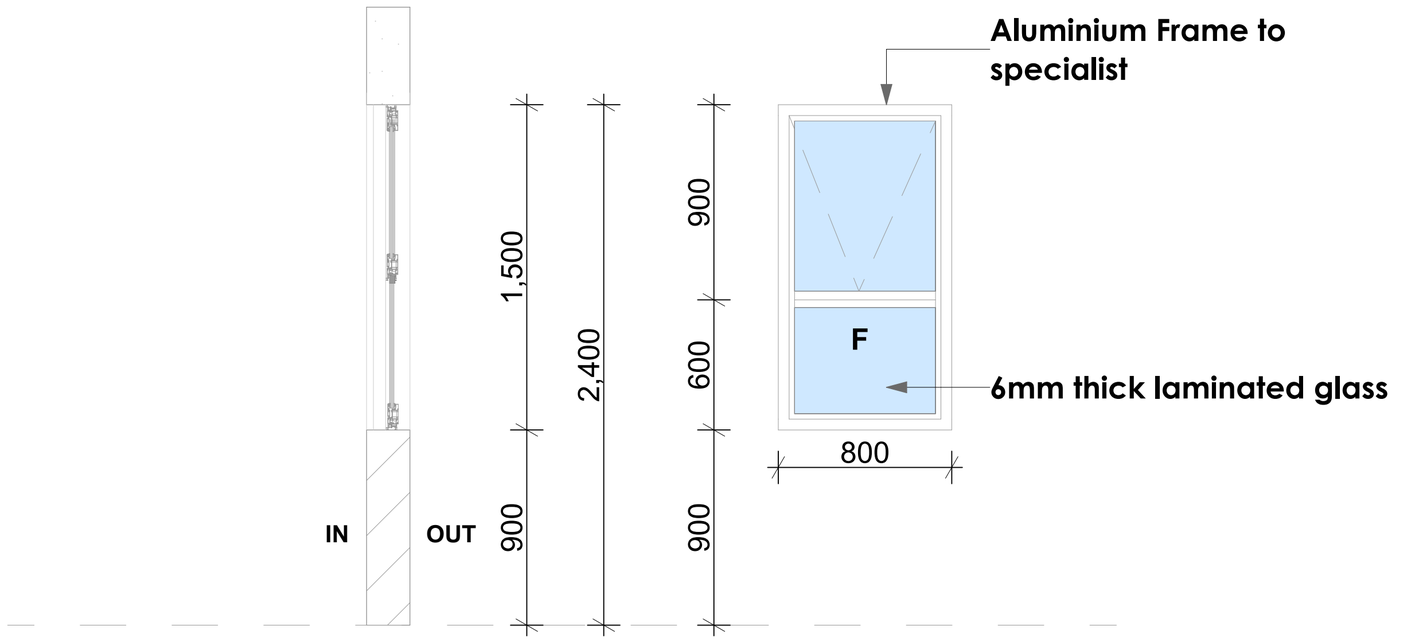
PC | MAC | CAD FILE:

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WINDOW SCHEDULES		TOTAL NO
		1



SECTION ELEVATION

PLAN

AL W 03

SCALE 1:20

LOCATION

CCTV ROOM

DESCRIPTION	**ALUMINIUM TOPHUNG WINDOW**
FRAME	**GREY POWDER COAT RAL 7016 FINE TEXTURE**
GLAZING	**6MM CLEAR LAMINATED GLASS**
IRON MONGERY	**ALUMIL SMARTIA S440 SERIES PERIMETRICAL LOCKING SYSTEMS**

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DRAWING NO: **AA-308-0** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

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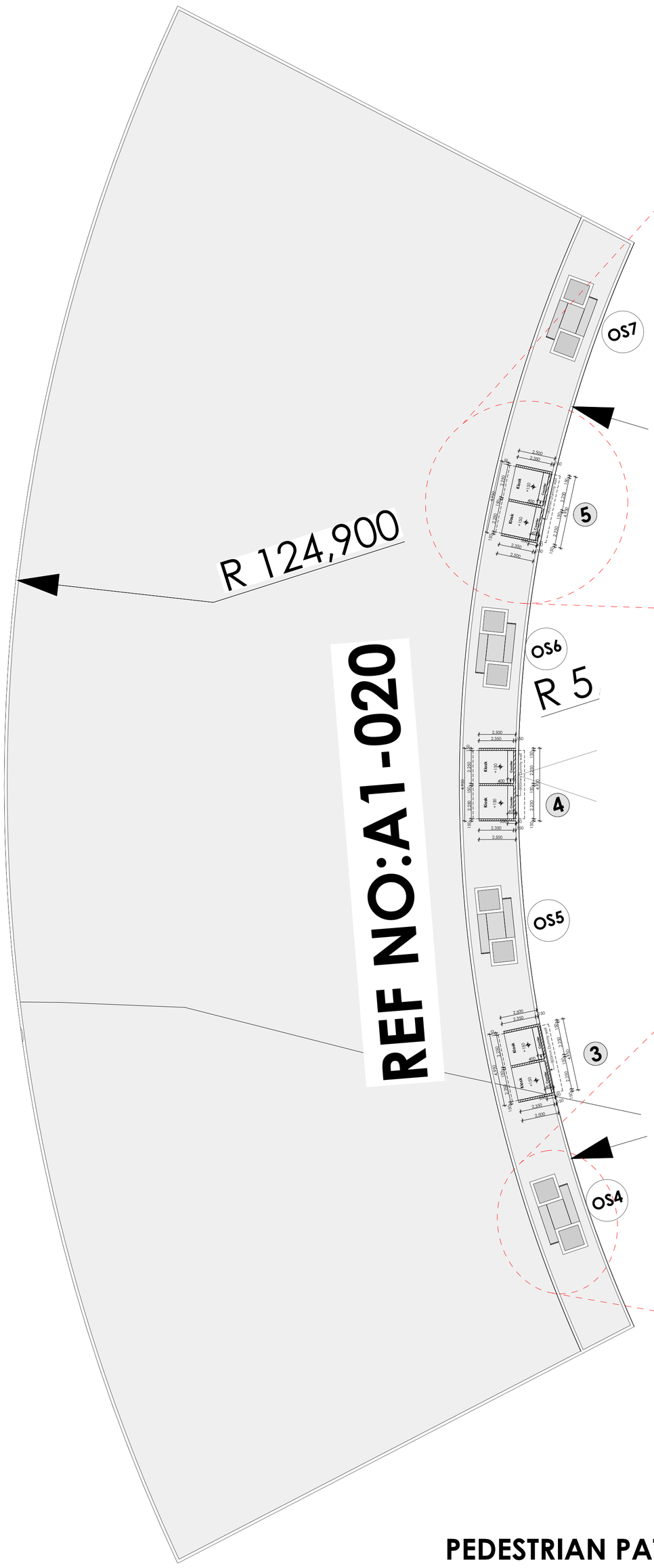
KIOSKS, OUTDOOR SEATS AND COVERED WALKWAYS

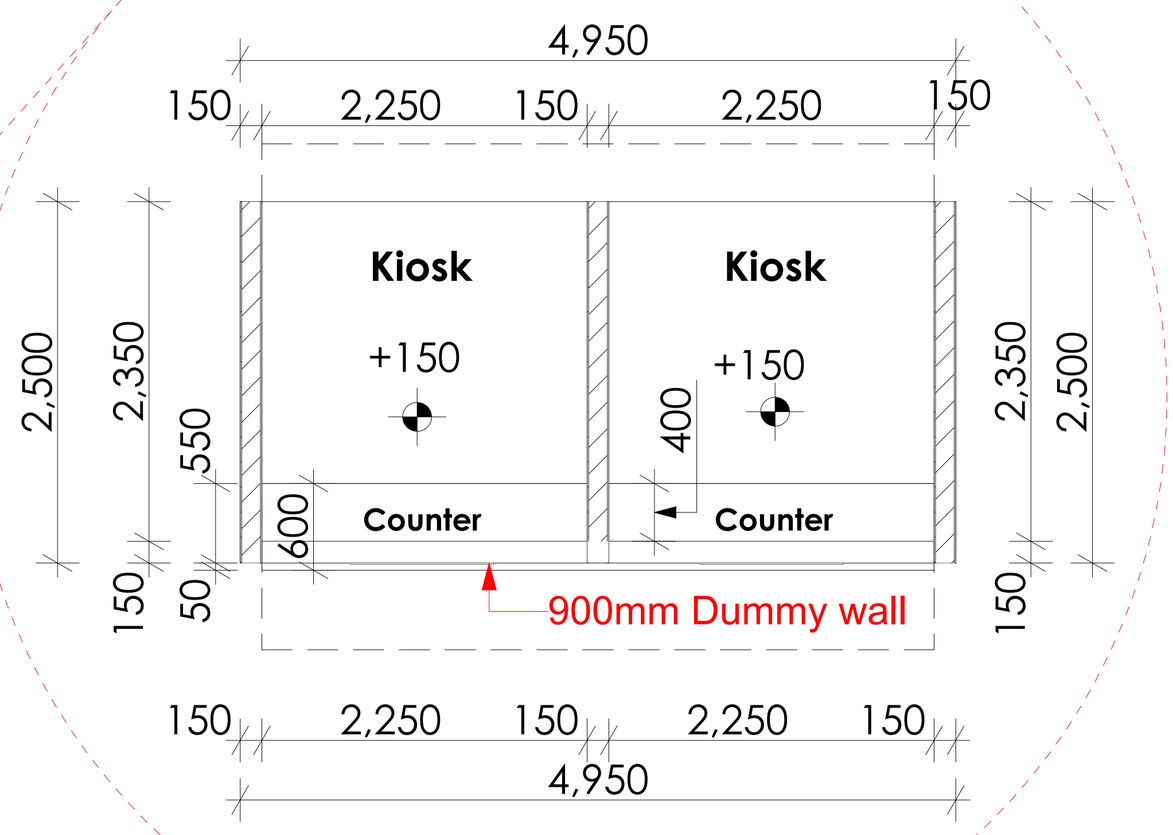


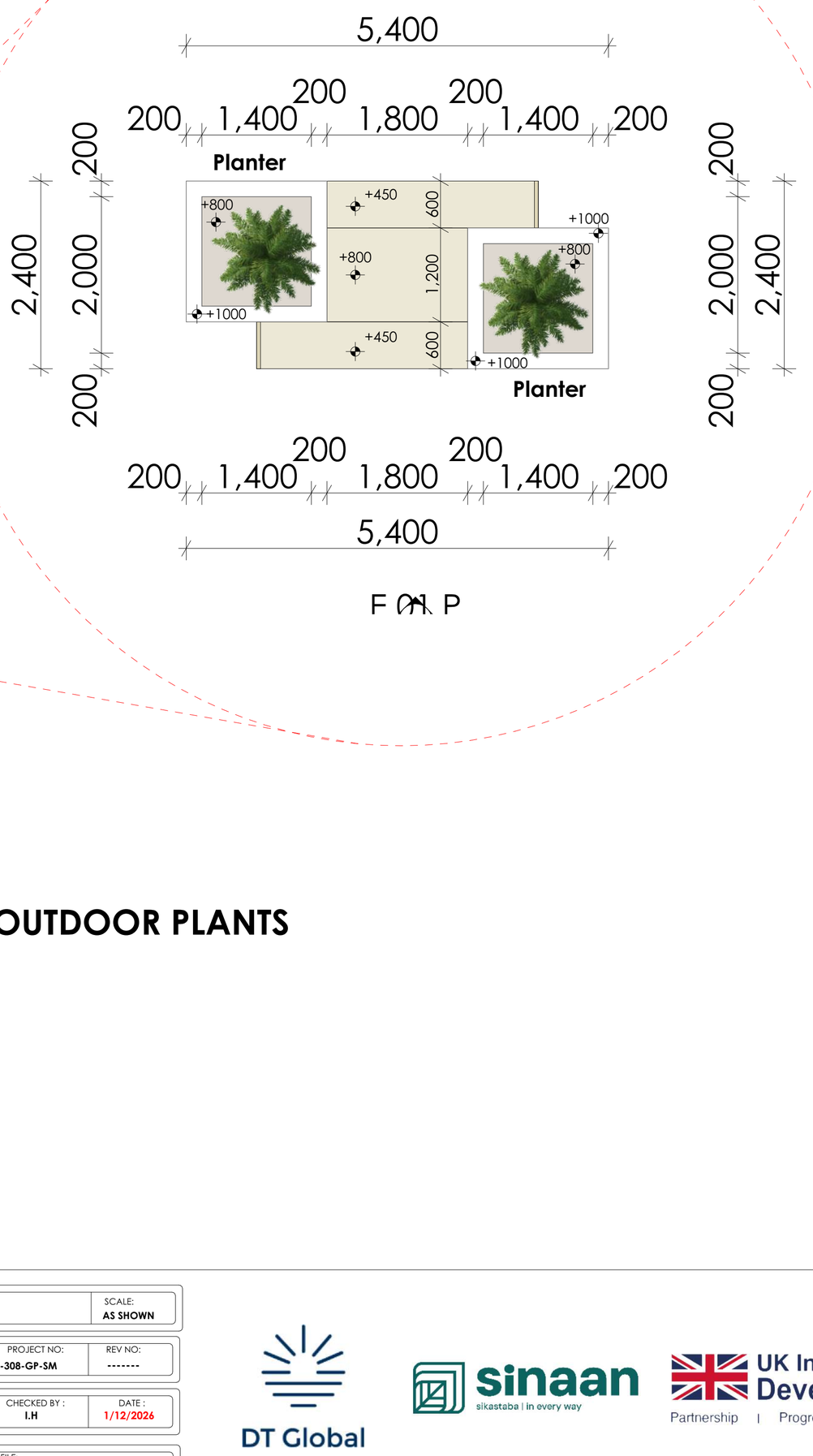
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PEDESTRIAN PATH, KIOSK AND OUTDOOR PLANTS

GENERAL NOTES

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PROJECT : **Garowe Community Cohesion and Green Cultural Park**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

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DRAWING TITLE : **PLANS** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-020** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

DRAWN BY: | CHECKED BY : **I.H** | DATE : **1/12/2026**

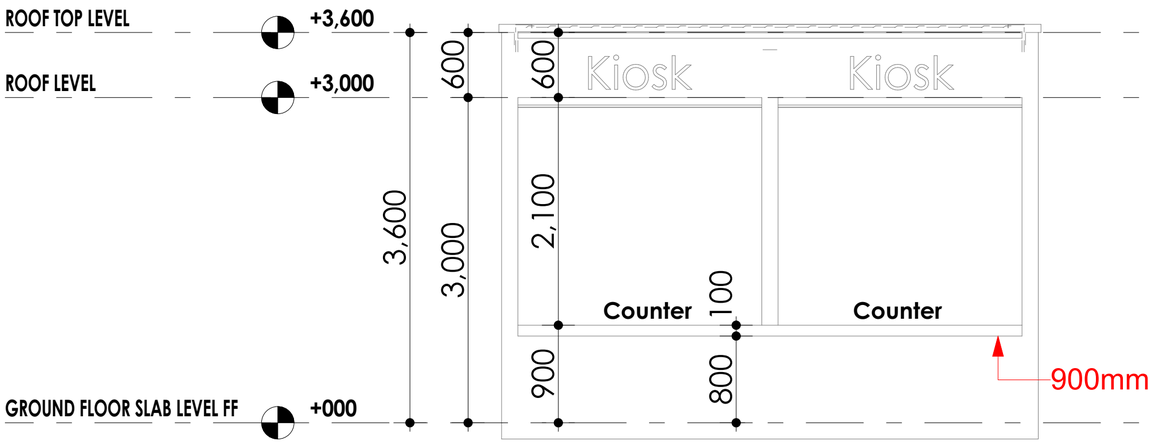
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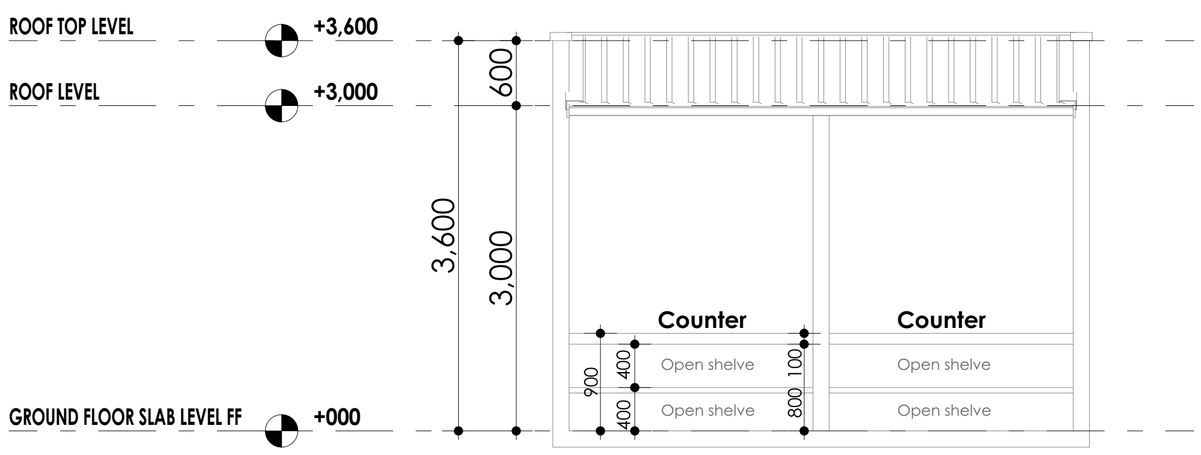
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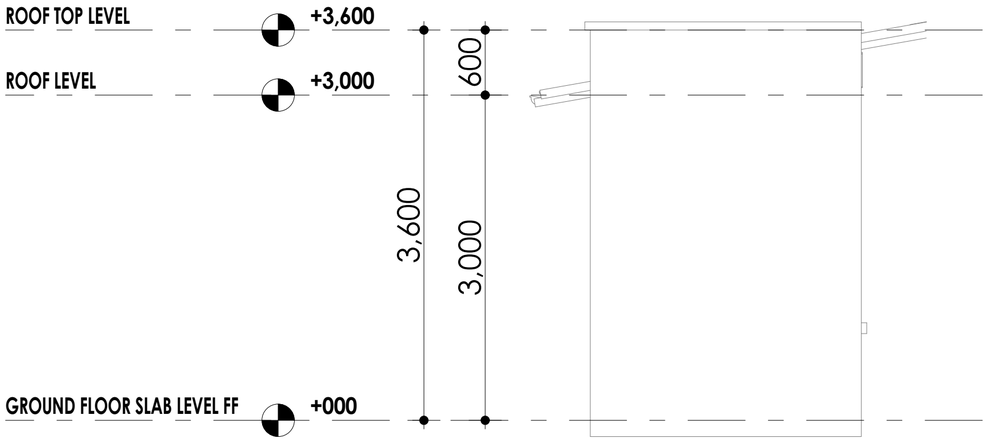
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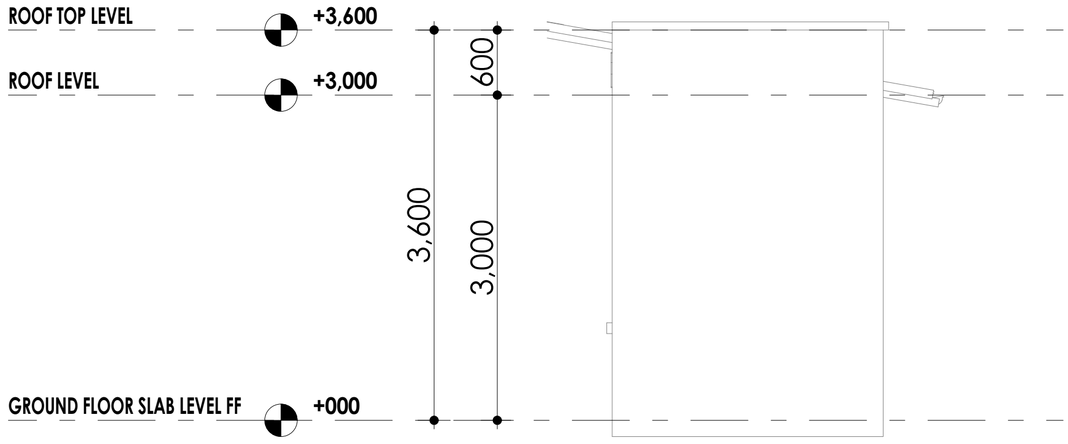
KIOSK ELEVATION 01



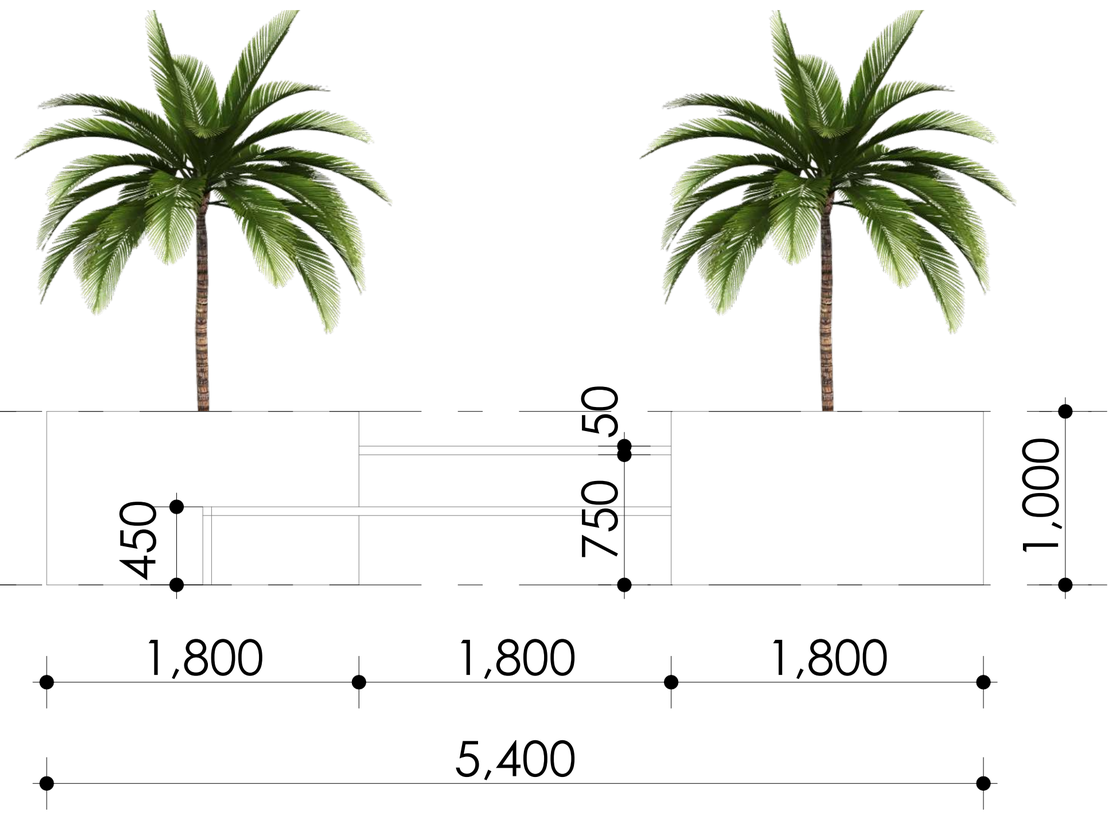
KIOSK ELEVATION 02



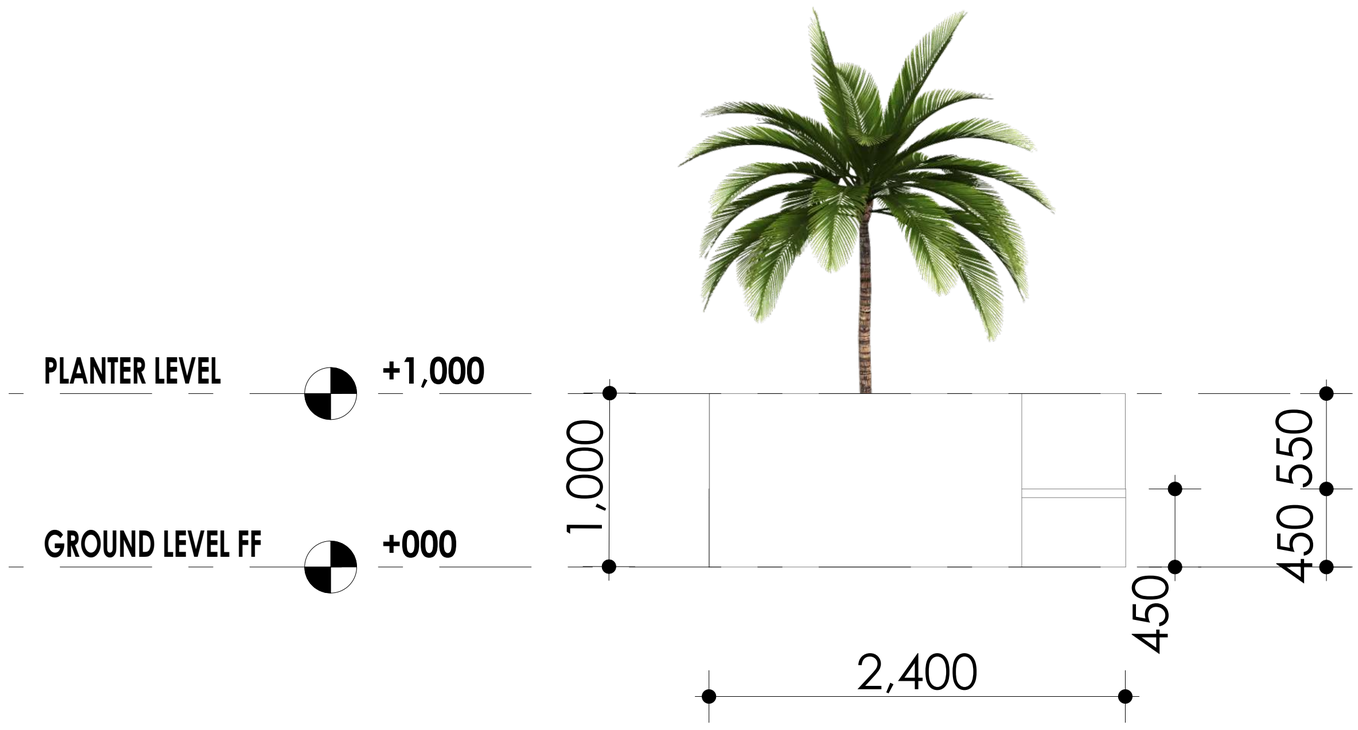
KIOSK ELEVATION 03



KIOSK ELEVATION 04



OUTDOOR SEAT ELEVATION 01



OUTDOOR SEAT ELEVATION 02

GENERAL NOTES

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PLOT NO: | ROAD:

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PROJECT MANAGER/ARCHITECT: **IRFAN HOBAYA**

DRAWING TITLE : **ELEVATIONS** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-021** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

DRAWN BY: | CHECKED BY : **I.H** | DATE : **1/12/2026**

PC / MAC | CAD FILE:

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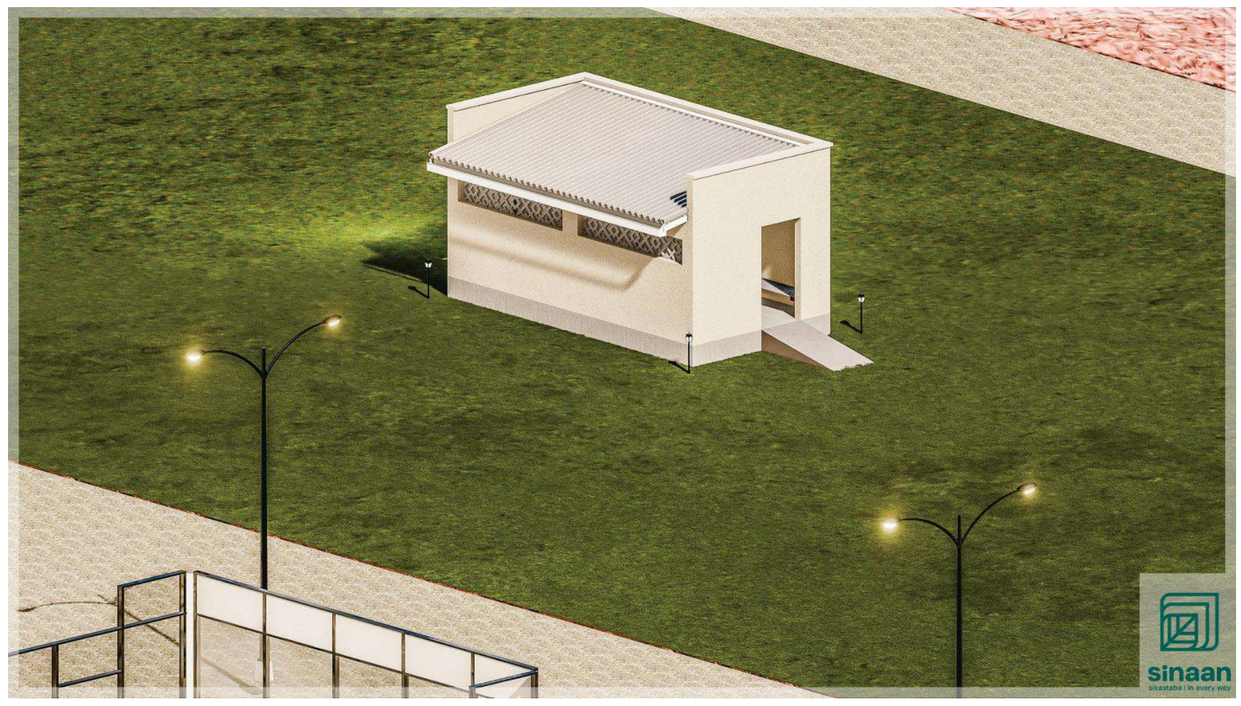
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A1 -021

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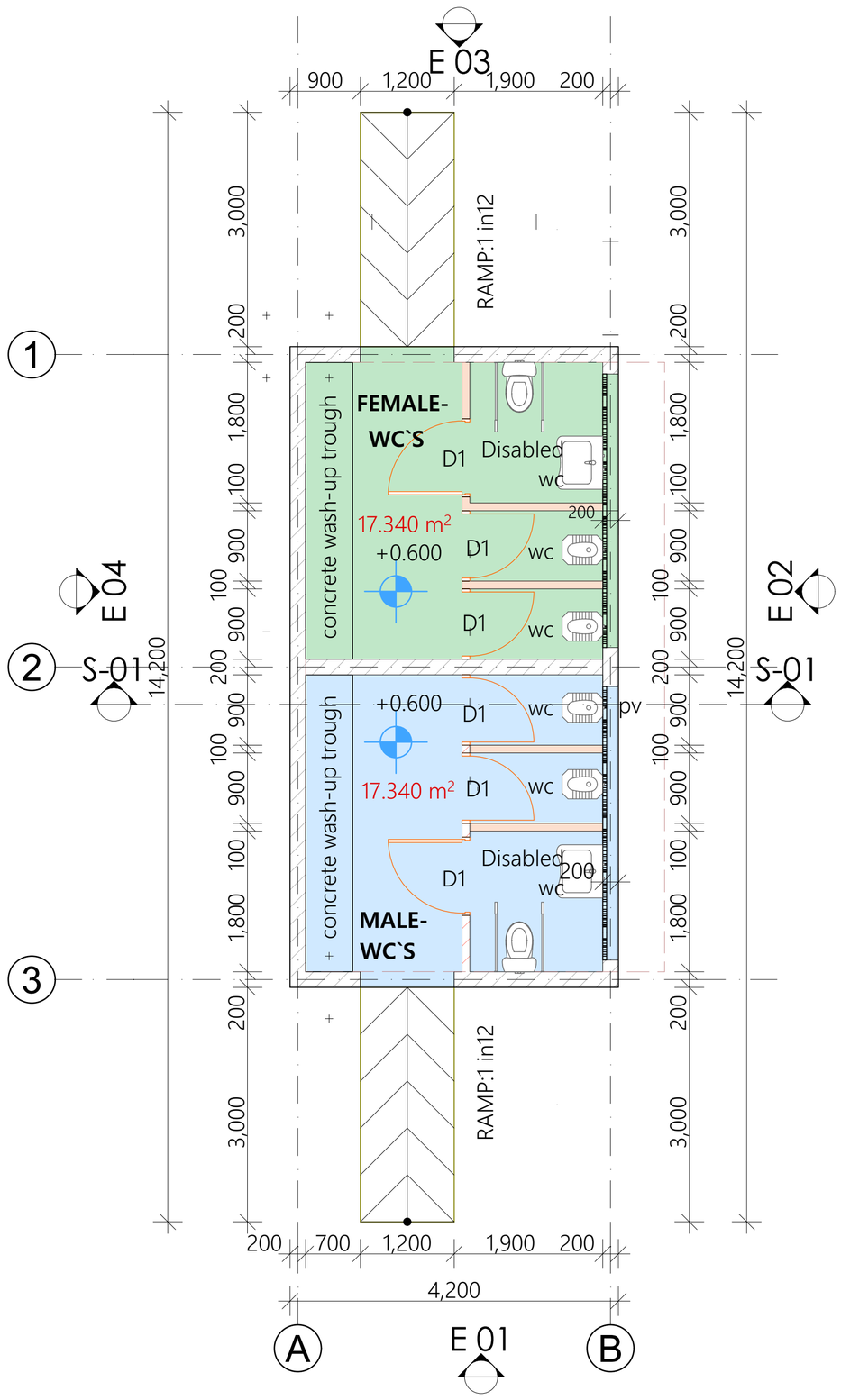


ABLUTIONS

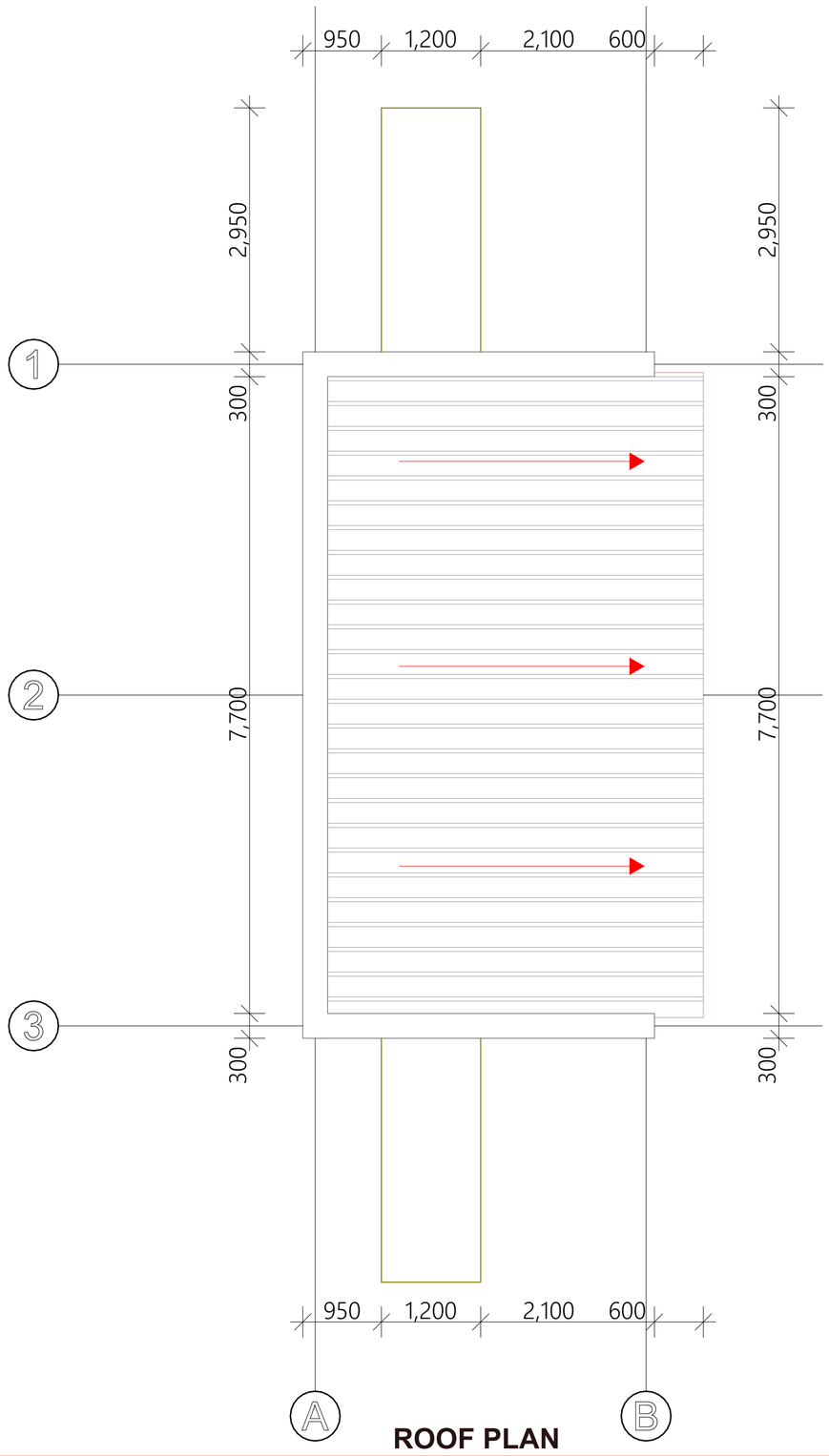
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GROUND FLOOR PLAN



ROOF PLAN

GENERAL NOTES

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CLIENT :
SINAN PROJECTS

PROJECT :
Garowe Community Cohesion and Green Cultural Park

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

PROJECT MANAGER/ARCHITECT:
IRFAN HOBAYA

DRAWING TITLE : **Layout** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-0** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

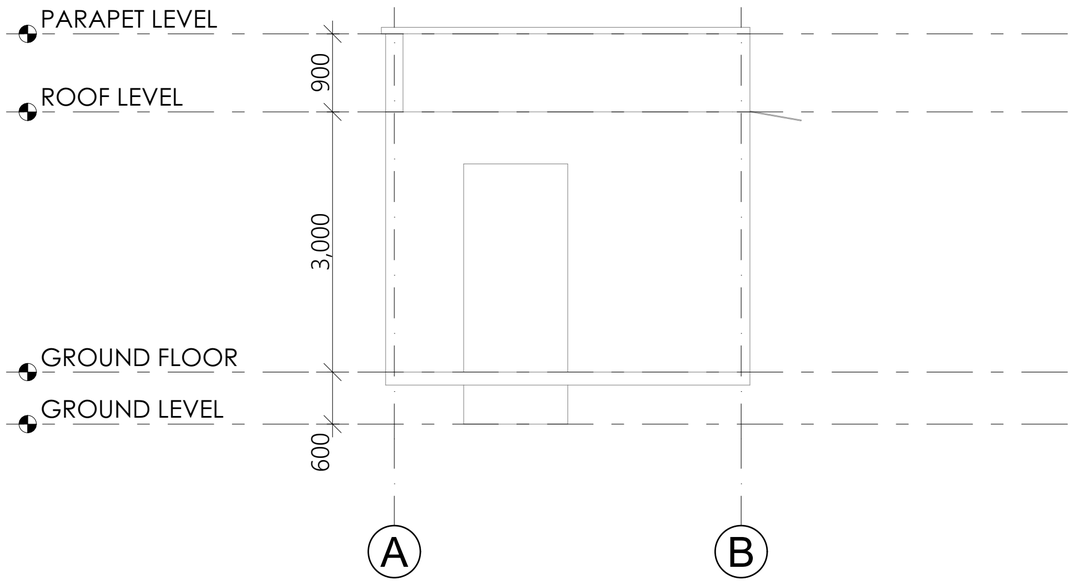
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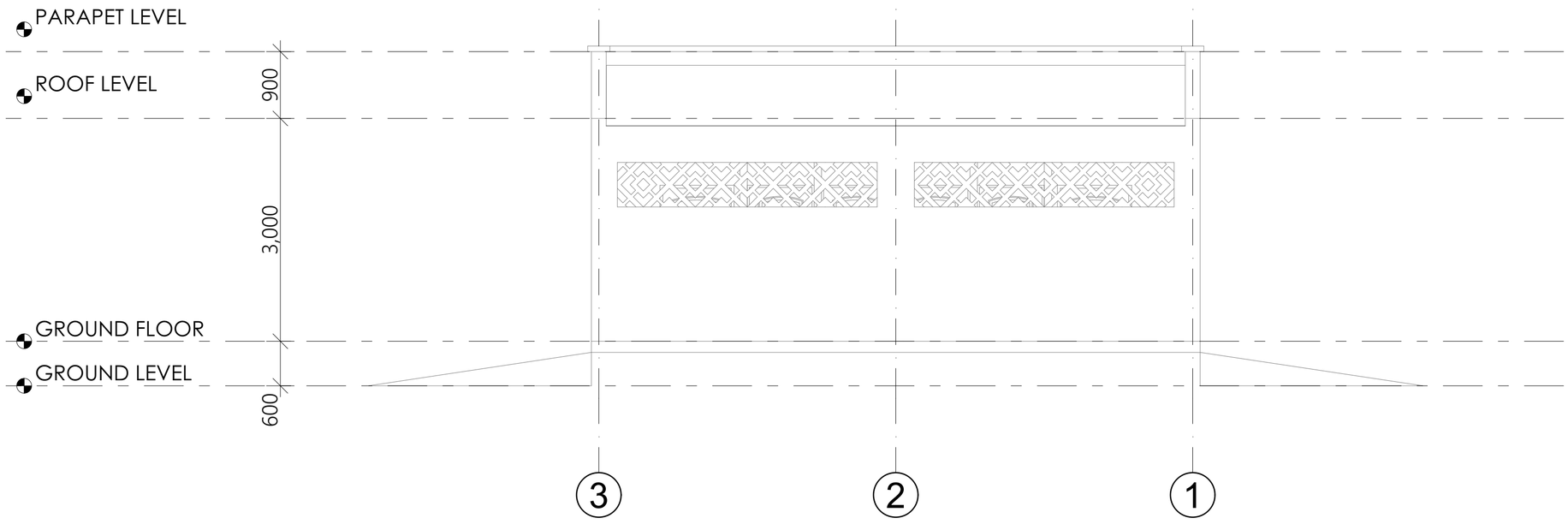
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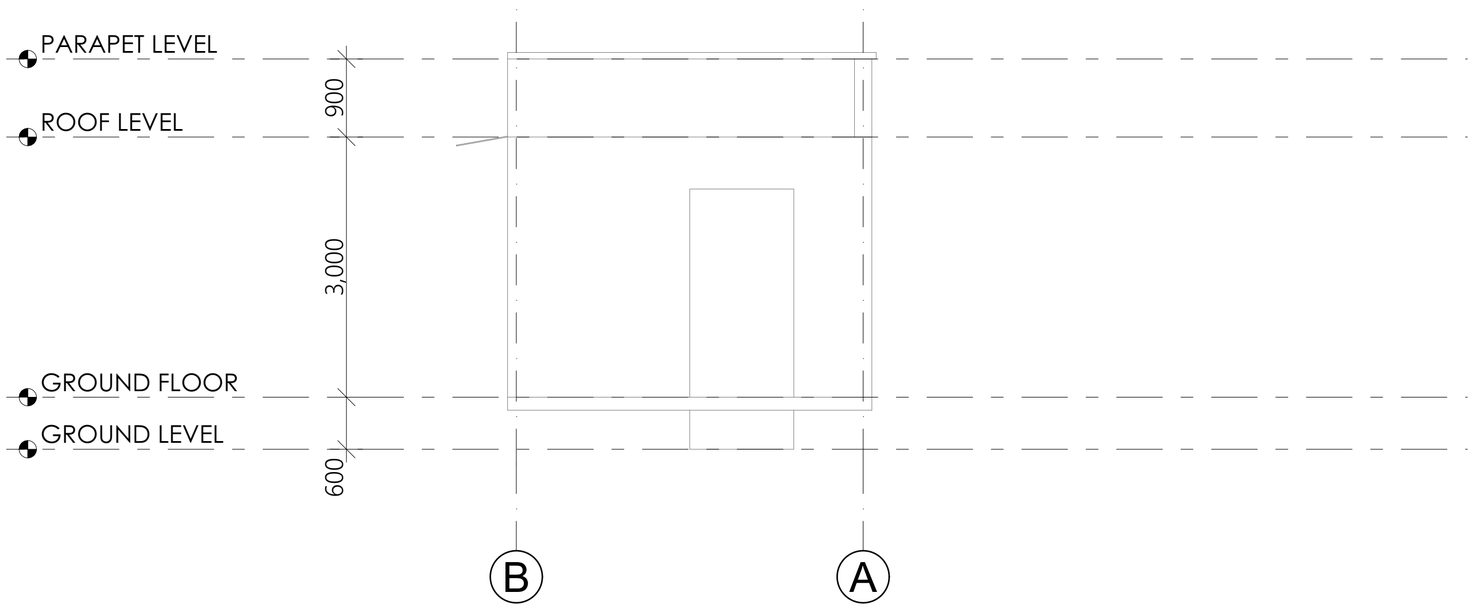
UK International Development
Partnership | Progress | Prosperity



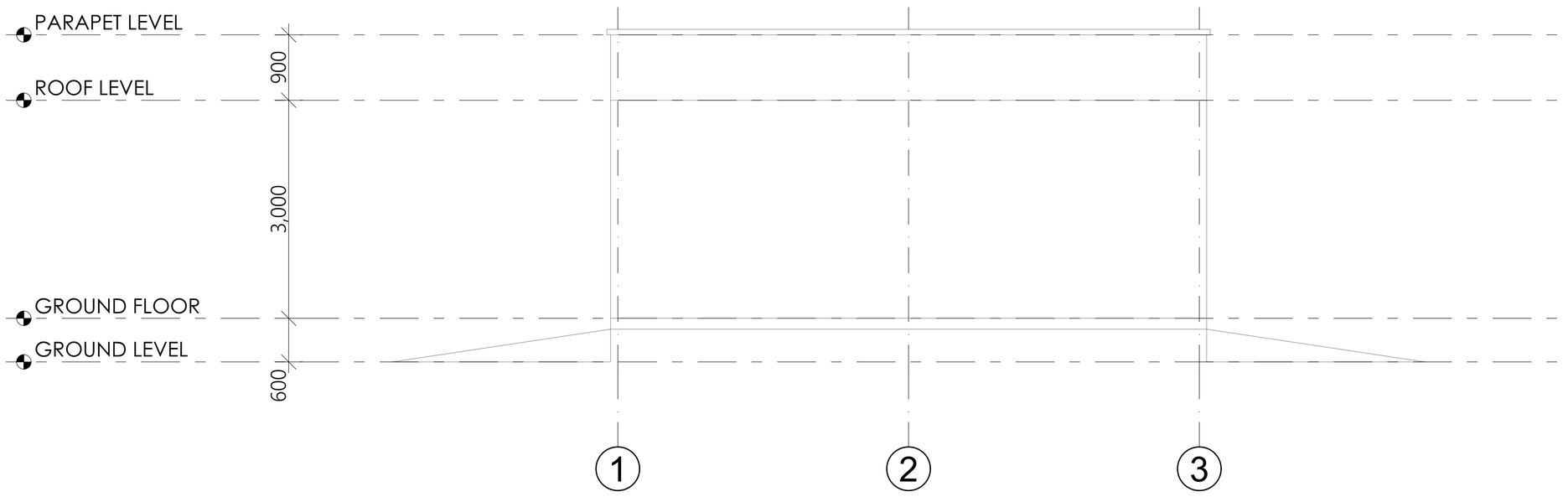
ELEVATION 01



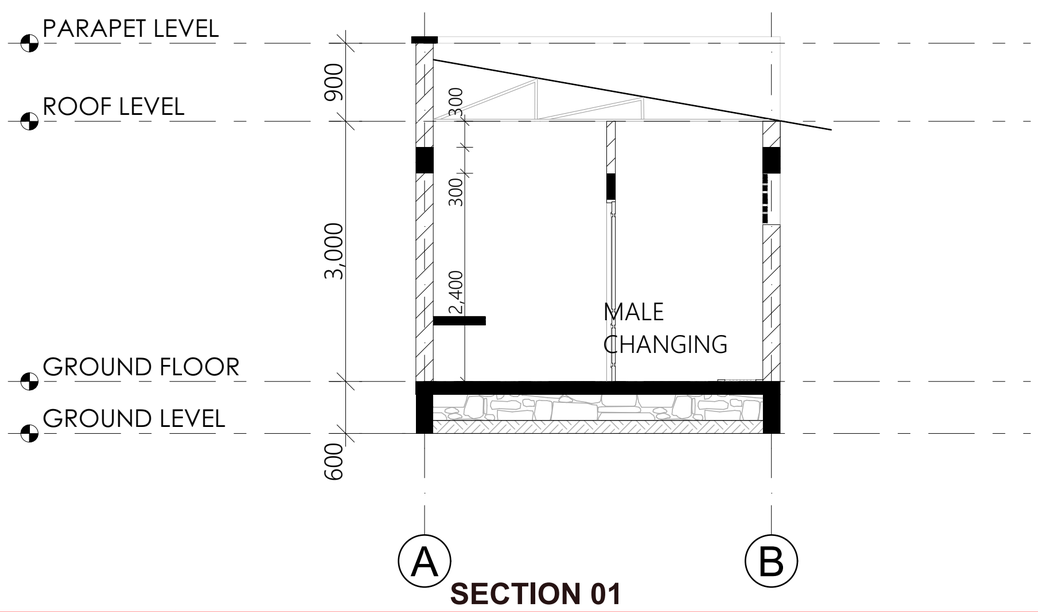
ELEVATION 02



ELEVATION 03



ELEVATION 04



SECTION 01

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PROJECT : **Garowe Community Cohesion and Green Cultural Park**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

PROJECT MANAGER/ARCHITECT: **IRFAN HOBAYA**

DRAWING TITLE : **Layout** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-0** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

DRAWN BY: | CHECKED BY : **I.H** | DATE : **3/17/2026**

PC / MAC | CAD FILE:

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Garowe Community Cohesion and Green Cultural Park
Preliminary Scheme Drawings

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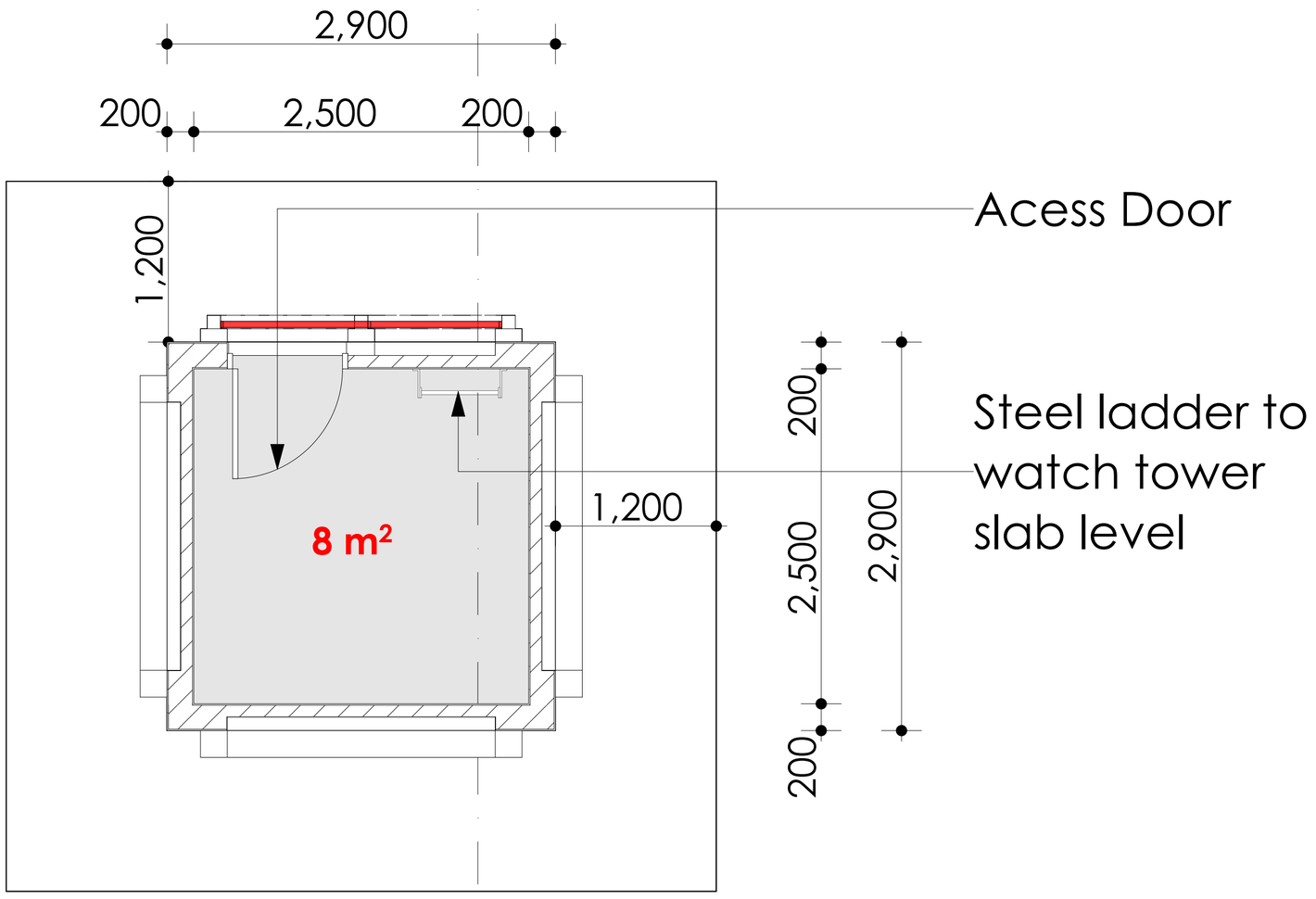
OBSERVATION TOWERS



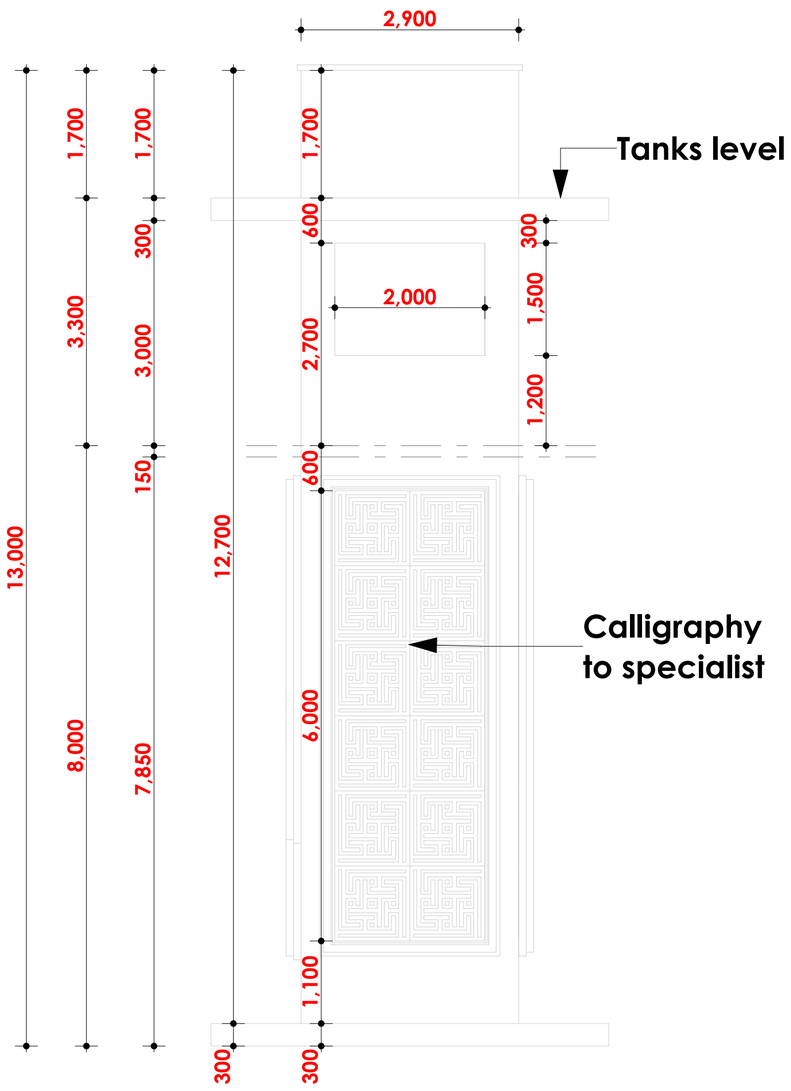
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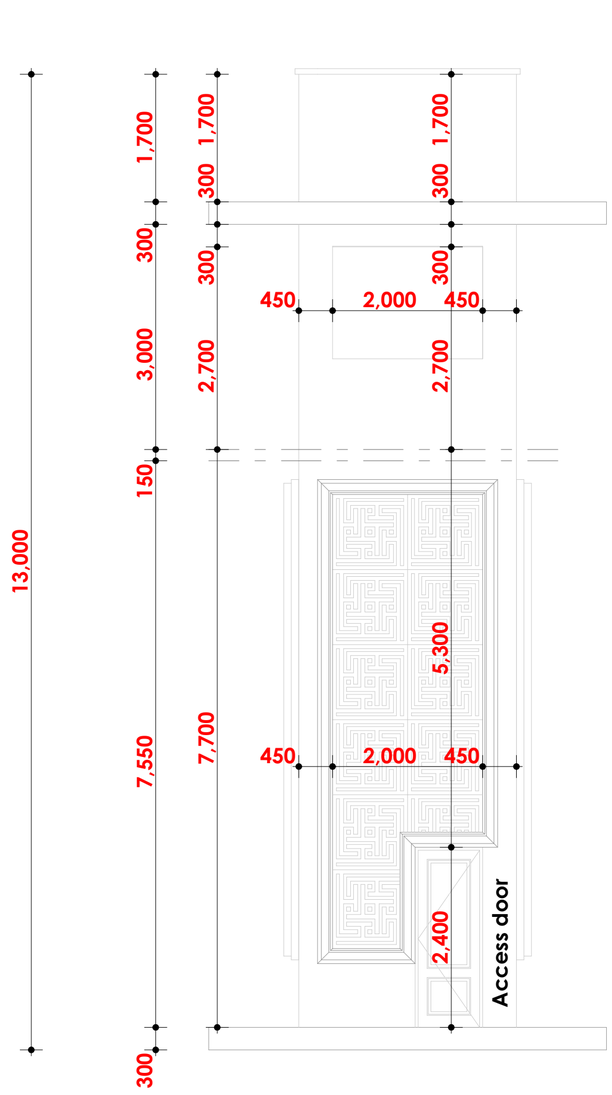
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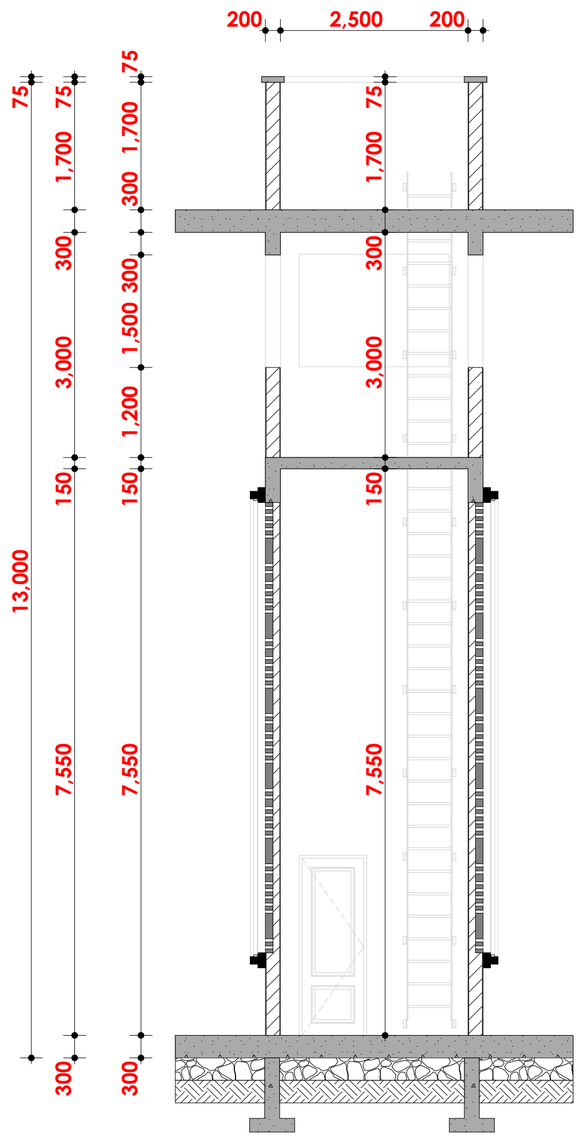
Plan View Watch Tower



Typical Elevation 3 Faces



Elevation From access door



Section view

OBELISKS / WATCH TOWER PLAN & ELEVATION HEIGHTS

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CLIENT : **SINAN PROJECTS**

PROJECT : **Garowe Community Cohesion and Green Cultural Park**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

PROJECT MANAGER/ARCHITECT: **IRFAN HOBAYA**

DRAWING TITLE : **PLAN AND ELEVATION** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-032** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

DRAWN BY: | CHECKED BY : **I.H** | DATE : **1/12/2026**

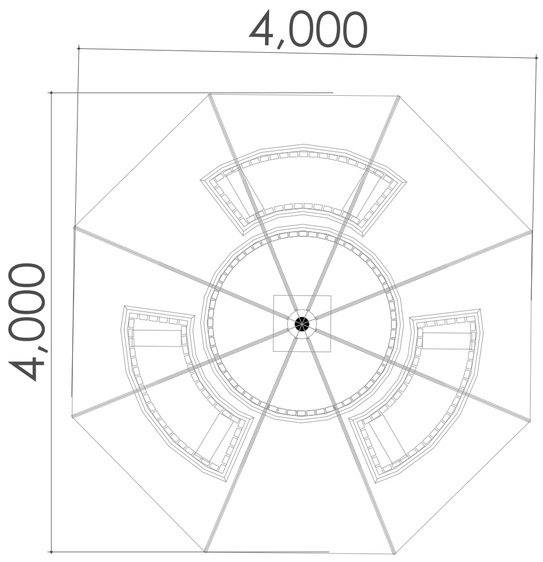
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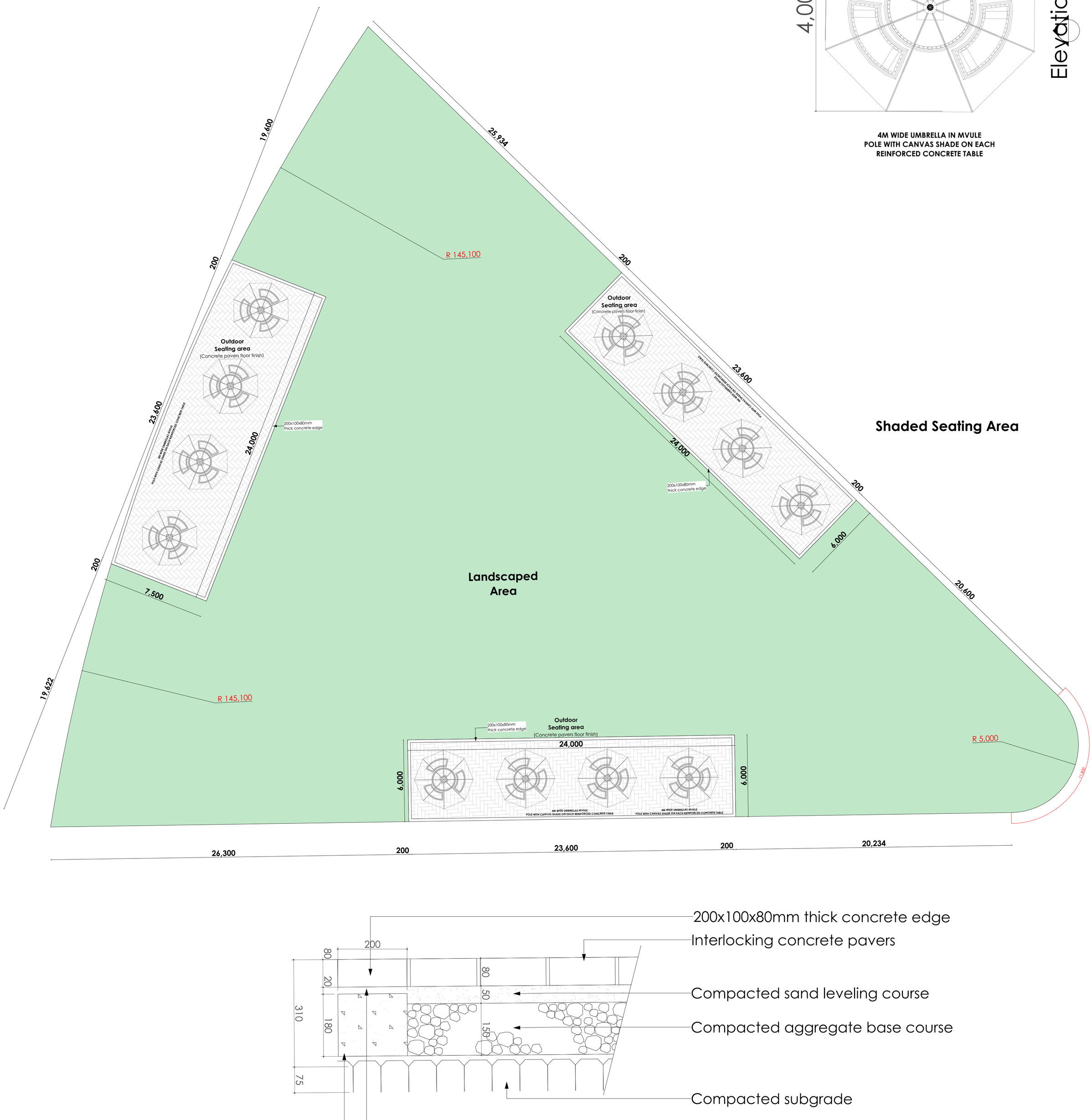
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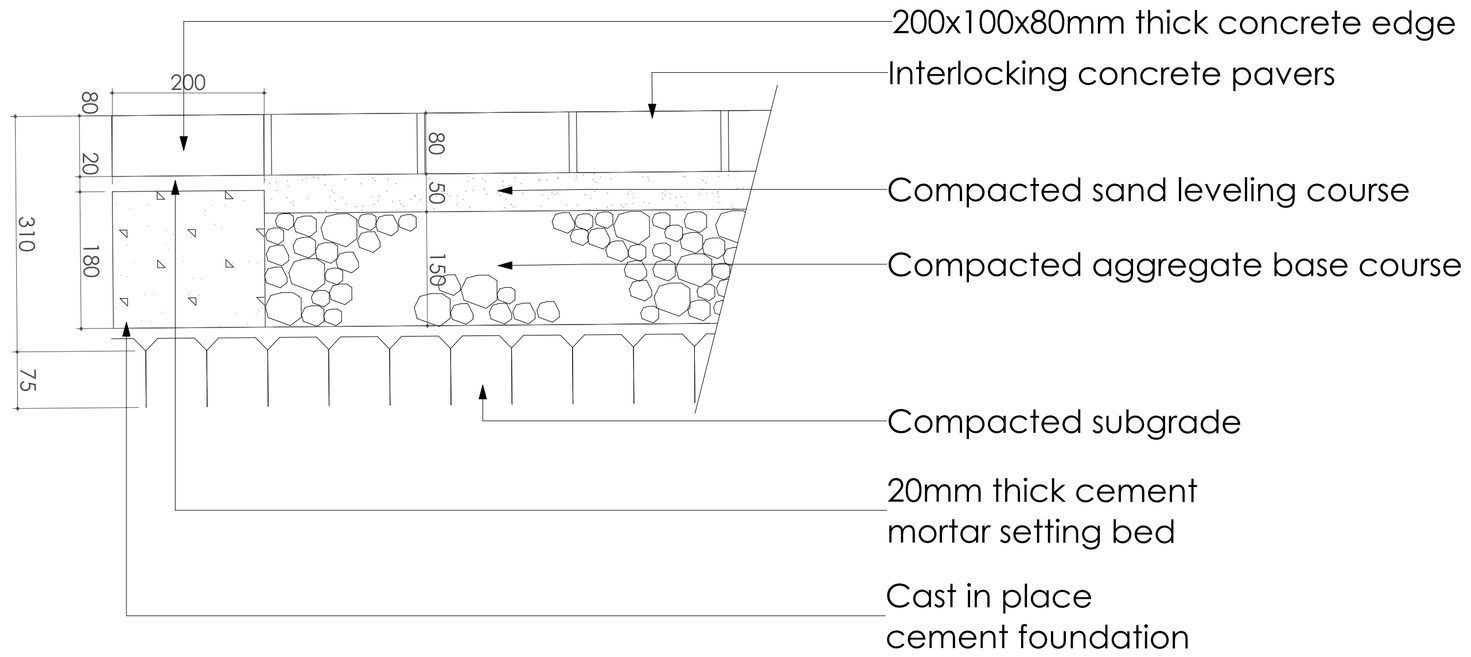
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A1 -032



**4M WIDE UMBRELLA IN MVULE
POLE WITH CANVAS SHADE ON EACH
REINFORCED CONCRETE TABLE**





BLOW UP DETAIL OF INTERLOCKING CONCRETE PAVERS BELOW OUTDOOR SEATING

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GENERATED ON 13/05/2026 14:43

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CLIENT :	**SINAN PROJECTS**
PROJECT :	**GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK**
PLOT NO:	ROAD:
LOCATION: **SOMALIA**	TOWN: **GAROWE**
PROJECT MANAGER/ARCHITECT:	**IRFAN HOBAYA**

DRAWING TITLE : **OUTDOOR SEATING**		SCALE: **AS SHOWN**
DRAWING NO: **AA-308-**	PROJECT NO: **AA-308-GP-SM**	REV NO: **-------**
DRAWN BY:	CHECKED BY : **I.H**	DATE : **13/05/2026**
PC / MAC	CAD FILE:	

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Garowe Community Cohesion and Green Cultural Park
Preliminary Scheme Drawings

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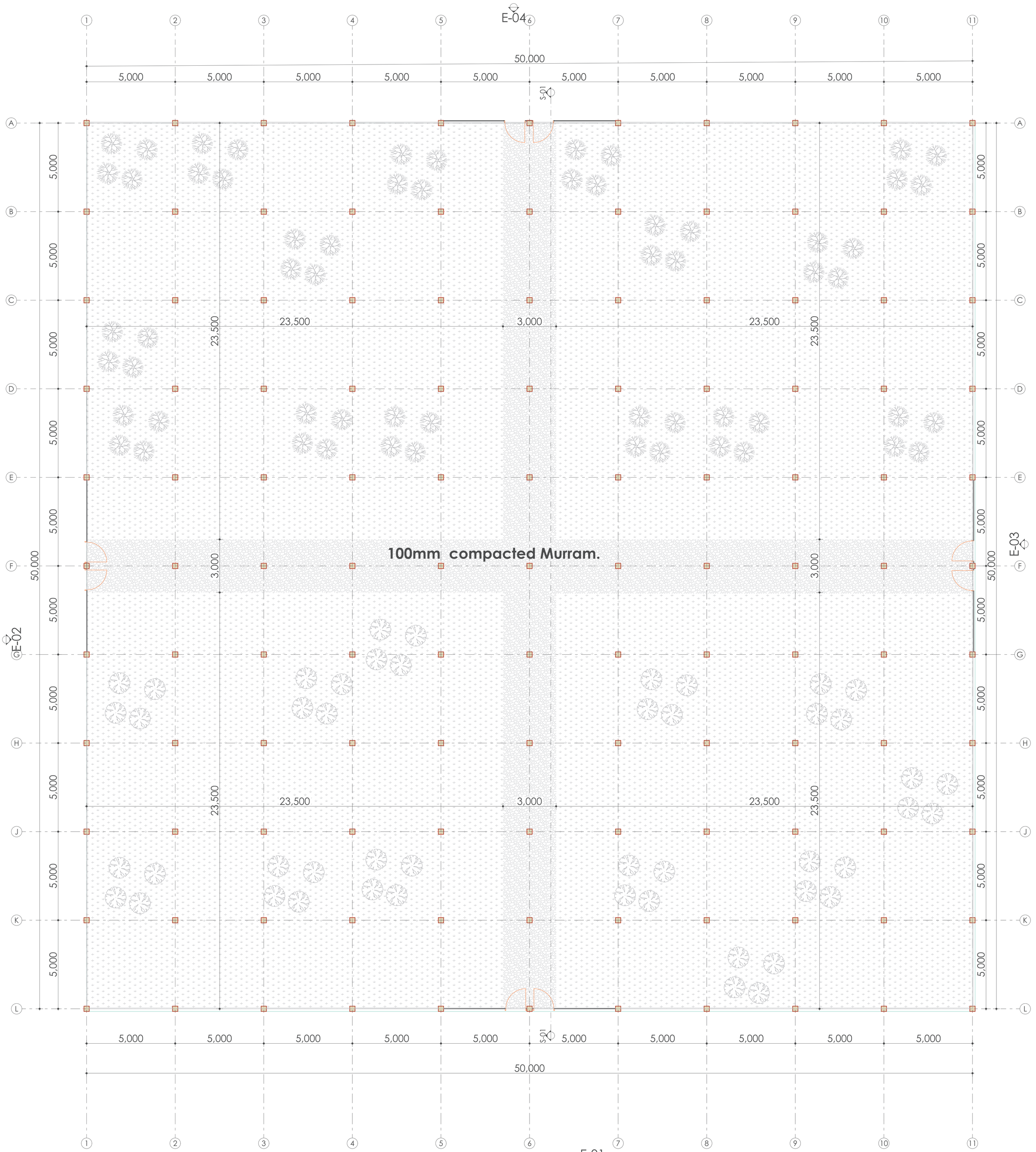
TREE NURSERIES



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GROUND FLOOR PLAN SCALE 1:100

GENERAL NOTES

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PROJECT : **Garowe Community Cohesion and Green Cultural Park**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

PROJECT MANAGER/ARCHITECT: **IRFAN HOBAYA**

DRAWING TITLE : **N 01** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-0** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

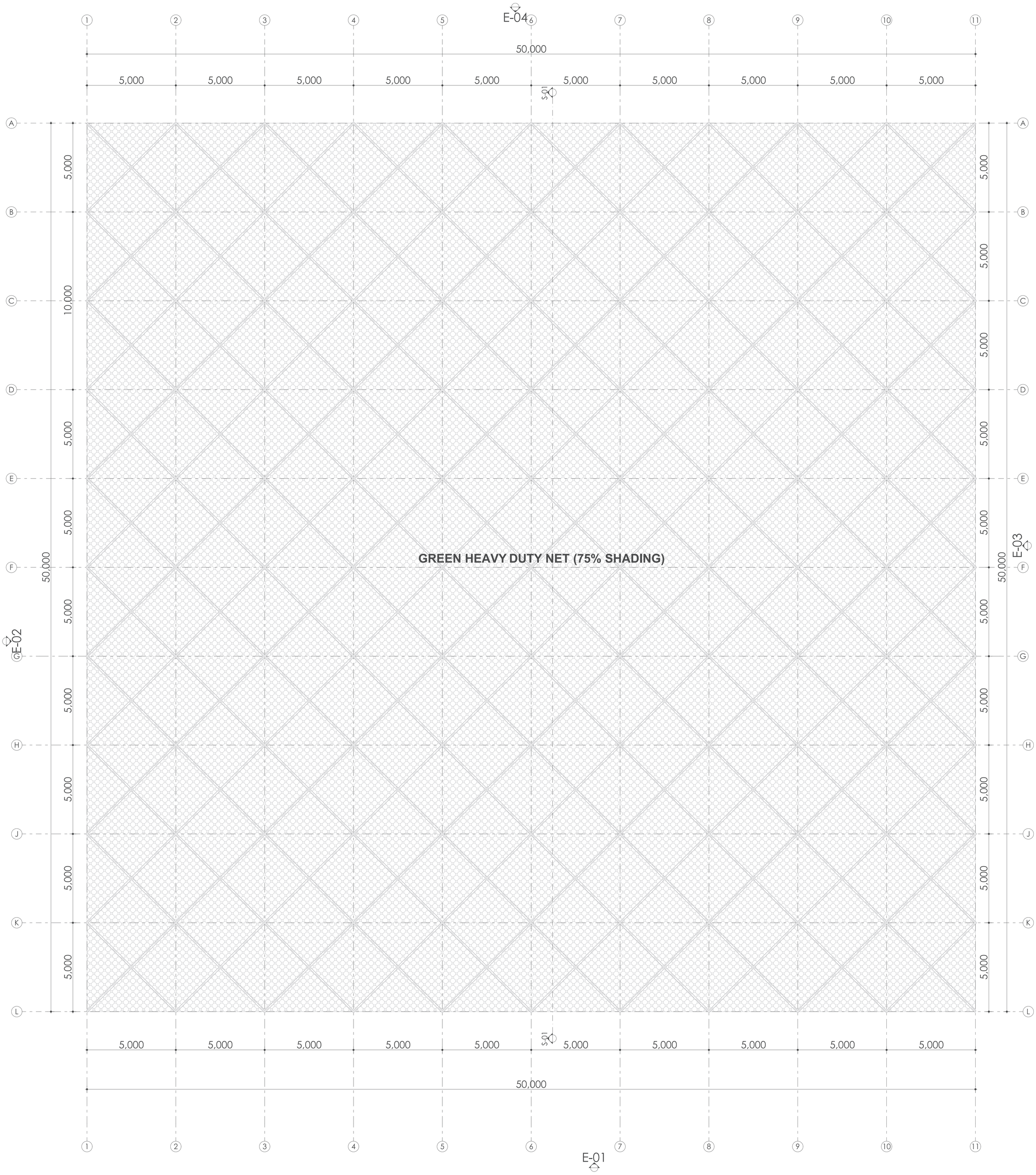
DRAWN BY: **S.Z** | CHECKED BY : **I.H** | DATE : **15-Jun-26**

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ROOF PLAN SCALE 1:100

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PROJECT : **Garowe Community Cohesion and Green Cultural Park**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

PROJECT MANAGER/ARCHITECT: **IRFAN HOBAYA**

DRAWING TITLE : **NURSERY PLAN** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-0** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

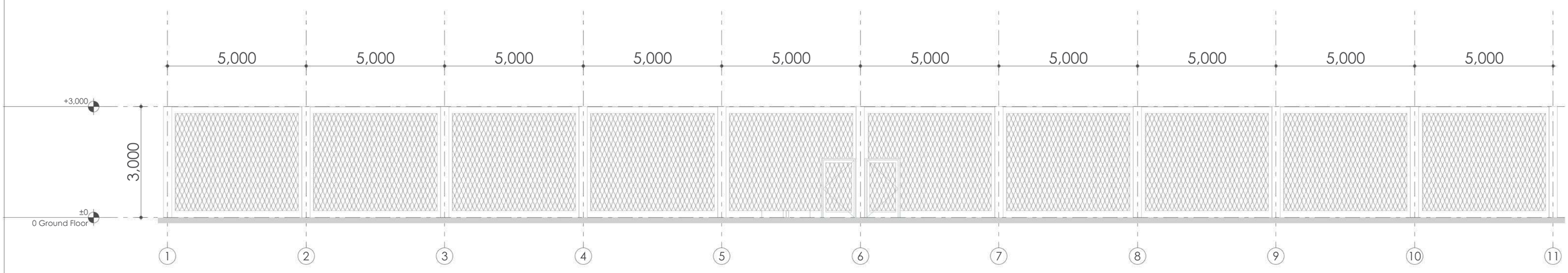
DRAWN BY: **S.Z** | CHECKED BY : **I.H** | DATE : **15-Jun-26**

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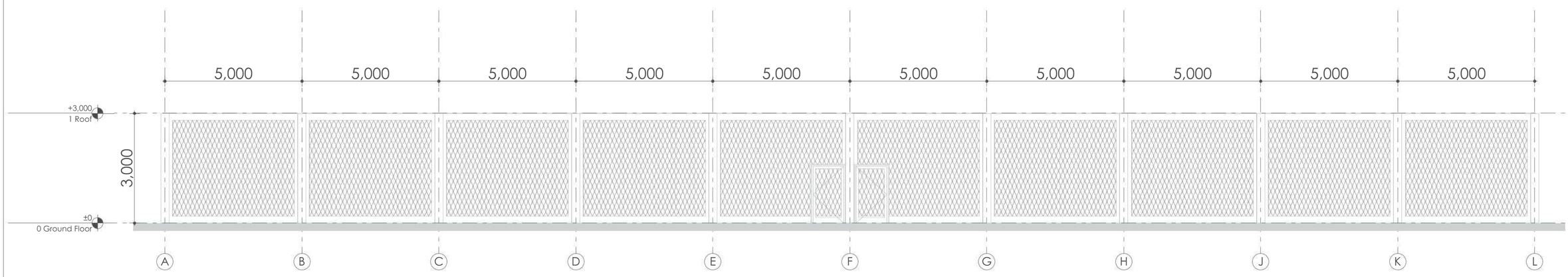
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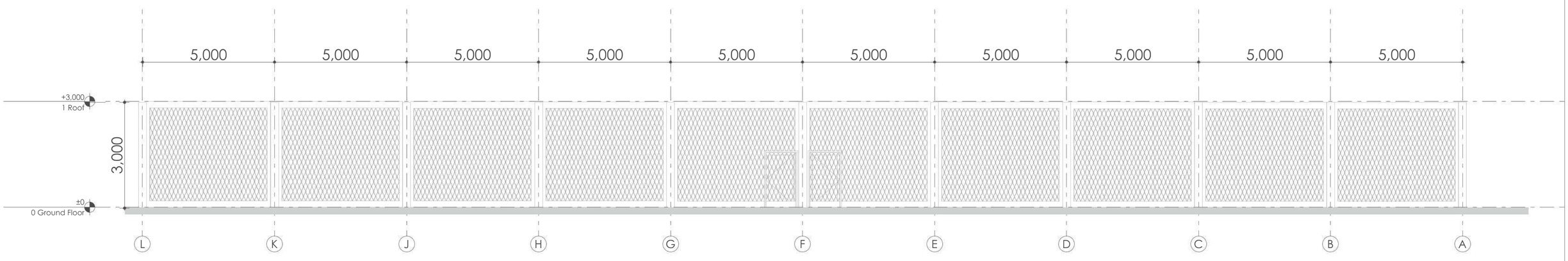
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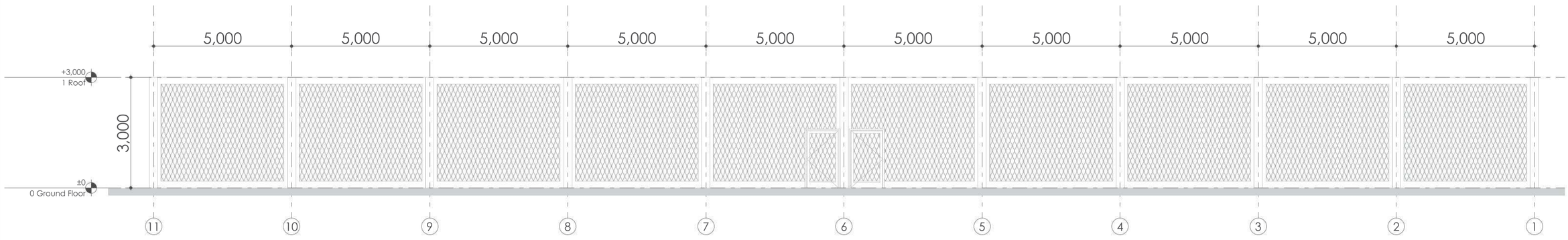
ELEVATION 01



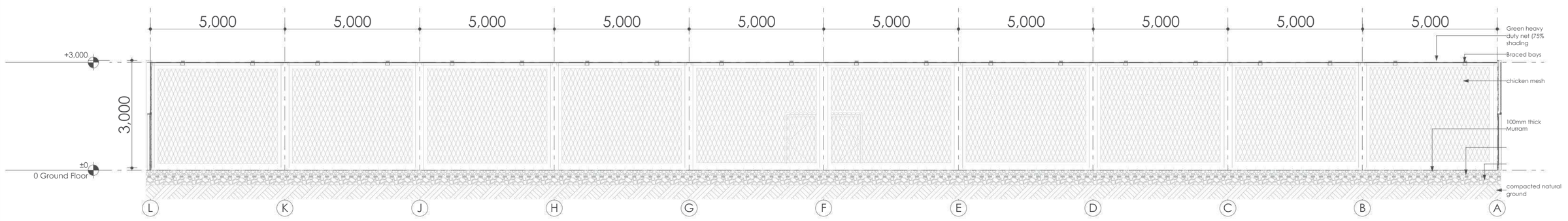
ELEVATION 02



ELEVATION 03



ELEVATION 04



SECTION 01

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CLIENT : **SINAN PROJECTS**

PROJECT : **Garowe Community Cohesion and Green Cultural Park**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

PROJECT MANAGER/ARCHITECT: **IRFAN HOBAYA**

DRAWING TITLE : **ELEVATIONS AND SECTIONS** | SCALE: **AS SHOWN**

DRAWING NO:	PROJECT NO:	REV NO:
AA-308-0	AA-308-GP-SM	-------

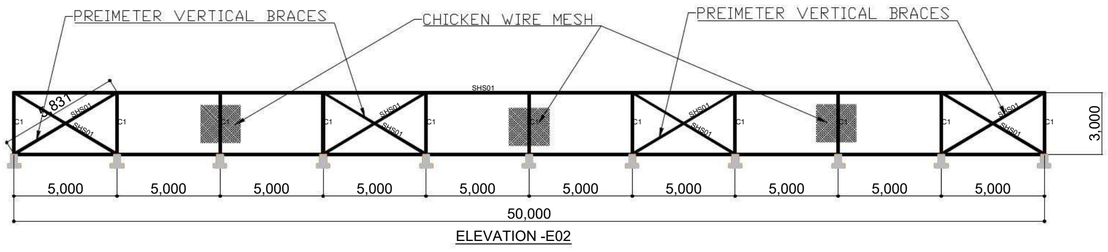
DRAWN BY:	CHECKED BY :	DATE :
S.Z	I.H	15-Jun-26

PC | MAC | CAD FILE:

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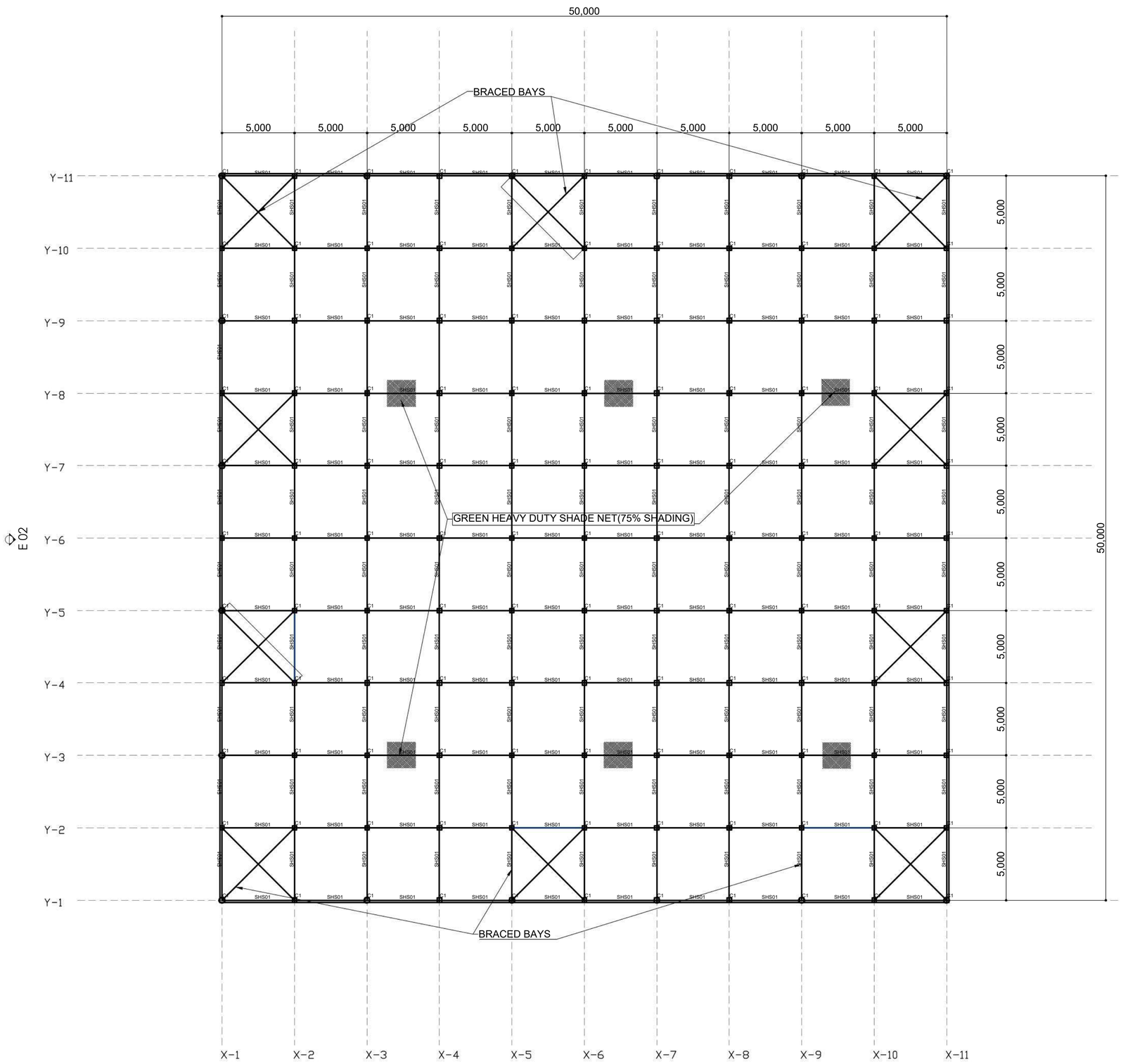
ELEVATION -E02

E 04

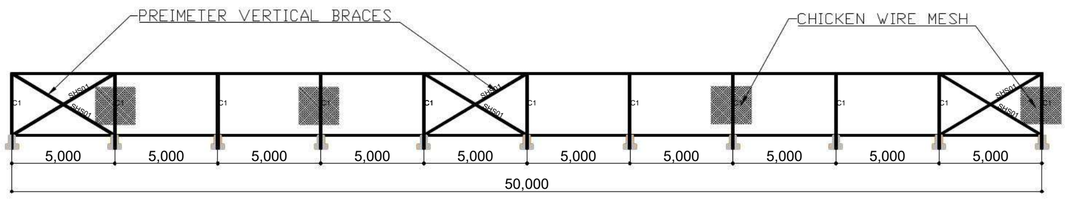
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E 03

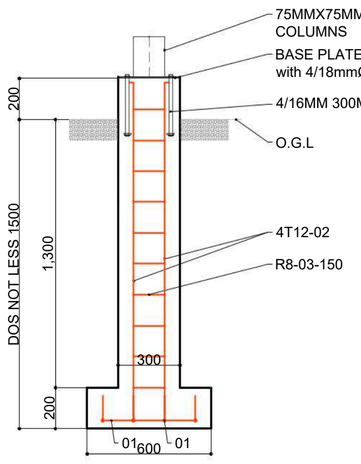
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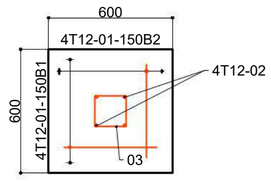
GROUND & ROOF PLAN



ELEVATION -E01



BASE & PEDESTAL COLUMN CROSS-SECTION
SCALE-1:20



600X600X200MM BASE (121NOS.)
SCALE-1:20

GENERAL NOTES

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DRAWING NO: **AA-308-0** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

DRAWN BY: **S.Z** | CHECKED BY : **I.H** | DATE : **15-Jun-26**

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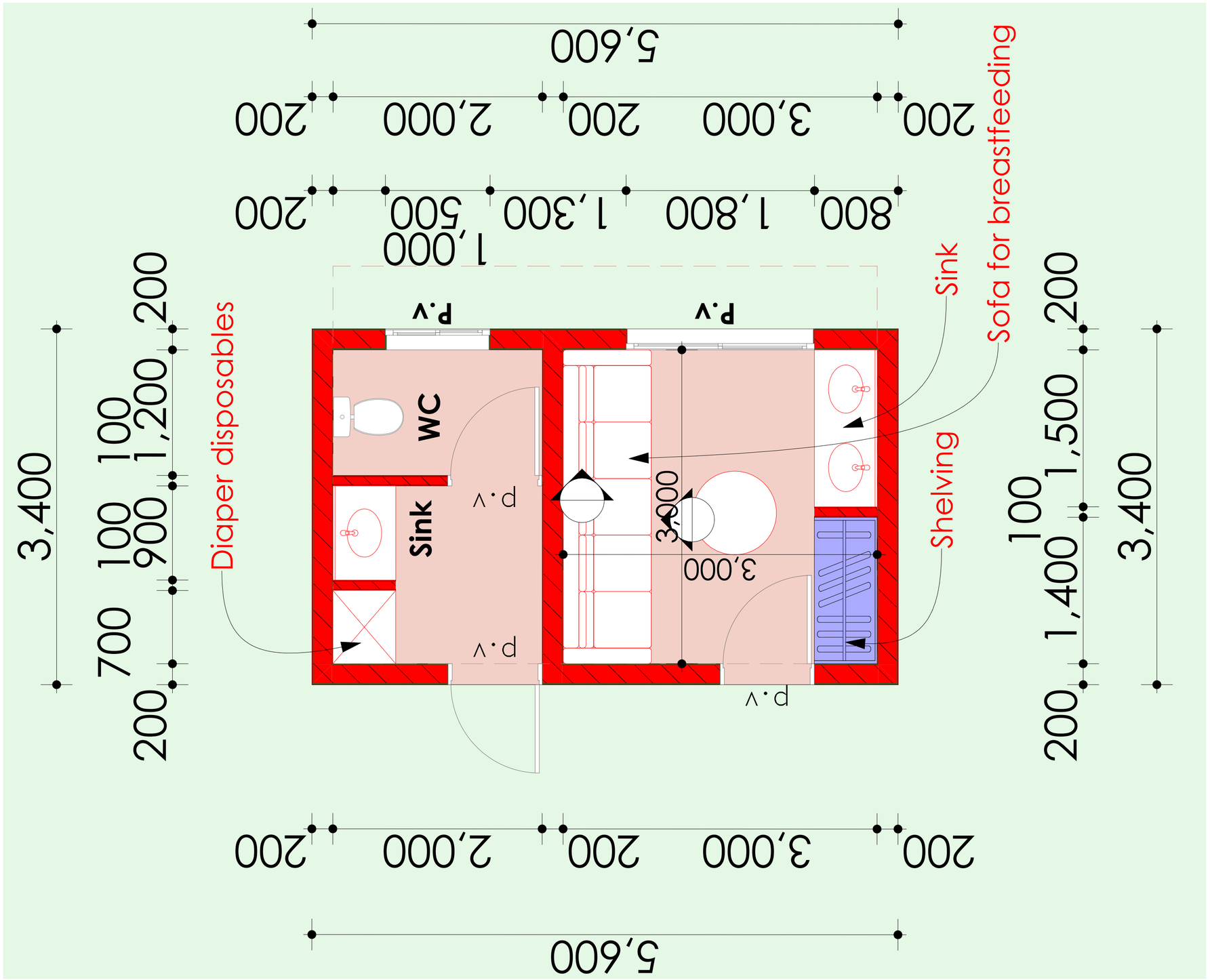
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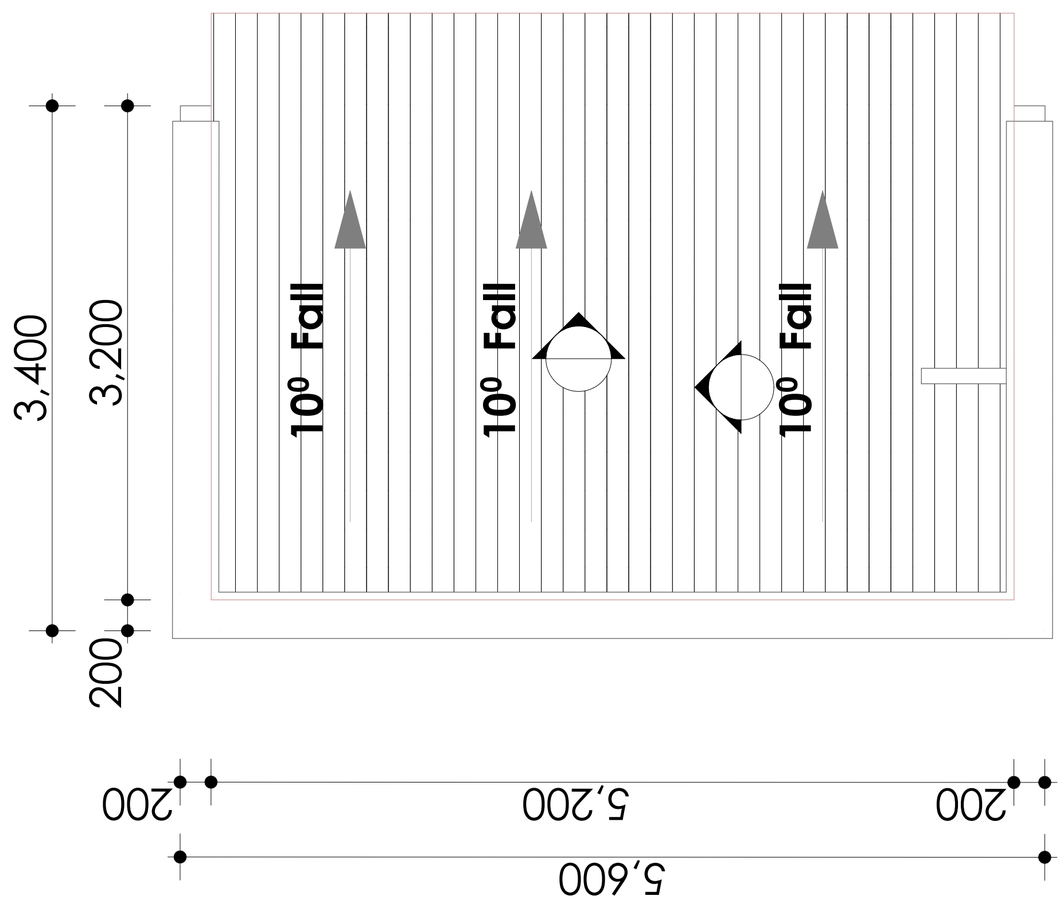
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CHILDREN PLAY AREA AND INFANT CARE ROOM





INFANT CARE ROOM GROUND FLOOR PLAN



INFANT CARE ROOM ROOF FLOOR PLAN

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GENERATED ON 20/06/2026 15:31

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DRAWING TITLE : **LACTATION ROOM** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

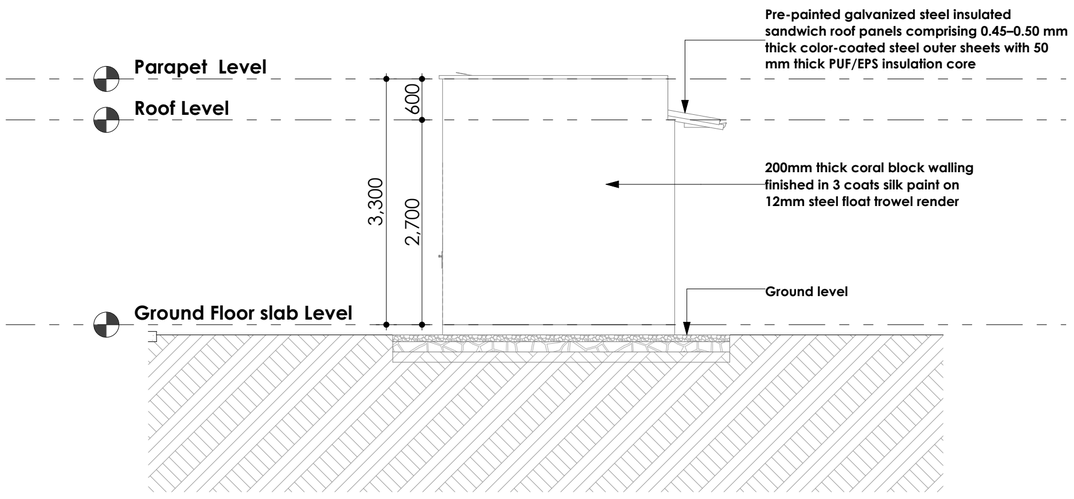
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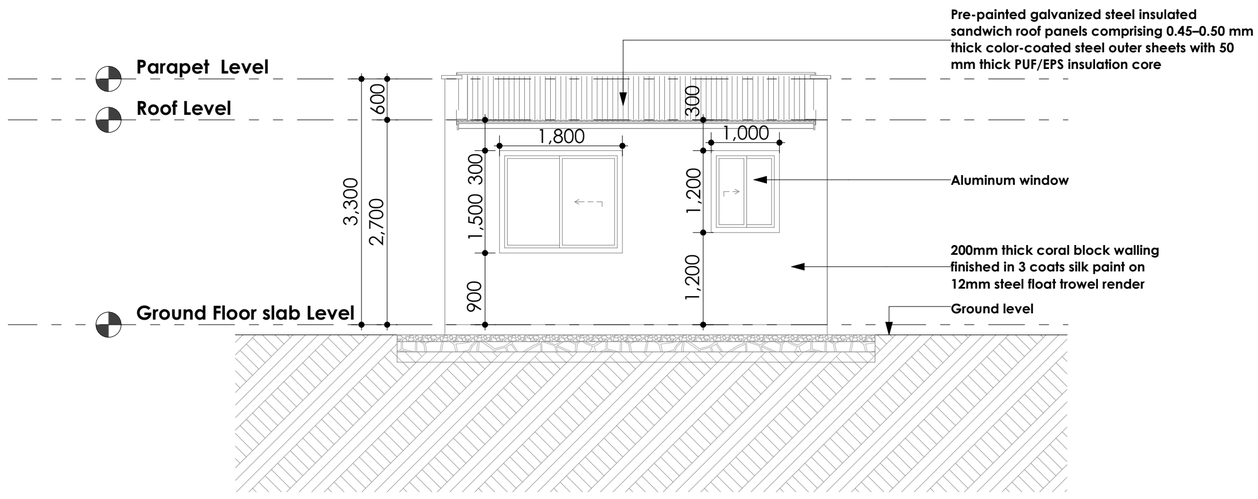
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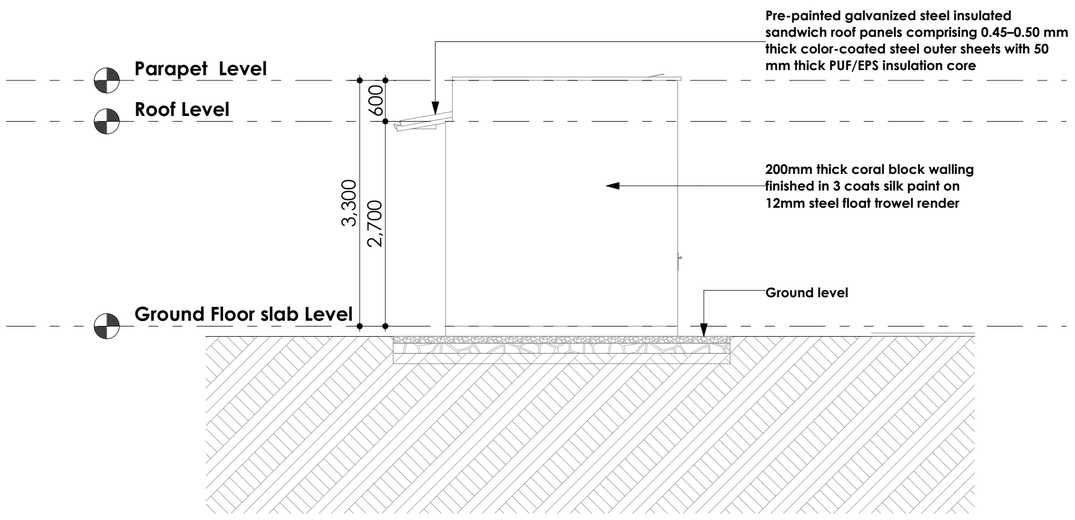
UK International Development
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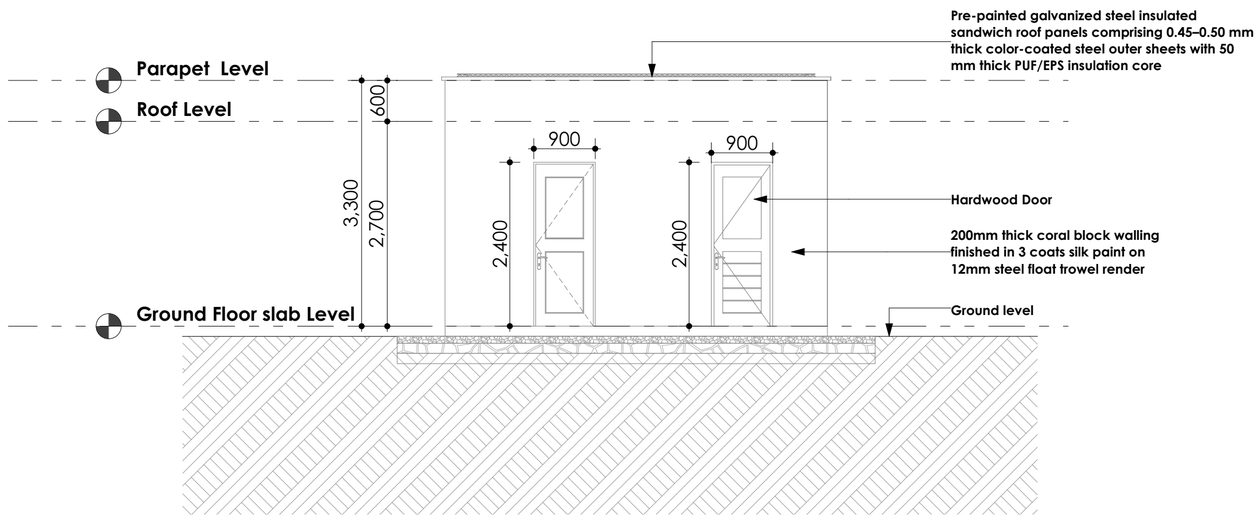
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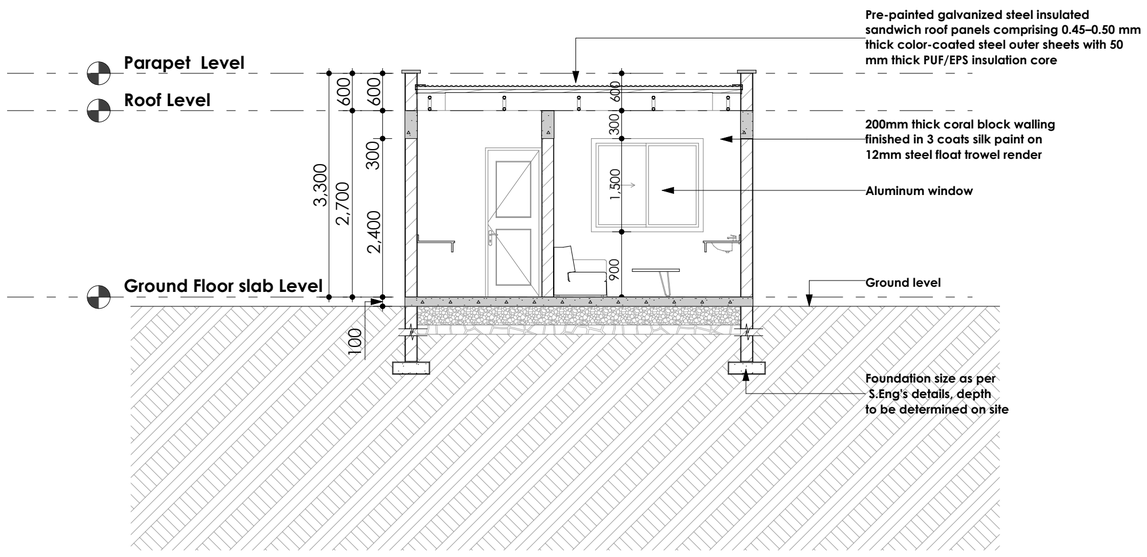
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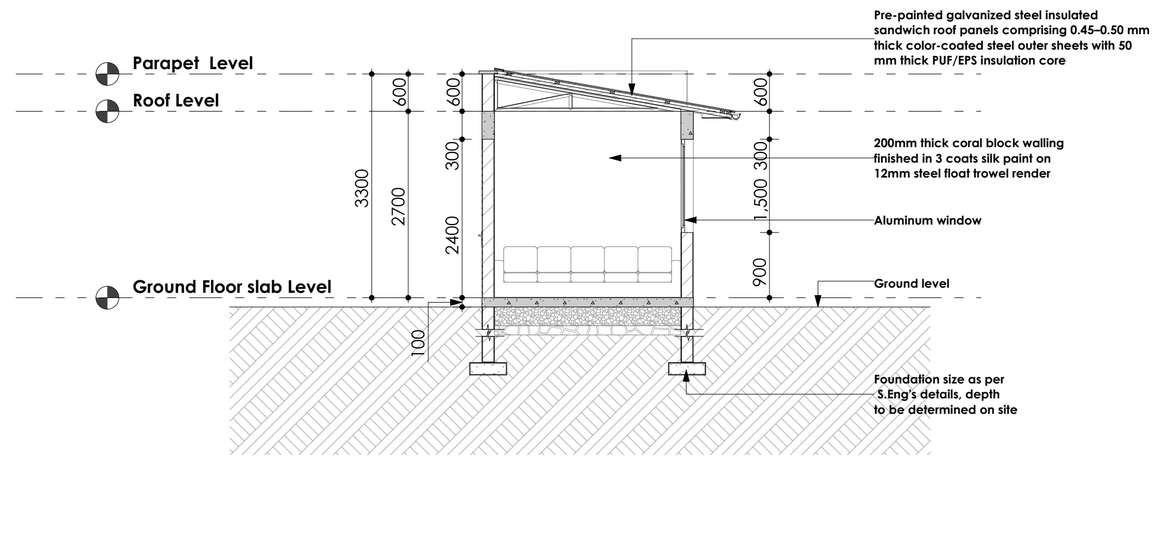
ELEVATION 03 SCALE 1:60



ELEVATION 04 SCALE 1:60



SECTION 01 SCALE 1:60



SECTION 02 SCALE 1:60

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GENERATED ON 20/06/2026 15:31

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PROJECT : **GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK**

PLOT NO: | ROAD:

LOCATION: **SOMALIA** | TOWN: **GAROWE**

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DRAWING TITLE : **LACTATION ROOM ELEVATIONS & SECTIONS** | SCALE: **AS SHOWN**

DRAWING NO: **AA-308-** | PROJECT NO: **AA-308-GP-SM** | REV NO: **-------**

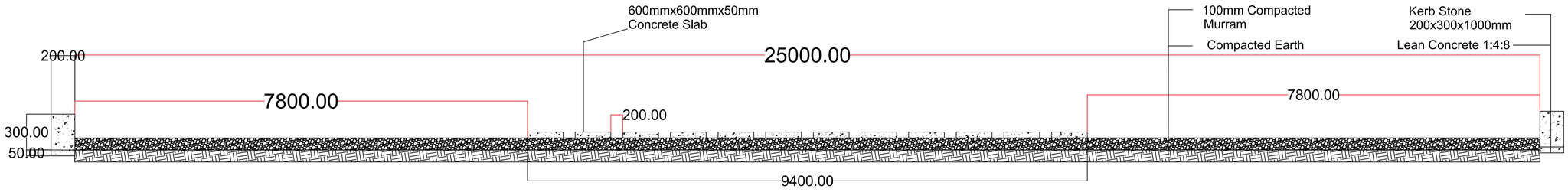
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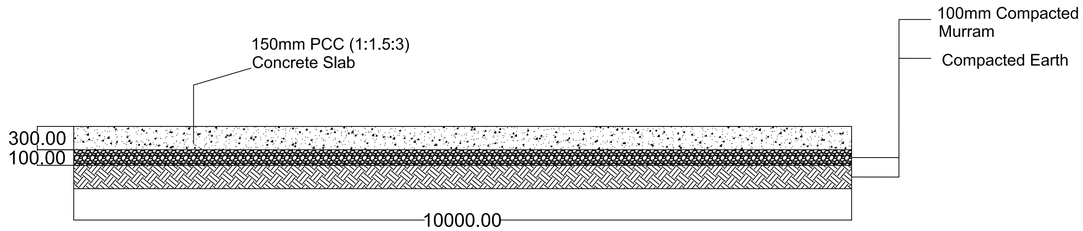
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Cross Section for Pathway



Cross Section Running Track

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LEGEND:

REFERENCE DRAWINGS

ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

PROJECT NAME:

GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

DT Global Africa
Kiganjo House, Rose Avenue, Kilimani,
Second Floor, Nairobi, Kenya
P.O. Box 76448-00508
www.dt-global.com/projects/sinaan/

Drawing Title

CROSS SECTION FOR PATH WAYS AND RUNNING TRACK

Scale	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN	
BY :	DATE:
DESIGNED	
BY :	Pr No:
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL	
BY : AM	Pr No:
SIGNATURE :	DATE :

DT Global Project Number	DT Global Drawing Number	Revision
		0

GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK-SOMALIA

ELECTRICAL DRAWINGS

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RETICULATION LEGEND

E — 1000 X 1000 X 1000MM DEEP RC MANHOLE TO SE DETAIL

E — 600 X 600 X 800MM DEEP RC MANHOLE TO SE DETAIL

E — 450 X 450 X 600MM DEEP RC MANHOLE TO SE DETAIL

E — 300 X 300 X 450MM DEEP RC MANHOLE TO SE DETAIL

300MM X 50MM METALLIC CABLE TRAY - POWER

150MM X 50MM METALLIC CABLE TRAY - POWER

150MM X 50MM METALLIC CABLE TRAY - ELV

250MM X 50MM 3-COMPARTMENT METALLIC CABLE TRUNKING

LIGHTING LEGEND

A — TYPE A FITTING - 27W 3600LM 600MM X 600MM LED SURFACE MOUNT PANEL

B — TYPE B FITTING - 12W 1200LM IP54 IK08 CEILING MOUNT LED DOWNLIGHT

C — TYPE C FITTING - 13W 1100LM IP20/44 IK02 CEILING MOUNT LED DOWNLIGHT

F — TYPE F FITTING - 28.5W 4000LM IP65 IK10 LED FLUORESCENT FITTING

G — TYPE G FITTING - 20W 2000LM IP65 IK10 OUTDOOR WALL MOUNT FITTING

L — TYPE L FITTING - SOLAR POWERED BOLLARD

T — 20M SOLAR LED HIGH MAST

6M HIGH STREET LIGHT

POWER LEGEND

13A SINGLE SWITCHED SOCKET OUTLET

13A TWIN SWITCHED SOCKET OUTLET

13A WEATHERPROOF TWIN SWITCHED SOCKET OUTLET

20A DOUBLE POLE SWITCH

3-PHASE ISOLATOR

JB — JUNCTION BOX FOR EQUIPMENT CONNECTION

125A TPN MCB DISTRIBUTION BOARD - WALL MOUNT

100A SPN MCB CONSUMER UNIT - FLUSH MOUNT

PURPOSE BUILT LV METER BOARD - WALL MOUNT

CEILING FAN

PA SYSTEM

LONG RANGE HORN SPEAKER

WALL MOUNT LOUD SPEAKER

S — CEILING RECESSED SPEAKER

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REFERENCE DRAWINGS

ACCESS CONTROL

K — BIOMETRIC READER WITH KEYPAD

ELECTROMAGNETIC DOOR LOCK

PB — PANIC BUTTON

DOOR RELEASE

EMERGENCY BREAK GLASS

SWITCHES LEGEND

10A 1 GANG 1 WAY SWITCH - WALL MOUNTED

10A 2 GANG 1 WAY SWITCH - WALL MOUNTED

10A 3 GANG 1 WAY SWITCH - WALL MOUNTED

10A 1 GANG 2 WAY SWITCH - WALL MOUNTED

10A 2 GANG 2 WAY SWITCH - WALL MOUNTED

10A INTERMEDIATE SWITCH - WALL MOUNTED

PHOTOCELL SWITCH

ICT AND SECURITY SYSTEM LEGEND

CAT 6 RJ45 OUTLET

WIFI ACCESS POINT POINT

TV — TV SCREEN

CEILING MOUNT IP CCTV DOME CAMERA

SEC — WALL MOUNT IP BULLET CAMERA WITH 30M IR NIGHT VISION

PTZ — POLE MOUNT IP BULLET CAMERA WITH 120M IR NIGHT VISION

PTZ CAMERA WITH 500M IR NIGHT VISION

INDOOR NETWORK CABINET

OUTDOOR NETWORK CABINET

FIRE DETECTION SYSTEM

HD — HEAT DETECTOR

FIRE ALARM SOUNDER AND STROBE

FIRE ALARM STROBE

FIRE ALARM CALL POINT

FACP — FIRE ALARM CONTROL PANEL

SD — SMOKE DETECTOR

XENON FLASHING BEACON

Revision Details	By / Chk	Date	Rev
ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

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PROJECT NAME:
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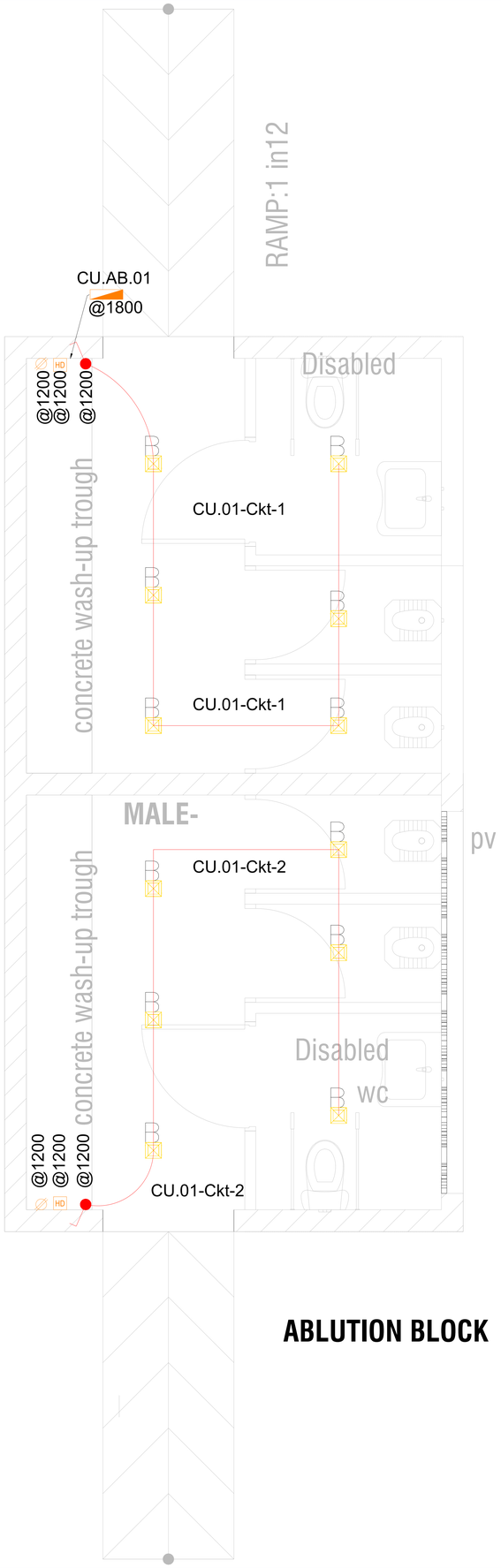
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ELECTRICAL LEGEND

Sheet : LE of 3

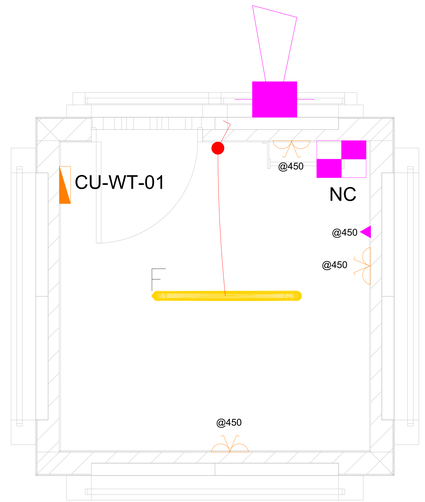
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DRAWN			
BY : PN		DATE: JANUARY 2026	
DESIGNED			
BY : PN		Pr No: 2026001	
SIGNATURE :		DATE :	
CHECKED ON BEHALF OF DT GLOBAL			
BY : RO		Pr No: 20260001	
SIGNATURE :		DATE :	

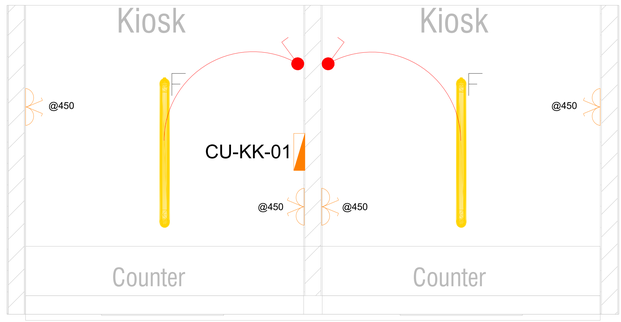
TD Global Project Number	GD Global Drawing Number	Revision
0054	3001	0



ABLUTION BLOCK



WATCH TOWER



KIOSK

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www.dt-global.com/projects/sinaan/

Drawing Title

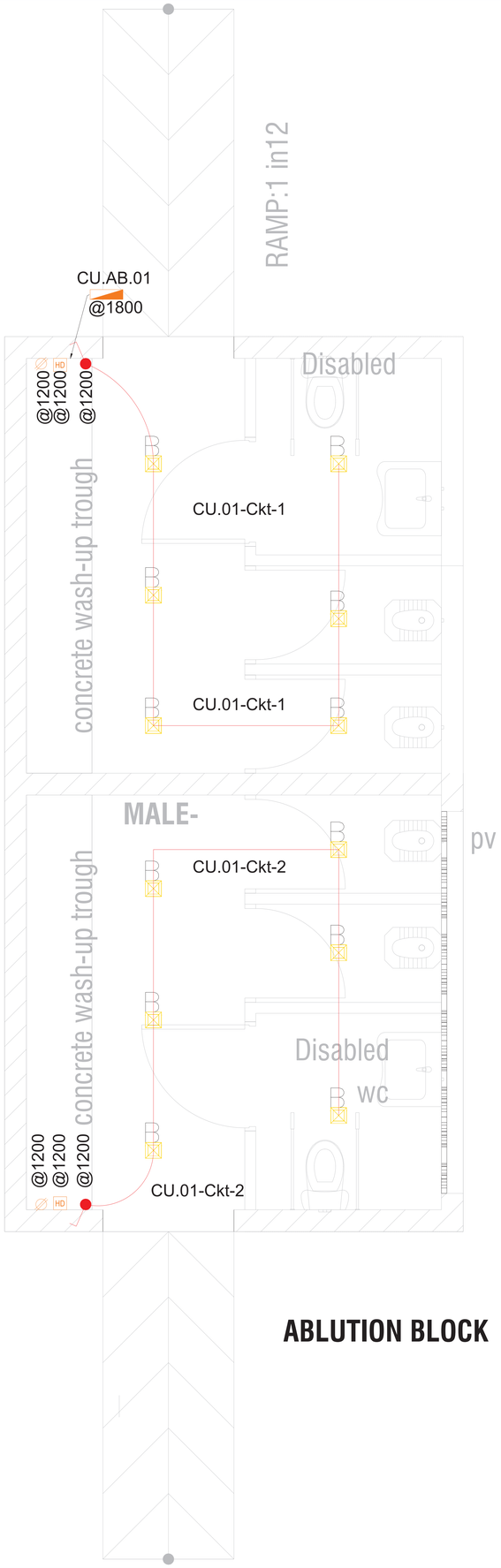
ABLUTION BLOCK, WATCH TOWER & KIOSK ELECTRICAL SERVICES

Sheet : EL of 3

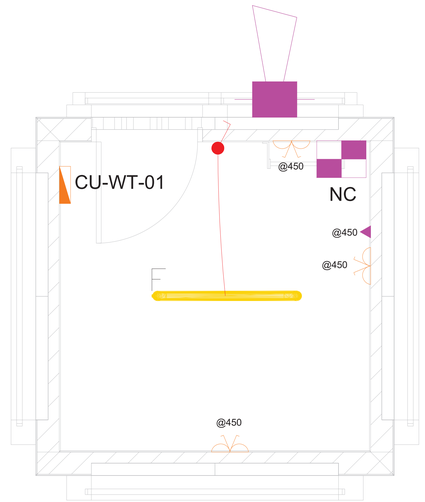
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DRAWN BY :	PN	DATE:	FEBRUARY 2026
DESIGNED BY :	PN	Pr No:	2026001
SIGNATURE :		DATE :	
CHECKED ON BEHALF OF DT GLOBAL BY :	RO	Pr No:	20260001
SIGNATURE :		DATE :	

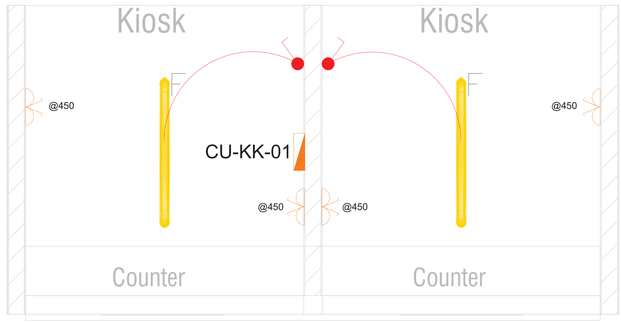
TD Global Project Number	GD Global Drawing Number	Revision
0054	3011	0



ABLUTION BLOCK



WATCH TOWER



KIOSK

GENERAL NOTES

1. THIS DRAWING PROVIDES INFORMATION RELATED TO THE FORM OF THE WORK WHEN COMPLETED TOGETHER WITH GUIDANCE, WHERE FUNDAMENTAL TO THE DESIGN, FOR THE SEQUENCE OF CONSTRUCTION. THIS DRAWING DOES NOT PURPORT TO INCLUDE ANY NECESSARY PRECAUTIONS, ITEMS OR COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY. ALL SUCH PRECAUTIONS MUST BE TAKEN AND ITEMS OR COMPONENTS SUPPLIED BY THE CONTRACTOR.
2. ANY DISCREPANCIES ARE TO BE CONFIRMED WITH THE ENGINEER ON SITE PRIOR TO WORK PROCEEDING.
3. ONLY WRITTEN DIMENSIONS SHALL BE USED.
4. ALL DIMENSIONS ARE IN MILLIMETERS

REFERENCE DRAWINGS

ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan
sinatsabo ! in every way

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

DT Global Africa
Kiganjo House, Rose Avenue, Kilimani,
Second Floor, Nairobi, Kenya
P.O. Box 76448-00508
www.dt-global.com/projects/sinaan/

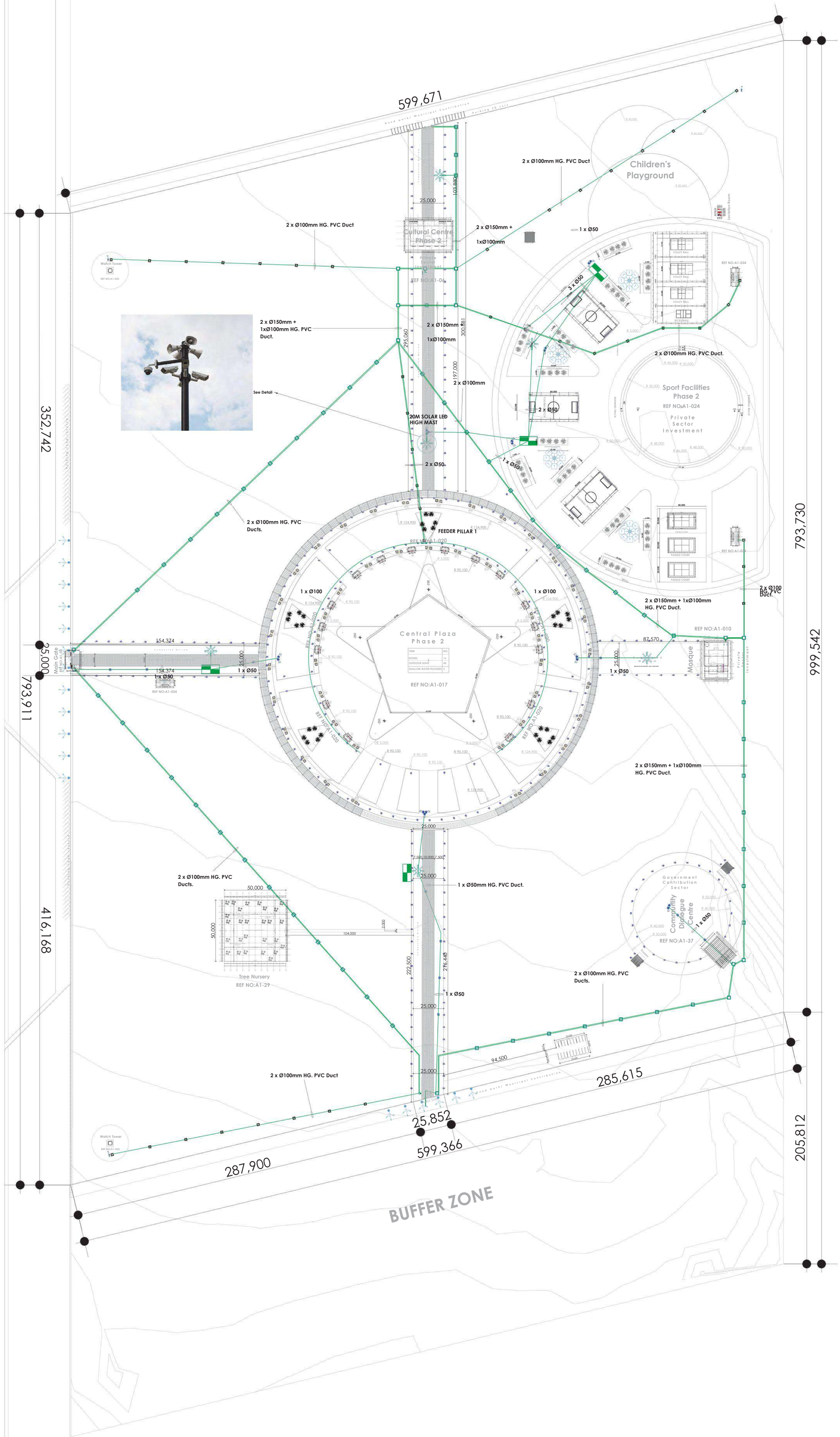
Drawing Title

ABLUTION BLOCK, WATCH TOWER & KIOSK ELECTRICAL SERVICES

Sheet : EL of 3

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DRAWN BY : PN	DATE: FEBRUARY 2026
DESIGNED BY : PN	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY : RO	Pr No: 20260001
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3011	0



MASTER PLAN ELECTRICAL RETICULATION

GENERAL NOTES

1.ALL DIMENSIONS TO BE CHECKED ON SITE. WRITTEN DIMENSIONS RULES OVER SCALED DRAWINGS.
ANY DISCREPANCY IN DIMENSIONS TO BE REPORTED TOTHE ARCHITECT BEFORE PROCEEDING.
2.DEPTH AT FOUNDATION TO BE DETERMINED ON SITE ALL FOUNDATIONS R.C. COLUMNS AND R.C. WORKS TO STRUCTURAL ENGINEERS' DETAIL.
3.HEAVY DUTY POLYTHENE SHEETING AND TERMITE TREATMENT TO BE PROVIDED UNDER GROUND FLOORSLAB. DPC TO BE THREE PLY BITUMINOUS FELT LAID UNDER ALL WALLS.
4. P.V DENOTES PERMANENT VENTILATION. F.L DENOTES FANLIGHT ABOVE.
5. ALL WALLS TO BE REINFORCED WITH HOOP IRON AT EVERY ALTERNATIVE COURSE.
6. ALL SANITARY WORKS TO BE EXECUTED IN ACCORDANCE WITH M.O.H. RULES AND REGULATIONS.
7. ALL DRAINS UNDER BUILDING, DRIVEWAY, AND PARKING TO BE 150mm CAST IRON PIPE ENCASED
IN 150mm CONCRETE INSPECTION CHAMBERS WITHIN BUILDING TOBE FITTED WITH HEAVY DUTY DOUBLE SEAL AIR TIGHT COVERS

GENERATED ON 25/06/2026 07:53

FIRE FIGHTING NOTES

1.ALTERNATIVE MEANS OF LIGHTING USING SECONDARY MEANS TO BE INSTALLED.
2.HEAT/SMOKE DETECTORS TO BE INSTALLED.
3.BREAK-GLASS FIRE ALARM SYSTEM TO BE INSTALLED.
4.4500LTR WATER TANK WITH A BOOSTER PUMP TO BE PROVIDED.
5.1x9LTR WATER/CO2 AT EACH FIRE POINT TO BE PROVIDED.
6.1x10KG DRY POWDER AT EACH FIRE POINT TO BE PROVIDED.
7.FIRE NOTICE AND FIRE EXIT SIGNS AT STRATEGIC POSITIONS TO BE PROVIDED.
8.1000 GALLON WATER FOR FIRE FIGHTING TO BE PROVIDED.
9.1 NO. 4.5KG FIRE EXTINGUISHER AND 1 NO. BLANKET TO BE PROVIDED.
10.SPRINKLER SYSTEM TO BE INSTALLED IN THE PARKING.
11.6 NO. HYDRAULIC HOSE REELS 30 METRES LONG WITH OPEN SHUT OFF JET NOZZLE TO BE PROVIDED.

CLIENT :	SINAN PROJECTS
PROJECT :	GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK
PLOT NO: / ROAD:	
LOCATION:	SOMALIA
TOWN:	GAROWE
PROJECT MANAGER/ARCHITECT:	IRFAN HOBAYA

DRAWING TITLE : Electrical		SCALE: AS SHOWN
DRAWING NO: AA-308-	PROJECT NO: AA-308-GP-SM	REV NO: -------
DRAWN BY:	CHECKED BY : I.H	DATE : 25/06/2026
PC / MAC	CAD FILE:	

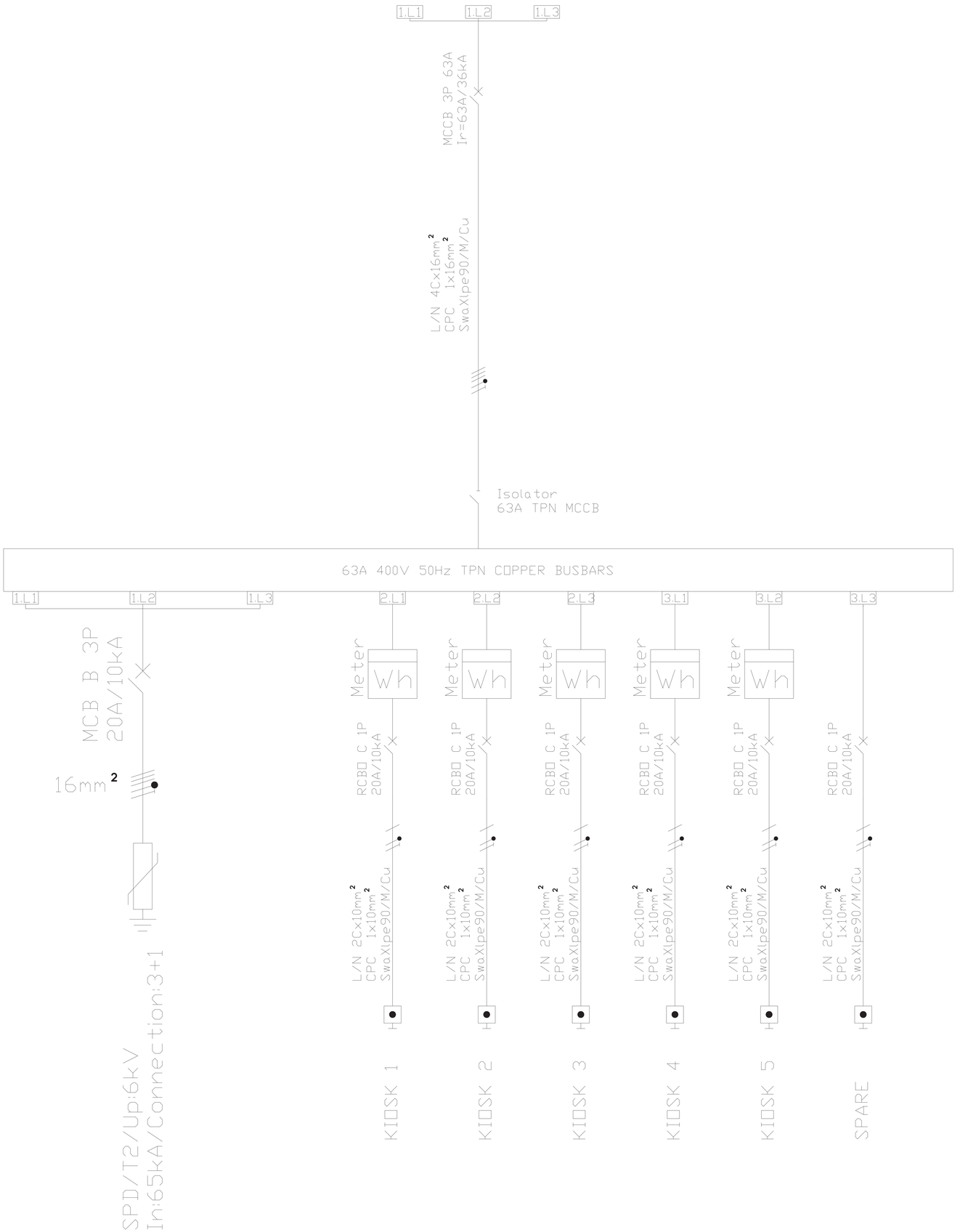
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FEEDER PILLAR 1 SLD SCHEMATIC

(FROM CULTURAL CENTRE METER BOARD)



GENERAL NOTES

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REFERENCE DRAWINGS

ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A
Revision Details	By / Chk	Date	Rev

PROGRAMME:
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DT Global Africa
Kiganjo House, Rose Avenue, Kilimani,
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P.O. Box 76448-00508
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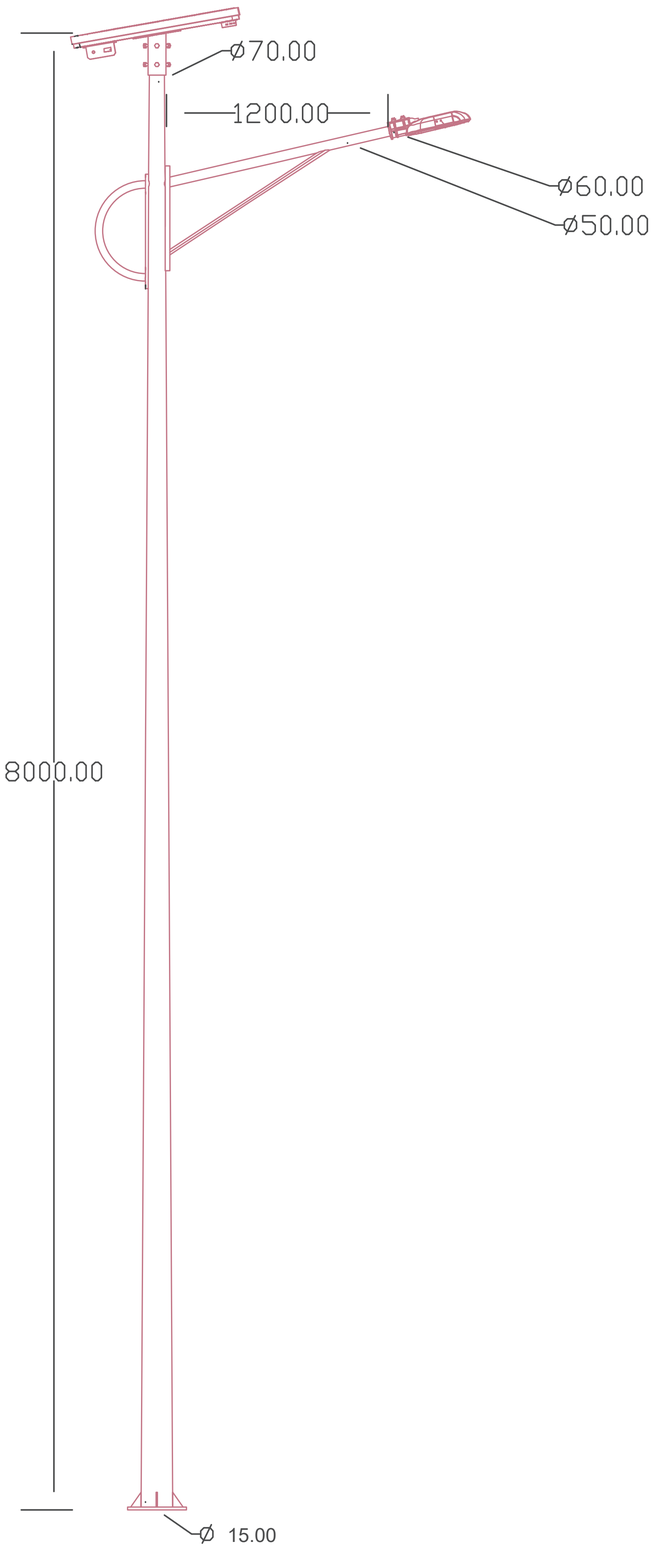
Drawing Title

DB SLD SCHEMATICS-4: TYPICAL GATEHOUSE DB & FEEDER PILLAR 1

Sheet : SL of 3

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ON ORIGINAL PLAN	0 10 20 30 40 50
DRAWN BY :	PN
DATE:	FEBRUARY 2026
DESIGNED BY :	PN
Pr No:	2026001
SIGNATURE :	
DATE :	
CHECKED ON BEHALF OF DT GLOBAL BY :	RO
Pr No:	20260001
SIGNATURE :	
DATE :	

TD Global Project Number	GD Global Drawing Number	Revision
0054	3017	3



NOTES

GENERAL

1. Install solar street Lights in accordance with IEC/NEC standards and approved drawings.
2. PV modules to face true south with optimized tilt angle;
3. Mounting structure to be high-strength anodized /galvanized aluminum, corrosion-resistant
4. All bolts, nuts, and fasteners to be stainless steel and securely tightened.
5. Concrete foundations to be properly aligned, cured, and raised above ground as per design
6. Steel Poles designed to withstand local wind loads (≥120 km/h or site-specific requirement).
7. Provide safe access for cleaning, inspection, and maintenance.
8. Installation to be inspected, tested, and handed over in safe, fully operational condition.

No.	Description	Date

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Partnership | Progress | Prosperity

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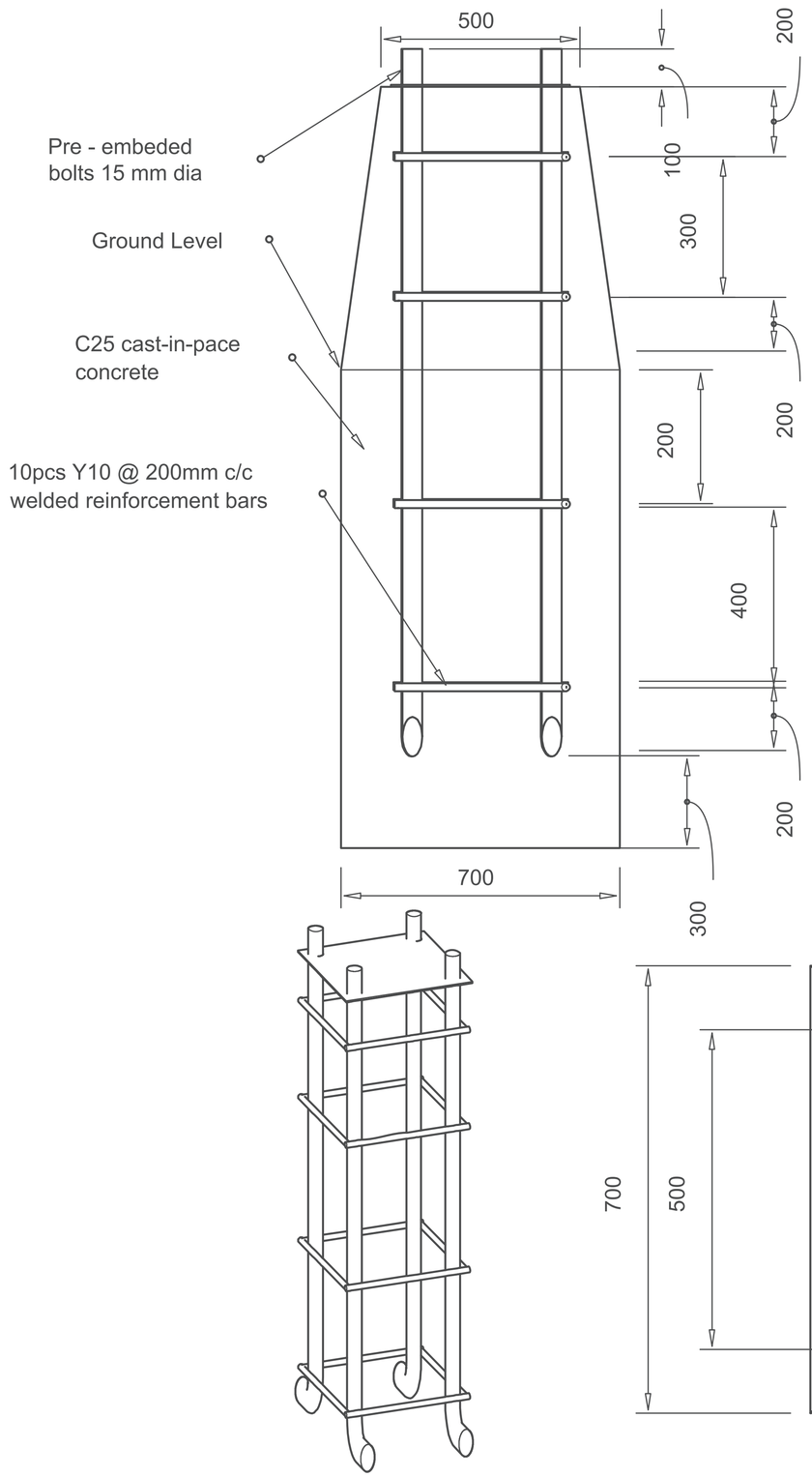
sinaan

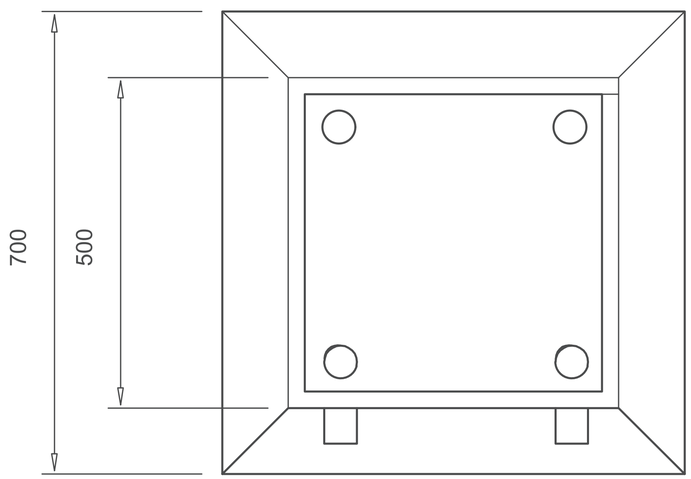
SINAAN

Solar Street Lights

Project number 001	**A101**
Date DEC 2025	
Drawn by Author	
Checked by Checker	Scale

Drawing for SSL Concrete Foundation





GENERAL NOTE:
All units are in mm.
Drawing is NOT TO SCALE.
Please consult the Engineer where if anything is unclear.

NOTES

GENERAL

1. Install solar street Lights in accordance with IEC/NEC standards and approved drawings.
2. PV modules to face true south with optimized tilt angle;
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No.	Description	Date

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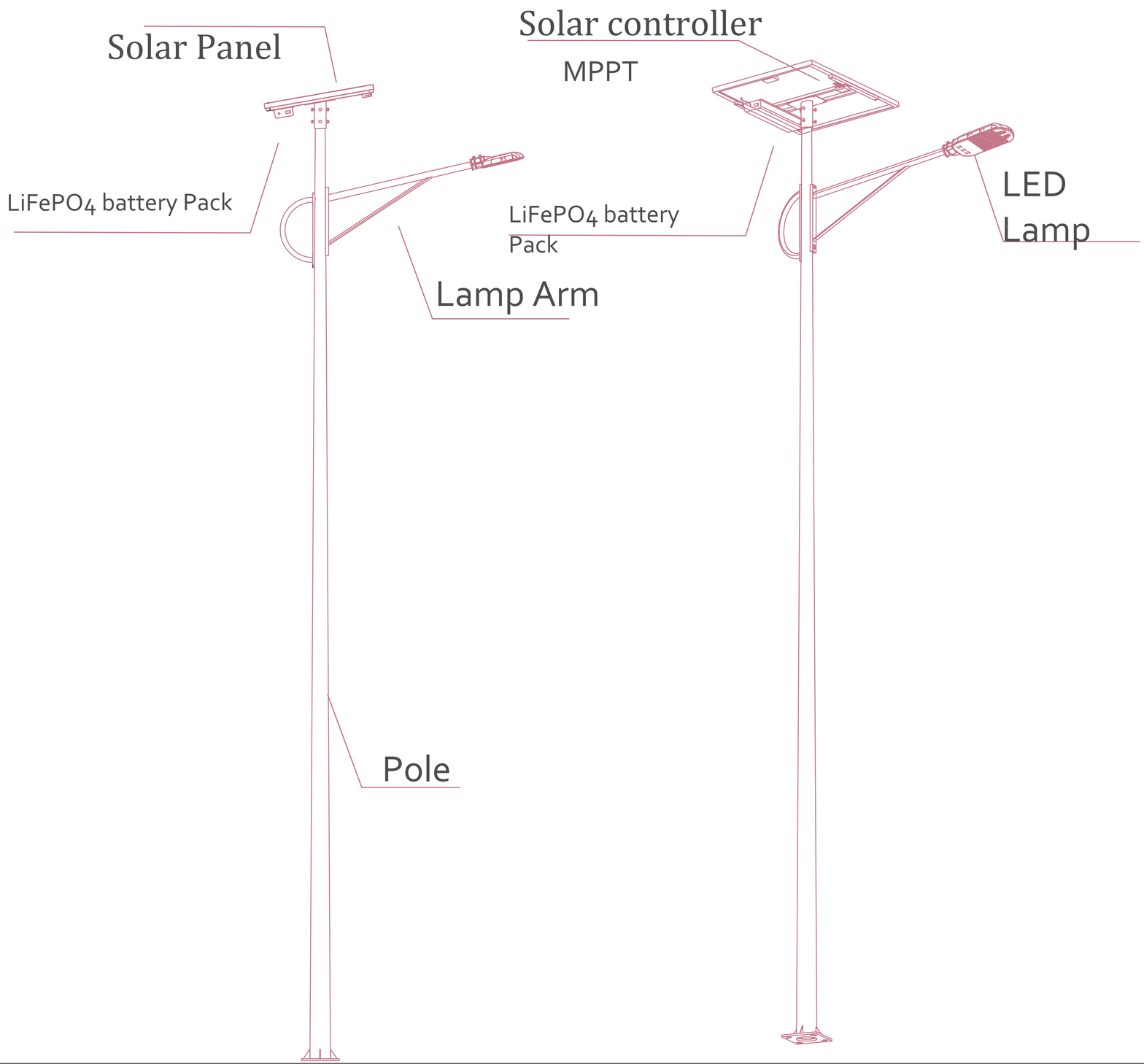
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Solar Street Lights

Project number	001	**A102**
Date	DEC 2025	
Drawn by	Author	
Checked by	Checker	Scale

Solar Street Light Installation steps



NOTES

GENERAL

1. Install solar street Lights in accordance with IEC/NEC standards and approved drawings.
2. PV modules to face true south with optimized tilt angle;
3. Mounting structure to be high-strength anodized /galvanized aluminum, corrosion-resistant
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No.	Description	Date

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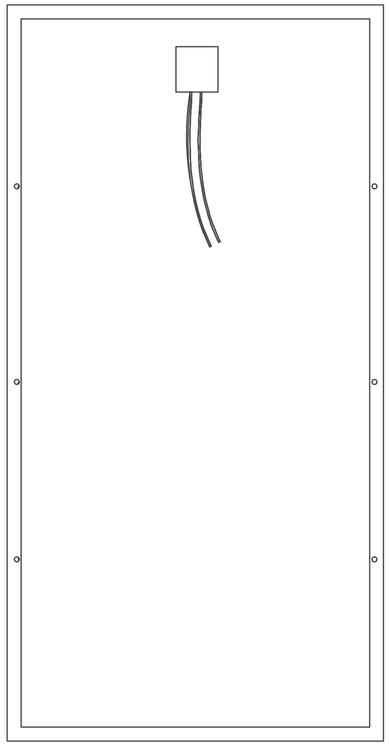
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Solar Street Lights

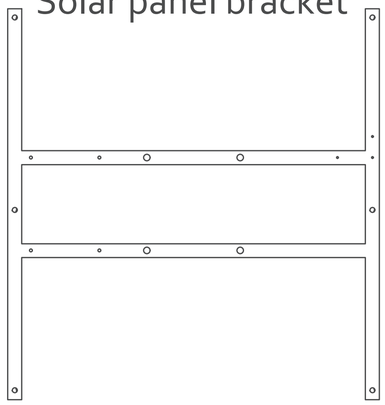
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Date	DEC 2025	
Drawn by	Author	
Checked by	Checker	Scale

Parts list

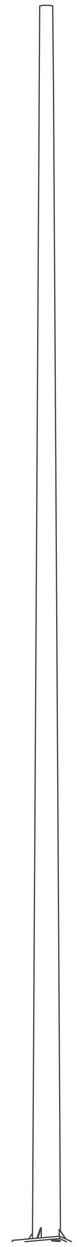
Solar panel



Solar panel bracket



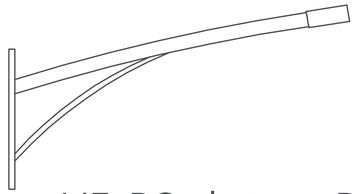
Pole



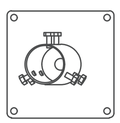
Decorative arm



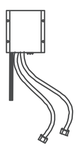
Lamp Arm



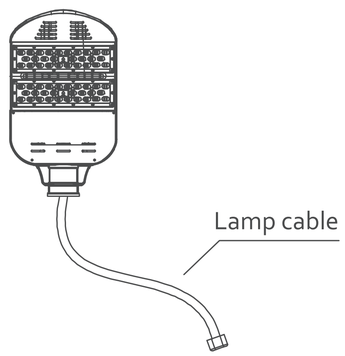
Sleeve



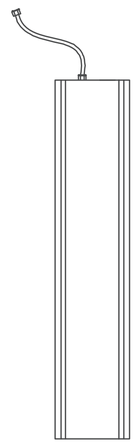
Solar controller



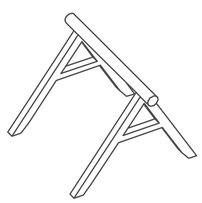
SLD12-100W



LiFePO4 battery Pack



Wooden frame



NOTES

GENERAL

1. Install solar street Lights in accordance with IEC/NEC standards and approved drawings.
2. PV modules to face true south with optimized tilt angle;
3. Mounting structure to be high-strength anodized /galvanized aluminum, corrosion-resistant
4. All bolts, nuts, and fasteners to be stainless steel and securely tightened.
5. Concrete foundations to be properly aligned, cured, and raised above ground as per design
6. Steel Poles designed to withstand local wind loads (≥120 km/h or site-specific requirement).
7. Provide safe access for cleaning, inspection, and maintenance.
8. Installation to be inspected, tested, and handed over in safe, fully operational condition.

No.	Description	Date

UK International Development
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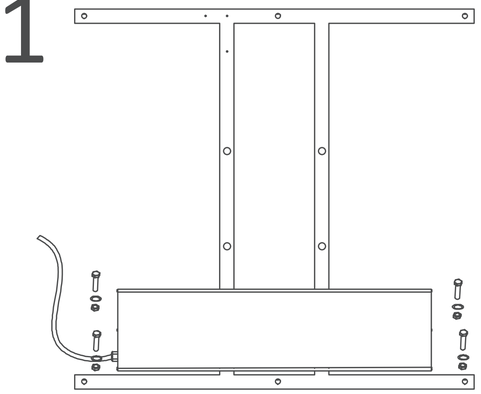
Solar Street Lights

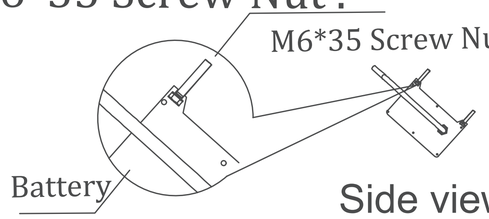
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Date	DEC 2025		
Drawn by	Author		
Checked by	Checker	Scale	As indicated

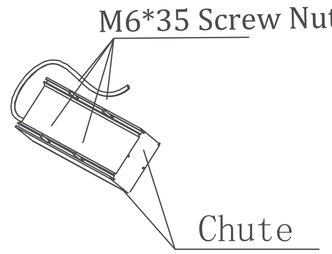
Solar Panel Bracket Details

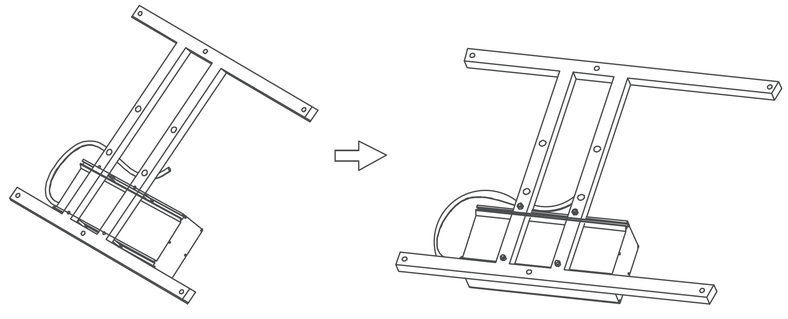
Fixed the LiFePO4 battery Pack to the solar panel bracket with M6*35 Screw Nut .

Step 1



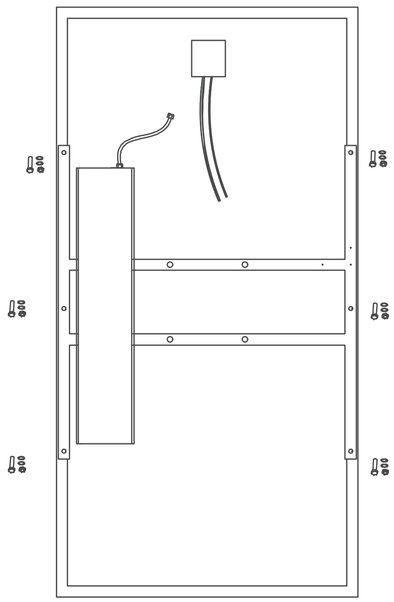


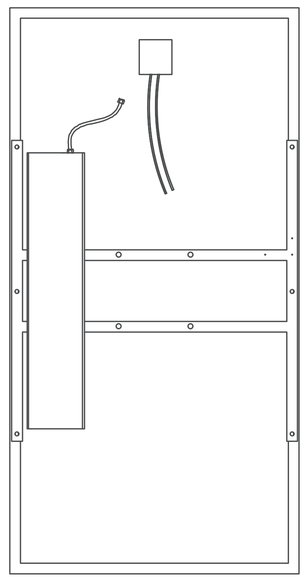




Step 2

Fixed Solar Panel Bracket and Solar Panel with M6*35 Screw Nut





NOTES

GENERAL

1. Install solar street Lights in accordance with IEC/NEC standards and approved drawings.
2. PV modules to face true south with optimized tilt angle;
3. Mounting structure to be high-strength anodized /galvanized aluminum, corrosion-resistant
4. All bolts, nuts, and fasteners to be stainless steel and securely tightened.
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8. Installation to be inspected, tested, and handed over in safe, fully operational condition.

No.	Description	Date

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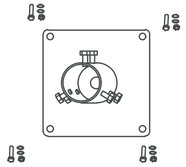
Solar Street Lights

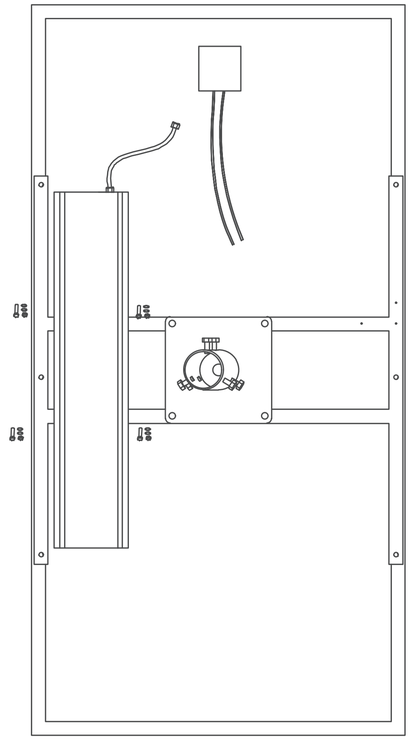
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Date	DEC 2025		
Drawn by	Author		
Checked by	Checker	Scale	As indicated

Solar Panel Bracket Details

Step 3

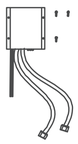
Fixed Sleeve and Solar Panel Bracket with M12*40 Screw Nut

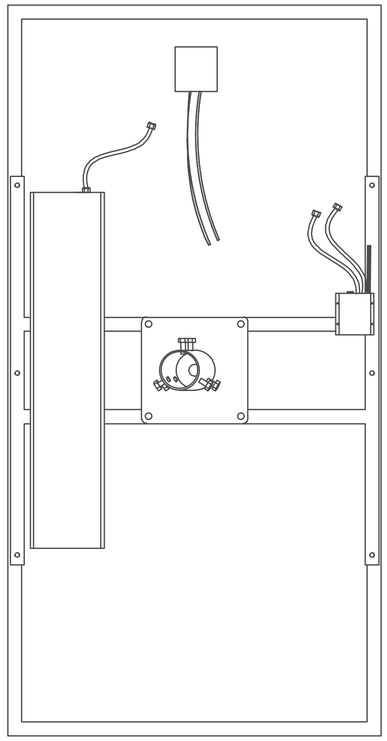




Step 4

Fixed Solar controller and Solar Panel Bracket with M4 Screw .





NOTES

GENERAL

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No.	Description	Date

UK International Development
Partnership | Progress | Prosperity

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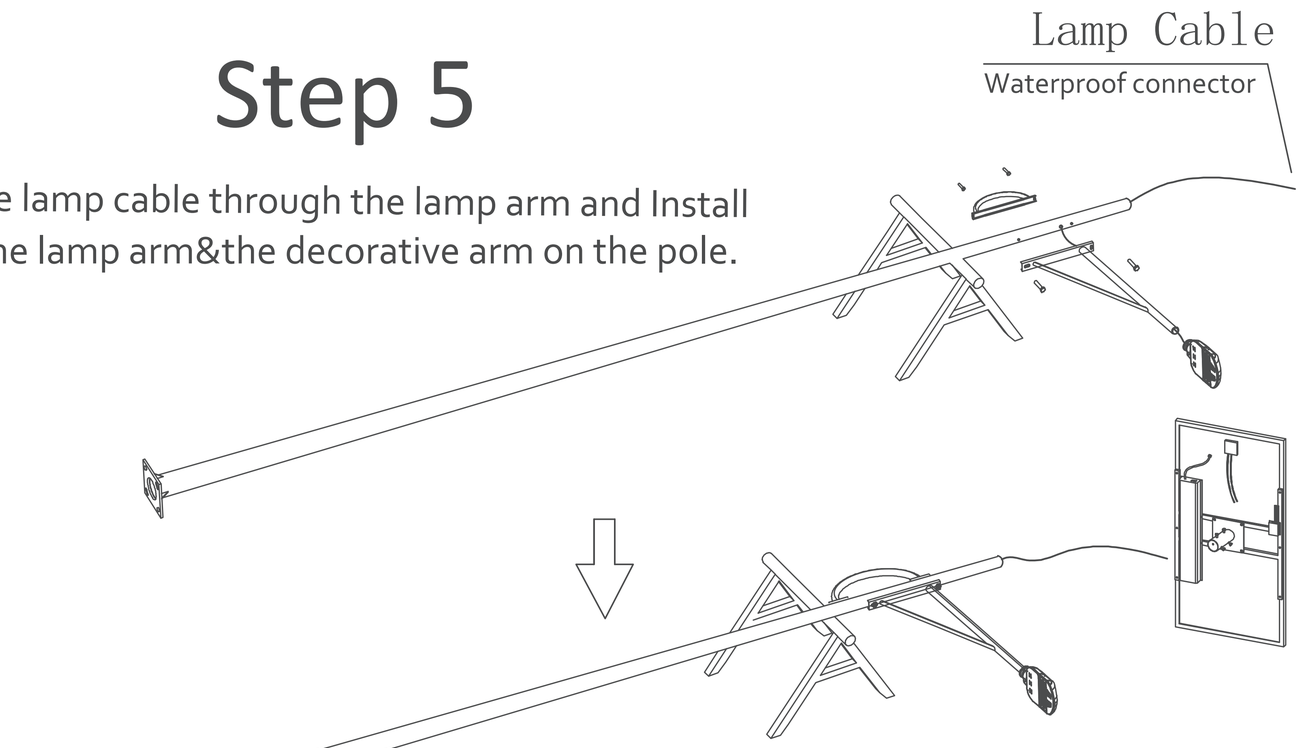
Solar Street Lights

Project number	001		A106
Date	DEC 2025		
Drawn by	Author		
Checked by	Checker	Scale	As indicated

Solar Panel Bracket Details

Step 5

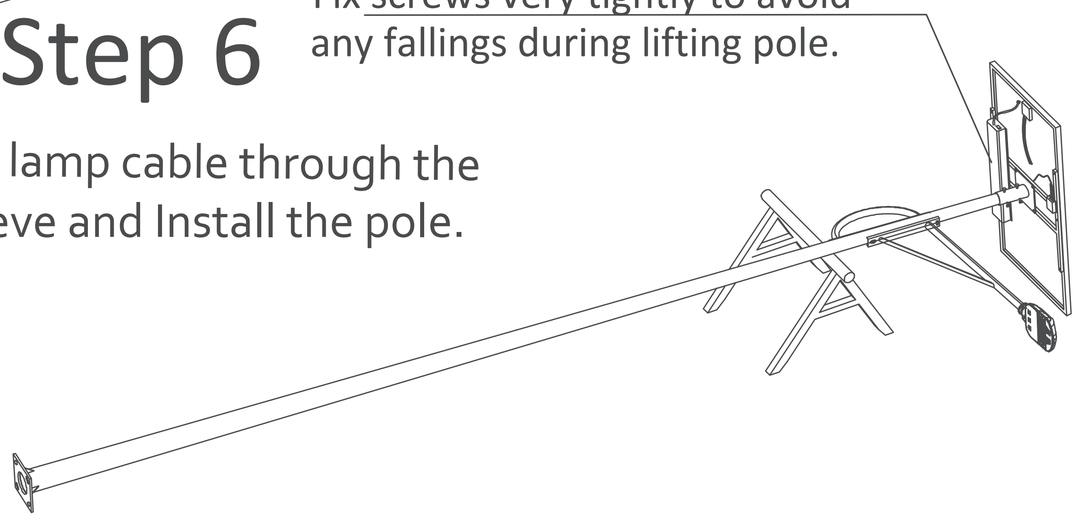
Put the lamp cable through the lamp arm and Install the lamp arm&the decorative arm on the pole.



Step 6

Fix screws very tightly to avoid any fallings during lifting pole.

Put the lamp cable through the sleeve and Install the pole.



Conduct wiring according to the wiring diagram from the manufacturer.

NOTES

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2. PV modules to face true south with optimized tilt angle;
3. Mounting structure to be high-strength anodized /galvanized aluminum, corrosion-resistant
4. All bolts, nuts, and fasteners to be stainless steel and securely tightened.
5. Concrete foundations to be properly aligned, cured, and raised above ground as per design
6. Steel Poles designed to withstand local wind loads (≥120 km/h or site-specific requirement).
7. Provide safe access for cleaning, inspection, and maintenance.
8. Installation to be inspected, tested, and handed over in safe, fully operational condition.

No.	Description	Date

UK International Development
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sinaan

SINAAN

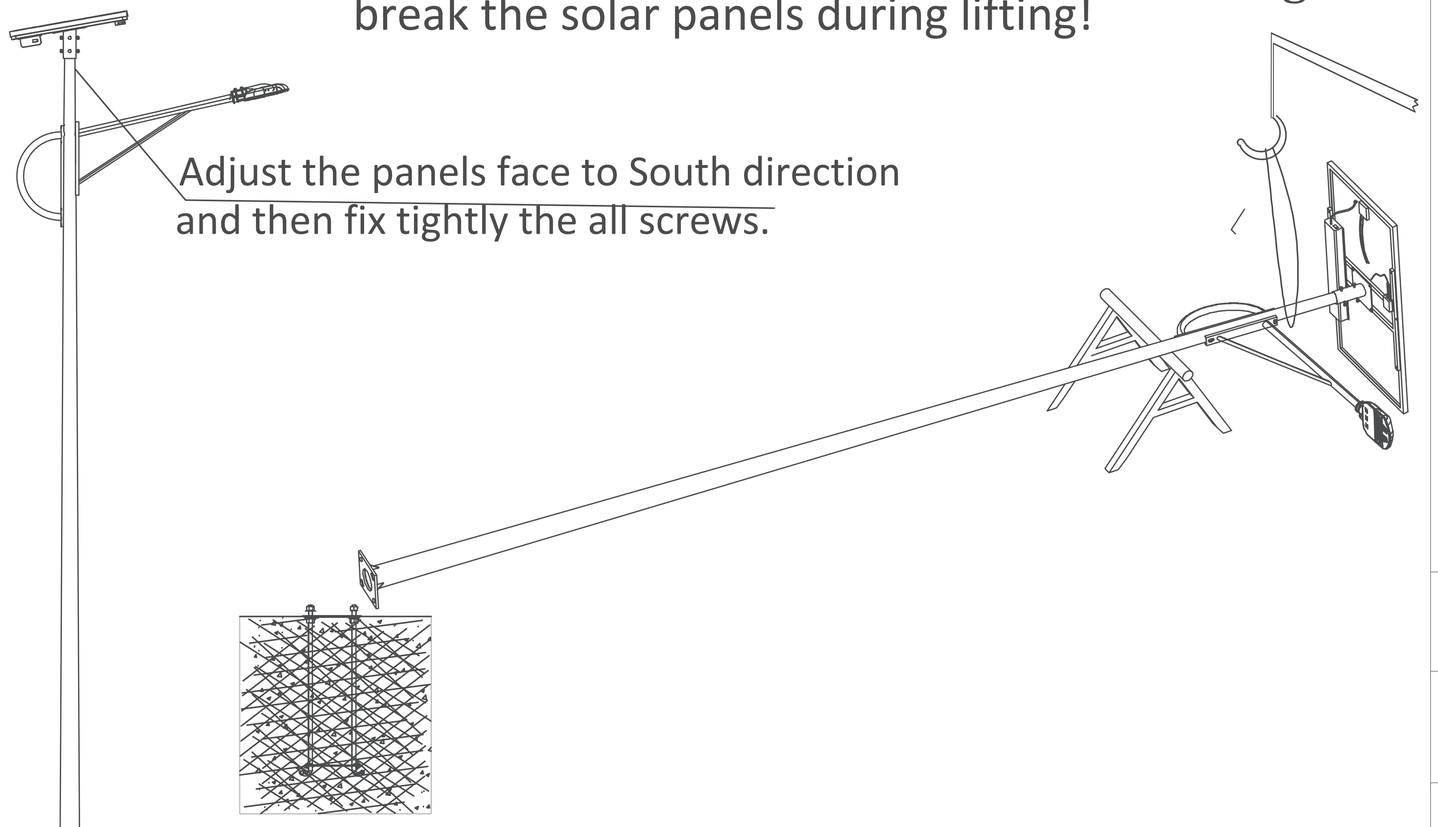
Solar Street Lights

Project number	001		
Date	DEC 2025		A107
Drawn by	Author		
Checked by	Checker	Scale	As indicated

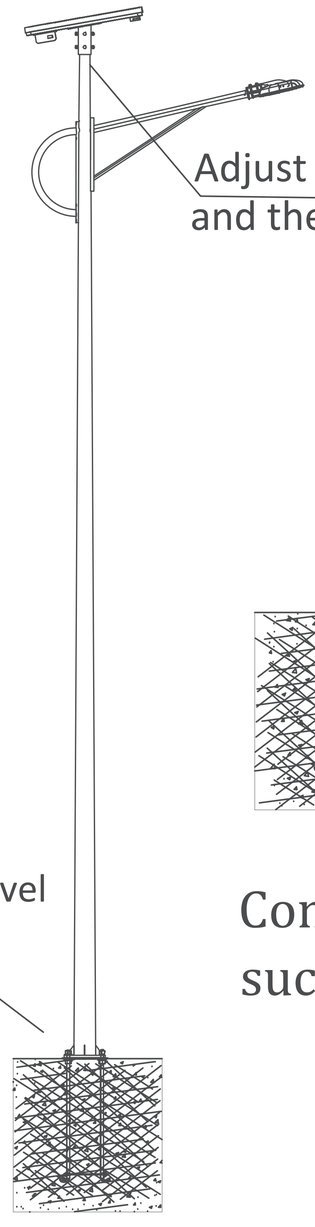
Crane installation Step 7

Attention:Avoid lifting arm touch and break the solar panels during lifting!

Lifting arm



Adjust the panels face to South direction and then fix tightly the all screws.



Step 8

Adjust the horizontal level and fix screws tightly.

Congratulations on the successful installation!

NOTES

GENERAL

1. Install solar street Lights in accordance with IEC/NEC standards and approved drawings.
2. PV modules to face true south with optimized tilt angle;
3. Mounting structure to be high-strength anodized /galvanized aluminum, corrosion-resistant
4. All bolts, nuts, and fasteners to be stainless steel and securely tightened.
5. Concrete foundations to be properly aligned, cured, and raised above ground as per design
6. Steel Poles designed to withstand local wind loads (≥120 km/h or site-specific requirement).
7. Provide safe access for cleaning, inspection, and maintenance.
8. Installation to be inspected, tested, and handed over in safe, fully operational condition.

No.	Description	Date

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DT Global

sinaan

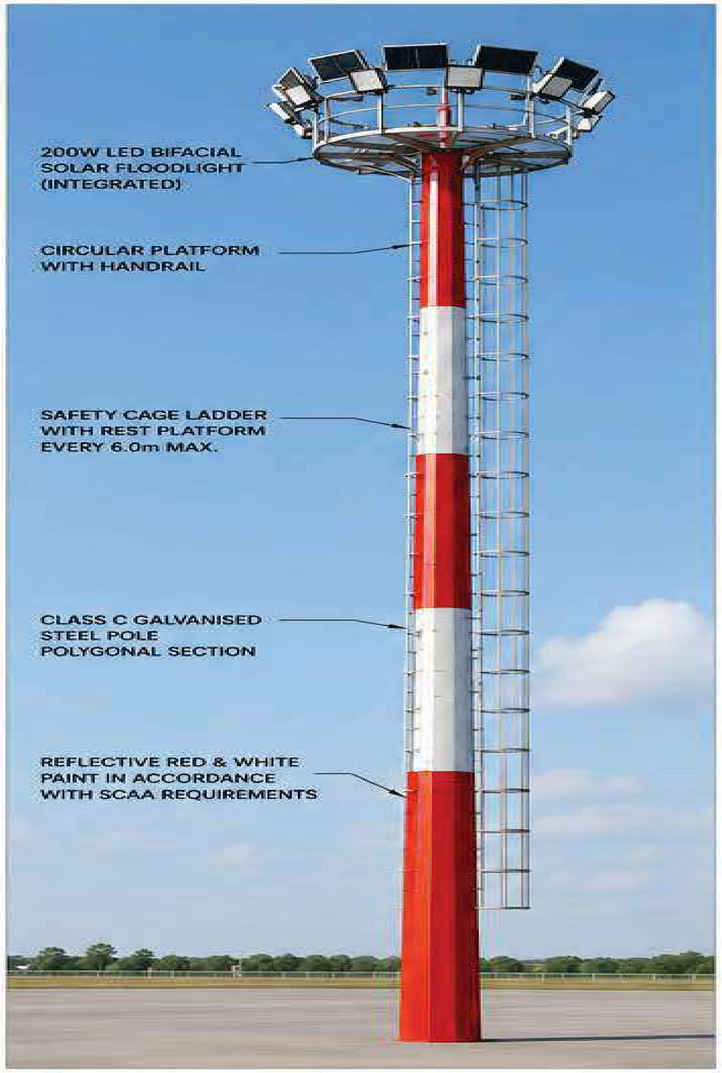
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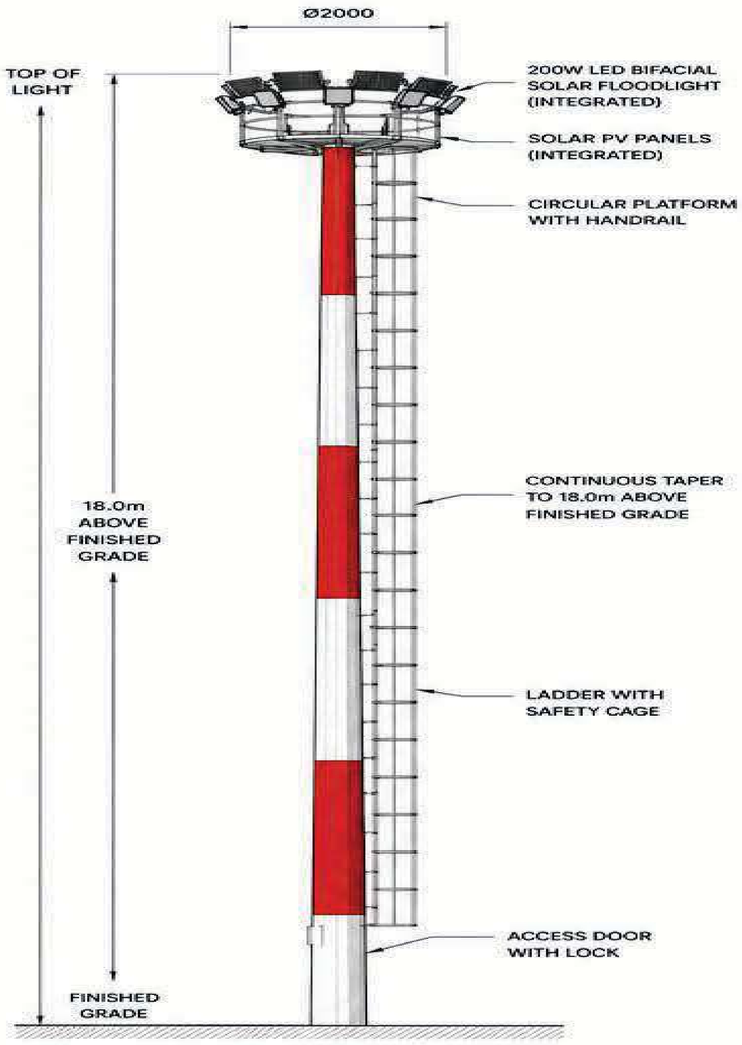
Solar Street Lights

Project number	001	A108	
Date	DEC 2025		
Drawn by	Author		
Checked by	Checker	Scale	As indicated

18m HIGH MAST LIGHTING SYSTEM

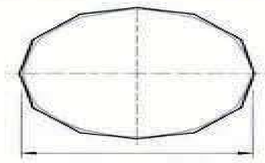
Solar Powered LED Bifacial Floodlights



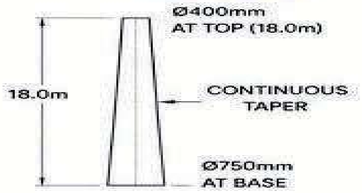


HIGH MAST SPECIFICATION	
Type	Solar High Mast
Overall Height (Above Finished Grade)	18.0m
Lighting Height (Top of Lights)	18.0m
Pole Material	Class C Galvanised Steel
Pole Section	Polygonal (Multi-faceted)
Design Standard	SCAA Requirements
Wind Speed (Basic)	55 m/s
Corrosion Protection	Hot Dip Galvanised (ISO 1461)
Finish	Reflective Red & White (ICAO Annex 14 Compliant)
Lighting System	200W LED Bifacial Solar Floodlight (Integrated)
No. of Floodlights	6 Units (Adjustable)
Solar PV Power	Integrated (Per Light)
Battery	LiFePO4 Battery (Integrated)
Autonomy	3 – 5 Days
Control	Smart Controller with Dimming & Timer
Ladder	With Safety Cage & Rest Platform
Platform	Circular with Handrail
Access	Lockable Access Door at Base
Earthing	Provided
Base Type	Root Mounted
Installation	Surface Mounted (Base Plate with Anchor Bolts) *Foundation by Others

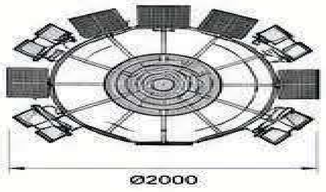
POLE CROSS SECTION



TAPER DETAILS



TOP VIEW (LIGHTING HEAD)



SIDE VIEW (LIGHTING HEAD)



ACCESSORIES & INCLUSIONS

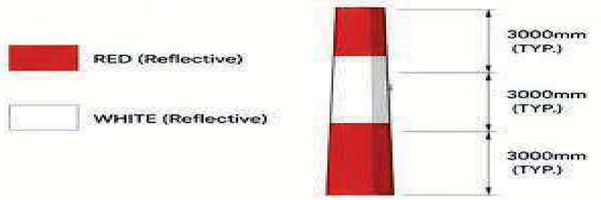
- 200W LED Bifacial Solar Floodlights (Integrated) – 6 Units
- Solar PV Panels (Integrated with Lights)
- LiFePO4 Batteries (Integrated)
- Smart Solar Charge Controller & Dimming Control
- Circular Platform with Handrail
- Safety Cage Ladder with Rest Platform Every 6m Max.
- Lockable Access Door at Base
- Earthing System & Lightning Protection
- All Fixings, Nuts, Bolts, Washers & Accessories
- Reflective Red & White Paint in accordance with SCAA requirements
- Installation, Testing & Commissioning

GENERAL NOTES

1. Design in accordance with Somalia Civil Aviation Authority (SCAA) requirements and ICAO Annex 14 (as applicable).
2. All steelwork shall be Class C Galvanised in accordance with ISO 1461.
3. Reflective red and white paint system to meet aviation obstruction marking standards.
4. Root mounted base plate with anchor bolts (foundation by others).
5. All dimensions are in millimeters unless noted otherwise.

AVIATION OBSTRUCTION MARKING

Reflective Red & White (Typical Scheme)



NOTE: FOUNDATION/CONCRETE WORKS NOT INCLUDED IN THIS DRAWING.

GENERAL NOTES

1. THIS DRAWING PROVIDES INFORMATION RELATED TO THE FORM OF THE WORK WHEN COMPLETED TOGETHER WITH GUIDANCE, WHERE FUNDAMENTAL TO THE DESIGN, FOR THE SEQUENCE OF CONSTRUCTION. THIS DRAWING DOES NOT PURPORT TO INCLUDE ANY NECESSARY PRECAUTIONS, ITEMS OR COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY. ALL SUCH PRECAUTIONS MUST BE TAKEN AND ITEMS OR COMPONENTS SUPPLIED BY THE CONTRACTOR.
2. ANY DISCREPANCIES ARE TO BE CONFIRMED WITH THE ENGINEER ON SITE PRIOR TO WORK PROCEEDING.
3. ONLY WRITTEN DIMENSIONS SHALL BE USED.
4. ALL DIMENSIONS ARE IN MILLIMETERS

LEGEND:

REFERENCE DRAWINGS

ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

PROJECT NAME:

GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

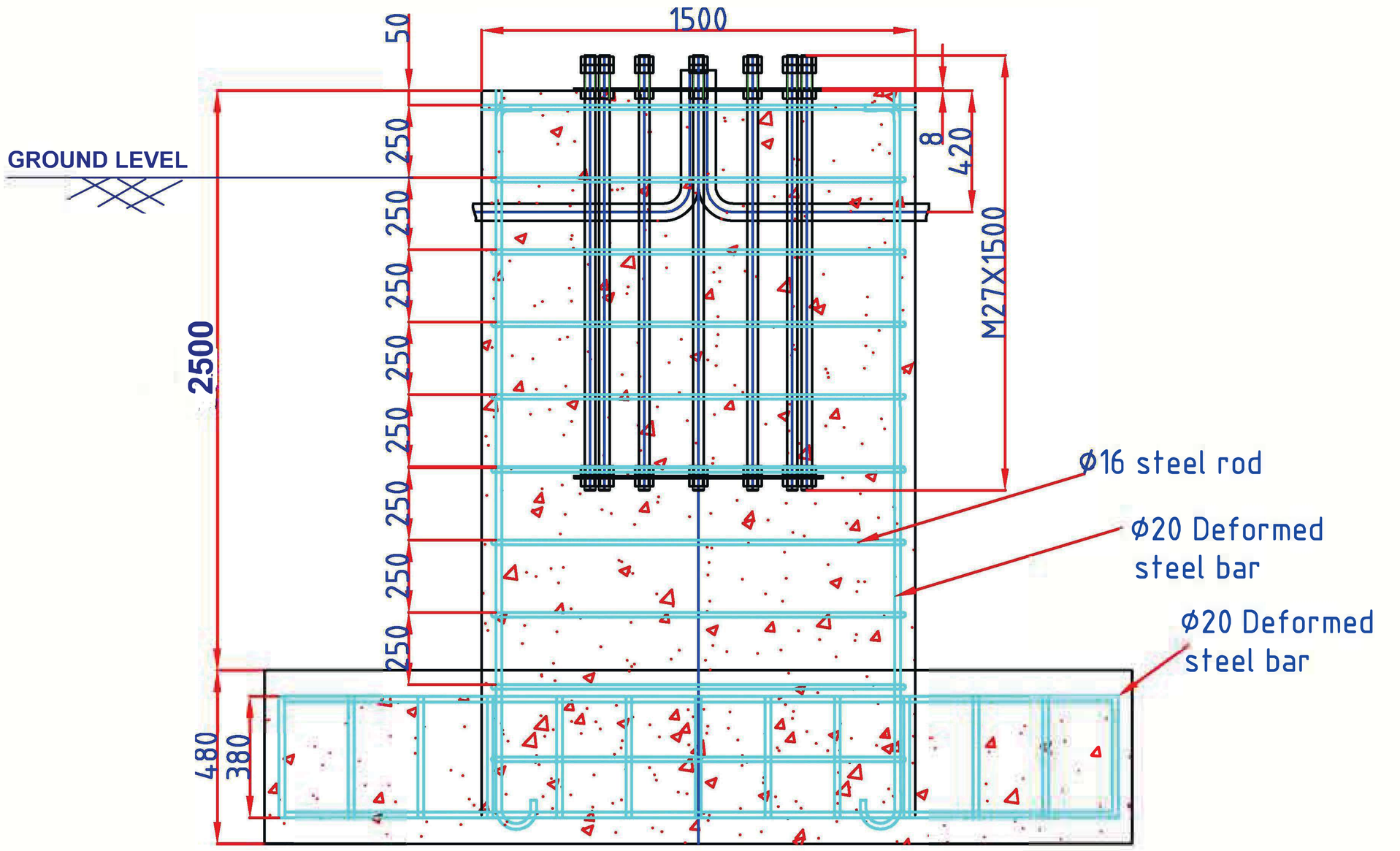
DT Global Africa
Kiganjo House, Rose Avenue, Kilimani,
Second Floor, Nairobi, Kenya
P.O. Box 76448-00508
www.dt-global.com/projects/sinaan/

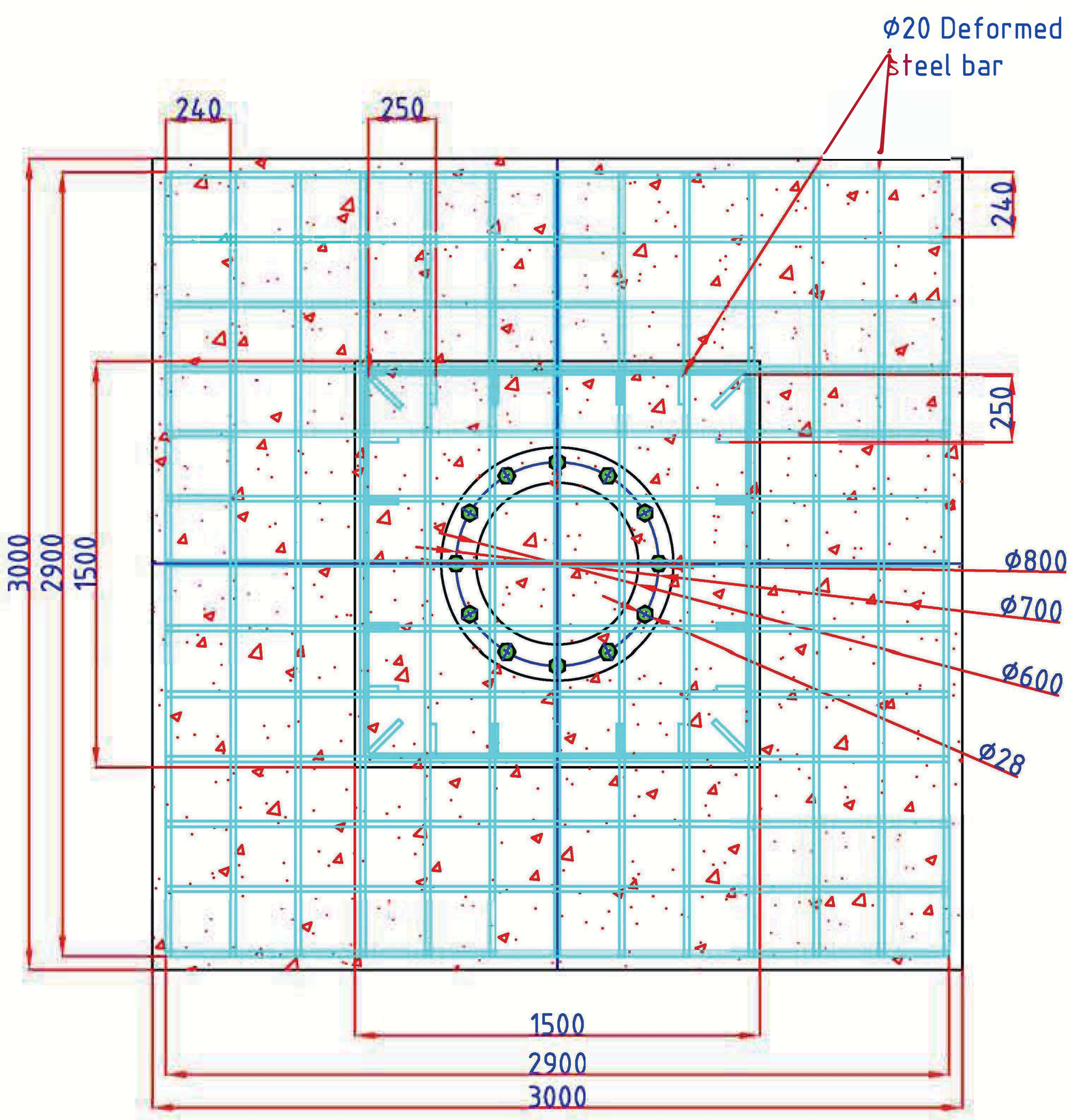
Drawing Title

TYPICAL HIGH MAST

Scale	ON ORIGINAL PLAN (0 10 20 30 40 50)
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BY :	DATE:
DESIGNED	
BY :	Pr No:
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL	
BY : AM	Pr No:
SIGNATURE :	DATE :

DT Global Project Number	DT Global Drawing Number	Revision
		0





FOUNDATION FOR 18M MAST

GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK-SOMALIA

BOOK OF STRUCTURAL DRAWINGS

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GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK-SOMALIA.

CONTENTS:

0.0 General Notes
1.0 Observation Tower
2.0 Ablution Block
3.0 Entrance and Gate
4.0 Kiosks, Outdoor seats
5.0 Boundary Wall
6.0 Infant Care Room
7.0 Bar Shapes Codes

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GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK-SOMALIA

0.0 GENERAL NOTES

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NOTES

1. General

1.1 All drawings to be read in conjunction with the relevant Architecturals, Services, equipment supplier's drawings and specifications. Any discrepancy shall be brought to the attention of the Structural Engineer before commencing works.

1.2 All dimensions are in millimetres unless stated otherwise.

1.3 All contours and levels are in metres, unless stated otherwise.

1.4 All grid ordinates are in metres.

1.5 All levels indicated are finished structural floor levels unless stated otherwise.

1.6 In the event that any of the notes given in this drawing are in conflict with the requirements of the Technical specification, the specification shall take precedence. The conflicting note should in any case be brought to the attention of the Structural Engineer before a decision is made.

2. Foundation Formation Level

2.1 Foundation formation levels to be determined on site to the approval of the Engineer. Design has assumed 200kN/sqm but this shall need to be confirmed on site during construction.

3. Concrete

3.1 Concrete mix designs shall be submitted to the Engineer for approval prior to commencement of any concrete works.

3.2 Blinding concrete shall be grade C15/20 unless stated otherwise.

3.3 Concrete grade for main reinforced concrete works shall be as follows:

3.3.1 Column Bases & RC Wall bases	:	grade C25 /30
3.3.2 Columns,Beams,RC Walls , Lift Walls & RC Water Tanks	:	grade C25/30
3.3.3 Slabs & Staircases	:	grade C25/30

4. Reinforcement

4.1 All reinforcement shall be, High-yield steel: B500B, (fyk = 500 MPa)Links / stirrups: B500A or B500B, Steel shall comply with EN 10080.

4.2 Unless otherwise stated on the drawings, minimum clear concrete cover to main reinforcement (i.e excluding links) to be as follows:

Foundations	50mm
Basement floor slab (bottom & sides)	50mm
Basement floor slab (top)	30mm
Retaining walls	40mm
Water tank walls	40mm
Columns	40mm
Beams	25mm
Slabs & Staircases	20mm
Maximum tolerance on concrete cover to be	+/- 5mm.

4.3 Legend for reinforcement specified on the drawings is as follows : BW- Both Ways, B1 -Bottom 1st layer, B2- Bottom 2nd layer, T1- Top 1st layer,T2 -Top 2nd layer .

4.4 Minimum laps to all bars to be 50 x Diameter of smaller bar unless otherwise stated.

4.5 When reinforcing Steel is noted as continuous in beams, Slabs and/or Walls, or when only a typical section is given, laps should only be used when they are unavoidable due to stock lengths. In this case all laps shall be Staggered a minimum of 1200mm. The top bar splices should be located 'WITHIN THE MIDDLE HALF OF THE SPAN', and the bottom bar splices should be located at 'SUPPORTS or BETWEEN SUPPORTS & 1/3 SPAN POINT' unless stated otherwise on the drawings.

5. Structural Steel

5.1 All structural steel work to be grades S355

5.2 All bolted connections to use grade 8.8 bolts with washers unless stated otherwise.

5.3 Connection details for all structural steelwork to be in accordance with Engineer's drawings or contractors fabrications drawings approved by the Engineer.

5.4 Contractor shall submit shop drawings for the approval of the Engineer prior to commencement of fabrication.

5.5 Protection of the structural steelwork to be as per the Technical Specifications.

5.6 All open ends of R.H.S. and S.H.S. sections shall be blocked with 3mm thick plates unless stated otherwise.

6. Cement Grout

6.1 All grouting for bolt pockets and under structural steel base plates shall be done with non-shrink cement grout in accordance with Technical Specifications

6.2 Grouting for foundations supporting plant and machinery supplied by plant contractors shall be as per the requirements of the plant contractors.

7. Holding Down Bolts

7.1 All holding down bolts shall be of grade 8.8 unless noted otherwise.

7.2 Holding down bolts shall be set in position as indicated on the drawings by means of templates and shall be securely fixed in position to prevent displacement during concreting.

8. Built-in items for plant contractors

8.1 All built-in items for erection of steelwork and plant by other contractors to be set to the required tolerances as specified by the plant contractors, and shall be approved by the plant contractor or Engineer as directed by the Engineer.

9. Timber

9.1 All timber to be seasoned cypress Grade C24 grade or better in accordance with Technical specifications and to Structural Engineers approval.

9.2 All timber shall be preservative treated as per Technical Specifications.

9.3 Wall plate to be fixed to concrete beam with 12mm dia. bolts at 600mm c/c.

9.4 All timber rafters and trusses shall be fixed to wall plate using nails and 3mm thick bend plate.

9.5 Bolts for connection of timber members shall be 16mm dia. black bolts with washers unless noted otherwise.

10. Finishes

10.1 Finishes to structural elements shall be in accordance with Architectural drawings

10.2 All structural steelwork delivered to site shall be primed and painted in accordance with the Technical specifications, and to colour schemes approved by the Architect.

10.3 Finishes for exposed concrete roof and gutters shall be as follows : The water-proofing for concrete roofs where specified shall consist of the following layers:

- Minimum 12mm thick cement screed laid to fall.
- Approved water proofing membrane laid in accordance with Technical Specifications.
- Concrete Roofing Tiles.

11. Shoring of the Excavated pit

11.1 The Contractor to provide appropriate design and methodology for the Engineer's approval before carrying out the works.

12. Waterproof Membranes for Concrete Roofs and Gutters

12.1 Waterproof Membranes for Concrete Roofs and Gutters Concrete roofs and gutters shall be waterproofed by the provision of APP membrane to be laid on top of the slab

13. Legend

13.1 General legend used on the drawings is as follows;

B500B – High yield reinforcement steel (500 MPa)

D.O.S	- Determine On Site
FFL	- Finished floor level
SFL	- Structural floor level
GL	- Ground level
TOC	- Top of concrete
RHS	- Rectangular hollow section
SHS	- Square hollow section
CHS	- Circular hollow section
NB	- Nominal bore
NTS	- Not to scale
UB	-Universal beam
UC	- Universal column
RSC	- Rolled steel channel.
RSJ	- Rolled steel joist.
RSA	- Rolled steel angle.
MS	- Mild steel
GMS	- Galvanised mild steel.

NOTES

1) - Only figured dimensions to be taken from this drawing.
2) - The contractor must confirm all dimensions on site before commencing any work.
3) - All dimensions are in millimetres unless specified otherwise.
4) - Concrete strength to be class 25/20
5) - Mild steel reinforcement bars to B.S.4449 are denoted "D".
6) - All steel reinforcement must be approved by the Structural Engineer before casting.
7) All load bearing walls to be minimum 200mm thick natural stone or concrete block with minimum crushing strength of 14N/mm2 for substructure and 7N/mm2 for superstructure
8) All wall less than 200mm thick to be reinforced with gauge 20 x 25mm wide hoop iron straps at every alternate course
9) Assumed bearing pressure is 200kN/m^2 but to be Confirmed on site.

REFERENCE DRAWINGS

ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

CONSULTANT

ENG. DICKSON WERE
P.O BOX 956-00200 CITY SQUARE
NAIROBI, KENYA.

Drawing Title

GENERAL NOTES

Scale: AS SHOWN	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN BY : C.O	DATE: JANUARY 2026
DESIGNED BY : T.A	JOB No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL	
BY : DW	DRG No: 00 - STR/GN00
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3001	0

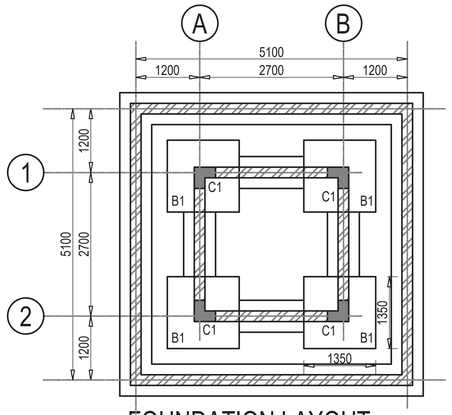
GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK-SOMALIA

1.0 OBSERVATION TOWER

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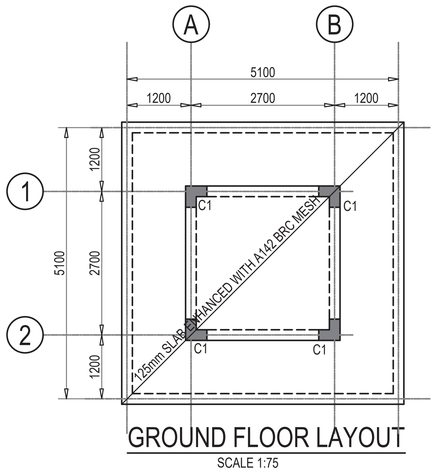
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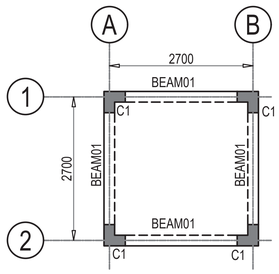
FOUNDATION LAYOUT

SCALE 1:75



GROUND FLOOR LAYOUT

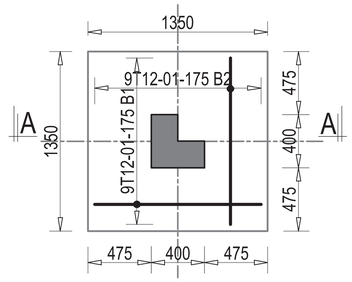
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FIRST FLOOR SLAB LAYOUT

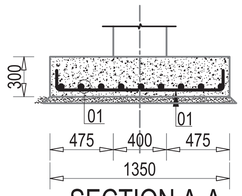
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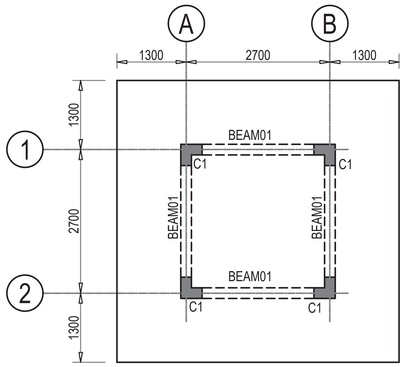
1350x1350x300mm BASE B1 (4 Nos.)

SCALE 1:40



SECTION A-A

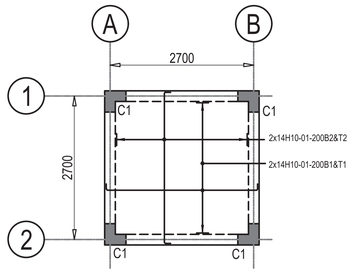
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ROOF SLAB LAYOUT

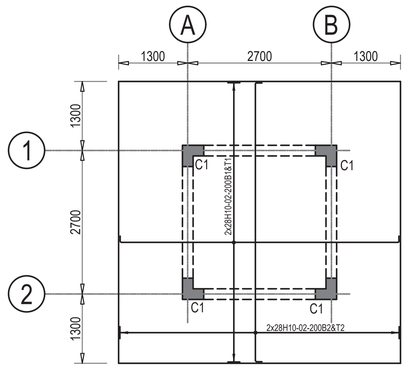
(150mm SLABS UNLESS STATED OTHERWISE)

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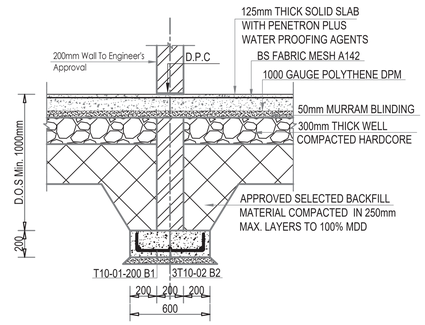
FIRST FLOOR SLAB R.C LAYOUT

SCALE 1:75



ROOF SLAB R.C LAYOUT

SCALE 1:75

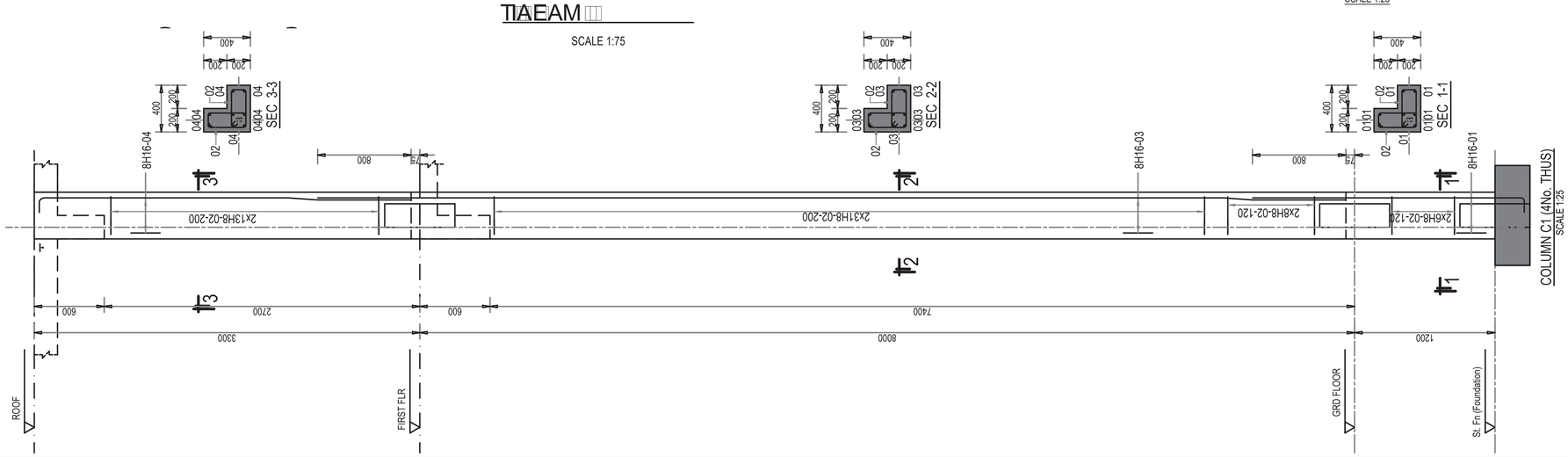


TYPICAL EXTERNAL FOUNDATION DETAIL

SCALE 1:25

TIE BEAM

SCALE 1:75



NOTES

1) - Only figured dimensions to be taken from this drawing.
2) - The contractor must confirm all dimensions on site before commencing any work.
3) - All dimensions are in millimetres unless specified otherwise.
4) - Concrete strength to be class 25/20
5) - Mild steel reinforcement bars to B.S.4449 are denoted "D".
6) - All steel reinforcement must be approved by the Structural Engineer before casting.
7) All load bearing walls to be minimum 200mm thick natural stone or concrete block with minimum crushing strength of 14N/mm2 for substructure and 7N/mm2 for superstructure
8) All wall less than 200mm thick to be reinforced with gauge 20 x 25mm wide hoop iron straps at every alternate course
9) Assumed bearing pressure is 200kN/m2 but to be verified on site.

REFERENCE DRAWINGS

ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

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PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

CONSULTANT

ENG. DICKSON WERE
P.O BOX 956-00200 CITY SQUARE
NAIROBI, KENYA.

Drawing Title

OBSERVATION TOWER

Scale: AS SHOWN	ON ORIGINAL PLAN (0 10 20 30 40 50)
DRAWN BY: C.O	DATE: JANUARY 2026
DESIGNED BY: T.A	JOB No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY: DW	DRG No: 04 - STR/OT/01
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3001	0

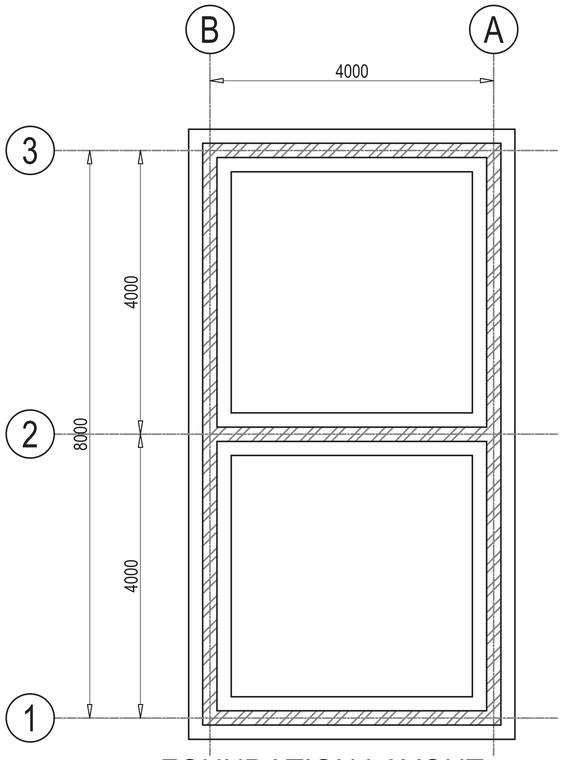
GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK-SOMALIA

2.0 ABLUTION BLOCK

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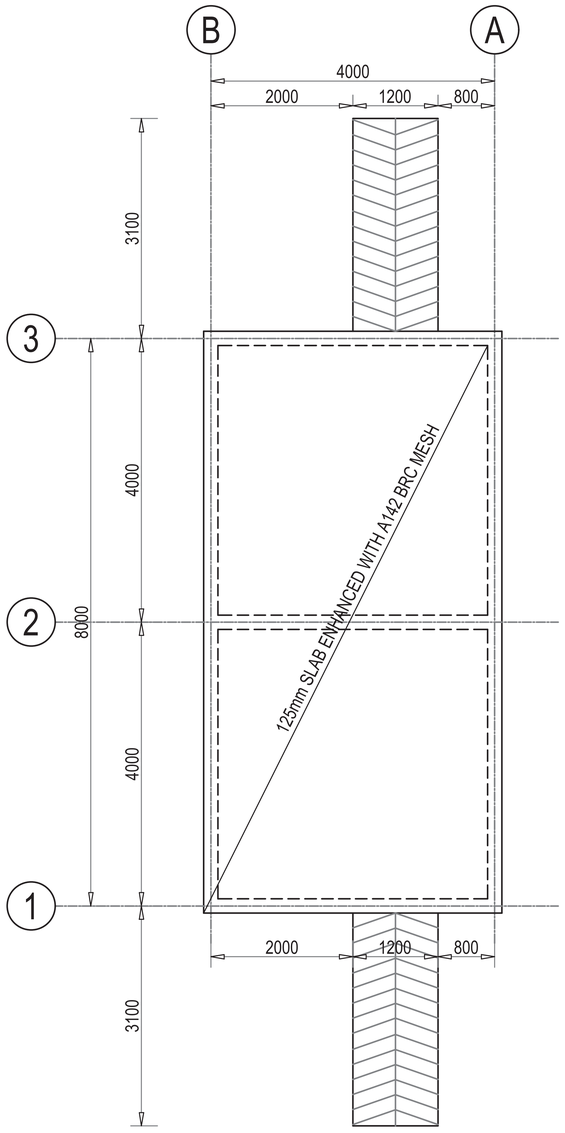
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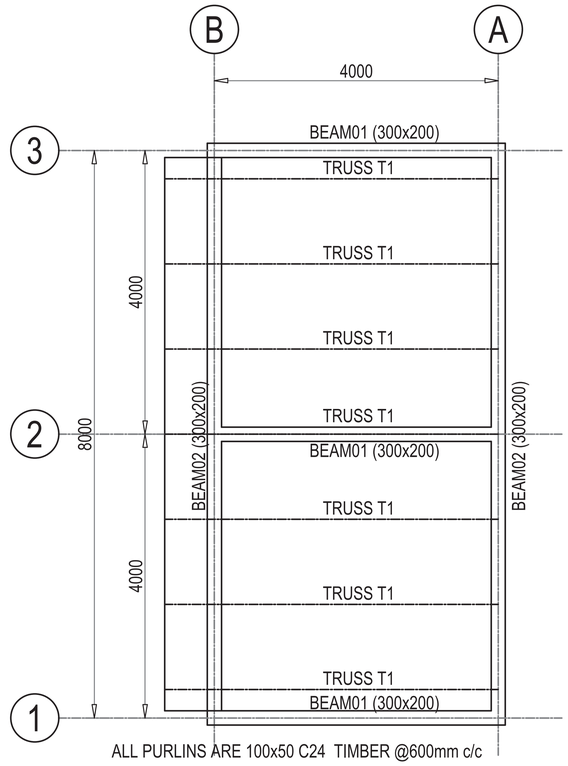
FOUNDATION LAYOUT

SCALE 1:75



GROUND FLOOR LAYOUT

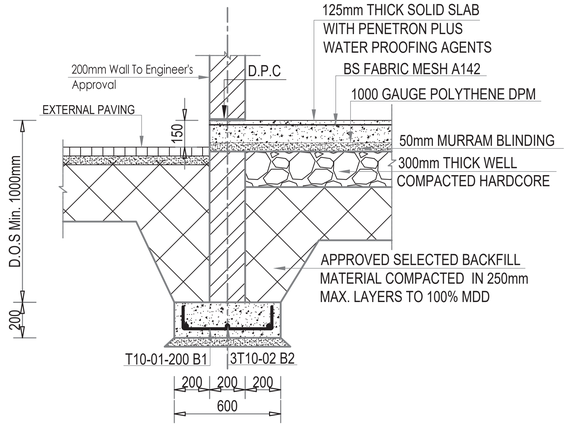
SCALE 1:75



ALL PURLINS ARE 100x50 C24 TIMBER @600mm c/c

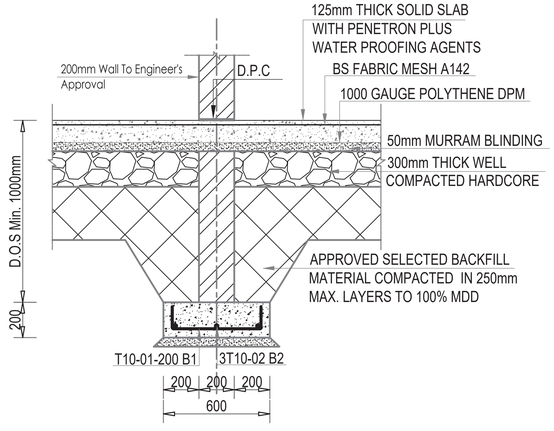
RING BEAM & ROOF LAYOUT

SCALE 1:75



TYPICAL EXTERNAL FOUNDATION DETAIL

SCALE 1:25



TYPICAL EXTERNAL FOUNDATION DETAIL

SCALE 1:25

NOTES

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REFERENCE DRAWINGS

Revision Details	By / Chk	Date	Rev
ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan
strausde · in every way

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

CONSULTANT

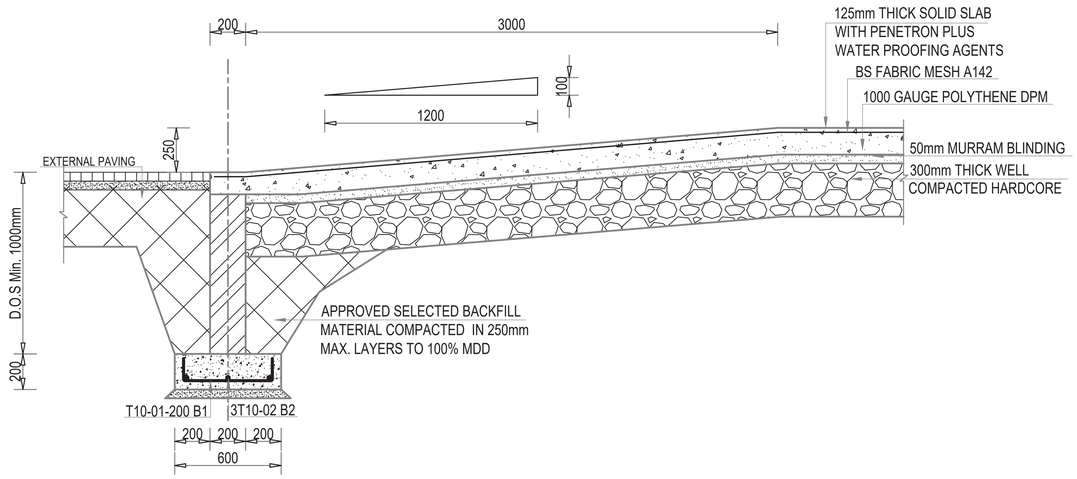
ENG. DICKSON WERE
P.O BOX 956-00200 CITY SQUARE
NAIROBI, KENYA.

Drawing Title

ABLUTION BLOCK
FOUNDATION, GROUND FLOOR AND ROOF LAYOUTS AND DETAILS

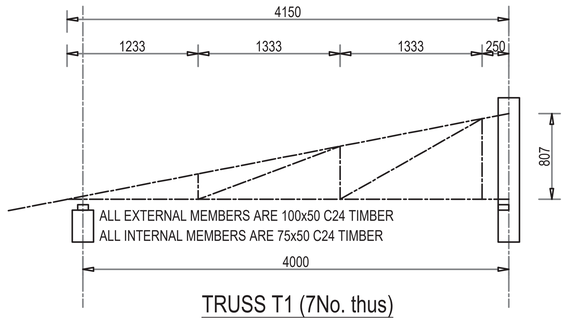
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DRAWN BY: C.O	DATE: JANUARY 2026
DESIGNED BY: T.A	JOB No: 2026001
SIGNATURE :	DATE :
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BY: DW	DRG No: 05 - STR/AB01
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3001	0



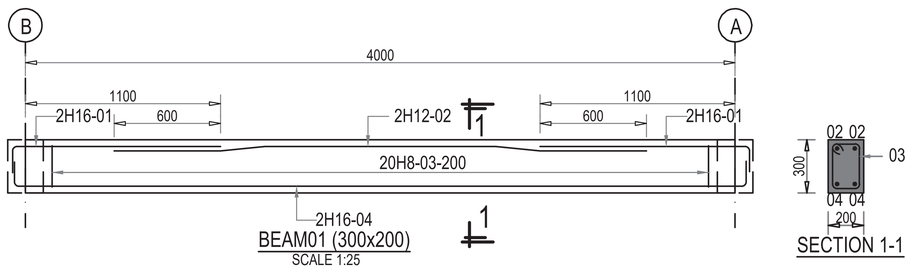
TYPICAL RAMP DETAIL

SCALE 1:25



TRUSS T1 (7No. thus)

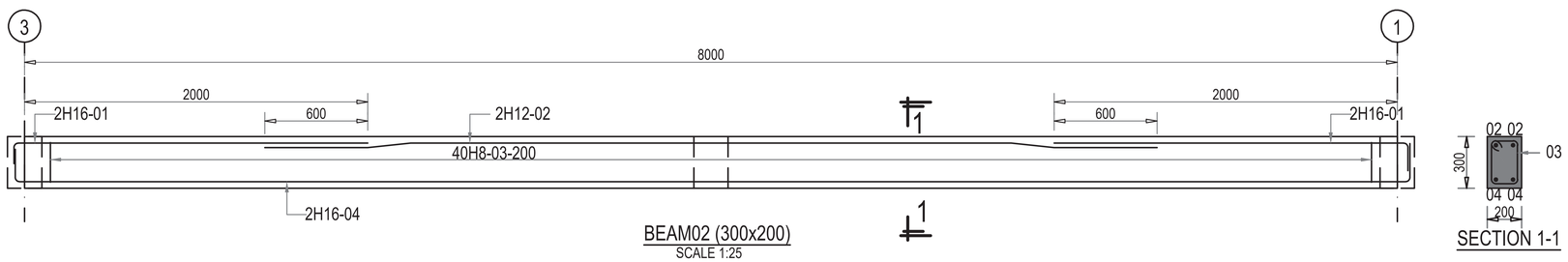
SCALE 1:50



BEAM01 (300x200)

SCALE 1:25

SECTION 1-1



BEAM02 (300x200)

SCALE 1:25

SECTION 1-1

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Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

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PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

CONSULTANT

ENG. DICKSON WERE
P.O BOX 956-00200 CITY SQUARE
NAIROBI, KENYA.

Drawing Title

ABLUTION BLOCK
RAMP, BEAMS AND TRUSS

Scale: AS SHOWN	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN BY: C.O	DATE: JANUARY 2026
DESIGNED BY: T.A	JOB No: 2026001
SIGNATURE :	DATE :
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BY : DW	DRG No: 05 - STR/AB02
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3001	0

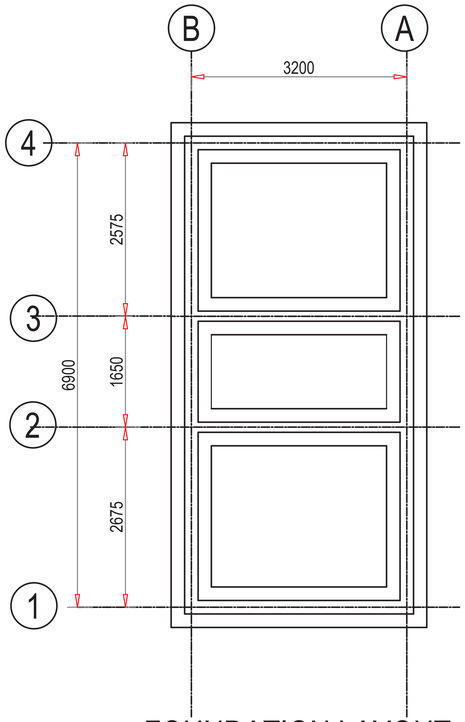
GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK-SOMALIA

3.0 ENTRANCE AND GATE

DT Global

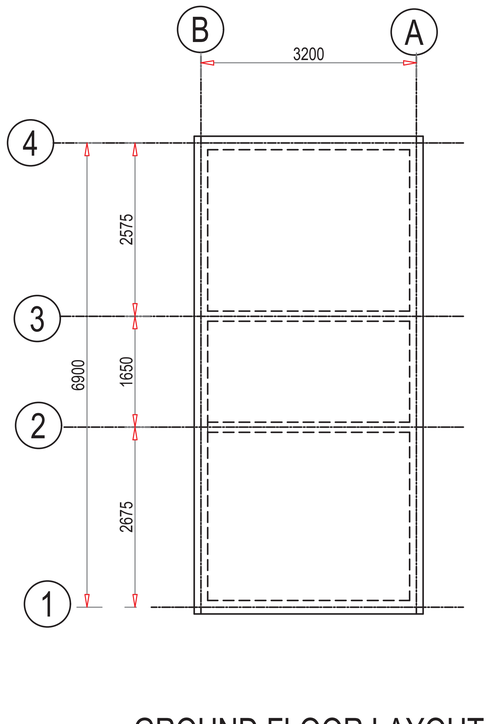
sinaan
sikastaba | in every way

UK International Development
Partnership | Progress | Prosperity



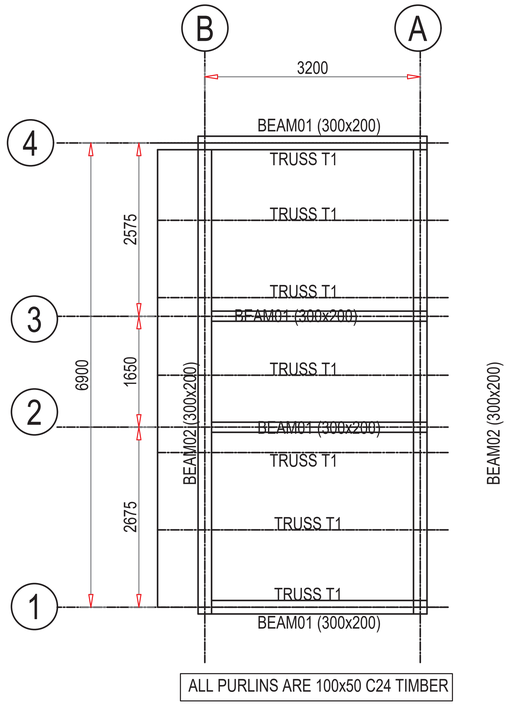
FOUNDATION LAYOUT

SCALE 1:75



GROUND FLOOR LAYOUT

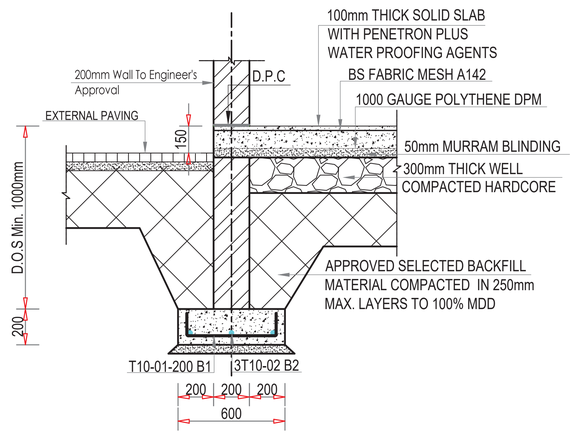
SCALE 1:75



ALL PURLINS ARE 100x50 C24 TIMBER

RING BEAM & ROOF LAYOUT

SCALE 1:75



TYPICAL FOUNDATION DETAIL

SCALE 1:25

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ISSUED FOR APPROVAL	AM		A
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

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viisaisha | in every way

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

CONSULTANT

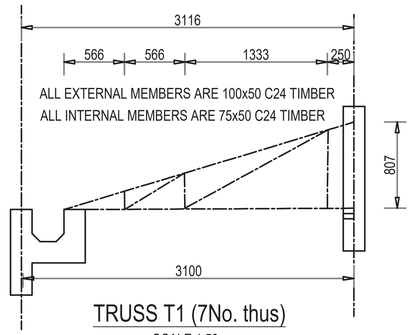
ENG. DICKSON WERE
P.O BOX 956-00200 CITY SQUARE
NAIROBI, KENYA.

Drawing Title

ENTRANCE AND SECURITY CHECK

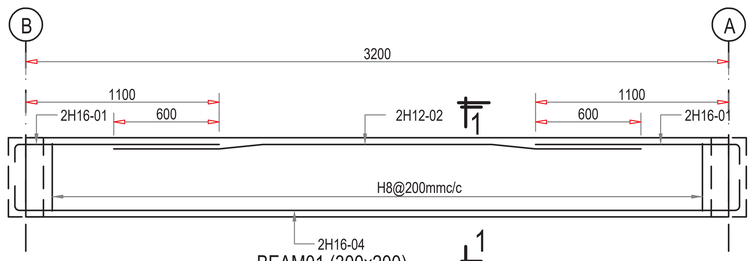
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ON ORIGINAL PLAN	0 10 20 30 40 50
DRAWN BY :	C.O
DATE:	JANUARY 2026
DESIGNED BY :	T.A
JOB No:	2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY :	DW
DRG No:	05 - STR/AB01
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3001	0



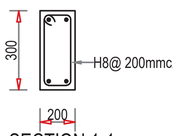
TRUSS T1 (7No. thus)

SCALE 1:50

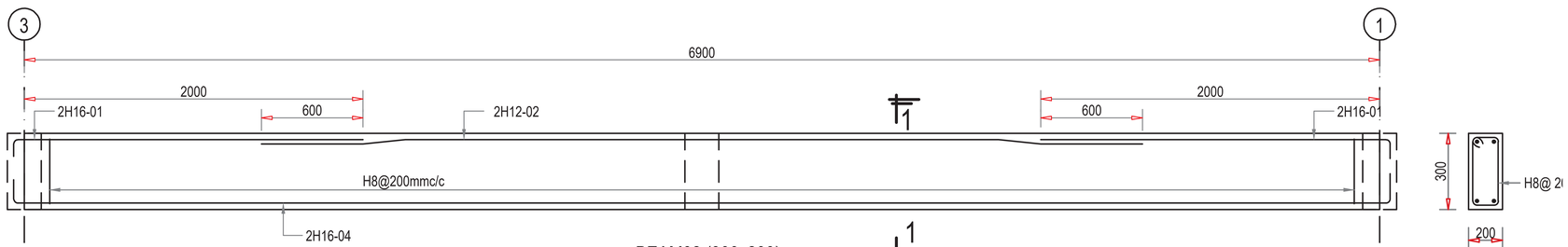


BEAM01 (300x200)

SCALE 1:25



SECTION 1-1



BEAM02 (300x200)

SCALE 1:25

SECTION 1-1

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Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

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sinatuba / in every way

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

CONSULTANT

ENG. DICKSON WERE
P.O BOX 956-00200 CITY SQUARE
NAIROBI, KENYA.

Drawing Title

ENTRANCE AND SECURITY CHECK

Scale: AS SHOWN	ON ORIGINAL PLAN (0 10 20 30 40 50)
DRAWN BY: C.O	DATE: JANUARY 2026
DESIGNED BY: T.A	JOB No: 2026001
SIGNATURE:	DATE:
CHECKED ON BEHALF OF DT GLOBAL BY: DW	DRG No: 05 - STR/AB02
SIGNATURE:	DATE:

TD Global Project Number	GD Global Drawing Number	Revision
0054	3001	0

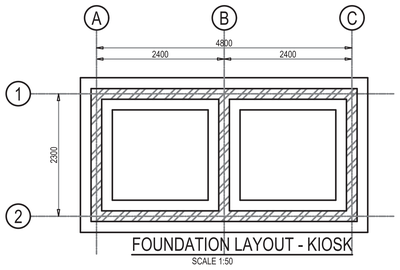
GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK-SOMALIA

4.0 KIOSKS, OUTDOOR SEATS

DT Global

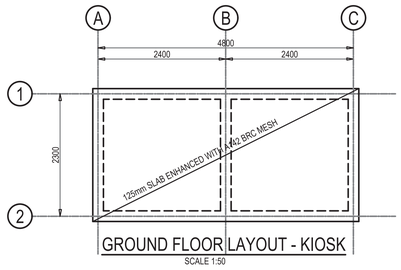
sinaan
sikastaba | in every way

UK International Development
Partnership | Progress | Prosperity



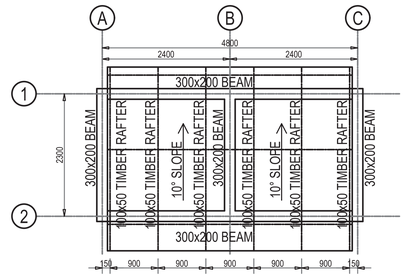
FOUNDATION LAYOUT - KIOSK

SCALE 1:50



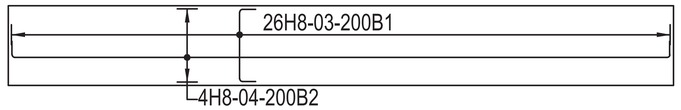
GROUND FLOOR LAYOUT - KIOSK

SCALE 1:50



RING BEAM & ROOF LAYOUT - KIOSK

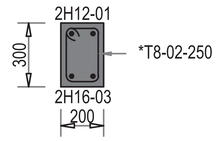
SCALE 1:50



COUNTER SLAB LAYOUT - KIOSK

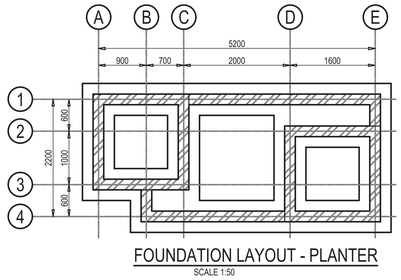
(100mm THICK SLAB)

SCALE 1:50



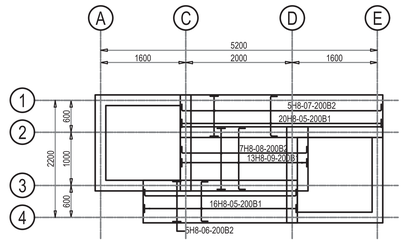
RING BEAMS

SCALE 1:25



FOUNDATION LAYOUT - PLANTER

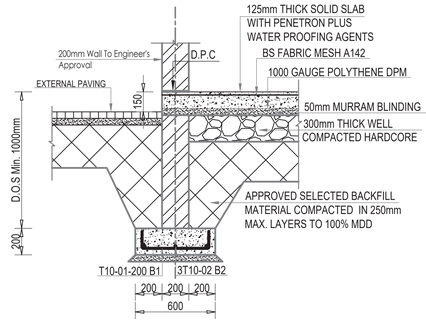
SCALE 1:50



SEATS LAYOUT - PLANTER

(100mm THICK SLAB)

SCALE 1:50



TYPICAL EXTERNAL FOUNDATION DETAIL

SCALE 1:25

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REFERENCE DRAWINGS

ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A
Revision Details	By Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

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PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

CONSULTANT

ENG. DICKSON WERE
P.O BOX 956-00200 CITY SQUARE
NAIROBI, KENYA.

Drawing Title

KIOSK AND PLANTER

Scale: AS SHOWN	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN BY: C.O	DATE: JANUARY 2026
DESIGNED BY: T.A	JOB No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY: DW	DRG No: 07 - STR/KP01
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3001	0

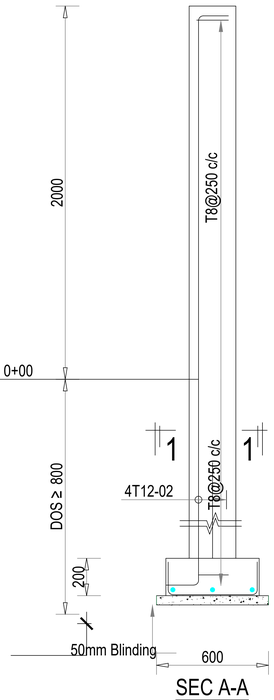
GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK-SOMALIA

5.0 BOUNDARY WALL

DT Global

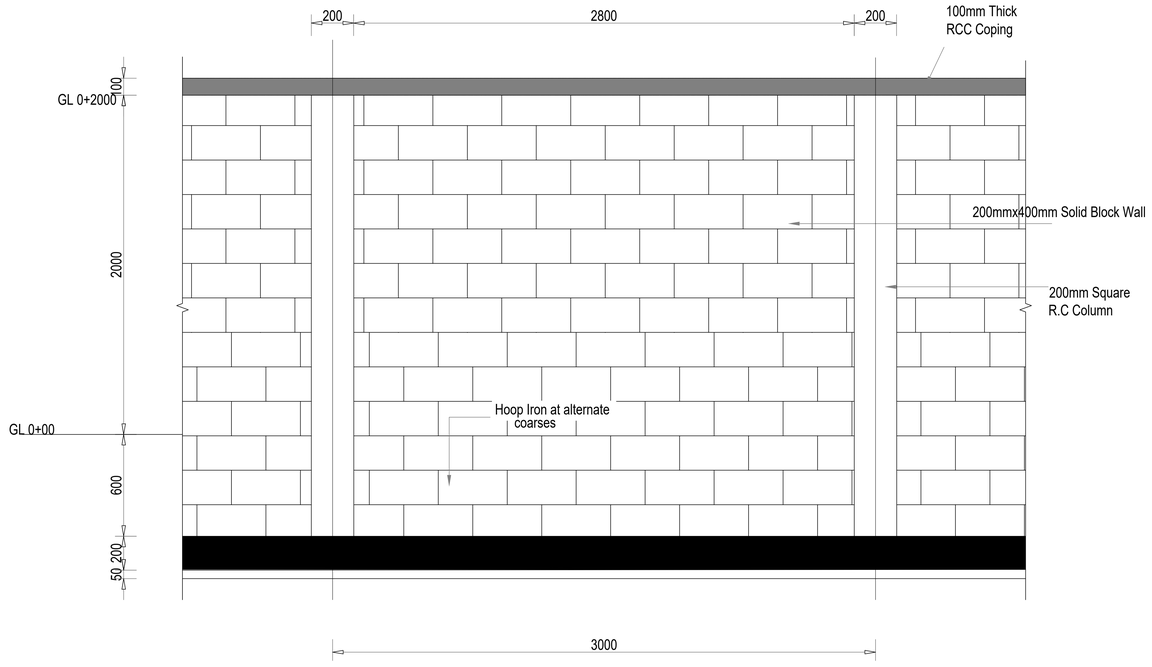
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sikastaba | in every way

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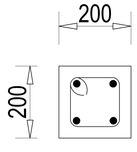
SEC A-A

COLUMN

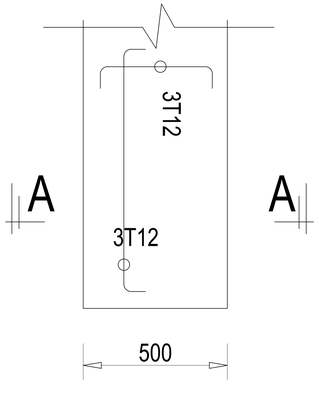


TYPICAL BOUNDARY FENCE WALL ELEVATION

SCALE 1:25



SEC 1-1



STRIP AND COLUMN FOUNDATION

SCALE 1:25

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ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A
Revision Details	By Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

CONSULTANT

ENG. DICKSON WERE
P.O BOX 956-00200 CITY SQUARE
NAIROBI, KENYA.

Drawing Title

CBOUNDARY WALL

Scale: AS SHOWN	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN BY: C.O	DATE: JANUARY 2026
DESIGNED BY: T.A	JOB No: 2026001
SIGNATURE :	DATE :
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BY : DW	DRG No: 02 - STR/CC01
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3001	0

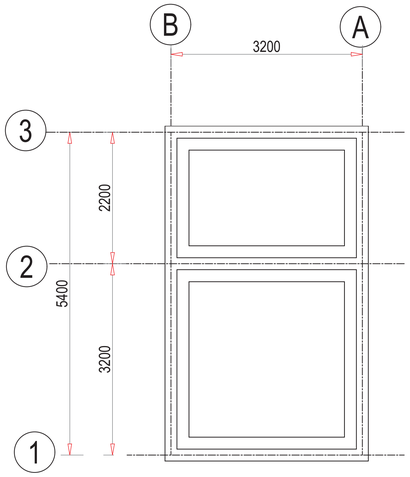
GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK-SOMALIA

6.0 INFANT CARE ROOM

DT Global

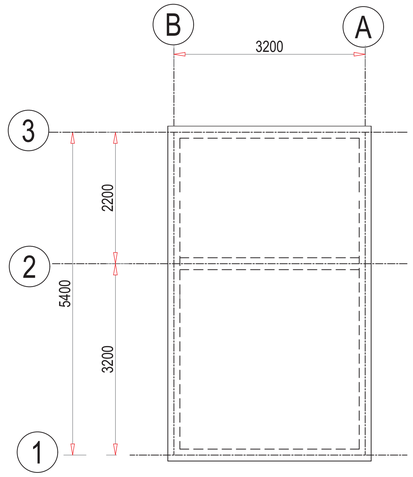
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sikastaba | in every way

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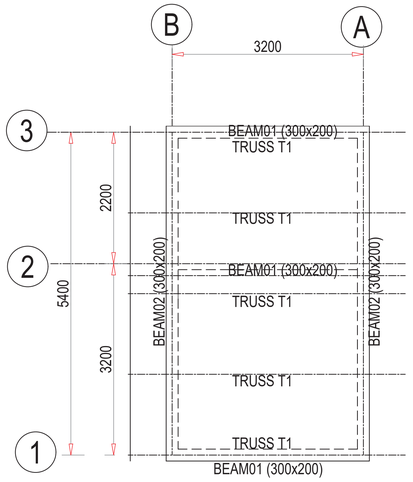
FOUNDATION LAYOUT

SCALE 1:75



GROUND FLOOR LAYOUT

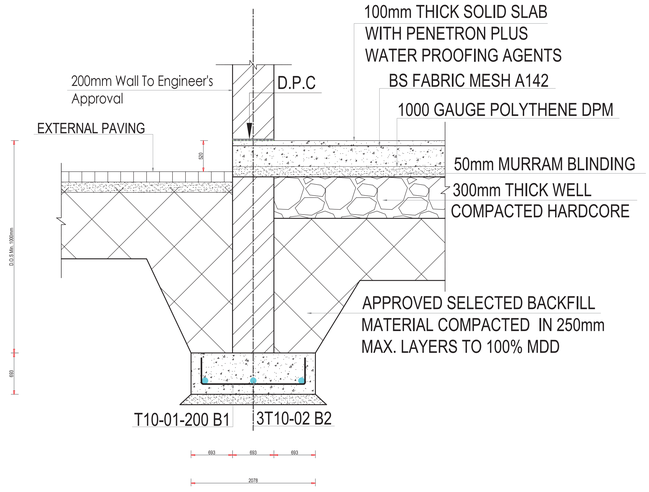
SCALE 1:75



ALL PURLINS ARE 100x50 C24 TIMBER

RING BEAM & ROOF LAYOUT

SCALE 1:75



TYPICAL FOUNDATION DETAIL

SCALE 1:25

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4) - Concrete strength to be class 25/20
5) - Mild steel reinforcement bars to B.S.4449 are denoted "D".
6) - All steel reinforcement must be approved by the Structural Engineer before casting.
7) All load bearing walls to be minimum 200mm thick natural stone or concrete block with minimum crushing strength of 14N/mm2 for substructure and 7N/mm2 for superstructure
8) All wall less than 200mm thick to be reinforced with gauge 20 x 25mm wide hoop iron straps at every alternate course
9) Assumed bearing pressure is 200kN/m2 but to be verified on site.

REFERENCE DRAWINGS

ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

CONSULTANT

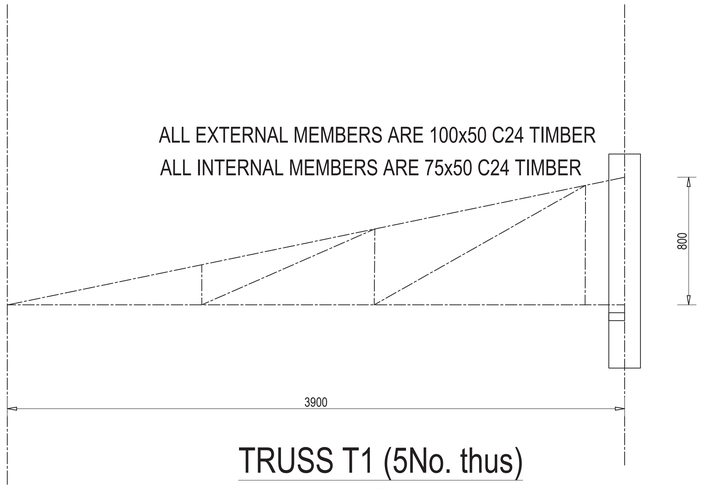
ENG. DICKSON WERE
P.O BOX 956-00200 CITY SQUARE
NAIROBI, KENYA.

Drawing Title

INFANT CARE ROOM

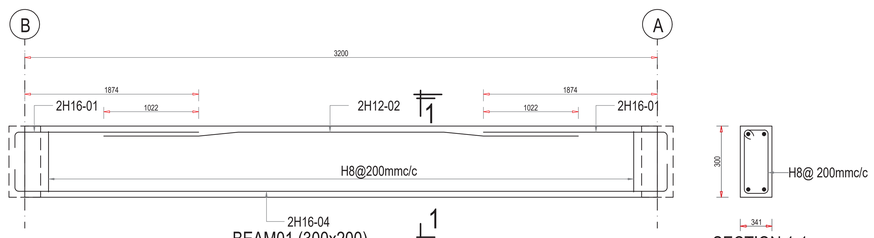
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SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY: AT	DRG No: 100
SIGNATURE :	DATE :

DT Global Project Number	DT Global Drawing Number	Revision
0054	3090	0



TRUSS T1 (5No. thus)

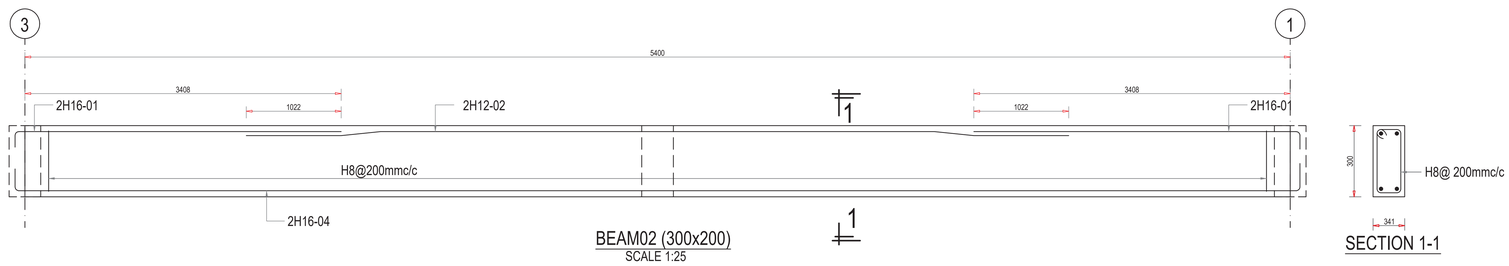
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BEAM01 (300x200)

SCALE 1:25

SECTION 1-1



BEAM02 (300x200)

SCALE 1:25

SECTION 1-1

NOTES

1) - Only figured dimensions to be taken from this drawing.
2) - The contractor must confirm all dimensions on site before commencing any work.
3) - All dimensions are in millimetres unless specified otherwise.
4) - Concrete strength to be class 25/20
5) - Mild steel reinforcement bars to B.S.4449 are denoted "D".
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REFERENCE DRAWINGS

ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

CONSULTANT

ENG. DICKSON WERE
P.O BOX 956-00200 CITY SQUARE
NAIROBI, KENYA.

Drawing Title

INFANT CARE ROOM

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DRAWN BY: AT	DATE: June 2026
DESIGNED BY: AT	JOB No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY: AT	DRG No: 100
SIGNATURE :	DATE :

DT Global Project Number	DT Global Drawing Number	Revision
0054	3090	0

GAROWE COMMUNITY COHESION & GREEN CULTURAL PARK-SOMALIA

7.0 BAR SHAPE CODES

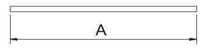
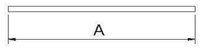
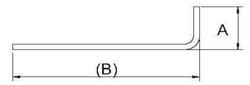
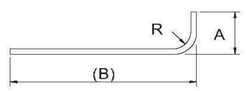
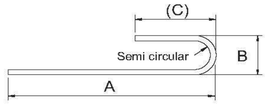
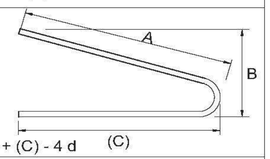
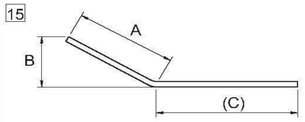
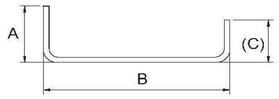
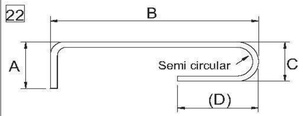
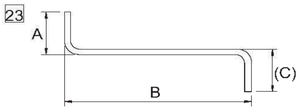
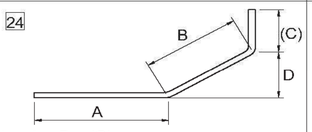
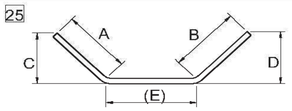
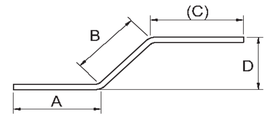
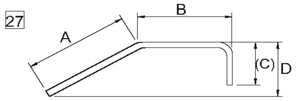
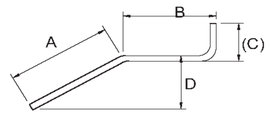
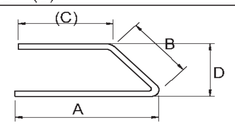
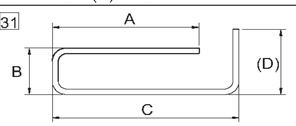
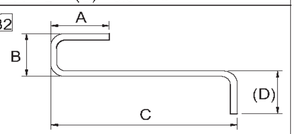
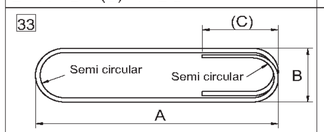
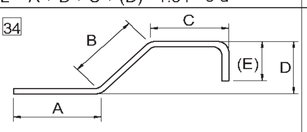
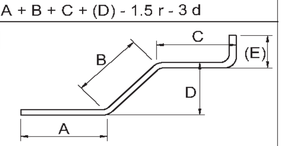
DT Global

sinaan
sikastaba | in every way

UK International Development
Partnership | Progress | Prosperity

BS 8666:2005 Standard Shapes

Shape and total length of bar (L) measured along centre-line

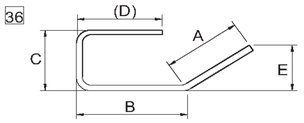
00  L = A	01  L = A, stock lengths	11  L = A + (B) - 0.5 r - d
12  L=A + (B) - 0.43 R - 1.2 d	13  L = A + 0.57 B + (C) - 1.6 d	14  L = A + (C) - 4 d
15  L = A + (C)	21  L = A + B + (C) - r - 2 d	22  L = A + B + C + (D) - 1.5 r - 3 d
23  L = A + B + (C) - r - 2 d	24  L = A + B + (C)	25  L = A + B + (E)
26  L = A + B + (C)	27  L = A + B + (C) - 0.5 r - d	28  L = A + B + (C) - 0.5 r - d
29  L = A + B + (C) - r - 2 d	31  L = A + B + C + (D) - 1.5 r - 3 d	32  L = A + B + C + (D) - 1.5 r - 3 d
33  L =2 A + 1.7 B + 2 (C) - 4 d	34  L = A + B + C + (E) - 0.5 r - d	35  L = A + B + C + (E) - 0.5 r - d

For a bar scheduling spreadsheet for Microsoft Excel visit
this web site: www.structural-engineering.fsnet.co.uk

BS 8666:2005 Standard Shapes

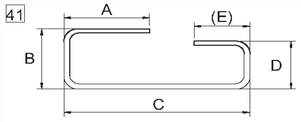
Shape and total length of bar (L) measured along centre-line

36



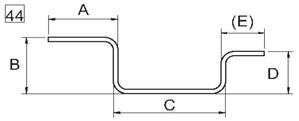
L = A + B + C + (D) - r - 2 d

41



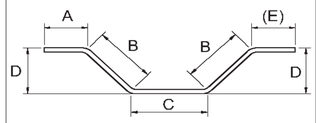
L = A + B + C + D + (E) - 2 r - 4 d

44



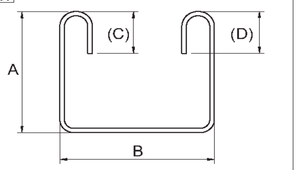
L = A + B + C + D + (E) - 2 r - 4 d

46



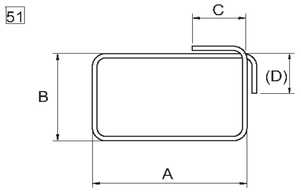
L = A + 2 B + C + (E)

47



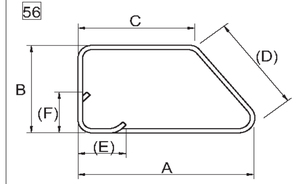
L = 2 A + B + max(21 d, 240) *see note

51



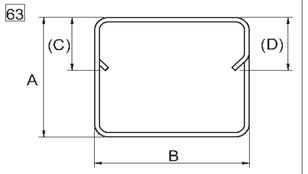
L = 2 A + 2 B + max(16 d, 160) *see note

56



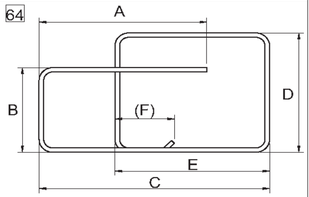
L = A + B + C + (D) + 2(E) - 2.5 r - 5 d

63



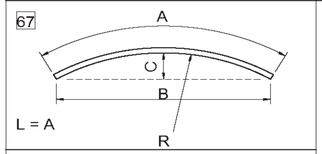
L = 2 A + 3 B + max(14 d, 150) *see note

64



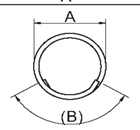
L = A + B + C + 2 D + E + (F) - 3 r - 6 d

67



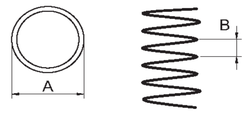
L = A

75



L = 3.14 [A - d] + (B)

77



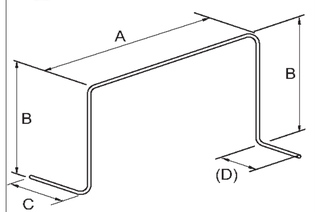
C = no. of turns

L = 3.14 (A - d) C

where B > A/5

L =sqrt {(3.14 [A - d])² + B²} C

98



L = A + 2 B + C + (D) - 2 r - 4 d

99

All shapes where standard shapes cannot be used.
No other shape code number, form of designation or abbreviation shall be used in scheduling.
A dimensioned sketch shall be drawn over the dimension columns A to E.
Every dimension shall be specified and the dimension that is to allow for permissible deviations shall be indicated in parenthesis, otherwise the fabricator is free to choose which dimension shall allow for the tolerance.

Notes
The length equations for shape codes 47, 51 and 63 are for when dimensions C and D are to be minimised.

'+ max(14 d, 150)' means add the greater value of either 14 d or 150mm.

For a bar scheduling spreadsheet for Microsoft Excel visit this web site: www.structural-engineering.fsnet.co.uk

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Shape code table 15 May 06
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email:
chris@buczkowski.freeserve.co.uk

GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK
POTABLE AND NON-POTABLE WATER SUPPLY
LIST OF DRAWINGS

	Drawing No.	Drawing Title		Drawing No.	Drawing Title
1	3000	List of Drawings	16	3011	Washout Chamber Details
			17	3012	Flow Meter Chambers
NON-POTABLE WATER SUPPLY			18	3013	Anchor and Thrust Blocks Details
2	3001	Non-Potable Water - General Layout	19	3014	Trench Details
3	3002	Non-Potable Water - Plan and Profile Line - 1			
4	3003	Non-Potable Water - Plan and Profile Line - 2, Sht 1	**SEWER**		
5	3004	Non-Potable Water - Plan and Profile Line - 2, Sht 2	20	3021	Sewer Lines - General Layout
6	3005	Typical Details - Irrigation Miscellaneous Details	21	3022	Sewer Line 1 - Plan and Profile
7	3006	Typical Details - Irrigation Details	22	3023	Sewer Line 2 - Plan and Profile
8	3007	Notes and Schedule	23	3023-A	Setting out Details
9	3008	125m^3 Reinforced Concrete Tank - Roof Slab Plan	24	3024	Septic Tank & Soak Pit Details
10	3008-A	125m^3 Reinforced Concrete Tank - Base Slab Plan	25	3025	Manhole Details
11	3008-B	125m^3 Reinforced Concrete Tank - Sections			
12	3008-C	125m^3 Reinforced Concrete Tank - Inlet & Overflow Details	**STORMWATER**		
13	3008-D	125m^3 Reinforced Concrete Tank - Outlet Pipe Details	26	3026	Swale Lines - General Layout
			27	3027	Swale Line 1 - Plan and Profile
STANDARD DRAWINGS			28	3028	Swale Line 2 - Plan and Profile
14	3009	Typical Borehole Details	29	3029	Swale Section Detail
15	3010	Sluice Valve and Airvalve Chambers	30	3030	Single Culvert Detail

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

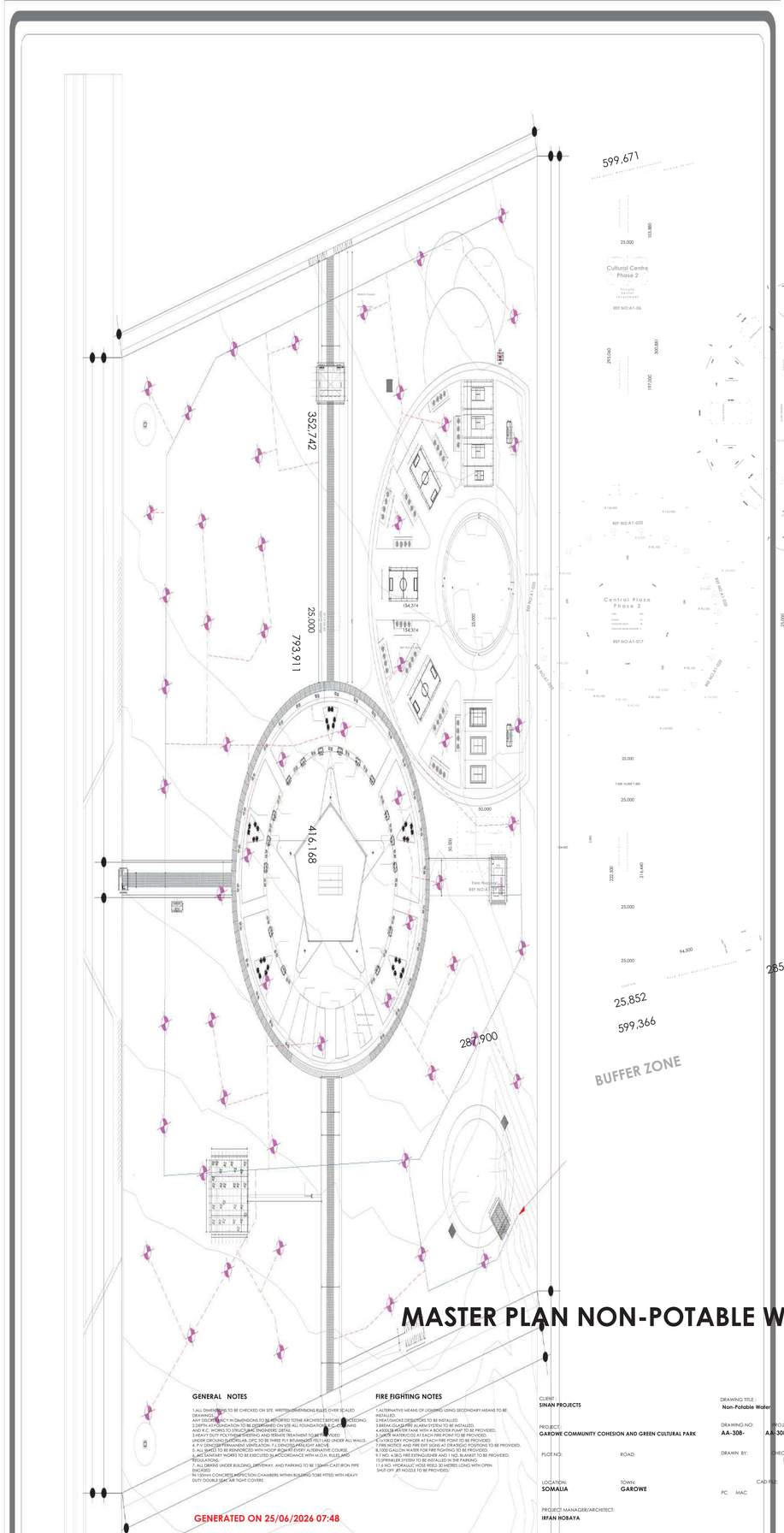
DT Global Africa
Kiganjo House, Rose Avenue, Kilimani,
Second Floor, Nairobi, Kenya
P.O. Box 76448-00508
www.dt-global.com/projects/sinaan/

Drawing Title

LIST OF DRAWINGS

Scale 1:1500	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN BY : MJ	DATE: JANUARY 2026
DESIGNED BY : MJ	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY : RO	Pr No: 20260001
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3000	0



EXISTING BOREHOLE & 50m3
ELEVATED TANK 10m

MASTER PLAN NON-POTABLE WATER - GENERAL LAYOUT

GENERAL NOTES

1.ALL DIMENSIONS TO BE CHECKED ON SITE. WRITTEN DIMENSIONS RULE OVER SCALED DRAWINGS.
ANY DISCREPANCY IN DIMENSIONS TO BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING.
2.DEPTH OF FOUNDATION TO BE DETERMINED ON SITE. ALL FOUNDATIONS TO BE AS PER STRUCTURAL ENGINEERS DETAILS.
3.HEAVY DUTY POLYTHENE SHEETING AND TERMITE TREATMENT TO BE PROVIDED UNDER GROUND SUPERSLAB. DPC TO BE THREE PLY BITUMINOUS FELT LAID UNDER ALL WALLS
4. P.V DENOTES PERMANENT VENTILATION. F.L DENOTES FINISH LEVEL
5. ALL SLABS TO BE REINFORCED WITH HOOP IRON AT EVERY ALTERNATIVE COURSE.
6. ALL BRICKWORKS TO BE EXECUTED IN ACCORDANCE WITH N.O.H. RULES AND REGULATIONS.
7. ALL DRAINS UNDER BUILDING, DRIVEWAY, AND PARKING TO BE 150mm CAST IRON PIPE ENCASED
IN 150mm CONCRETE.INSPECTION CHAMBERS WITHIN BUILDING TO BE FITTED WITH HEAVY DUTY DOUBLE SEAL AIR TIGHT COVERS

FIRE FIGHTING NOTES

1. ALTERNATIVE MEANS OF LIGHTING USING SECONDARY MEANS TO BE INSTALLED.
2.HEAT/SMOKE DETECTORS TO BE INSTALLED.
3.MECHANICAL/AUDIBLE ALARM SYSTEM TO BE INSTALLED.
4.600 GALLON WATER TANK WITH A BOOSTER PUMP TO BE PROVIDED.
5.WATER HOSE/COCO AT EACH FIRE POINT TO BE PROVIDED.
6.+10KG DRY POWDER AT EACH FIRE POINT TO BE PROVIDED.
7.FIRE NOTICE AND FIRE EXIT SIGNS AT STRATEGIC POSITIONS TO BE PROVIDED.
8.1000 GALLON WATER FOR FIRE FIGHTING TO BE PROVIDED.
9.FIRE EXTINGUISHERS AT STRATEGIC POSITIONS TO BE PROVIDED.
10.SPRINKLER SYSTEM TO BE INSTALLED IN THE PARKING.
11.6 NO. HYDRAULIC HOSE REELS 30 METRES LONG WITH OPEN SHUT OFF JET NOZZLE TO BE PROVIDED.

GENERATED ON 25/06/2026 07:48

CLIENT :
SINAN PROJECTS

PROJECT:
GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

PLOT NO:

ROAD:

LOCATION:
SOMALIA

TOWN:
GAROWE

PROJECT MANAGER/ARCHITECT:
IRFAN ROBAYA

DRAWING TITLE :
Non-Potable Water

SCALE:
AS SHOWN

DRAWING NO:
AA-308-

PROJECT NO:
AA-308-GP-SM

REV NO:

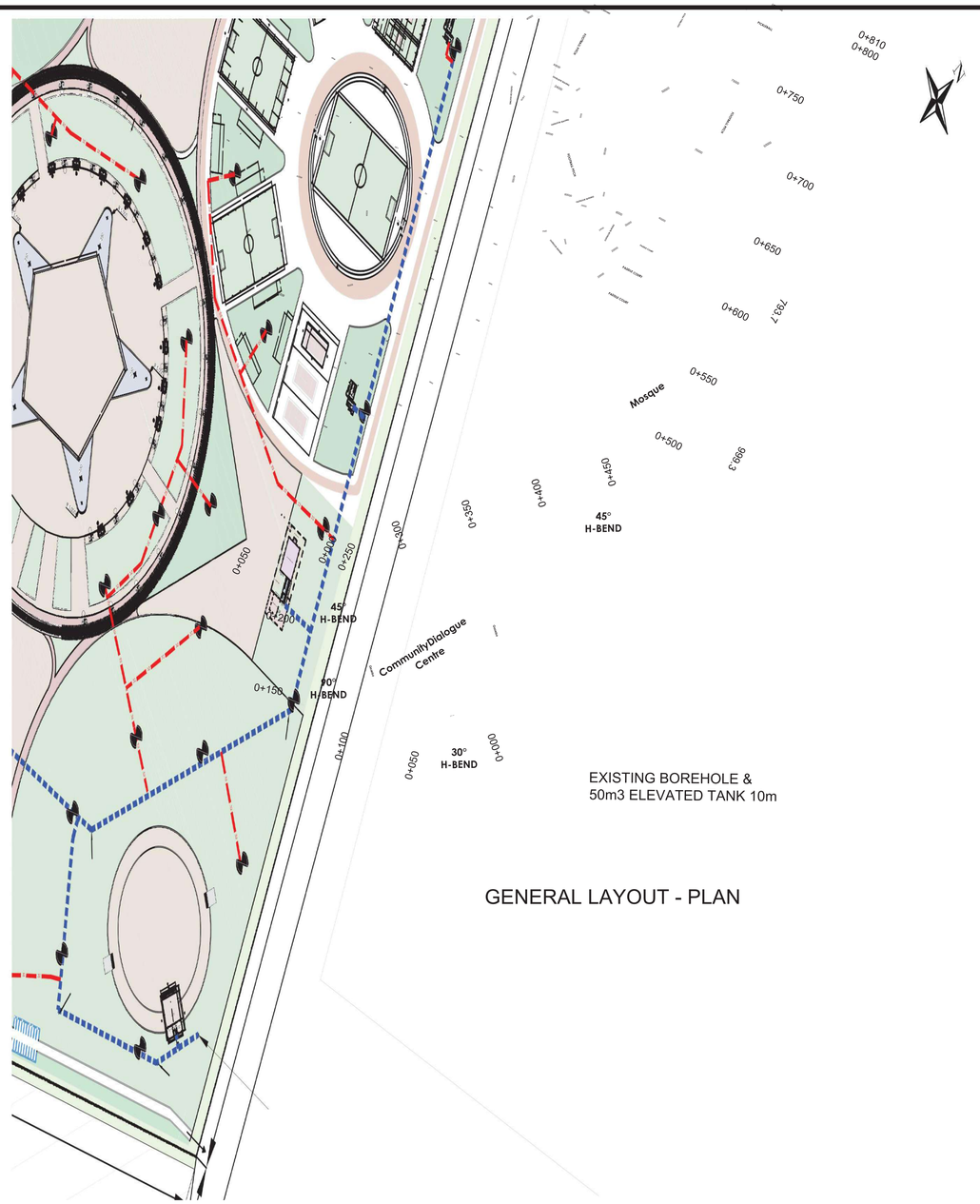
DRAWN BY:

CHECKED BY :
I.H

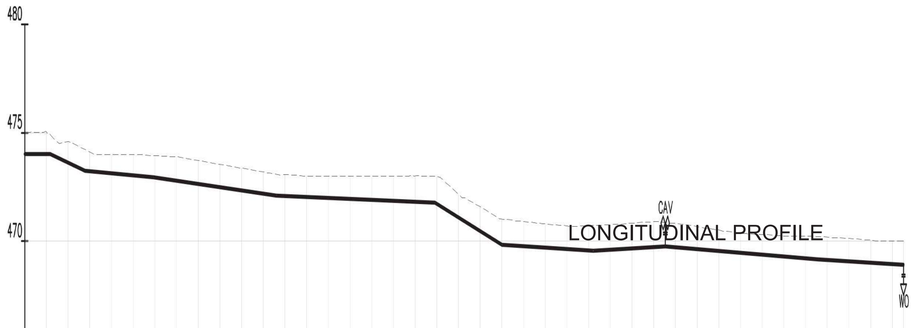
DATE :
25/06/2026

CAD FILE:

PC MAC



GENERAL LAYOUT - PLAN



LONGITUDINAL PROFILE

GENERAL NOTES

1. THIS DRAWING PROVIDES INFORMATION RELATED TO THE FORM OF THE WORK WHEN COMPLETED TOGETHER WITH GUIDANCE, WHERE FUNDAMENTAL TO THE DESIGN, FOR THE SEQUENCE OF CONSTRUCTION. THIS DRAWING DOES NOT PURPORT TO INCLUDE ANY NECESSARY PRECAUTIONS, ITEMS OR COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY. ALL SUCH PRECAUTIONS MUST BE TAKEN AND ITEMS OR COMPONENTS SUPPLIED BY THE CONTRACTOR.
2. ANY DISCREPANCIES ARE TO BE CONFIRMED WITH THE ENGINEER ON SITE PRIOR TO WORK PROCEEDING.
3. ONLY WRITTEN DIMENSIONS SHALL BE USED.
4. ALL DIMENSIONS ARE IN MILLIMETERS

LEGEND:

NON-POTABLE WATER LINE

32mm LATERAL LINE

EMITTERS

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

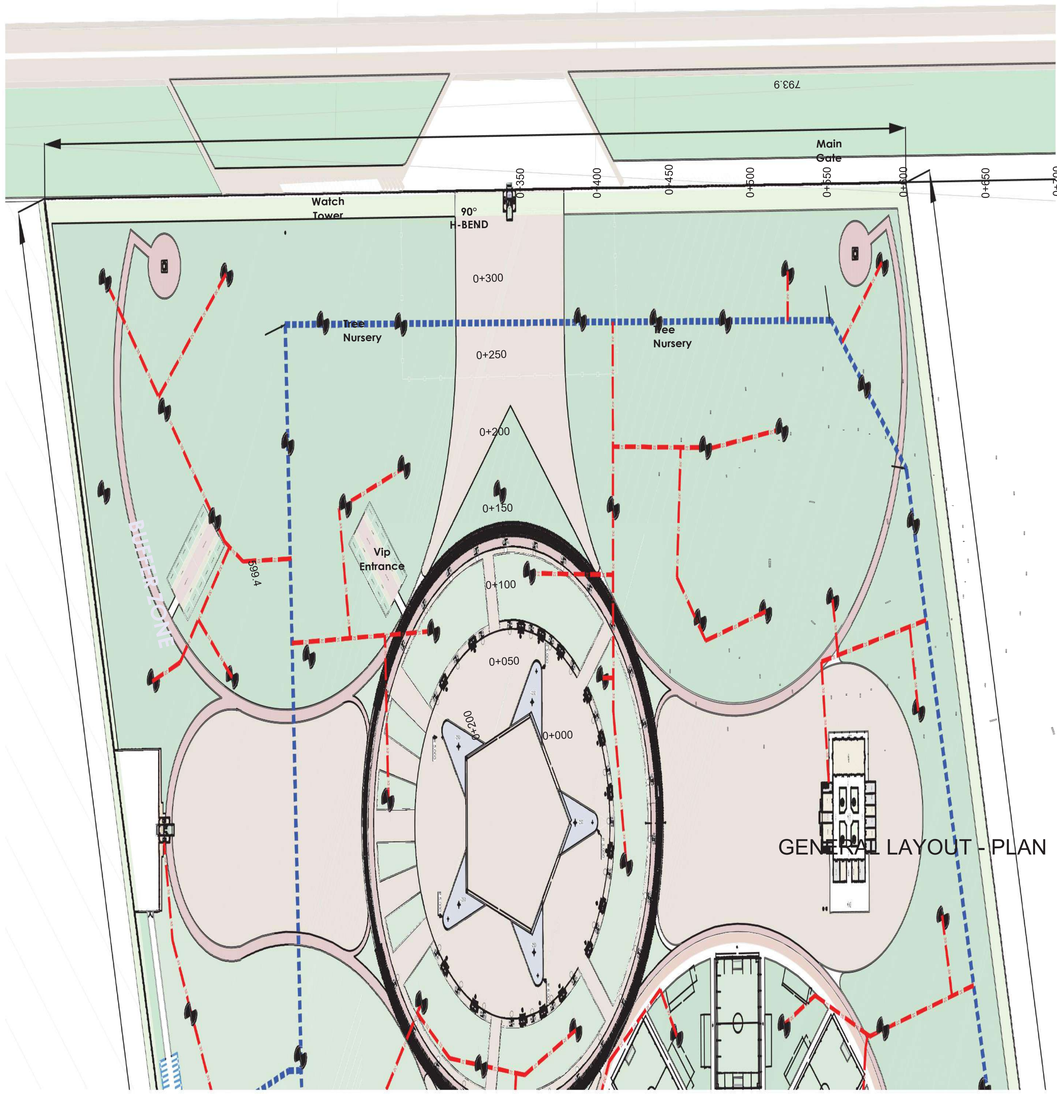
DT Global Africa
Kiganjo House, Rose Avenue, Kilimani,
Second Floor, Nairobi, Kenya
P.O. Box 76448-00508
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Drawing Title

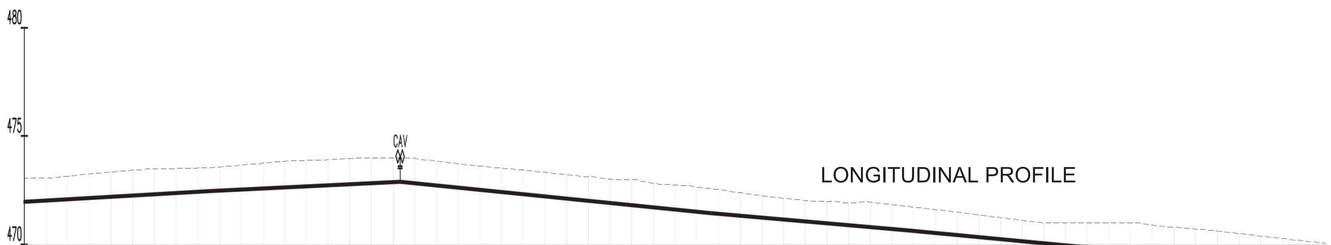
NON-POTABLE WATER
PLAN AND PROFILE
LINE - 1

Scale	1:1250	ON ORIGINAL PLAN	0 10 20 30 40 50
DRAWN BY :	MJ	DATE:	JANUARY 2026
DESIGNED BY :	MJ	Pr No:	2026001
SIGNATURE :		DATE :	
CHECKED ON BEHALF OF DT GLOBAL BY :	RO	Pr No:	20260001
SIGNATURE :		DATE :	

TD Global Project Number	GD Global Drawing Number	Revision
0054	3002	0



GENERAL LAYOUT - PLAN



LONGITUDINAL PROFILE

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LEGEND:

NON-POTABLE WATER LINE

50mm LATERAL LINE

EMITTERS

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

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Drawing Title

NON-POTABLE WATER
PLAN AND PROFILE
LINE - 2
SHEET 1 OF 2

Scale 1:1250 ON ORIGINAL PLAN 0 10 20 30 40 50

DRAWN BY : MJ DATE: JANUARY 2026

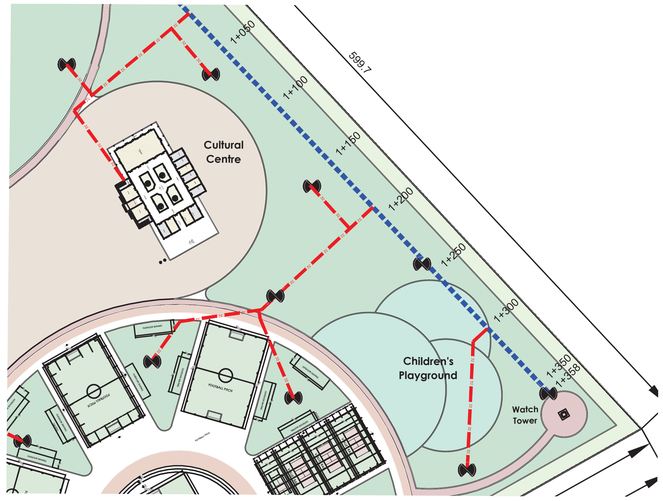
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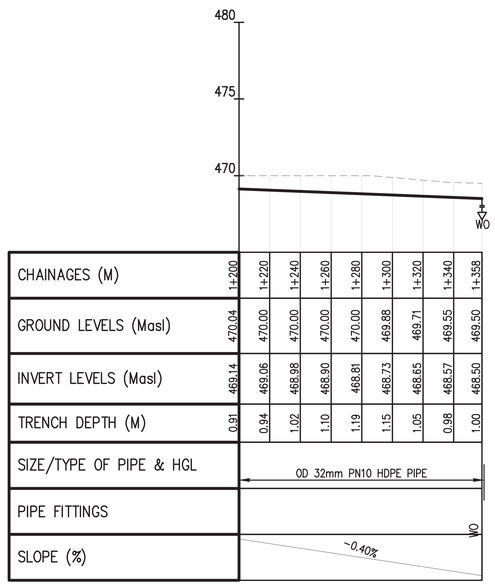
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SIGNATURE : DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3003	0



GENERAL LAYOUT - PLAN



LONGITUDINAL PROFILE

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LEGEND:

- NON-POTABLE WATER LINE
- 50mm LATERAL LINE
- EMITTERS

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

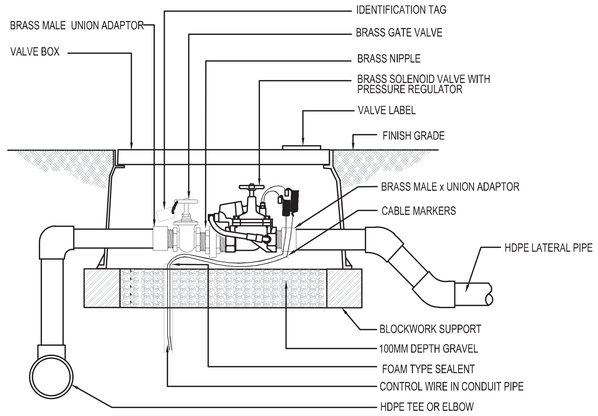
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Drawing Title

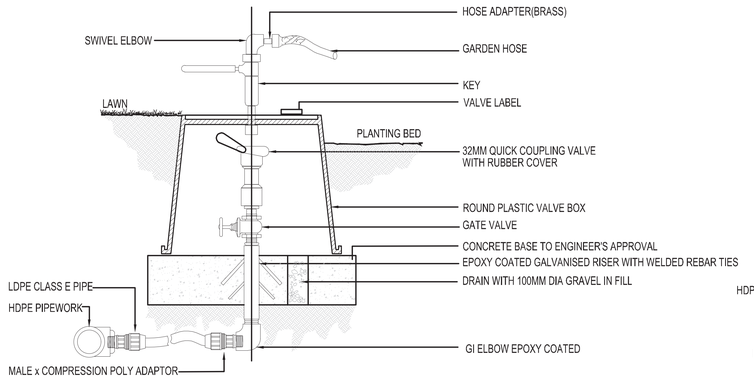
NON-POTABLE WATER
PLAN AND PROFILE
LINE - 2
SHEET 2 OF 2

Scale 1:1250	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN BY: MJ	DATE: JANUARY 2026
DESIGNED BY: MJ	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY: RO	Pr No: 20260001
SIGNATURE :	DATE :

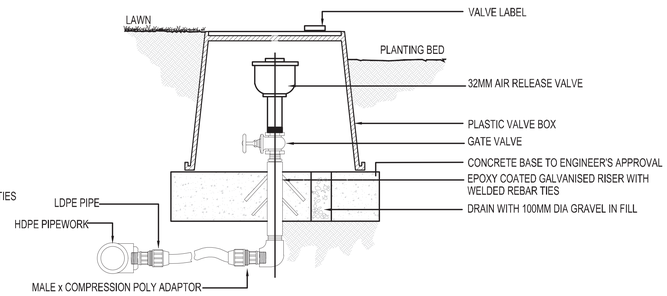
TD Global Project Number	GD Global Drawing Number	Revision
0054	3004	0



1 009701 SOLENOID VALVE ASSEMBLY : TYPICAL SECTION
Scale: NTS



2 009701 QUICK COUPLING VALVE ASSEMBLY
Scale: NTS



3 009701 AIR RELEASE VALVE ASSEMBLY
Scale: NTS

4 009701 PULL BOX: TYPICAL SECTION
Scale: NTS

5 009701 TYPICAL TRENCHIING DETAILS
Scale: NTS

IRRIGATION DUCTS SCHEDULE

A	B
32mm	63mm
40mm	90mm
90mm	150mm
110mm	200mm

6 009701 IRRIGATION DUCT PIPE INSTALLATION DETAILS
Scale: NTS

NOTE:
ALL CONTROLLERS TO BE PROPERLY GROUNDED.

7 009701 AUTOMATIC IRRIGATION CONTROLLER DETAILS
Scale: NTS

8 009701 TYPICAL SCHEMATIC DIAGRAM FOR CONTROL CABLE
Scale: NTS

9 009701 TAKE-OFF INSTALLATION DETAIL FOR GROUND COVER / SHRUB AREAS
Scale: NTS

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5. FILLING AS PER LANDSCAPE AND ARCHITECTURAL CROSS SECTION.

LEGEND

- REINFORCED CEMENT CONCRETE
- SOIL
- GRAVEL
- GRAVEL MULCH

FGL - FINISHED GROUND LEVEL
EGL - EXISTING GROUND LEVEL
REA - RESTRAINT FLANGE ADAPTOR
IPF - INTEGRAL PUDDLE FLANGE
C/W - COMBINED WITH
HDPE - HIGH-DENSITY POLYETHYLENE
LDPE - LOW DENSITY POLYETHYLENE
DI - DUCTILE IRON
PN - NOMINAL PRESSURE

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

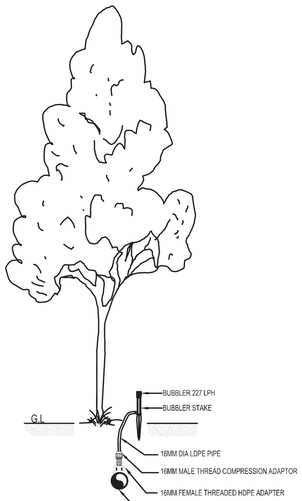
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Drawing Title

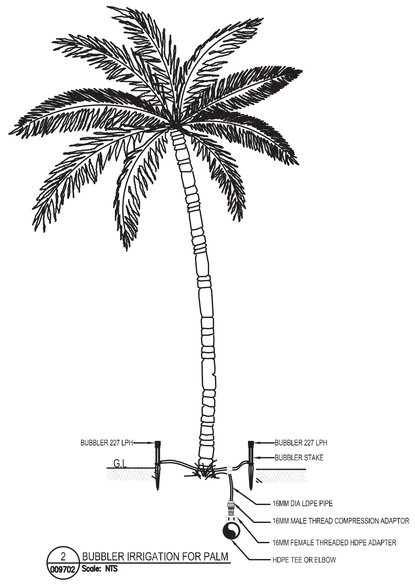
MISCELLANEOUS TYPICAL DETAILS

Scale	1:1500
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DRAWN BY :	MJ
DATE:	JANUARY 2026
DESIGNED BY :	MJ
Pr No:	2026001
SIGNATURE :	
DATE :	
CHECKED ON BEHALF OF DT GLOBAL BY :	RO
Pr No:	20260001
SIGNATURE :	
DATE :	

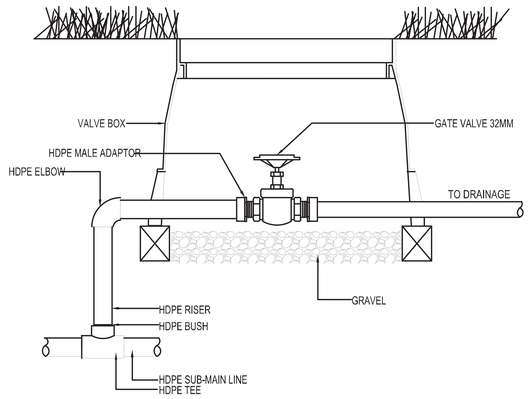
TD Global Project Number	GD Global Drawing Number	Revision
0054	3005	0



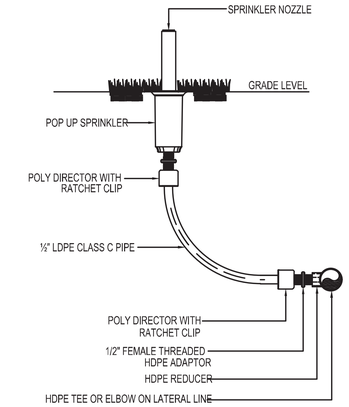
1 BUBBLER IRRIGATION FOR TREES
009702 Scale: NTS



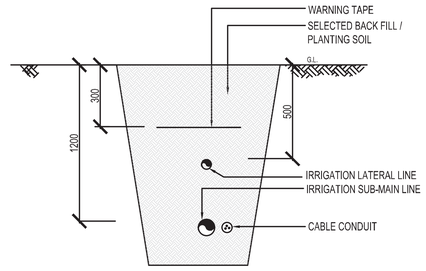
2 BUBBLER IRRIGATION FOR PALM
009702 Scale: NTS



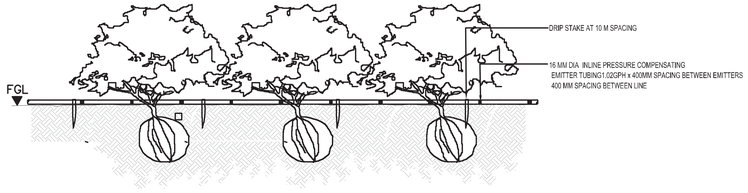
3 FLUSH DRAIN VALVE
009702 Scale: NTS

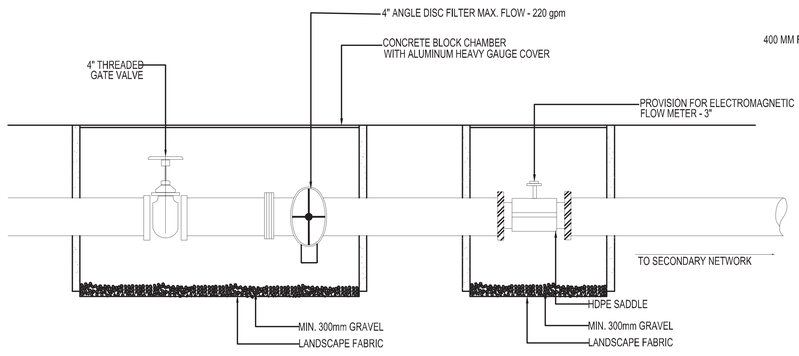


4 POP UP SPRAYER/SPRINKLER: TYPICAL SECTION
009702 Not to Scale

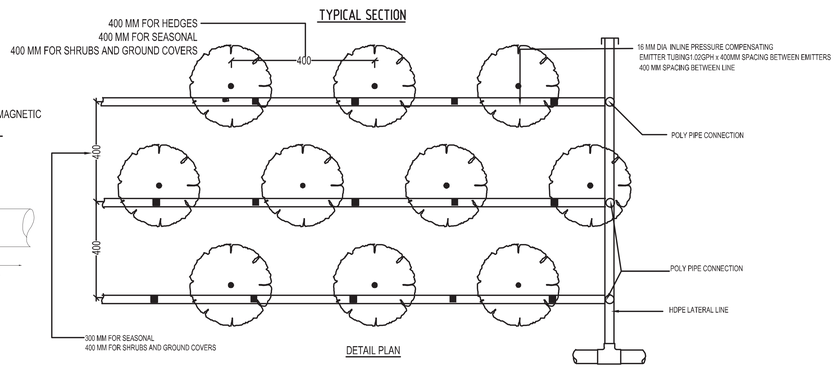


5 SUB-MAIN AND LATERAL INSTALLATION DETAILS
009702 Scale: NTS





6 DISC FILTER ASSEMBLY CHAMBER & PROVISION FOR FUTURE FLOW METER
009702 Scale: NTS



7 DRIP INSTALLATION DETAILS FOR GROUNED COVERS
009702 Scale: NTS

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LEGEND

- REINFORCED CEMENT CONCRETE
- SOIL
- GRAVEL
- GRAVEL MULCH
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- EGL - EXISTING GROUND LEVEL
- REA - RESTRAINT FLANGE ADAPTOR
- IPF - INTEGRAL PUDDLE FLANGE
- C/W - COMBINED WITH
- HDPE - HIGH-DENSITY POLYETHYLENE
- LDPE - LOW DENSITY POLYETHYLENE
- DI - DUCTILE IRON
- PN - NOMINAL PRESSURE

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan
ukwatuli | in every way

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

DT Global Africa
Kiganjo House, Rose Avenue, Kilimani,
Second Floor, Nairobi, Kenya
P.O. Box 76448-00508
www.dt-global.com/projects/sinaan/

Drawing Title

IRRIGATION DETAILS

Scale 1:1500	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN BY : MJ	DATE: JANUARY 2026
DESIGNED BY : MJ	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY : RO	Pr No: 20260001
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3006	0

GENERAL NOTES :

1. CONTRACTOR TO PREPARE ALL SHOP DRAWINGS FOR APPROVAL BY EMPLOYER BEFORE COMMENCEMENT OF WORK.
2. IRRIGATION DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE LANDSCAPE DRAWINGS.
3. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METERS UNLESS NOTED OTHERWISE. ALL DIMENSIONS TO BE VERIFIED ON SITE & APPROVED BY THE ENGINEER.
4. DUCTS ARE PROPOSED AT ROAD CROSSING IN THE IRRIGATION LAYOUT.
5. ARRANGEMENT OF SPRAYERS SHALL BE SUCH A WAY THAT WATER FROM SPRAYER SHOULD NOT HIT THE STEMS OF THE PALM TREES.
6. IRRIGATION IS CARRIED OUT IN TWO CYCLES WHICH DEPENDS ON FACTORS SUCH AS OPERATOR WORKING HOURS, OFF-PEAK HOURS, PUMP OPERATION, CLIENTS PREFERENCE ETC.
7. SYMBOLS IN DRAWINGS ARE OVERSIZED FOR CLARITY AND ARE NOT SHOWN AT TRUE SCALE.
8. ALL QUICK COUPLING VALVES AND AIR RELEASE VALVES SHALL BE OF SIZE 32mm.
9. PALM TREES SHALL BE IRRIGATED WITH 2 NUMBERS OF BUBBLER AT 227 LPH EACH.
10. TREES SHALL BE IRRIGATED WITH 1 NUMBER OF BUBBLER AT 227 LPH.
11. SHRUBS AND GROUND COVERS SHALL BE IRRIGATED BY INLINE DRIP EMITTERS 3.4 LPH EACH.
12. LAWN SHALL BE IRRIGATED WITH RAINBIRD POP UP SPRAYERS 15VAN SERIES AT 4.6M RADIUS.
13. PIPE MATERIAL SHALL BE HDPE.
14. ALL THE IRRIGATION NETWORK TO BE LAID AT A MINIMUM DEPTH OF 700 mm.

LEGEND

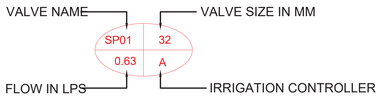
- HDPE SUBMAIN LINE Ø110MM
- HDPE SUBMAIN LINE Ø90MM
- HDPE LATERAL LINE FOR DR Ø32MM
- PATH CROSSING DUCT
- VALVE FOR DRIPPER
- VALVE FOR BUBBLER
- VALVE FOR SPRINKLER
- DRIP RISER
- BUBBLER
- FLOW DIRECTION

RAIN BIRD POP-UP SPRINKLER

MODEL 15 VAN SERIES 4.6 M RADIUS @ 2.1 BAR

- FULL CIRCLE SPRAYERS (0.233 LPS)
- HALF CIRCLE SPRAYERS (0.117 LPS)
- QUARTER CIRCLE SPRAYERS (0.058 LPS)

VALVE TAG



ABBREVIATION:

1. BU - BUBBLER VALVE
2. DR - DRIP VALVE
3. SP - SPRINKLER VALVE

SCHEDULE

VALVE SCHEDULE

SNO	VALVE NAME	SIZE IN MM	FLOW IN LPS	TOTAL FLOW IN LPS	IRRIGATION TYPE	OPERATION TIME IN A DAY (MINS)	FIRST CYCLE (Morning)		SECOND CYCLE (Evening)		WATER DEMAND PER DAY (LITRE)
							STARTS	ENDS	STARTS	ENDS	
1	DR-01	63	10.571	43.593	DRIP - SHRUB/GROUND COVER	60	6:30 am	7:30 am	5:30 pm	6:30 pm	156935
2	DR-02	40	33.022								
3	DR-03	63	12.633	58.26	DRIP - SHRUB/GROUND COVER	60	7:30 am	8:30 am	6:30 pm	7:30 pm	209736
4	DR-04	40	45.627								
5	DR-05	63	59.614	59.614	DRIP - SHRUB/GROUND COVER	60	8:30 am	9:30 am	7:30 pm	8:30 pm	214610
							TOTAL WATER DEMAND PER DAY (LITRE)				608824

NOTES:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH LANDSCAPE DRAWINGS.
2. THE IRRIGATION PUMP IS OF CAPACITY 25.2m³/hr AT 6 BAR HEAD.
3. PROPOSED PIPE MATERIAL SHALL BE UPVC CLASS E

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

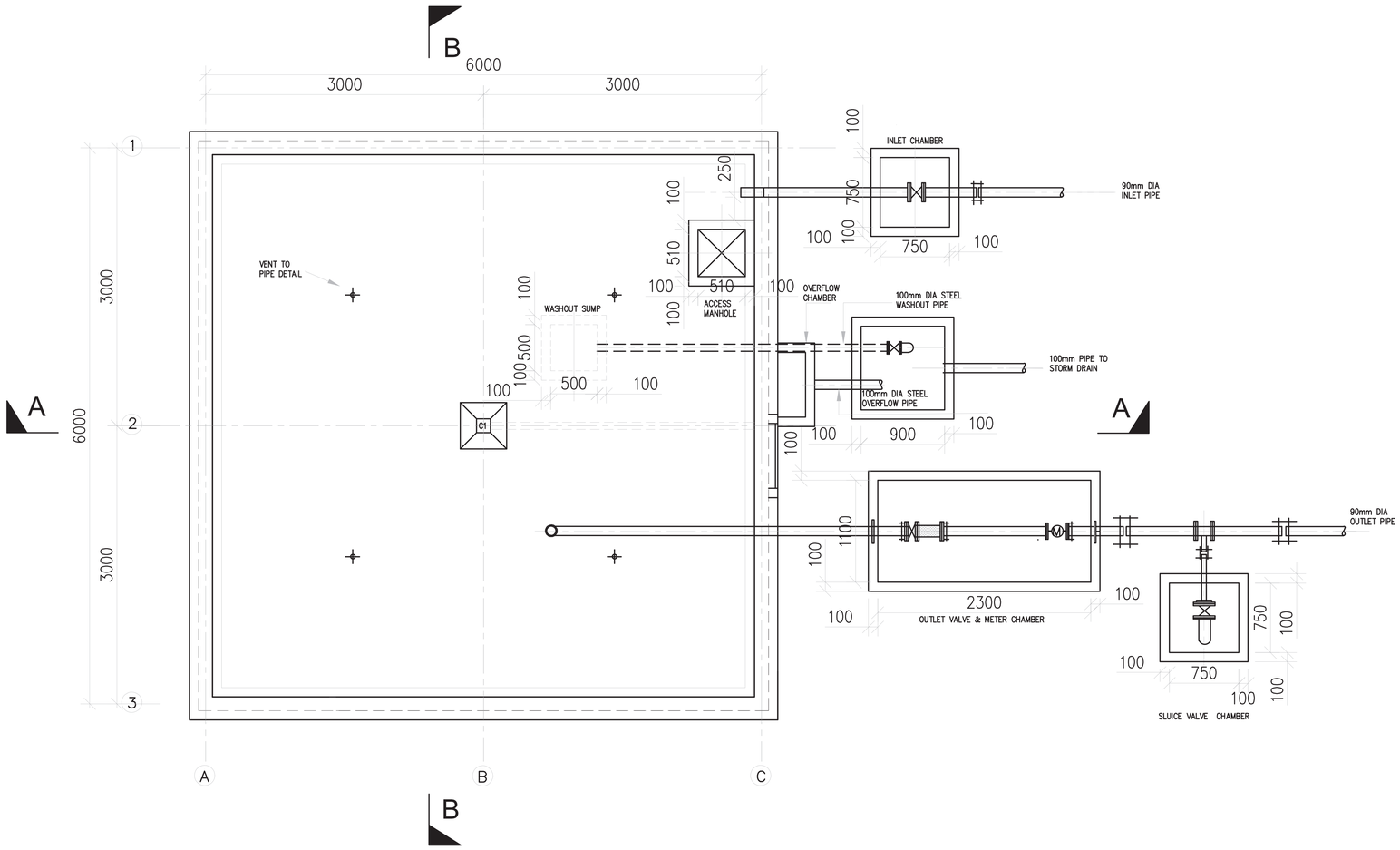
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Drawing Title

NOTES AND SCHEDULE

Scale 1:1500	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN	
BY : MJ	DATE: JANUARY 2026
DESIGNED	
BY : MJ	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL	
BY : RO	Pr No: 20260001
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3007	0



STORAGE TANK CAPACITY 125m^3 ROOF SLAB LAYOUT PLAN

SCALES 1:50

NOTES:

1. DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED.
2. ALL EXPOSED CONCRETE EDGES TO HAVE 25mm X 25mm CHAMFER
3. CONCRETE WORKS: ALL REINFORCED CONCRETE TO BE CLASS 35/20 EXCEPT WHERE OTHERWISE SPECIFIED
4. ABBREVIATIONS :
   - R.C – REINFORCED CONCRETE
   - F.G.L – FINISHED GROUND LEVEL
   - E.G.L – EXISTING GROUND LEVEL
   - D.N – NOMINAL DIAMETER
   - uPVC – UNPLASTICISED POLYVINYL
   - G.I – GALVANIZED IRON
   - F.G.L – FINISHED GROUND LEVEL

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / ChK	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

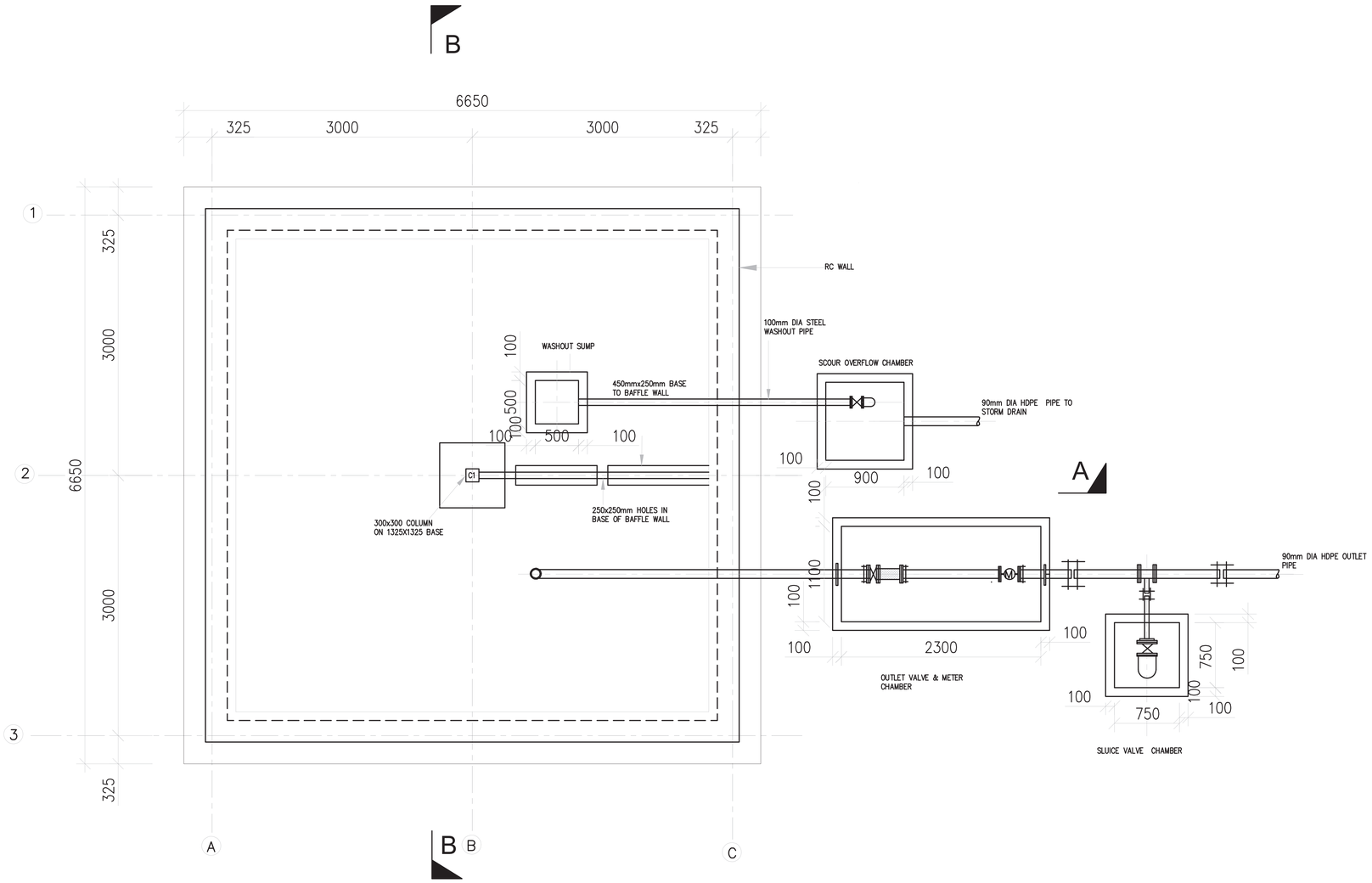
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Drawing Title

REINFORCED CONCRETE STORAGE TANK
(125m^3)
ROOF SLAB PLAN
SHEET 1 OF 5

Scale 1:1500	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN BY : MJ	DATE: JANUARY 2026
DESIGNED BY : MJ	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY : RO	Pr No: 20260001
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3008	0



STORAGE TANK CAPACITY 125m^3 BASE SLAB LAYOUT PLAN

SCALES 1:50

NOTES:

1. DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED.
2. ALL EXPOSED CONCRETE EDGES TO HAVE 25mm X 25mm CHAMFER
3. CONCRETE WORKS: ALL REINFORCED CONCRETE TO BE CLASS 35/20 EXCEPT WHERE OTHERWISE SPECIFIED
4. ABBREVIATIONS :
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   - F.G.L – FINISHED GROUND LEVEL
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   - F.G.L – FINISHED GROUND LEVEL

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan

PROJECT NAME:
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Kiganjo House, Rose Avenue, Kilimani,
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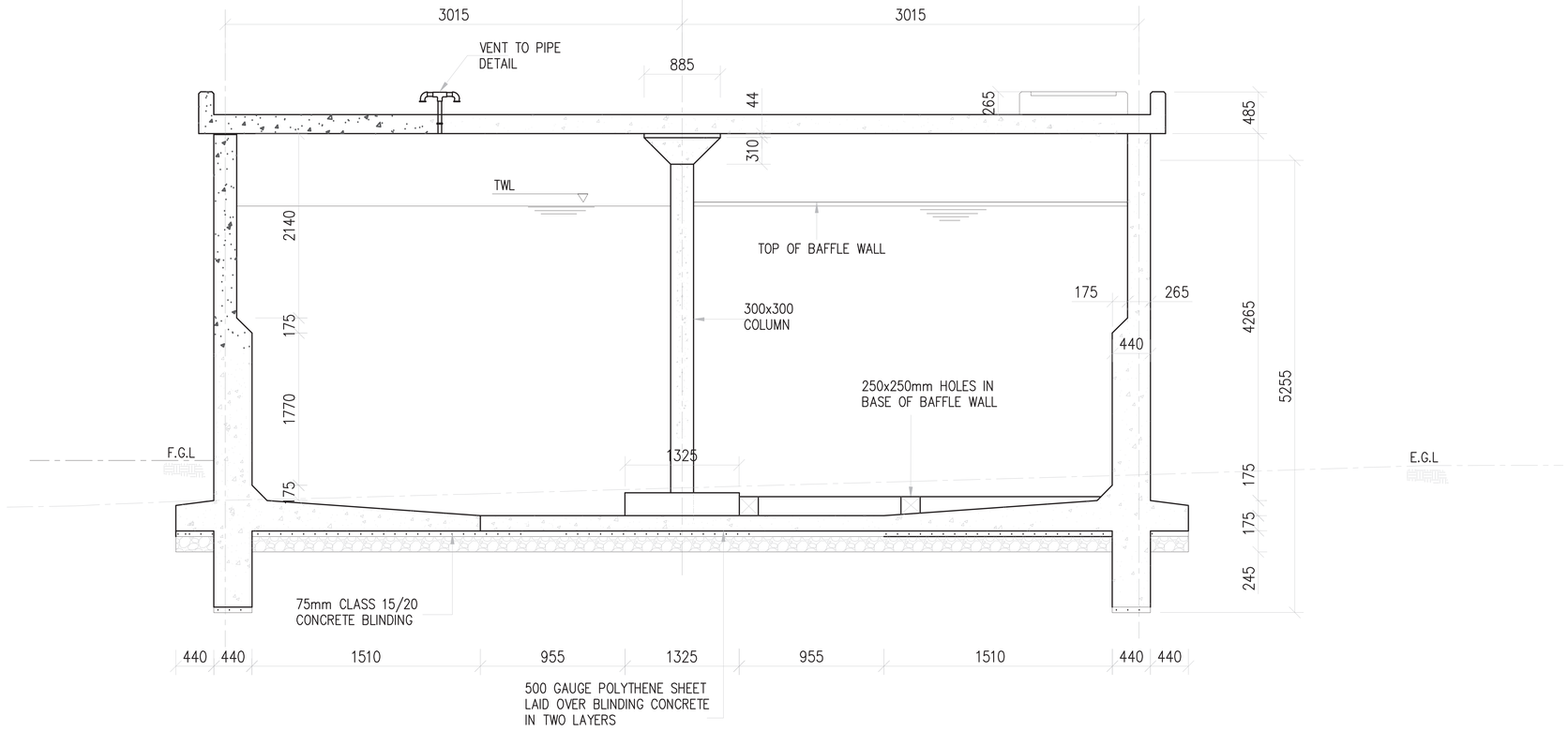
Drawing Title

REINFORCED CONCRETE STORAGE TANK (125m^3)
BASE SLAB PLAN
SHEET 2 OF 5

Scale	ON ORIGINAL PLAN
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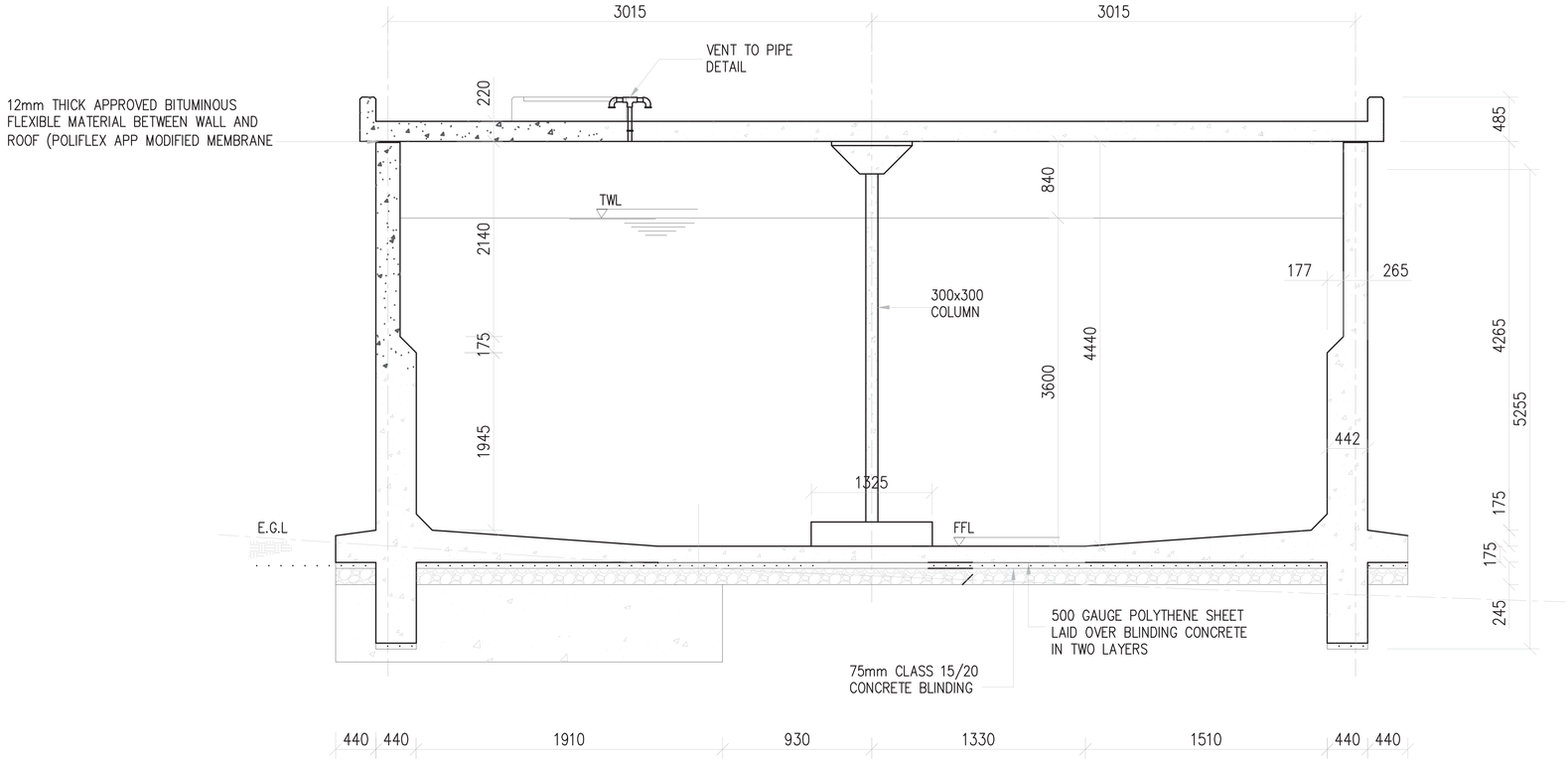
DRAWN BY : MJ	DATE: JANUARY 2026
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SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY : RO	Pr No: 20260001
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3008-A	0



SECTION A–A

SCALES 1:50



SECTION B–B

SCALES 1:50

NOTES:

1. DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED.
2. ALL EXPOSED CONCRETE EDGES TO HAVE 25mm X 25mm CHAMFER
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   - uPVC – UNPLASTICISED POLYVINYL
   - G.I – GALVANIZED IRON
   - F.G.L – FINISHED GROUND LEVEL

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

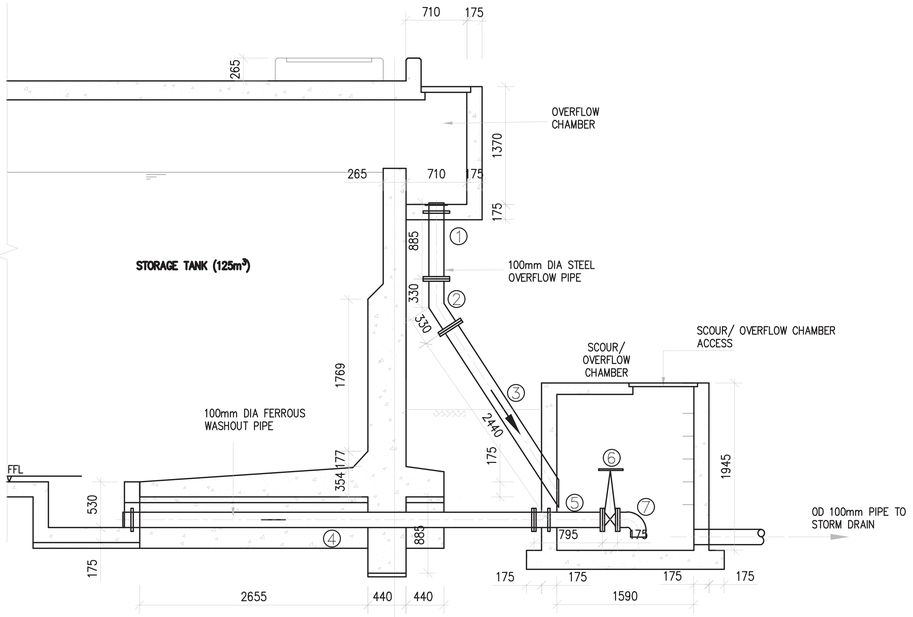
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Drawing Title

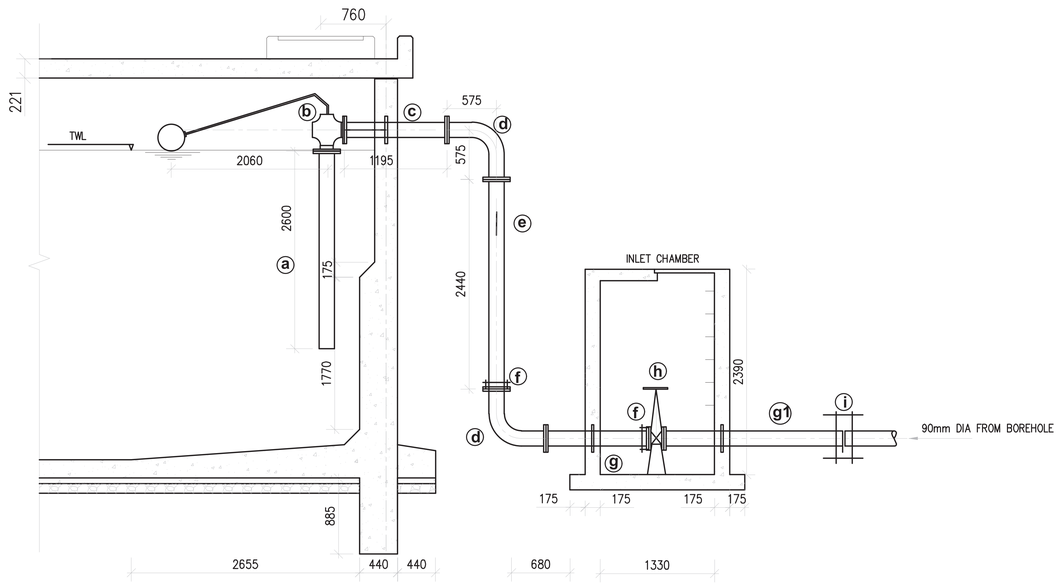
REINFORCED CONCRETE STORAGE TANK (125m³)
SECTIONS A-A & B-B
SHEET 3 OF 5

Scale 1:1500	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN BY : MJ	DATE: JANUARY 2026
DESIGNED BY : MJ	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY : RO	Pr No: 20260001
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3008-B	0



OVERFLOW AND WASHOUT PIPEWORK DETAIL



INLET PIPE DETAIL

SCOUR AND OVERFLOW PIPES AND FITTINGS SCHEDULE
(APPROVED LINED FERROUS PIPES & FITTINGS)

ITEM NO.	DESCRIPTION	DIA. (mm)	LENGTH (mm)	QUANTITY (No.)
①	FLANGE SPIGOT PIPE WITH PUDDLE FLANGE 120mm FROM SPIGOT END	100	1000	1
②	ALL FLANGED 30° BEND	100	100Ø, 375, 100Ø, 375	1
③	FLANGE SPIGOT PIPE WITH SPIGOT END BEVELLED (LENGTH CUT TO SUIT ON SITE)	100	2760	1
④	FLANGE SPIGOT PIPE WITH PUDDLE FLANGE AT 120mm FROM SPIGOT END	100	5400	1
⑤	ALL FLANGED PIPE WITH PUDDLE FLANGE AT 100mm FROM ONE END	100	900	1
⑥	ALL FLANGED GATE VALVE(EURO 20 SERIES,TYPE 23, SAINT GOBAIN PAM OR APPROVED EQUIVALENT)	100	-	1
⑦	FLANGED SPIGOT 90° BEND (CUT TO SUIT ON SITE)	100	300, 300, 100Ø, 100Ø	1

INLET PIPES AND FITTINGS SCHEDULE
(APPROVED LINED FERROUS PIPES & FITTINGS)

ITEM NO.	DESCRIPTION	DIA. (mm)	LENGTH (mm)	QUANTITY (No.)
ⓐ	FLANGE SPIGOT PIPE	100	2600	1
ⓑ	ALL FLANGED BALL FLOAT VALVE TO SERIES 1042–BIWATER CATALOGUE OR APPROVED EQUIVALENT	100	–	1
ⓒ	ALL FLANGED PIPE WITH PUDDLE FLANGE AT 550mm FROM ONE END	100	1350	1
ⓓ	ALL FLANGED 90° BEND	100	350, 350, 100Ø, 100Ø	2
ⓔ	FLANGED SPIGOT PIPE (CUT TO SUIT ON SITE)	100	2755	1
ⓕ	FLANGE ADAPTOR	100	–	2
ⓖ	FLANGED PIPE WITH PUDDLE FLANGE AT 735mm FROM SPIGOT END	100	1350	1
ⓖ1	ALL FLANGED PIPE WITH PUDDLE FLANGE AT 735mm FROM ONE END	100	2350	1
ⓗ	ALL FLANGED GATE VALVE(EURO 20 SERIES,TYPE 23, SAINT GOBAIN PAM OR APPROVED EQUIVALENT)	100	–	1
ⓘ	VJ STEPPED COUPLING	100	–	3

NOTES:

1. DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED.
2. ALL EXPOSED CONCRETE EDGES TO HAVE 25mm X 25mm CHAMFER
3. CONCRETE WORKS: ALL REINFORCED CONCRETE TO BE CLASS 35/20 EXCEPT WHERE OTHERWISE SPECIFIED
4. ABBREVIATIONS :
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   - uPVC – UNPLASTICISED POLYVINYL
   - G.I – GALVANIZED IRON
   - F.G.L – FINISHED GROUND LEVEL

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

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Kiganjo House, Rose Avenue, Kilimani,
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P.O. Box 76448-00508
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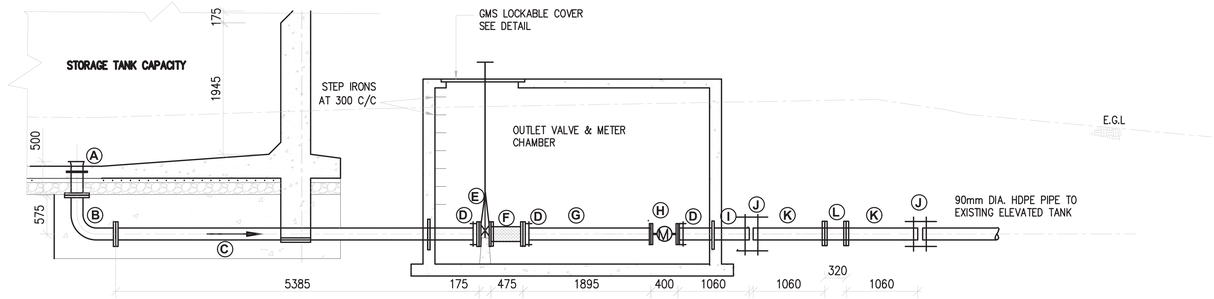
Drawing Title

REINFORCED CONCRETE STORAGE TANK (125m³)
INLET AND OVERFLOW PIPEWORK DETAILS SHEET 4 OF 5

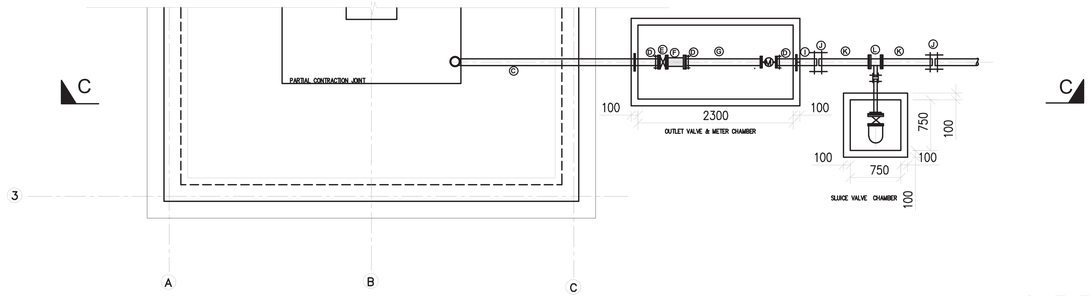
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DRAWN BY : MJ	DATE: JANUARY 2026
DESIGNED BY : MJ	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY : RO	Pr No: 20260001
SIGNATURE :	DATE :

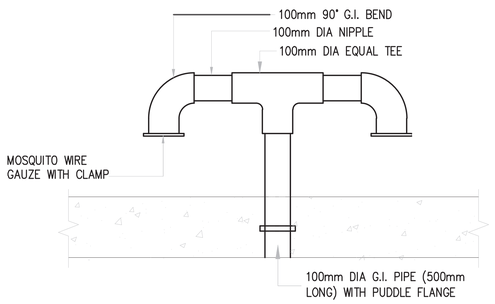
DT Global Project Number	GD Global Drawing Number	Revision
0054	3008-C	0



SECTION C–C



OUTLET PIPE DETAILS PLAN



VENT PIPE DETAIL

OUTLET PIPES AND FITTINGS SCHEDULE
(APPROVED LINED FERROUS PIPES & FITTINGS)

ITEM NO.	DESCRIPTION	DIA. (mm)	LENGTH (mm)	QUANTITY (No.)
Ⓐ	SPECIAL FLANGED BELLMOUTH WITH PUDDLE FLANGE 170mm FROM THE BELLMOUTH END	100	565	1
Ⓑ	ALL FLANGED 90° BEND	100	350 / 350 / 100Ø / 100Ø	1
Ⓒ	FLANGED SPIGOT PIPE WITH PUDDLE FLANGE AT 840mm FROM PLAIN END	100	6090	1
Ⓓ	FLANGE ADAPTOR	100	–	3
Ⓔ	ALL FLANGED GATE VALVE(EURO 20 SERIES,TYPE 23, SAINT GOBAIN PAM OR APPROVED EQUIVALENT)	100	535	1
Ⓕ	ALL FLANGED STRAINER	100	–	1
Ⓖ	FLANGED SPIGOT PIPE	100	2145	1
Ⓗ	ALL FLANGED WATER METER (KENT OR APPROVED EQUIVALENT)	100	450	1
Ⓘ	PLAIN ENDED PIPE WITH A PUDDLE FLANGE AT 625mm FROM ONE END	100	1200	1
Ⓙ	V.J COUPLING	100	–	2
Ⓚ	FLANGED SPIGOT PIPE	100	1200	2
Ⓛ	ALL FLANGED TEE, 100mmx100mmx100 mm DIA	100	360 / 360 / 100Ø / 100Ø / 100Ø	1

NOTES:

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   - D.N – NOMINAL DIAMETER
   - uPVC – UNPLASTICISED POLYVINYL
   - G.I – GALVANIZED IRON
   - F.G.L – FINISHED GROUND LEVEL

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan
shaaraza | in every way

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

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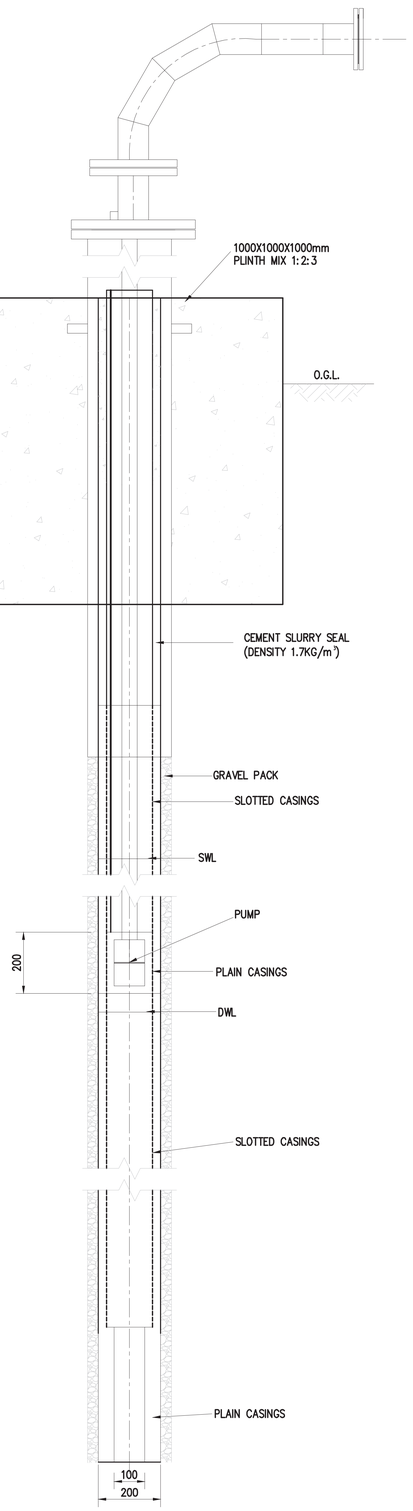
Drawing Title

REINFORCED CONCRETE STORAGE TANK (125m^3)
OUTLET PIPE DETAILS
SHEET 5 OF 5

Scale	ON ORIGINAL PLAN
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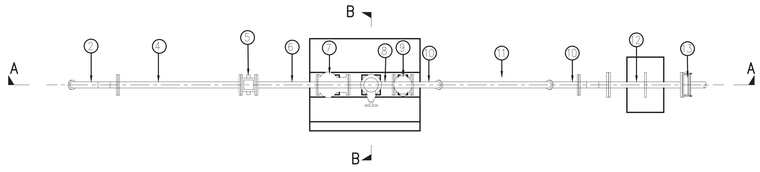
DRAWN		
BY : MJ	DATE:	JANUARY 2026
DESIGNED		
BY : MJ	Pr No:	2026001
SIGNATURE :	DATE :	
CHECKED ON BEHALF OF DT GLOBAL		
BY : RO	Pr No:	20260001
SIGNATURE :	DATE :	

TO Global Project Number	GD Global Drawing Number	Revision
0054	3008-D	0



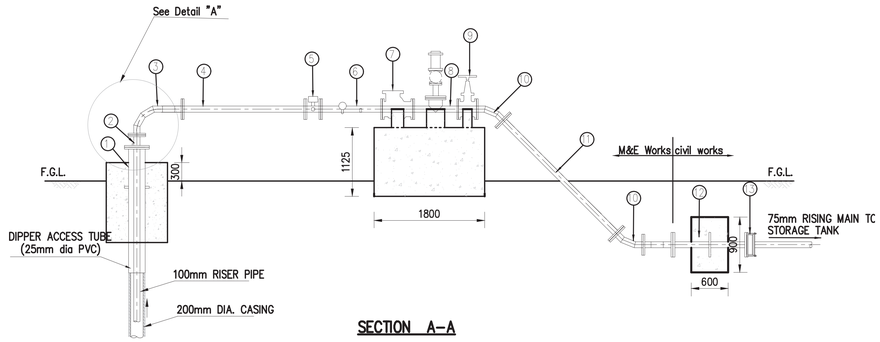
TYPICAL BOREHOLE

Scale: 1:10



BOREHEAD PLAN

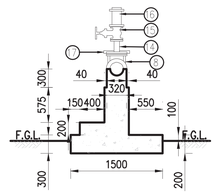
SCALE 1:50



SECTION A-A

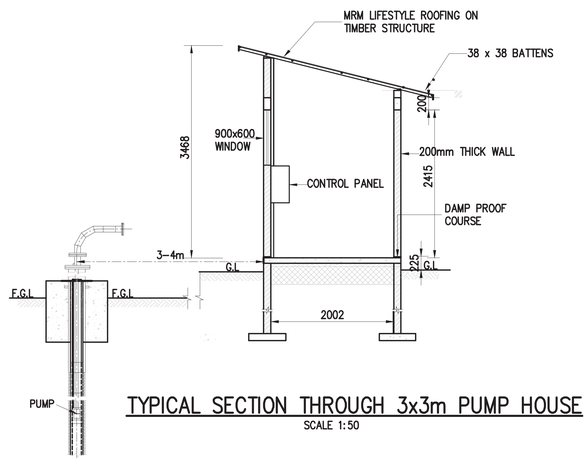
SCALE 1:50

ITEM No.	DIA. (mm)	DESCRIPTION	No.
1	250	Flange/spigot steel pipe 1500 mm long with puddle flange 650mm from flanged end	1
2	100	Borehole riser pipe flanged at top to take the bend	1
3	100	90° Long radius bend welded to single flanged 150/200 taper	1
4	100	Double flanged pipe 2000mm long	1
5	100	Double flanged flow meter	1
6	100	Double flanged pipe 1000mm long complete with a sampling port and a pressure gauge	1
7	100	Flanged non return valve	1
8	100x50	Flanged equal tee	1
9	100	Flanged gate valve	1
10	100	Flanged 45° bend	2
11	100	Double flanged pipe 2600mm long	1
12	100	Double flanged pipe 1200mm long with a central puddle flange	1
13	100	Flange adaptor	1
14	50	Double flanged pipe 200mm long	1
15	50	Flanged sluice valve	1
16	50	Double air valve	1
17	100	Blank flange with 50mm diameter flanged tapping for double air valve	1



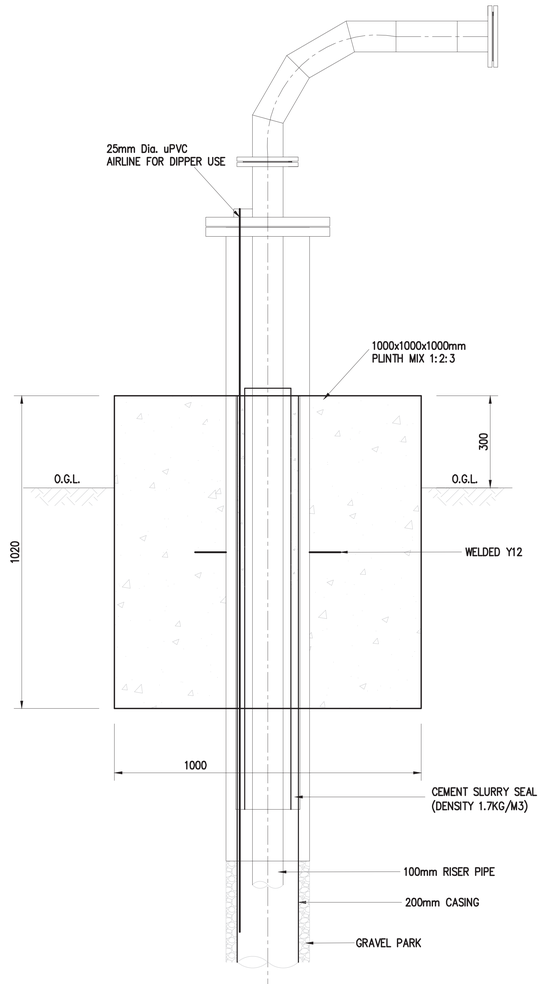
SECTION B-B

SCALE 1:50



TYPICAL SECTION THROUGH 3x3m PUMP HOUSE

SCALE 1:50



DETAIL "A"

Scale: 1:10

GENERAL NOTES

1. THIS DRAWING PROVIDES INFORMATION RELATED TO THE FORM OF THE WORK WHEN COMPLETED TOGETHER WITH GUIDANCE, WHERE FUNDAMENTAL TO THE DESIGN, FOR THE SEQUENCE OF CONSTRUCTION. THIS DRAWING DOES NOT PURPORT TO INCLUDE ANY NECESSARY PRECAUTIONS, ITEMS OR COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY. ALL SUCH PRECAUTIONS MUST BE TAKEN AND ITEMS OR COMPONENTS SUPPLIED BY THE CONTRACTOR.
2. ANY DISCREPANCIES ARE TO BE CONFIRMED WITH THE ENGINEER ON SITE PRIOR TO WORK PROCEEDING.
3. ONLY WRITTEN DIMENSIONS SHALL BE USED.
4. ALL DIMENSIONS ARE IN MILLIMETERS

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

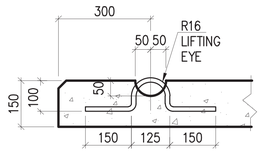
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Drawing Title

STANDARD DRAWING
TYPICAL BOREHOLE DETAILS

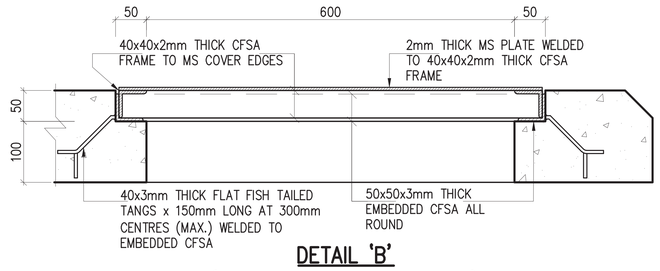
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DRAWN BY :	MJ
DRAWN DATE:	JANUARY 2026
DESIGNED BY :	MJ
DESIGNED Pr No:	2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY :	RO
CHECKED Pr No:	20260001
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3009	0



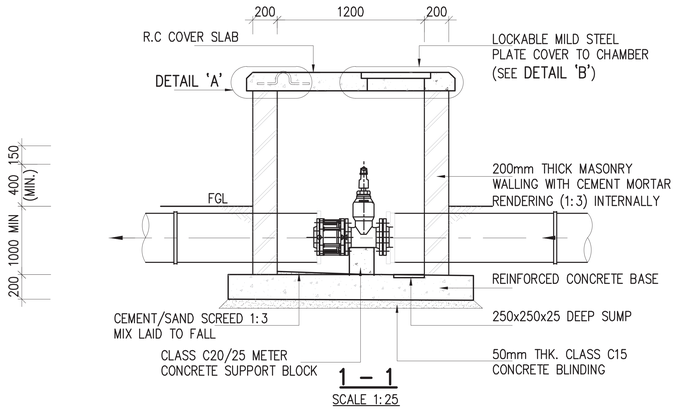
LIFTING EYE (DETAIL 'A')

SCALE 1:10



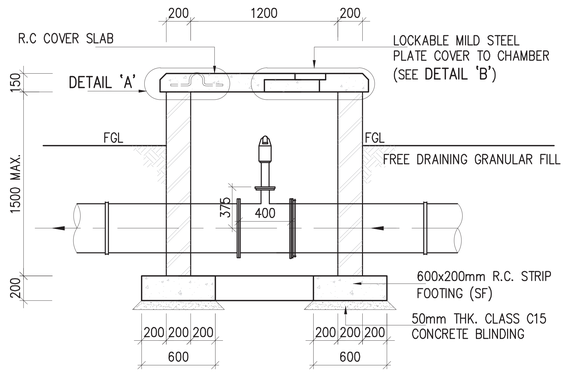
DETAIL 'B'
(MS ACCESS COVER DETAIL)

SCALE 1:5



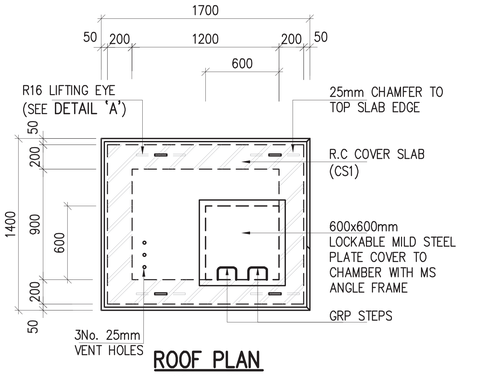
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SCALE 1:25



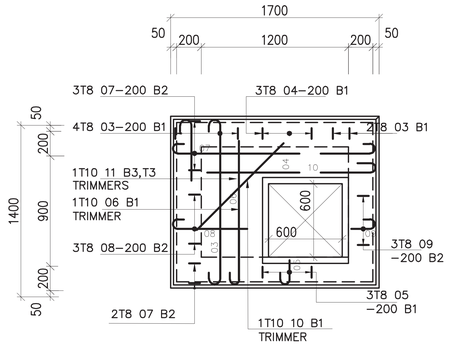
2 – 2

SCALE 1:25



ROOF PLAN

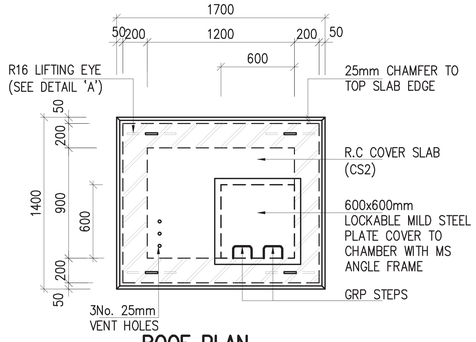
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COVER SLAB 'CS1' R.C. DETAILS

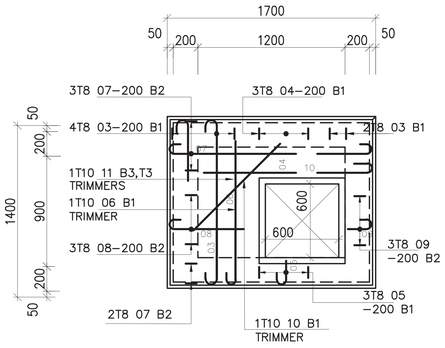
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SLUICE VALVE CHAMBER ROOF



ROOF PLAN

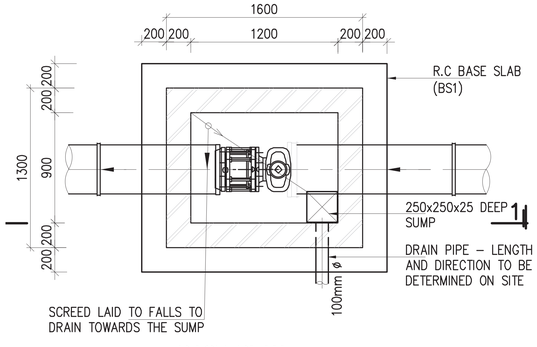
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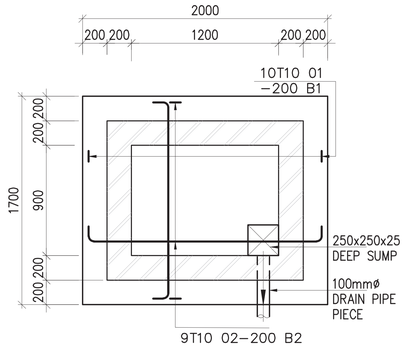
SCALE 1:25

AIR VALVE CHAMBER ROOF



BASE PLAN

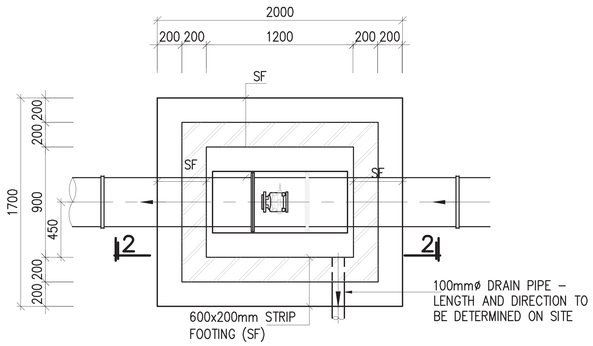
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BASE SLAB 'BS1' R.C. DETAILS

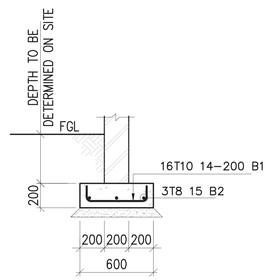
SCALE 1:25

SLUICE VALVE CHAMBER BASE



AIR VALVE CHAMBER
BASE PLAN

SCALE 1:25



600x200 THK.
STRIP FOOTING (SF)

SCALE 1:25

NOTES

1. ALL DIMENSION ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
2. ALL CONCRETE TO BE CLASS '25' UNLESS OTHERWISE STATED.
3. UNLESS OTHERWISE STATED ALL EXPOSED CONCRETE TO BE WROUGHT FINISHED.
4. ALL EXPOSED CONCRETE MEMBERS TO HAVE A CHAMFER OF 25mm UNLESS STATED OTHERWISE.
5. GRP STEPS ARE ONLY REQUIRED WHERE CHAMBER IS GREATER THAN 1000mm DEEP.
8. MINIMUM COVER TO ALL REINFORCEMENT TO BE:
   a. BASE SLAB = 50mm
   b. ROOF SLAB = 20mm
9. ALL FLANGED AND FLEXIBLE JOINTS TO BE 300mm FROM WALL.
10. PIPE FITTINGS TO CONFORM TO BS EN 545:1995.
11. THE EXACT LOCATION OF CHAMBER TO BE CONFIRMED ON SITE BY THE ENGINEER.
12. 20mm THICK PLASTER TO BE APPLIED ON ALL INTERNAL MASONRY WALL SURFACES.
13. ALL STEEL MANHOLE COVERS TO BE PAINTED AFTER FABRICATION WITH 2 COATS OF ZINC BASED PRIMER.

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan
strengthening | in every way

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

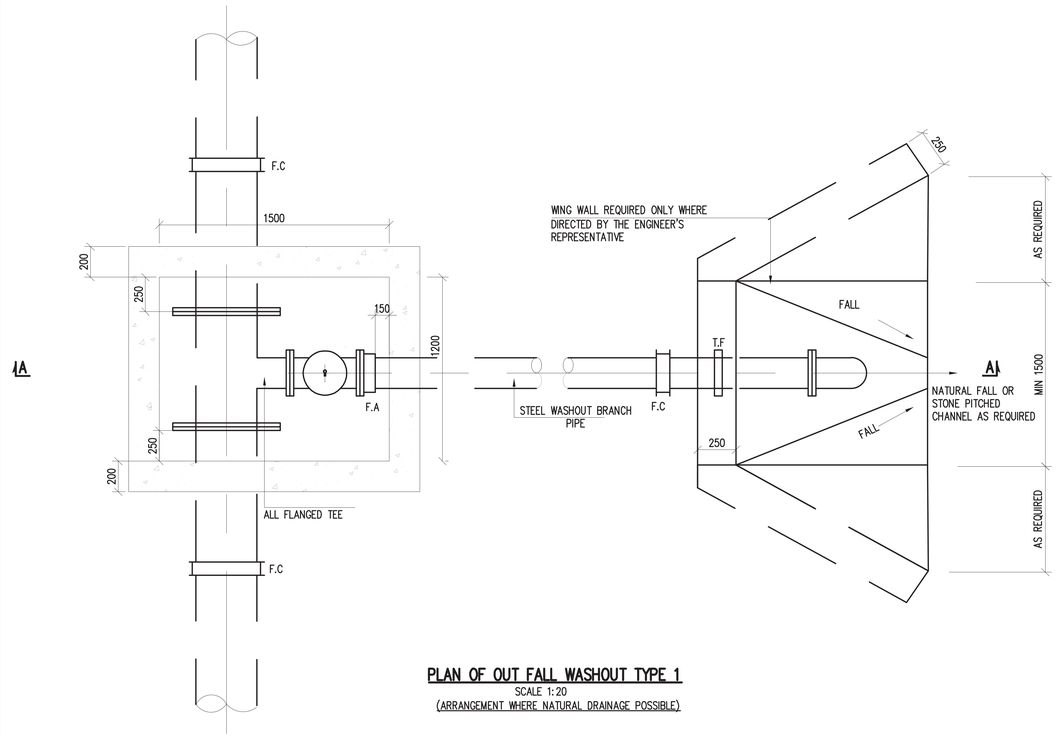
DT Global Africa
Kiganjo House, Rose Avenue, Kilimani,
Second Floor, Nairobi, Kenya
P.O. Box 76448-00508
www.dt-global.com/projects/sinaan/

Drawing Title

STANDARD DETAILS
SLUICE VALVE & AIRVALVE CHAMBER DETAILS

Scale 1:1500	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN BY: MJ	DATE: JANUARY 2026
DESIGNED BY: MJ	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY: RO	Pr No: 20260001
SIGNATURE :	DATE :

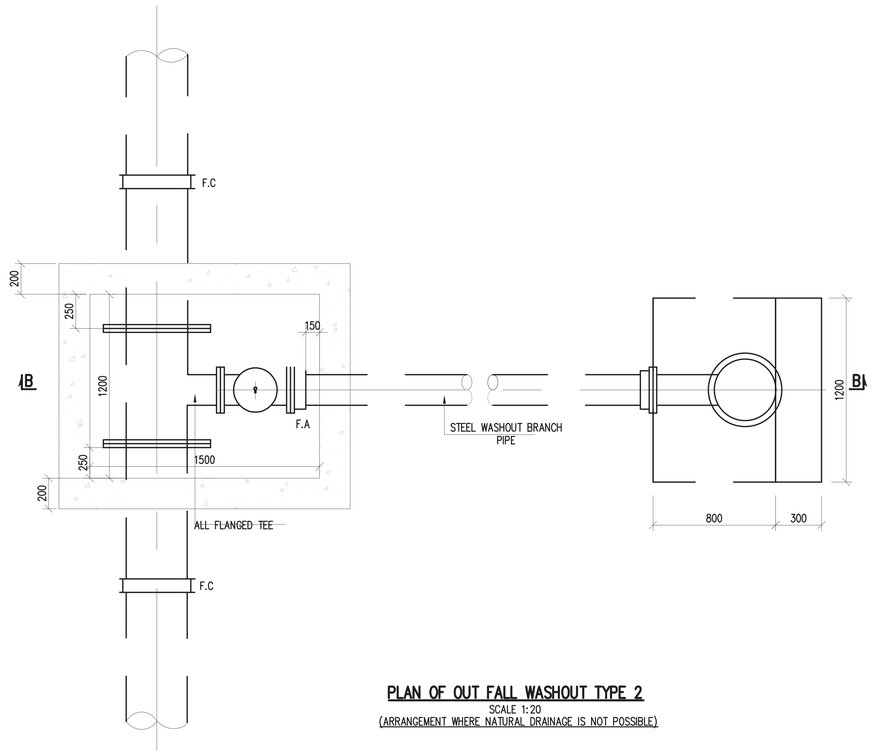
TD Global Project Number	GD Global Drawing Number	Revision
0054	3010	0



PLAN OF OUT FALL WASHOUT TYPE 1

SCALE 1:20

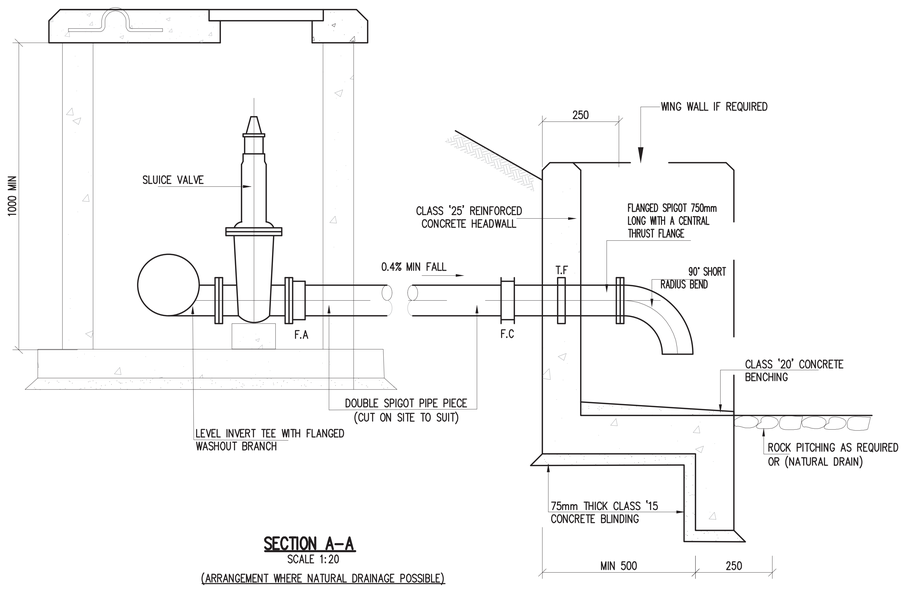
(ARRANGEMENT WHERE NATURAL DRAINAGE POSSIBLE)



PLAN OF OUT FALL WASHOUT TYPE 2

SCALE 1:20

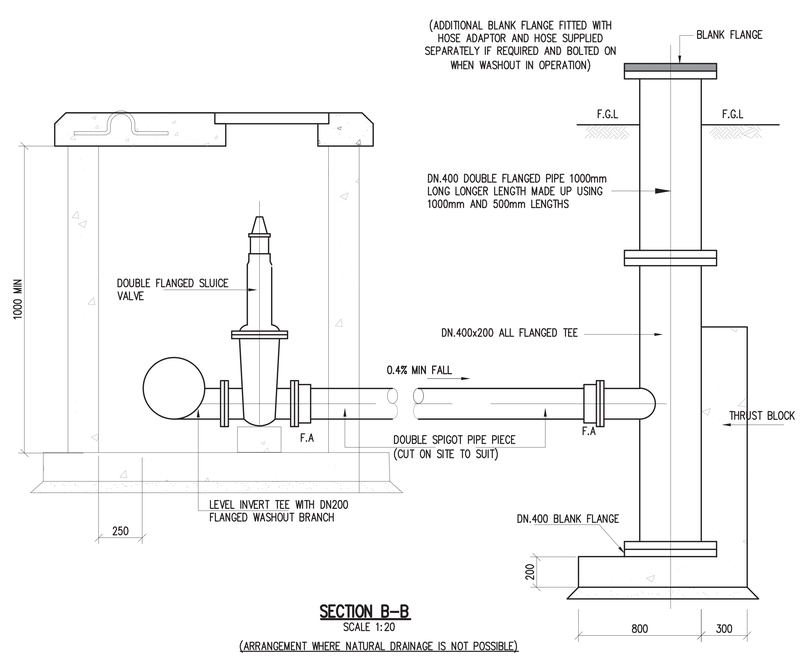
(ARRANGEMENT WHERE NATURAL DRAINAGE IS NOT POSSIBLE)



SECTION A–A

SCALE 1:20

(ARRANGEMENT WHERE NATURAL DRAINAGE POSSIBLE)



SECTION B–B

SCALE 1:20

(ARRANGEMENT WHERE NATURAL DRAINAGE IS NOT POSSIBLE)

TABLE OF WASHOUT BRANCH SIZES

MAIN DIAMETER	WASHOUT BRANCH
D	0.4D –0.6D

1. Drawing to scale on A1 paper size.
2. Drawing to be read in conjunction with other relevant drawings.
3. All dimensions and levels to be checked on site before commencing any work. Any discrepancy to be reported to the engineer.
4. Only figured dimensions to be taken from this drawing.

LEGEND

F.G.L - FINISHED GROUND LEVEL

F.C - FLEXIBLE COUPLING

F.A - FLANGE ADAPTOR

T.F -THRUST FLANGE

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

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PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

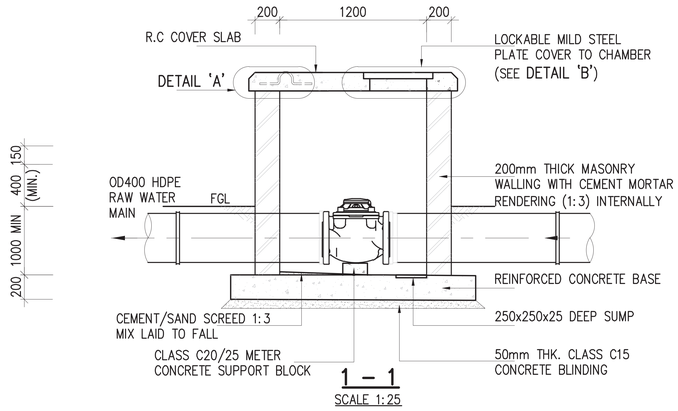
DT Global Africa
Kiganjo House, Rose Avenue, Kilimani,
Second Floor, Nairobi, Kenya
P.O. Box 76448-00508
www.dt-global.com/projects/sinaan/

Drawing Title

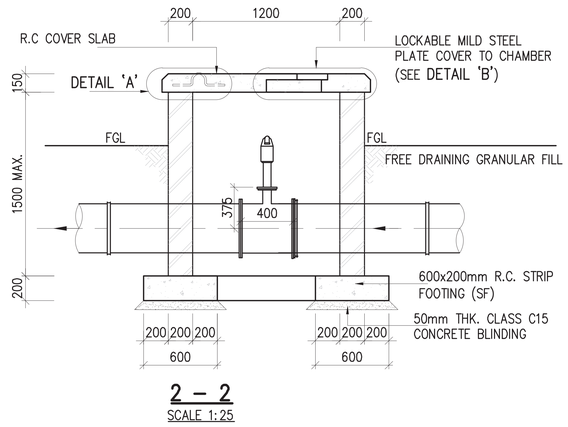
STANDARD DRAWINGS
WASHOUT DETAILS

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DRAWN BY : MJ	DATE: JANUARY 2026
DESIGNED BY : MJ	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY : RO	Pr No: 20260001
SIGNATURE :	DATE :

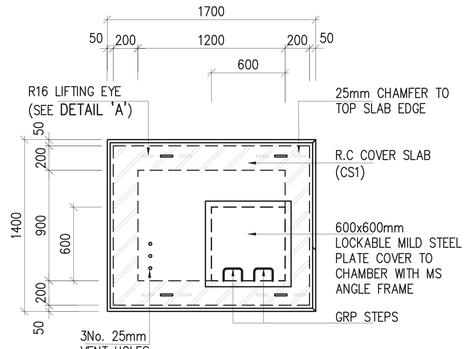
TD Global Project Number	GD Global Drawing Number	Revision
0054	3011	0



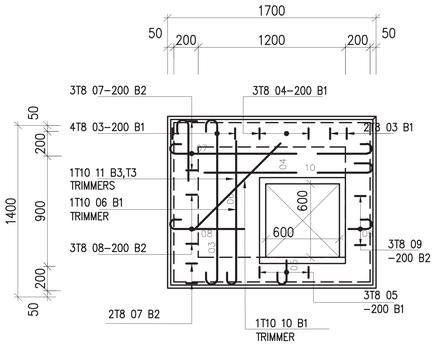
1 – 1
SCALE 1:25



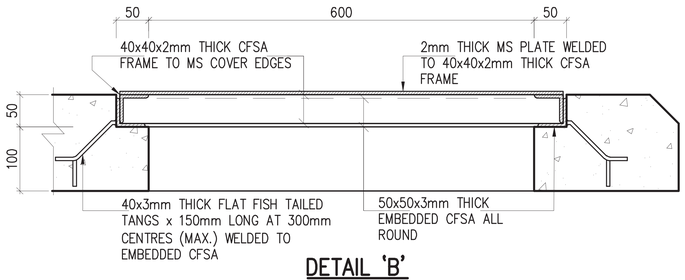
2 – 2
SCALE 1:25



ROOF PLAN
SCALE 1:25

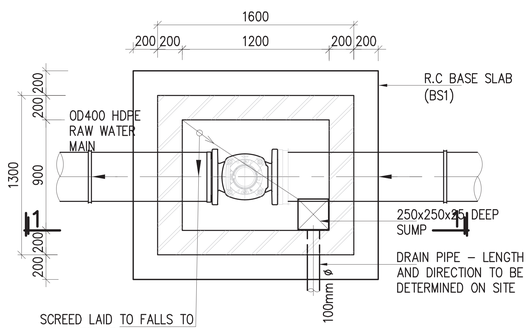


COVER SLAB 'CS1' R.C. DETAILS
SCALE 1:25

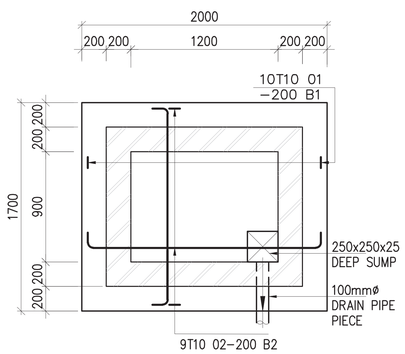


DETAIL 'B'
(MS ACCESS COVER DETAIL)
SCALE 1:5

FLOWMETER CHAMBER ROOF

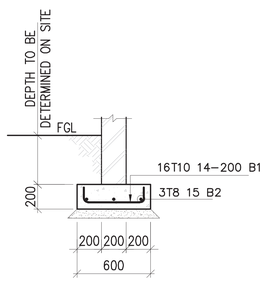


BASE PLAN
SCALE 1:25

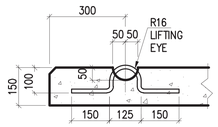


BASE SLAB 'BS1' R.C. DETAILS
SCALE 1:25

FLOWMETER CHAMBER BASE



600x200 THK. STRIP FOOTING (SF)
SCALE 1:25



LIFTING EYE (DETAIL 'A')
SCALE 1:10

1. Drawing to scale on A1 paper size.
2. Drawing to be read in conjunction with other relevant drawings.
3. All dimensions and levels to be checked on site before commencing any work. Any discrepancy to be reported to the engineer.
4. Only figured dimensions to be taken from this drawing.

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

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PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

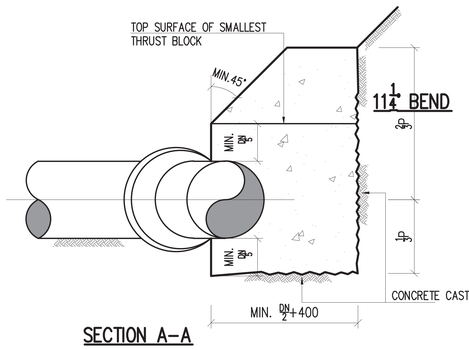
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P.O. Box 76448-00508
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Drawing Title

STANDARD DRAWINGS
FLOW METER CHAMBER

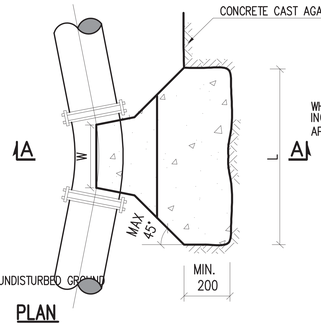
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DRAWN BY :	MJ
DRAWN DATE:	JANUARY 2026
DESIGNED BY :	MJ
DESIGNED Pr No:	2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY :	RO
CHECKED Pr No:	20260001
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3012	0



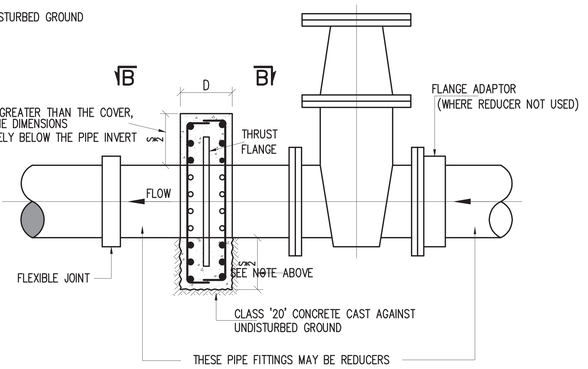
SECTION A–A

N.T.S.



PLAN

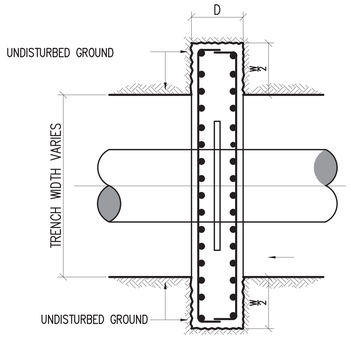
N.T.S.



ELEVATION

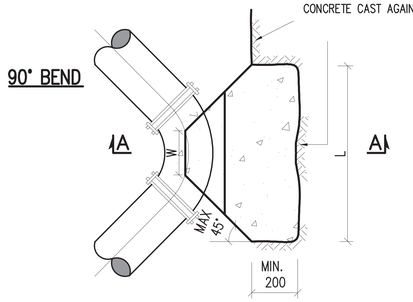
ANCHOR BLOCKS FOR SLUICE VALVES

N.T.S.



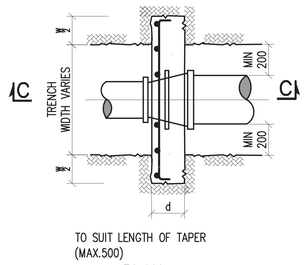
SECTION B–B

N.T.S.



PLAN

N.T.S.

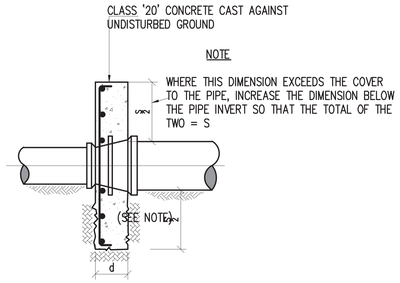


TO SUIT LENGTH OF TAPER (MAX.500)

PLAN

ANCHOR BLOCKS FOR TAPERS

N.T.S.



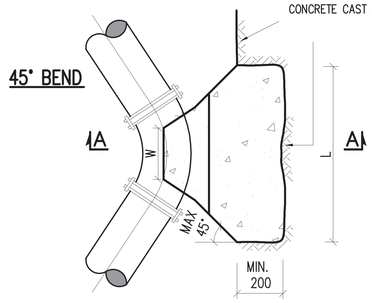
SECTION C–C

N.T.S.

TABLE 1		
TEST HEAD (m)	MAIN SIZE (mm)	BLOCK TYPE
120 SEE NOTE 8	700	E
	600	E
	500	D
	450	D
	400	D
	350	C
	300	B
	250	B
	200	A
	150	A
	<100	A

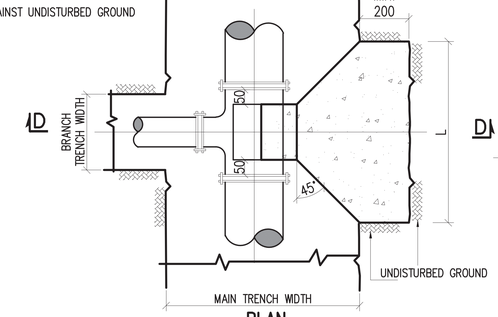
TABLE OF ANCHOR BLOCKS FOR SLUICE VALVES

(CLASS '20' CONCRETE)



PLAN

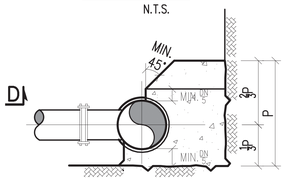
N.T.S.



PLAN

THRUST BLOCKS FOR TEES

N.T.S.



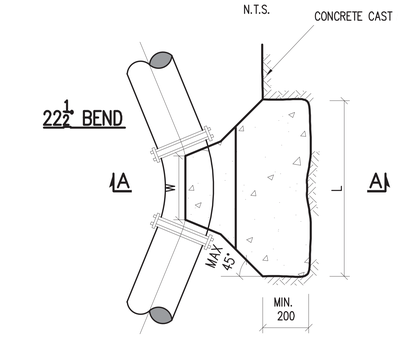
SECTION D–D

N.T.S.

TABLE 2													
TEST HEAD (m)	MAIN SIZE (mm)	DIMENSIONS (S)m x (W)m											
		TAPER (SMALLER SIZE)mm											
		800	700	600	500	450	400	350	300	250	200	150	<100
120 SEE NOTE 8	1000	D	—	—	—	—	—	—	—	—	—	—	—
	900	C	D	—	—	—	—	—	—	—	—	—	—
	800	—	C	D	—	—	—	—	—	—	—	—	—
	700	—	—	C	D	—	—	—	—	—	—	—	—
	600	—	—	—	C	C	D	—	—	—	—	—	—
	500	—	—	—	—	A	B	C	—	—	—	—	—
	450	—	—	—	—	—	A	B	C	—	—	—	—
	400	—	—	—	—	—	—	A	B	B	—	—	—
	350	—	—	—	—	—	—	—	A	B	B	—	—
	300	—	—	—	—	—	—	—	—	A	A	B	B
	250	—	—	—	—	—	—	—	—	—	A	A	B
	<200	—	—	—	—	—	—	—	—	—	—	A	A

TABLE OF ANCHOR BLOCKS FOR TAPERS

(CLASS '20' CONCRETE)



PLAN

HORIZONTAL BENDS

N.T.S.

TABLE 3												
TEST HEAD (m)	MAIN SIZE (mm)	DIMENSIONS (L)m x (P)m										
		BRANCH SIZE (mm)										
		800	700	600	500	450	400	350	300	250	200	<150
120 SEE NOTE 8	1000	2.4x2.1	1.8x2.1	4.1x2.1	1.9x2.1	0.8x2.1	0.6x2.1	0.5x2.1	0.4x2.1	0.3x2.1	0.3x2.1	0.3x2.1
	900	2.6x1.9	2.0x1.9	1.5x1.9	1.0x1.9	0.9x1.9	0.7x1.9	0.5x1.9	0.4x1.9	0.3x1.9	0.3x1.9	0.3x1.9
	800	2.9x1.7	2.3x1.7	1.7x1.7	1.1x1.7	0.9x1.7	0.8x1.7	0.6x1.7	0.4x1.7	0.3x1.7	0.3x1.7	0.3x1.7
	700	—	2.5x1.5	1.9x1.5	1.3x1.5	1.0x1.5	0.9x1.5	0.7x1.5	0.5x1.5	0.4x1.5	0.3x1.5	0.3x1.5
	600	—	—	2.2x1.3	1.5x1.3	1.2x1.3	1.0x1.3	0.8x1.3	0.6x1.3	0.4x1.3	0.3x1.3	0.3x1.3
	500	—	—	—	1.8x1.1	1.4x1.1	1.2x1.1	0.9x1.1	0.7x1.1	0.5x1.1	0.3x1.1	0.3x1.1
	450	—	—		—	1.6x1.0	1.3x1.0	1.0x1.0	0.7x1.0	0.5x1.0	0.3x1.0	0.3x1.0
	400	—	—	—	—	—	1.4x0.9	1.0x0.9	0.8x0.9	0.6x0.9	0.4x0.9	0.3x0.9
	350	—	—	—	—	—	—	1.2x0.8	0.9x0.8	0.6x0.8	0.4x0.8	0.3x0.8
	300	—	—	—	—	—	—	—	1.0x0.7	0.7x0.7	0.5x0.7	0.3x0.7
	250	—	—	—	—	—	—	—	—	0.8x0.6	0.5x0.6	0.3x0.6
	< 200	—	—	—	—	—	—	—	—	—	0.6x0.5	0.4x0.5

TABLE OF THRUST BLOCKS FOR TEES

(CLASS '15' CONCRETE)

TABLE 4					
BLOCK TYPE	S (m)	W (m)	d (m)	MAIN STEEL	DISTRIBUTION STEEL
A	0.5	0.5	300	Y10 – 150	Y10 – 150
B	0.5	0.9	300	Y10 – 150	Y10 – 150
C	0.5	1.2	400	Y12 – 150	Y10 – 150
D	0.6	1.8	500	Y16 – 150	Y12 – 150
E	1.0	2.2	500	Y20 – 150	Y12 – 150

DETAILS OF ANCHOR BLOCKS FOR TAPERS AND SLUICE VALVES

1. Drawing to scale on A1 paper size.
2. Drawing to be read in conjunction with other relevant drawings.
3. All dimensions and levels to be checked on site before commencing any work. Any discrepancy to be reported to the engineer.
4. Only figured dimensions to be taken from this drawing.

REFERENCE DRAWINGS

ISSUED FOR APPROVAL	RO		0
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

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sinaantion | in every way

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

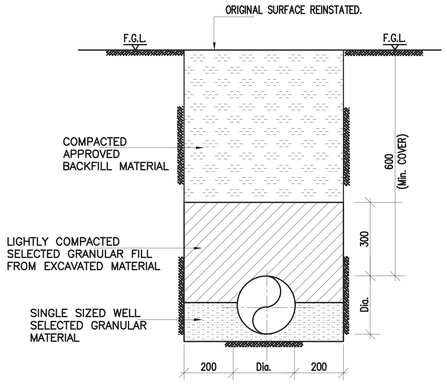
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Drawing Title

STANDARD DRAWINGS
ANCHOR & THRUST BLOCK DETAILS

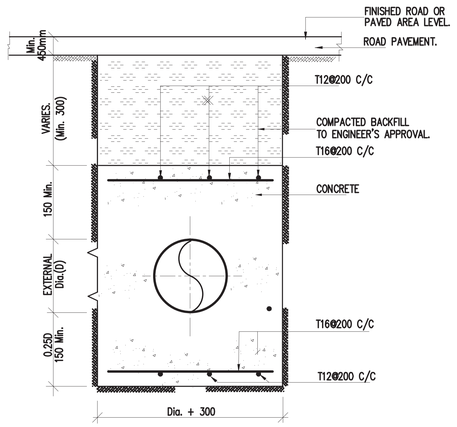
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DESIGNED BY: MJ	Pr No: 2026001
SIGNATURE :	DATE :
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SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3013	0



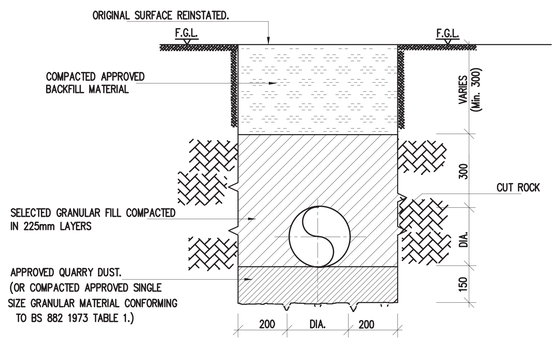
TRENCH IN GRANULAR MATERIAL

SCALE 1:10



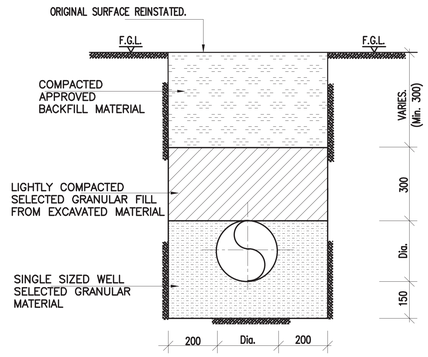
FOR HDPE PIPES AT ROAD CROSSINGS AND CULVERTS

SCALE 1:10



TRENCH IN ROCK

SCALE 1:10



TRENCH IN BLACK COTTON OR UNSUITABLE SOIL

SCALE 1:10

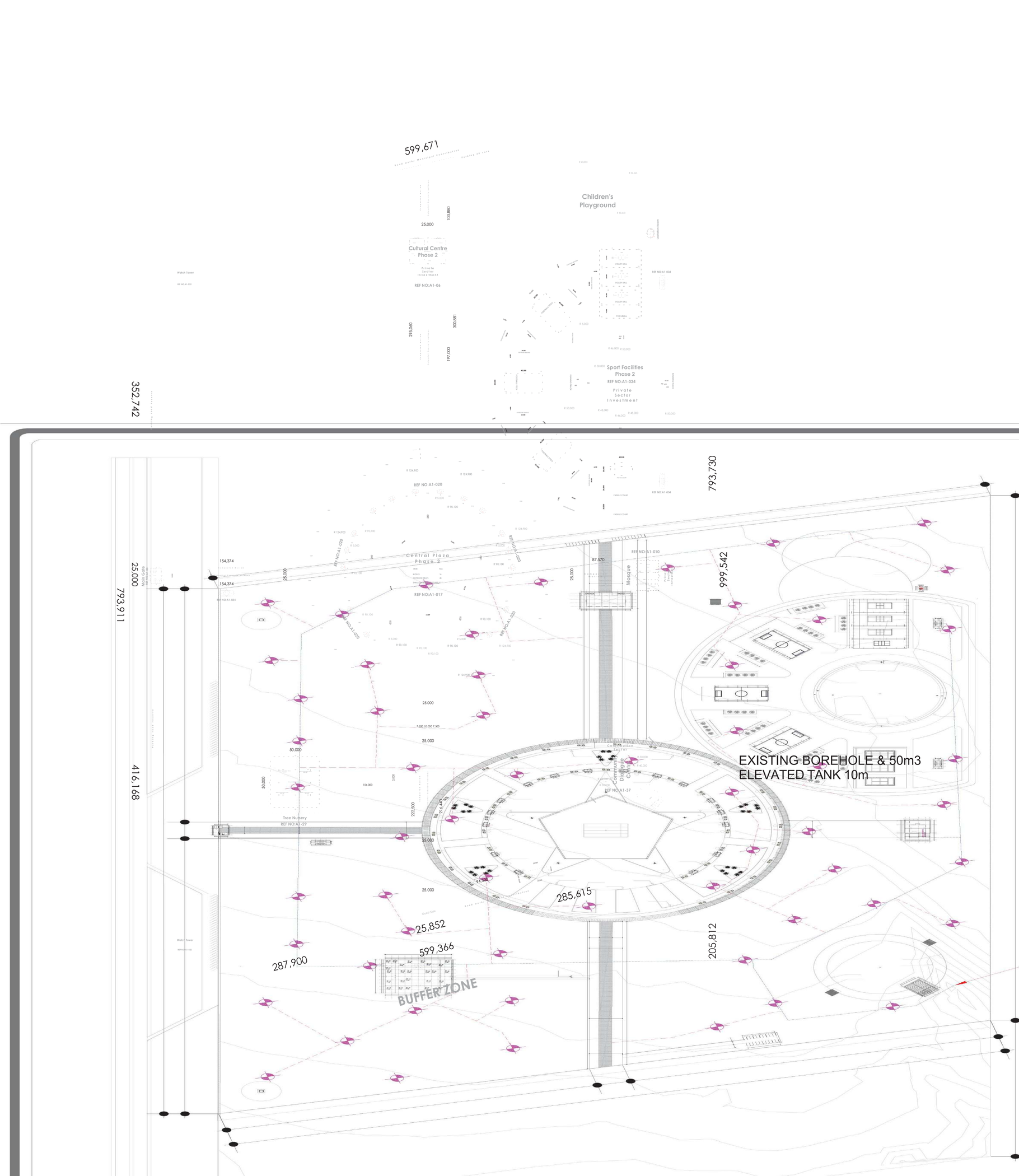
NOTES:

1. ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED
2. ALL CONCRETE IS CLASS 20/20.
3. CONCRETE FILLING CLASS 25/20 VIBRATED AND CURED IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATION CLAUSES.
4. TOLERANCE ON OVERALL SIZE 3mm.
5. ALL HAUNCHES ARE CLASS 15/40 CONCRETE AS INDICATED ON THE SPECIFICATION OVER EXCAVATION IS MADE GOOD IN CONCRETE CLASS 15/40.

ABBREVIATIONS

C.I. – CAST IRON
M.S. – MILD STEEL
P.C.C. – PRECAST CEMENT CONCRETE
n.e. – NOT EXCEEDING
m – METRE
B.S. – BRITISH STANDARD
mm – MILIMETER
c/c – CENTRE TO CENTRE
T12 – TWISTED BAR 12mm

REFERENCE DRAWINGS



MASTER PLAN NON-POTABLE WATER - GENERAL LAYOUT

GENERAL NOTES

1.ALL DIMENSIONS TO BE CHECKED ON SITE. WRITTEN DIMENSIONS RULES OVER SCALED DRAWINGS.
ANY DISCREPANCY IN DIMENSIONS TO BE REPORTED TOTHE ARCHITECT BEFORE PROCEEDING.
2.DEPTH AT FOUNDATION TO BE DETERMINED ON SITE ALL FOUNDATIONS R.C. COLUMNS AND R.C. WORKS TO STRUCTURAL ENGINEERS' DETAIL.
3.HEAVY DUTY POLYTHENE SHEETING AND TERMITE TREATMENT TO BE PROVIDED UNDER GROUND FLOORSLAB. DPC TO BE THREE PLY BITUMINOUS FELT LAID UNDER ALL WALLS.
4. P.V DENOTES PERMANENT VENTILATION, F.L DENOTES FANLIGHT ABOVE.
5. ALL WALLS TO BE REINFORCED WITH HOOP IRON AT EVERY ALTERNATIVE COURSE.
6. ALL SANITARY WORKS TO BE EXECUTED IN ACCORDANCE WITH M.O.H. RULES AND REGULATIONS.
7. ALL DRAINS UNDER BUILDING, DRIVEWAY, AND PARKING TO BE 150mm CAST IRON PIPE ENCASED
IN 150mm CONCRETE INSPECTION CHAMBERS WITHIN BUILDING TOBE FITTED WITH HEAVY DUTY DOUBLE SEAL AIR TIGHT COVERS

FIRE FIGHTING NOTES

1.ALTERNATIVE MEANS OF LIGHTING USING SECONDARY MEANS TO BE INSTALLED.
2.HEAT/SMOKE DETECTORS TO BE INSTALLED.
3.BREAK-GLASS FIRE ALARM SYSTEM TO BE INSTALLED.
4.4500LTR WATER TANK WITH A BOOSTER PUMP TO BE PROVIDED.
5.1x9LTR WATER/CO2 AT EACH FIRE POINT TO BE PROVIDED.
6.1x10KG DRY POWDER AT EACH FIRE POINTTO BE PROVIDED.
7.FIRE NOTICE AND FIRE EXIT SIGNS AT STRATEGIC POSITIONS TO BE PROVIDED.
8.1000 GALLON WATER FOR FIRE FIGHTING TO BE PROVIDED.
9.1 NO. 4.5KG FIRE EXTINGUISHER AND 1 NO.BLANKET TO BE PROVIDED.
10.SPRINKLER SYSTEM TO BE INSTALLED IN THE PARKING.
11.6 NO. HYDRAULIC HOSE REELS 30 METRES LONG WITH OPEN SHUT OFF JET NOZZLE TO BE PROVIDED.

CLIENT :
SINAN PROJECTS

PROJECT :
GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

PLOT NO:

ROAD:

LOCATION:
SOMALIA

TOWN:
GAROWE

PROJECT MANAGER/ARCHITECT:
IRFAN HOBAYA

DRAWING TITLE :
Non-Potable Water

SCALE:
AS SHOWN

DRAWING NO:
AA-308-

PROJECT NO:
AA-308-GP-SM

REV NO:

DRAWN BY:

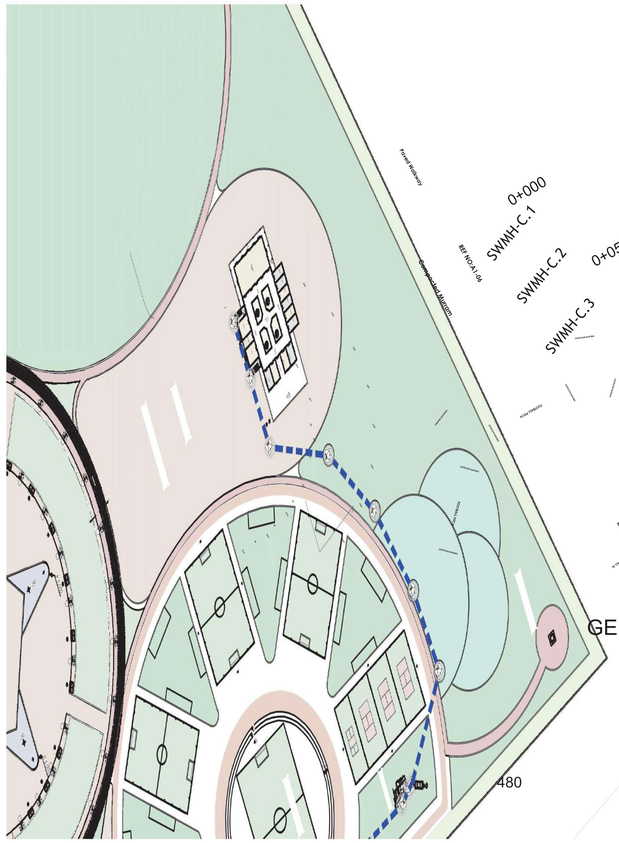
CHECKED BY :
I.H

DATE :
25/06/2026

CAD FILE:
PC MAC

DT Global

GENERATED ON 25/06/2026 07:48


Forest Reserve
Community Access
REF NO:A1-04
Cultural Centre
0+000
SWMH-C.1
SWMH-C.2
0+050
SWMH-C.3
0+100
SWMH-C.4
0+150
SWMH-C.5
0+200
SWMH-C.6
Children's Playground
0+250
SWMH-C.7
Watch Tower
REF NO:A1-03
0+300
0+837
SWMH-C.8
0+800
0+324
REF NO:A1-04
Forest Reserve
Forest Reserve
Forest Reserve



GENERAL LAYOUT - PLAN

SCALE 1:1000

SEWER LINE 2
LONGITUDINAL PROFILE

GENERAL NOTES

1. THIS DRAWING PROVIDES INFORMATION RELATED TO THE FORM OF THE WORK WHEN COMPLETED TOGETHER WITH GUIDANCE, WHERE FUNDAMENTAL TO THE DESIGN, FOR THE SEQUENCE OF CONSTRUCTION. THIS DRAWING DOES NOT PURPORT TO INCLUDE ANY NECESSARY PRECAUTIONS, ITEMS OR COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY. ALL SUCH PRECAUTIONS MUST BE TAKEN AND ITEMS OR COMPONENTS SUPPLIED BY THE CONTRACTOR.
2. ANY DISCREPANCIES ARE TO BE CONFIRMED WITH THE ENGINEER ON SITE PRIOR TO WORK PROCEEDING.
3. ONLY WRITTEN DIMENSIONS SHALL BE USED.
4. ALL DIMENSIONS ARE IN MILLIMETERS

LEGEND:

SEWER LINE

MANHOLE

REFERENCE DRAWINGS

Revision Details	By Chk	Date	Rev
ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

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Kiganjo House, Rose Avenue, Kilimani,
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Drawing Title

SEWER LINE 2
PLAN AND PROFILE

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DRAWN BY : MJ		DATE: JANUARY 2026	
DESIGNED BY : MJ		Pr No: 2026001	
SIGNATURE :		DATE :	
CHECKED ON BEHALF OF DT GLOBAL BY : RO		Pr No: 20260001	
SIGNATURE :		DATE :	

TD Global Project Number	GD Global Drawing Number	Revision
0054	3023	0

Sewer				
STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT	MANHOLE COORDINATES
SWMH–C.1	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 471.90 HEIGHT: 1.65		SWP–C.1 DIA: ø150 mm INV OUT =470.24 L=29.149m SLOPE: 0.50%	N: 931390.1459 E: 220419.8883
SWMH–C.2	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 470.83 HEIGHT: 0.77	SWP–C.1 DIA: ø150 mm INV IN =470.09 L=29.149m SLOPE: 0.50%	SWP–C.2 DIA: ø150 mm INV OUT =470.07 L=34.784m SLOPE: 0.50%	N: 931405.7135 E: 220446.0787
SWMH–C.3	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 470.69 HEIGHT: 0.82	SWP–C.2 DIA: ø150 mm INV IN =469.89 L=34.784m SLOPE: 0.50%	SWP–C.3 DIA: ø150 mm INV OUT =469.87 L=53.304m SLOPE: 0.50%	N: 931423.1466 E: 220477.5436
SWMH–C.4	TYPE: Concentric Cylindrical Structure SI RIM = 470.27 HEIGHT: 0.70	SWP–C.3 DIA: ø150 mm INV IN =469.59 L=53.304m SLOPE: 0.50%	SWP–C.4 DIA: ø150 mm INV OUT =469.57 L=48.701m SLOPE: 0.50%	N: 931477.4638 E: 220481.3603
SWMH–C.5	TYPE: Concentric Cylindrical Structure SI RIM = 470.00 HEIGHT: 0.69	SWP–C.4 DIA: ø150 mm INV IN =469.32 L=48.701m SLOPE: 0.50%	SWP–C.5 DIA: ø150 mm INV OUT =469.31 L=49.671m SLOPE: 0.50%	N: 931519.9258 E: 220507.3441
SWMH–C.6	TYPE: Concentric Cylindrical Structure SI RIM = 470.00 HEIGHT: 0.96	SWP–C.5 DIA: ø150 mm INV IN =469.06 L=49.671m SLOPE: 0.50%	SWP–C.6 DIA: ø150 mm INV OUT =469.04 L=42.938m SLOPE: 0.50%	N: 931555.3693 E: 220543.8619
SWMH–C.7	TYPE: Concentric Cylindrical Structure SI RIM = 469.99 HEIGHT: 1.20	SWP–C.6 DIA: ø150 mm INV IN =468.82 L=42.938m SLOPE: 0.50%	SWP–C.7 DIA: ø150 mm INV OUT =468.79 L=56.233m SLOPE: 0.50%	N: 931579.5773 E: 220581.0545
SWMH–C.8	TYPE: Concentric Cylindrical Structure SI RIM = 470.16 HEIGHT: 1.82	SWP–C.27 DIA: ø150 mm INV IN =468.34 L=3.518m SLOPE: 0.49% SWP–C.7 DIA: ø150 mm INV IN =468.50 L=56.233m SLOPE: 0.50%		N: 931554.1536 E: 220632.8869
SWMH–C.9	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 474.04 HEIGHT: 0.65		SWP–C.8 DIA: ø150 mm INV OUT =473.39 L=49.543m SLOPE: 0.50%	N: 930876.5346 E: 220738.1391
SWMH–C.10	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 474.00 HEIGHT: 0.92	SWP–C.8 DIA: ø150 mm INV IN =473.13 L=49.543m SLOPE: 0.50%	SWP–C.9 DIA: ø150 mm INV OUT =473.08 L=49.806m SLOPE: 0.50%	N: 930910.0938 E: 220776.1464
SWMH–C.11	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 473.88 HEIGHT: 1.09	SWP–C.9 DIA: ø150 mm INV IN =472.83 L=49.806m SLOPE: 0.50%	SWP–C.10 DIA: ø150 mm INV OUT =472.80 L=48.699m SLOPE: 0.50%	N: 930944.1941 E: 220814.3475
SWMH–C.12	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 473.98 HEIGHT: 1.47	SWP–C.10 DIA: ø150 mm INV IN =472.55 L=48.699m SLOPE: 0.50%	SWP–C.11 DIA: ø150 mm INV OUT =472.51 L=51.661m SLOPE: 0.50%	N: 930977.5311 E: 220851.8762
SWMH–C.13	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 474.00 HEIGHT: 1.80	SWP–C.11 DIA: ø150 mm INV IN =472.24 L=51.661m SLOPE: 0.50%	SWP–C.12 DIA: ø150 mm INV OUT =472.20 L=47.186m SLOPE: 0.50%	N: 931012.9302 E: 220891.5354
SWMH–C.14	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 474.93 HEIGHT: 3.00	SWP–C.12 DIA: ø150 mm INV IN =471.96 L=47.186m SLOPE: 0.50%	SWP–C.13 DIA: ø150 mm INV OUT =471.93 L=25.940m SLOPE: 0.50%	N: 931059.1665 E: 220906.7812
SWMH–C.15	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 475.00 HEIGHT: 3.27	SWP–C.13 DIA: ø150 mm INV IN =471.79 L=25.940m SLOPE: 0.50%	SWP–C.14 DIA: ø150 mm INV OUT =471.73 L=54.612m SLOPE: 0.50%	N: 931085.2576 E: 220915.2759

Sewer				
STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT	MANHOLE COORDINATES
SWMH–C.16	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 473.00 HEIGHT: 1.59	SWP–C.14 DIA: ø150 mm INV IN =471.45 L=54.612m SLOPE: 0.50%	SWP–C.15 DIA: ø150 mm INV OUT =471.41 L=48.816m SLOPE: 0.50%	N: 931131.4609 E: 220883.4384
SWMH–C.17	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 471.82 HEIGHT: 0.77	SWP–C.15 DIA: ø150 mm INV IN =471.15 L=48.816m SLOPE: 0.50%	SWP–C.16 DIA: ø150 mm INV OUT =471.05 L=49.359m SLOPE: 0.50%	N: 931172.7855 E: 220855.1239
SWMH–C.18	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 471.46 HEIGHT: 0.72	SWP–C.16 DIA: ø150 mm INV IN =470.80 L=49.359m SLOPE: 0.50%	SWP–C.17 DIA: ø150 mm INV OUT =470.73 L=49.468m SLOPE: 0.50%	N: 931214.4859 E: 220826.6980
SWMH–C.19	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 471.14 HEIGHT: 0.68	SWP–C.17 DIA: ø150 mm INV IN =470.48 L=49.468m SLOPE: 0.50%	SWP–C.18 DIA: ø150 mm INV OUT =470.46 L=20.418m SLOPE: 0.50%	N: 931256.1517 E: 220798.0758
SWMH–C.20	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 471.00 HEIGHT: 0.69	SWP–C.18 DIA: ø150 mm INV IN =470.35 L=20.418m SLOPE: 0.50%	SWP–C.19 DIA: ø150 mm INV OUT =470.31 L=47.293m SLOPE: 0.50%	N: 931272.8192 E: 220784.5291
SWMH–C.21	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 470.98 HEIGHT: 0.96	SWP–C.20 DIA: ø150 mm INV IN =470.03 L=55.461m SLOPE: –0.50% SWP–C.19 DIA: ø150 mm INV IN =470.07 L=47.293m SLOPE: 0.50%		N: 931316.7964 E: 220764.0781
SWMH–C.22	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 470.78 HEIGHT: 1.09	SWP–C.21 DIA: ø150 mm INV IN =469.69 L=7.755m SLOPE: –0.50%	SWP–C.20 DIA: ø150 mm INV OUT =469.74 L=55.461m SLOPE: –0.50%	N: 931369.4630 E: 220742.6132
SWMH–C.23	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 470.72 HEIGHT: 1.16	SWP–C.22 DIA: ø150 mm INV IN =469.56 L=39.642m SLOPE: –0.50%	SWP–C.21 DIA: ø150 mm INV OUT =469.64 L=7.755m SLOPE: –0.50%	N: 931374.8948 E: 220735.1207
SWMH–C.24	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 470.39 HEIGHT: 1.08	SWP–C.23 DIA: ø150 mm INV IN =469.30 L=57.915m SLOPE: –0.50%	SWP–C.22 DIA: ø150 mm INV OUT =469.36 L=39.642m SLOPE: –0.50%	N: 931413.9305 E: 220722.2149
SWMH–C.25	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 470.17 HEIGHT: 1.21	SWP–C.24 DIA: ø150 mm INV IN =468.95 L=49.100m SLOPE: –0.50%	SWP–C.23 DIA: ø150 mm INV OUT =469.01 L=57.915m SLOPE: –0.50%	N: 931468.8866 E: 220699.6360
SWMH–C.26	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 470.12 HEIGHT: 1.43	SWP–C.25 DIA: ø150 mm INV IN =468.69 L=43.754m SLOPE: –0.50%	SWP–C.24 DIA: ø150 mm INV OUT =468.70 L=49.100m SLOPE: –0.50%	N: 931505.2241 E: 220664.4245
SWMH–C.27	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 470.00 HEIGHT: 1.57	SWP–C.26 DIA: ø150 mm INV IN =468.43 L=7.090m SLOPE: –0.50%	SWP–C.25 DIA: ø150 mm INV OUT =468.46 L=43.754m SLOPE: –0.50%	N: 931544.8932 E: 220642.6481
SWMH–C.28	TYPE: Concentric Structure 1,500 dia 530 frame 900 cone RIM = 470.00 HEIGHT: 1.64		SWP–C.27 DIA: ø150 mm INV OUT =468.37 L=3.518m SLOPE: 0.49% SWP–C.26 DIA: ø150 mm INV OUT =468.39 L=7.090m SLOPE: –0.50%	N: 931550.0607 E: 220635.7879

REFERENCE DRAWINGS

ISSUED FOR CONSTRUCTION	RO		0
ISSUED FOR APPROVAL	AM		A
Revision Details	By / Chk	Date	Rev

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan
shashilee | in every way

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

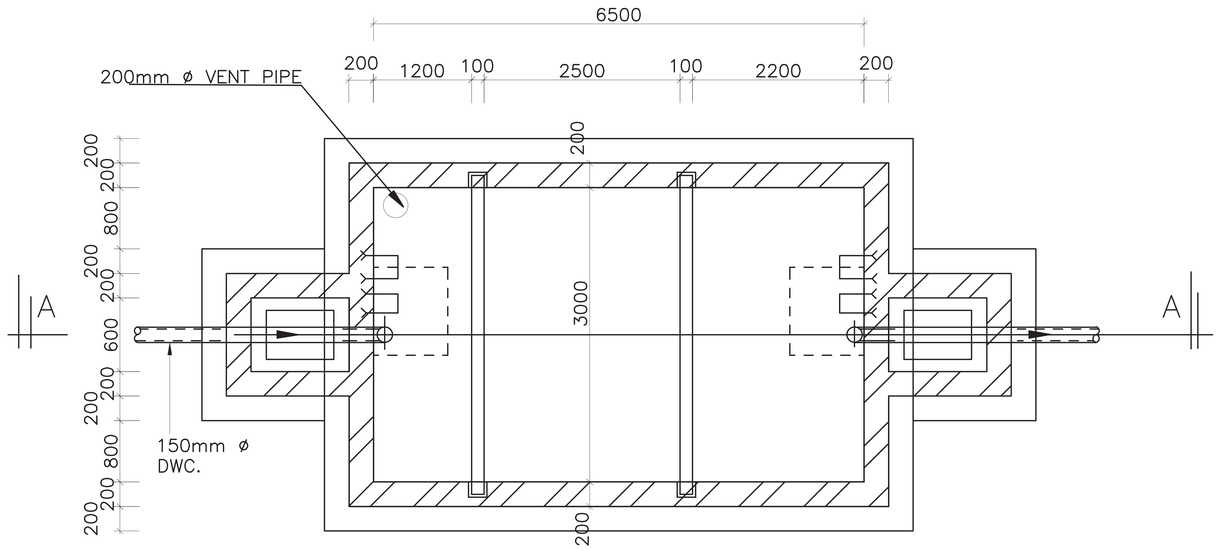
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Kiganjo House, Rose Avenue, Kilimani,
Second Floor, Nairobi, Kenya
P.O. Box 76448-00508
www.dt-global.com/projects/sinaan/

Drawing Title

SETTING OUT DETAILS

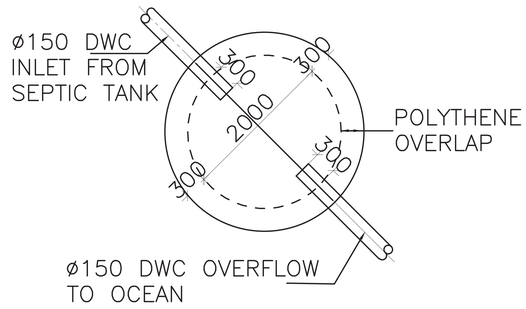
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DESIGNED BY: MJ	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY: RO	Pr No: 20260001
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3023-A	0

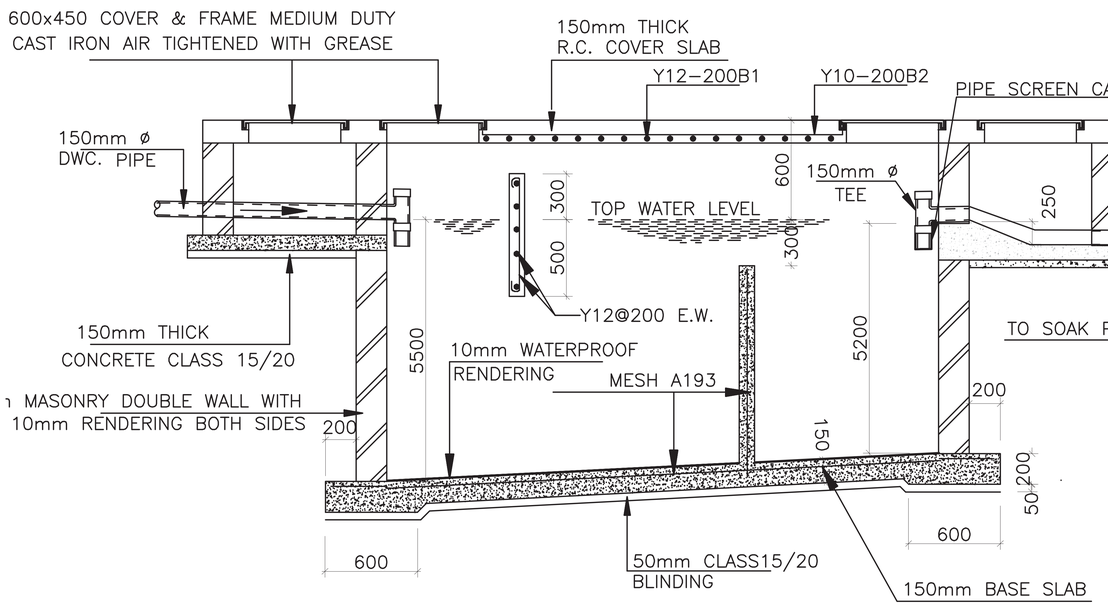


PLAN: SEPTIC TANK

(N.T.S.)



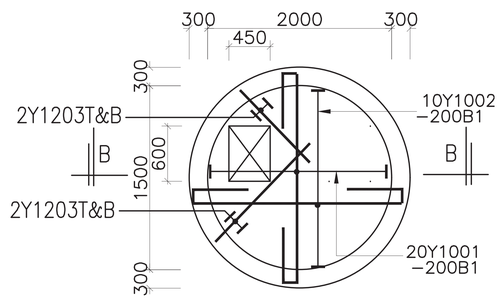
SOAK PIT
DETAILS



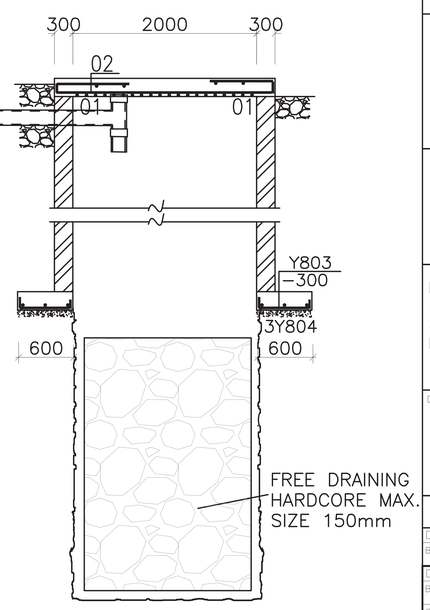
SECTION A – A

(N.T.S.)

SEPTIC TANK DETAILS



SOAK PIT COVER SLAB



SECTION B–B

GENERAL NOTES

1. Concrete to be 1:2:4, 20mm graded and to be according to general specifications.
2. Reinforcements– mild steel bars to B.S.S. 785 .
3. Cover of bars from face of concrete to be 20mm.
4. 12mm cement rendering on the walls and scum baffles.
5. Depth of the septic tank is relative to the last manhole depth allowing for an inlet slope of 0.5% from the manhole.
6. Depth of soak pit as specified or past any rock layer if any for free draining as directed by the Engineers on site.
7. All discrepancies to be reported to the Engineer before proceeding.
8. Soak pit to be infilled with loose covered hardcore fill and covered up with red soil 1000mm deep.
9. Waterproofing to be Sikagard – 63 N, 2–PART EPOXY PROTECTIVE COATING

REFERENCE DRAWINGS

Revision Details	By / Chk	Date	Rev
ISSUED FOR APPROVAL	RO		0

PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

sinaan
whatever it is every way

PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

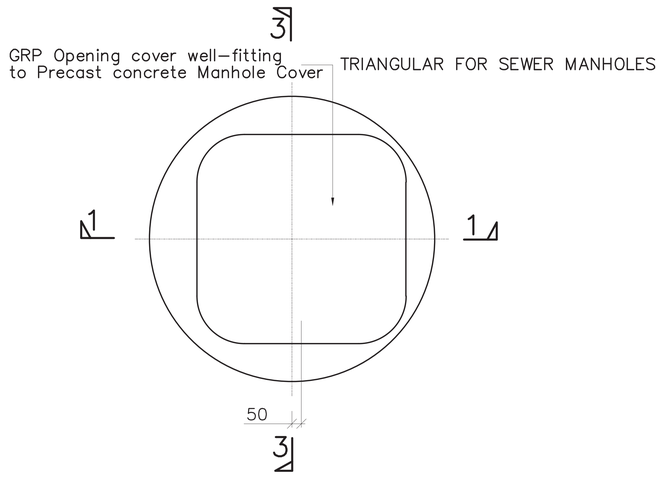
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Second Floor, Nairobi, Kenya
P.O. Box 76448-00508
www.dt-global.com/projects/sinaan/

Drawing Title

SEPTIC TANK AND SOAK PIT DETAILS

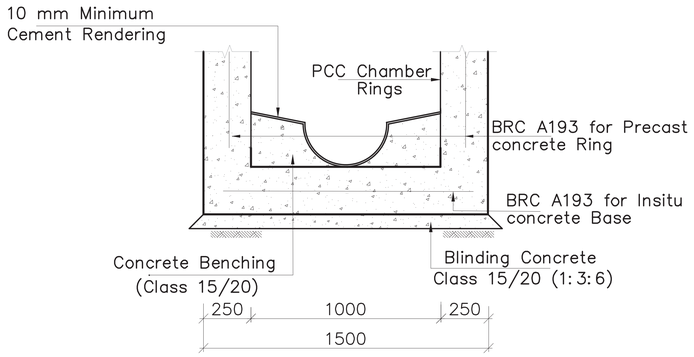
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DRAWN BY : MJ	DATE: JANUARY 2026
DESIGNED BY : MJ	Pr No: 2026001
SIGNATURE :	DATE :
CHECKED ON BEHALF OF DT GLOBAL BY : RO	Pr No: 20260001
SIGNATURE :	DATE :

TD Global Project Number	GD Global Drawing Number	Revision
0054	3024	0



PLAN OF SURFACE OF MANHOLE TYPE 1

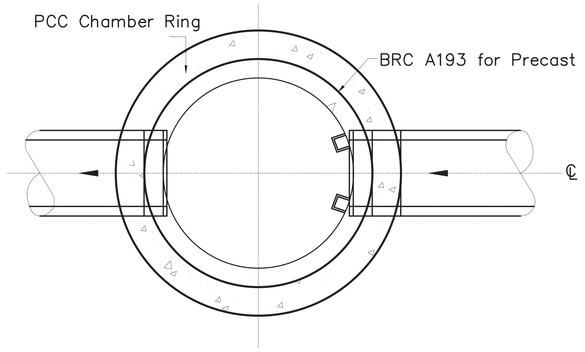
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MANHOLE TYPE 1

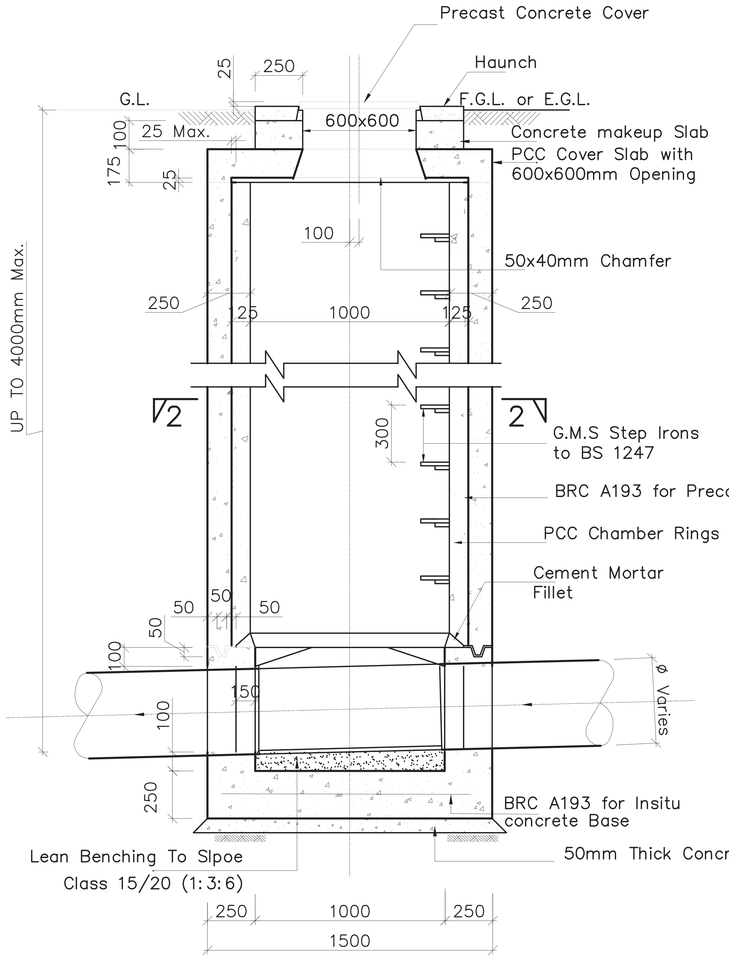
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SECTIONAL PLAN 2–2

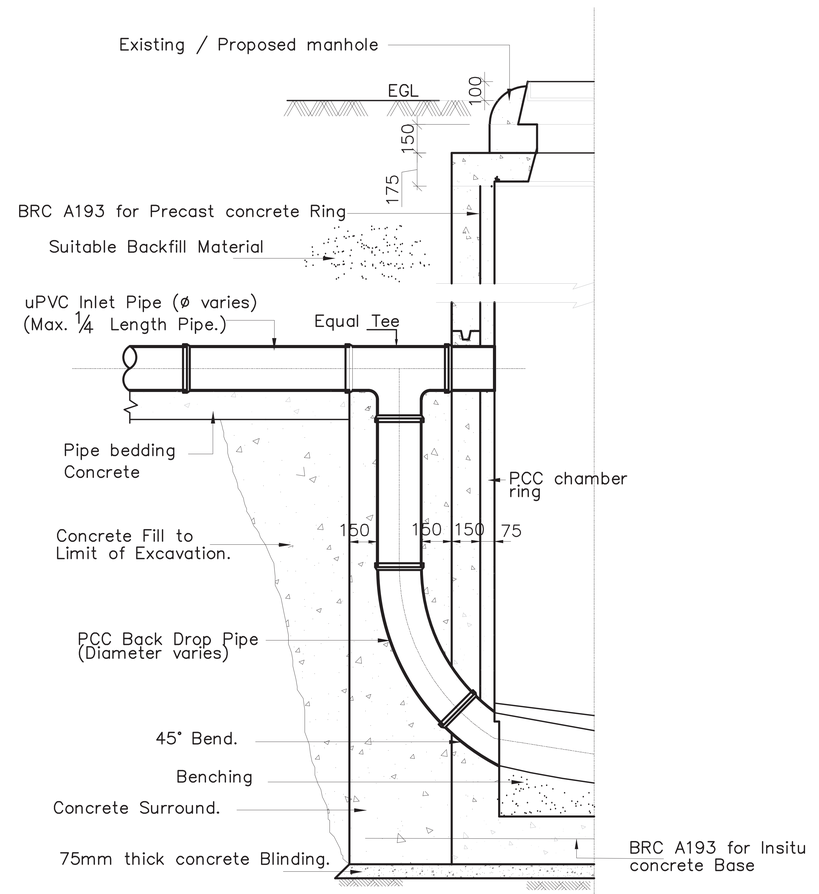
1:20



MANHOLE TYPE 1

SECTION 1–1

1:20



BACK–DROP MANHOLE DETAIL

1:20

1. All dimensions are in millimetres unless stated otherwise.
2. All corners of precast units to have a chamfer of 20mm.
3. All exposed concrete are wrought finished.
4. All exposed concrete members have a chamfer of 25mm unless stated otherwise.
5. All steel manhole covers to be painted after fabrication with two coats of Zinc based primer.
6. Step irons are only required where Chamber is greater than 600mm deep.
7. Minimum cover to all reinforcement is 40mm
8. All uPVC Pipes are manufactured to B.S5481 and all PCC Pipes are manufactured to BS5911
9. All joints to precast concrete slabs, rings and shafts are well bedded in 1:3 cement mortar.

LEGEND:–

F.G.L. – Finished Ground Level	Dia. – Diameter
G.L. – Ground Level	uPVC. – Unplasticized Polyvinyl Chloride
PCC. – Precast Concrete	
c.c. – Centre to Centre	GMS – Galvanised Mild Steel.
D – External Diameter	ø – Diameter
d – Internal Diameter	℄ – Centre line
E.G.L. – Existing Ground Level	

REFERENCE DRAWINGS

Revision Details	By / Chk	Date	Rev
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PROGRAMME:
STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

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PROJECT NAME:
CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

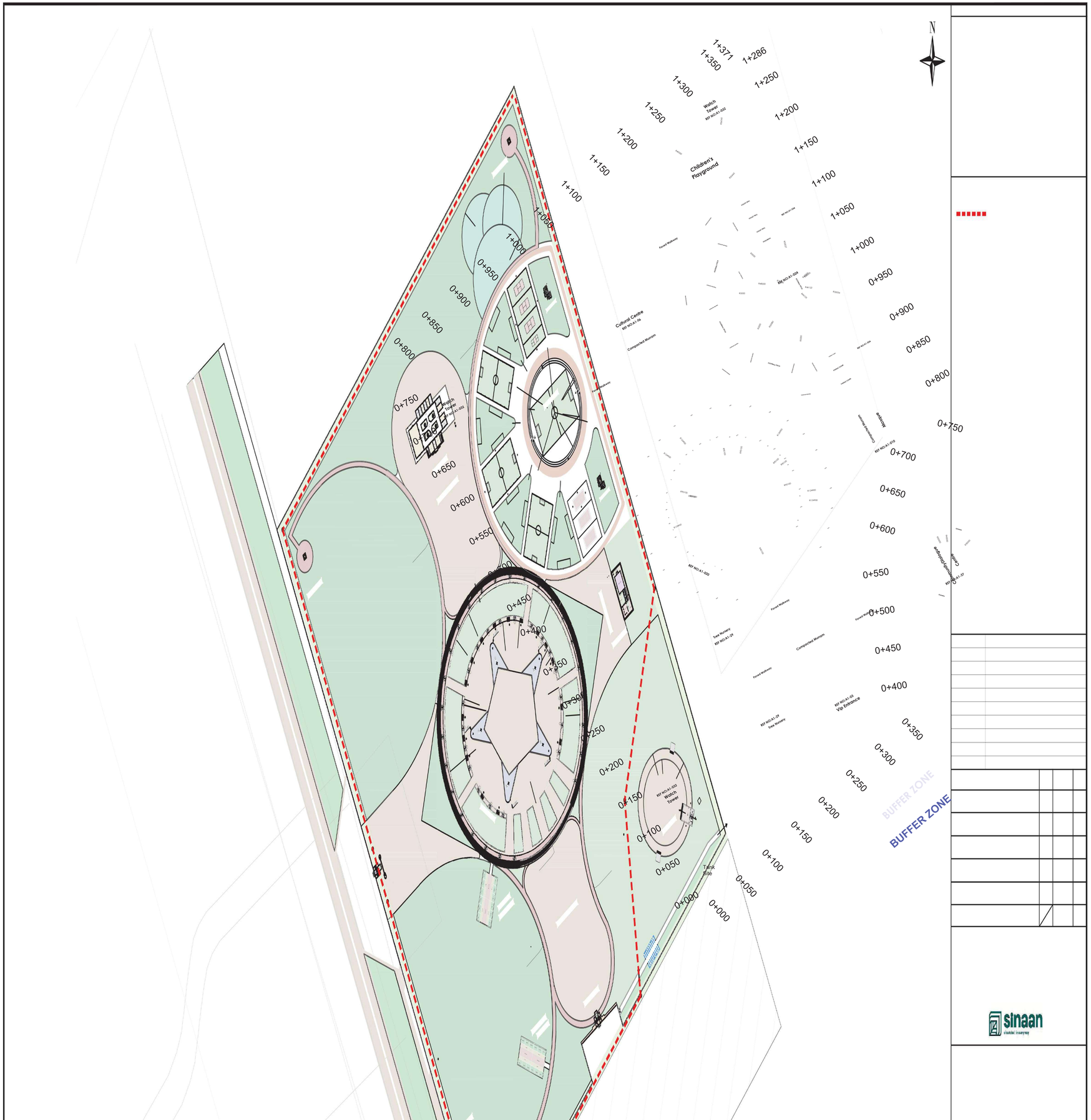
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Drawing Title

MANHOLE DETAILS

Scale 1:1500	ON ORIGINAL PLAN 0 10 20 30 40 50
DRAWN BY : MJ	DATE: JANUARY 2026
DESIGNED BY : MJ	Pr No: 2026001
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LEGEND:

SWALE

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SWALE
GENERAL LAYOUT

Scale 1:1250 — ON ORIGINAL PLAN (0 10 20 30 40 50)

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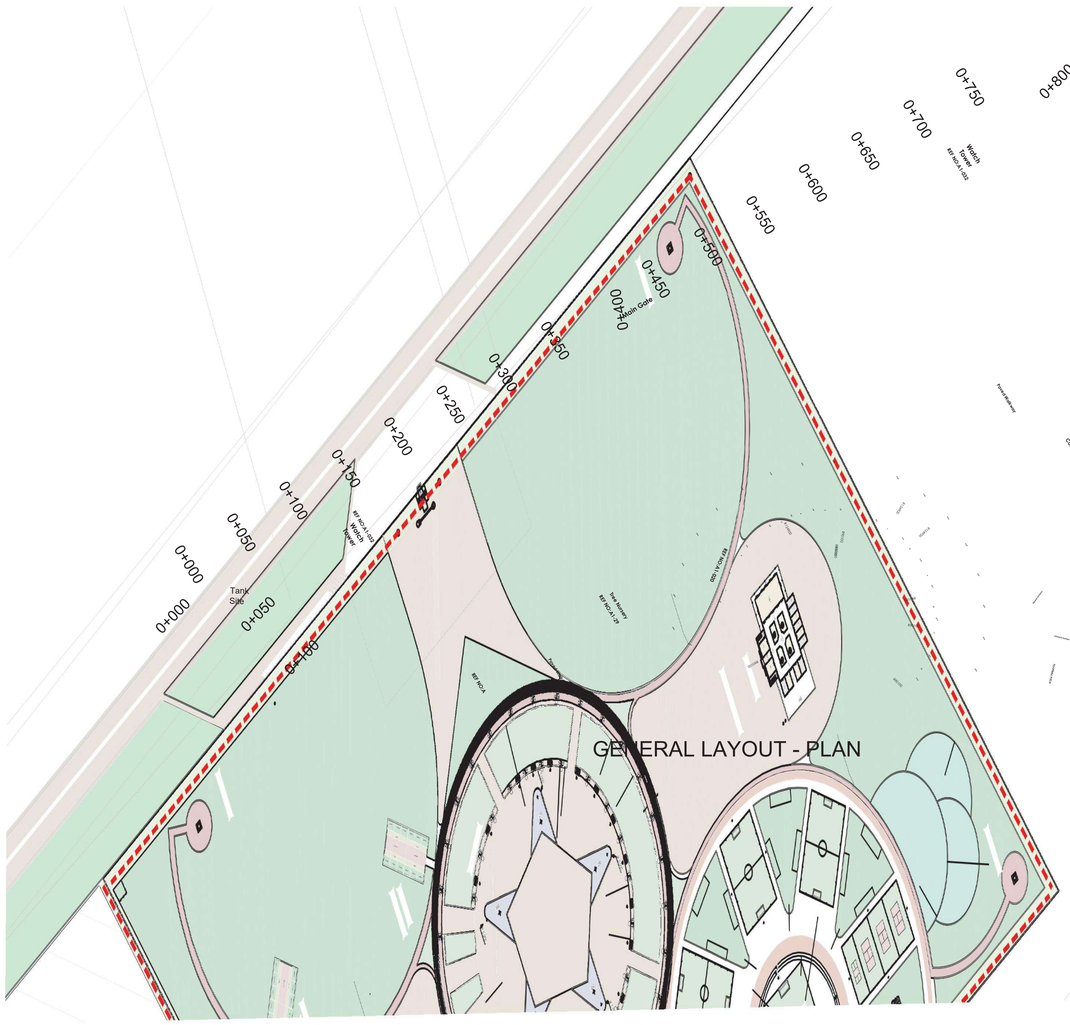
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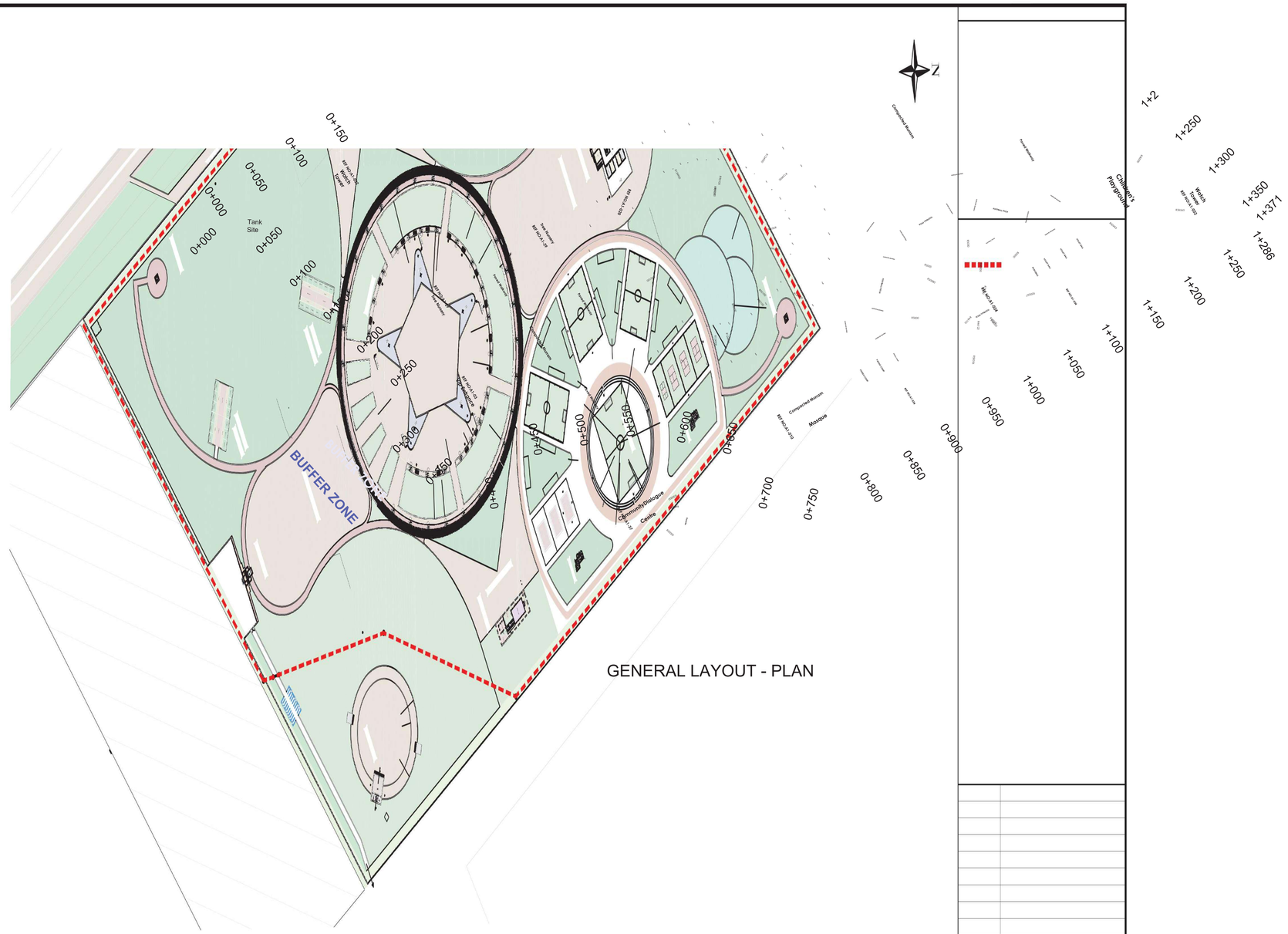
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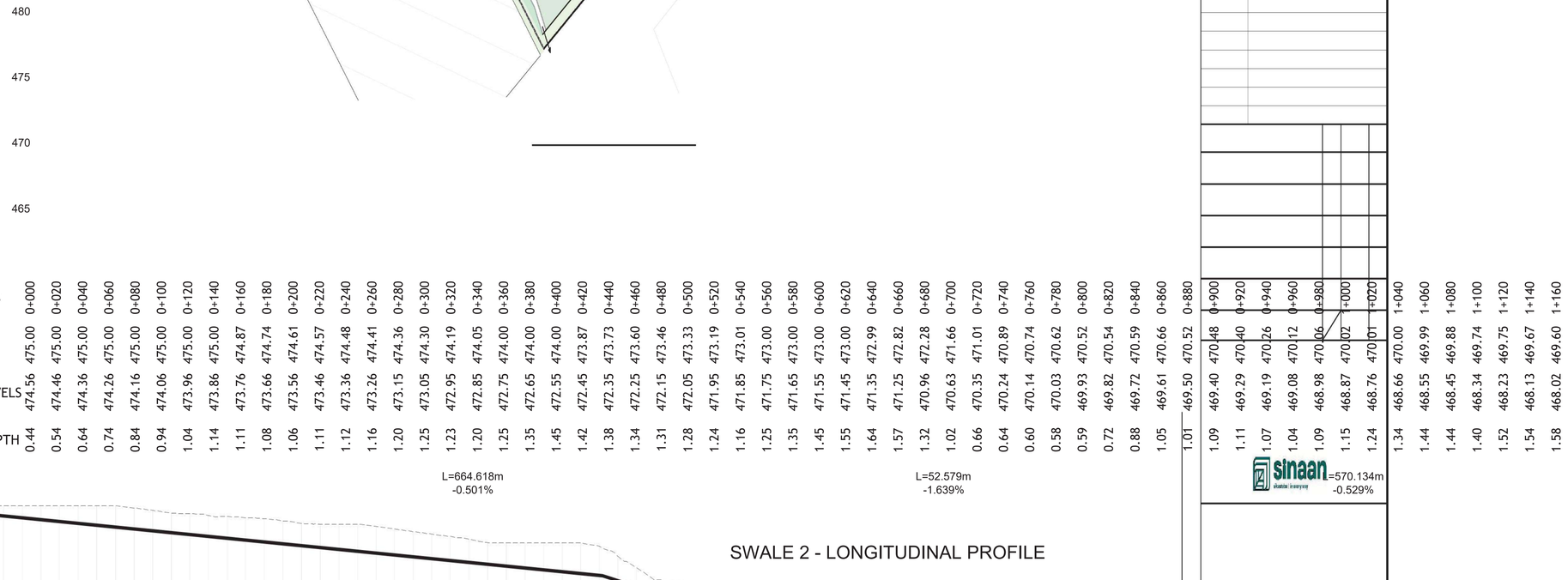
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TD Global Project Number	GD Global Drawing Number	Revision
0054	3026	0


Tank Site
Main Gate
Cultural Centre
Children's Playground
Water Tower
Water Tower
Water Tower



GENERAL LAYOUT - PLAN



SWALE 2 - LONGITUDINAL PROFILE

CHAINAGES	OGL	DRAIN LEVELS	DRAIN DEPTH
0+000	475.00	474.56	0.44
0+020	475.00	474.46	0.54
0+040	475.00	474.36	0.64
0+060	475.00	474.26	0.74
0+080	475.00	474.16	0.84
0+100	475.00	474.06	0.94
0+120	475.00	473.96	1.04
0+140	475.00	473.86	1.14
0+160	474.87	473.76	1.11
0+180	474.74	473.66	1.08
0+200	474.61	473.56	1.06
0+220	474.57	473.46	1.11
0+240	474.48	473.36	1.12
0+260	474.41	473.26	1.16
0+280	474.36	473.15	1.20
0+300	474.30	473.05	1.25
0+320	474.19	472.95	1.23
0+340	474.05	472.85	1.20
0+360	474.00	472.75	1.25
0+380	474.00	472.65	1.35
0+400	474.00	472.55	1.45
0+420	473.87	472.45	1.42
0+440	473.73	472.35	1.38
0+460	473.60	472.25	1.34
0+480	473.46	472.15	1.31
0+500	473.33	472.05	1.28
0+520	473.19	471.95	1.24
0+540	473.01	471.85	1.16
0+560	473.00	471.75	1.25
0+580	473.00	471.65	1.35
0+600	473.00	471.55	1.45
0+620	473.00	471.45	1.55
0+640	472.99	471.35	1.64
0+660	472.82	471.25	1.57
0+680	472.28	470.96	1.32
0+700	471.66	470.63	1.02
0+720	471.01	470.35	0.66
0+740	470.89	470.24	0.64
0+760	470.74	470.14	0.60
0+780	470.62	470.03	0.58
0+800	470.52	469.93	0.59
0+820	470.54	469.82	0.72
0+840	470.59	469.72	0.88
0+860	470.66	469.61	1.05
0+880	470.52	469.50	1.01
0+900	470.48	469.40	1.09
0+920	470.40	469.29	1.11
0+940	470.26	469.19	1.07
0+960	470.12	469.08	1.04
0+980	470.06	468.98	1.09
1+000	470.02	468.87	1.15
1+020	470.01	468.76	1.24
1+040	470.00	468.66	1.34
1+060	469.99	468.55	1.44
1+080	469.88	468.45	1.44
1+100	469.74	468.34	1.40
1+120	469.75	468.23	1.52
1+140	469.67	468.13	1.54
1+160	469.60	468.02	1.58
1+180	469.52	467.92	1.61
1+200	469.46	467.81	1.64
1+220	469.33	467.71	1.62
1+240	469.29	467.60	1.69
1+260	469.24	467.49	1.75
1+280	469.20	467.39	1.81
1+286	469.18	467.36	1.83

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LEGEND:

SWALE

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PROGRAMME:
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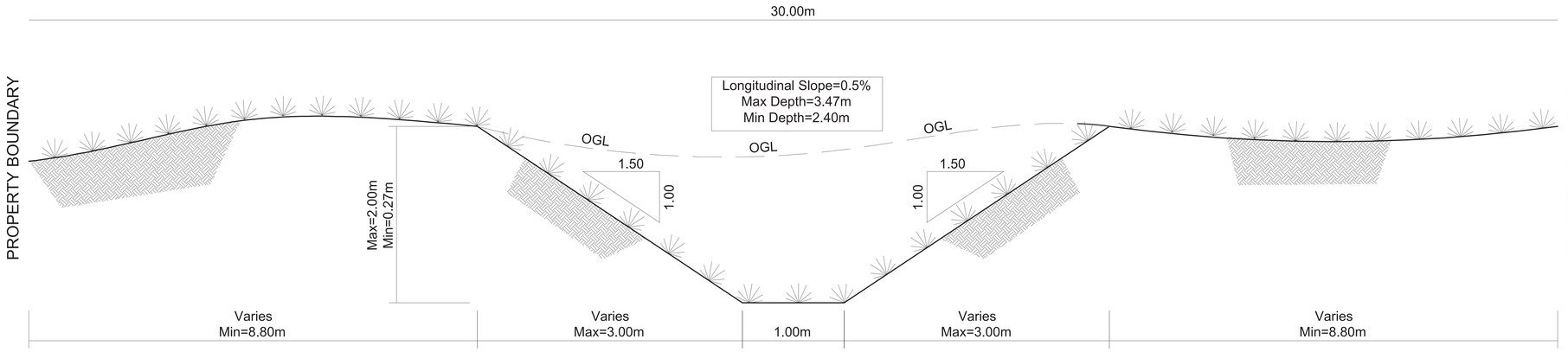
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Drawing Title

SWALE 2
PLAN AND PROFILE

Scale 1:1250 — ON ORIGINAL PLAN (0 10 20 30 40 50)
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STORMWATER SWALE
TYPICAL CROSS SECTION

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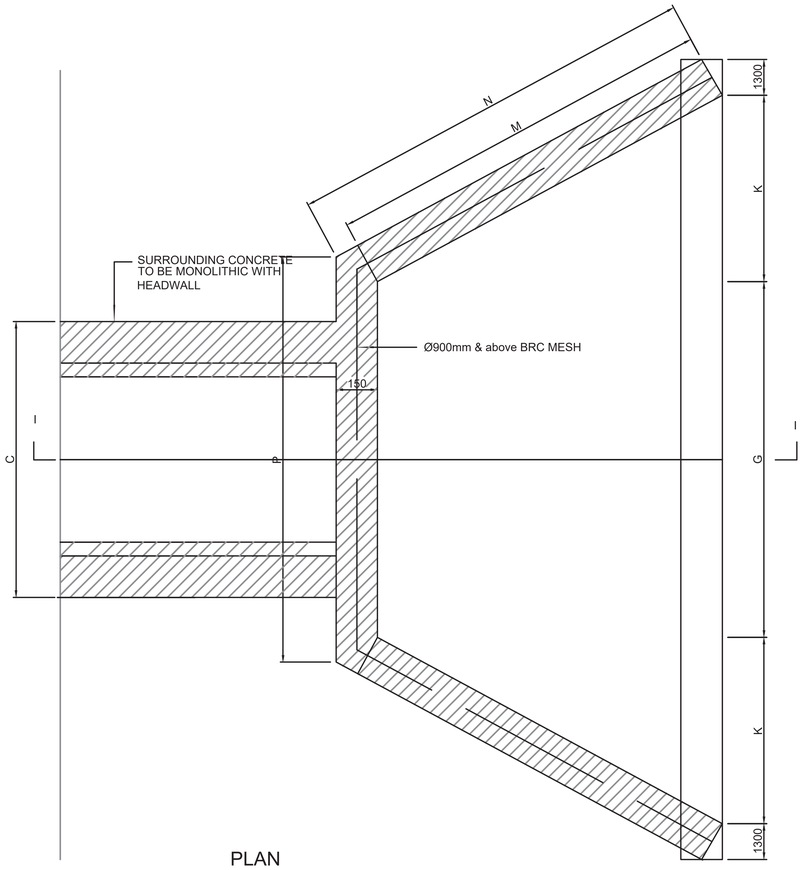
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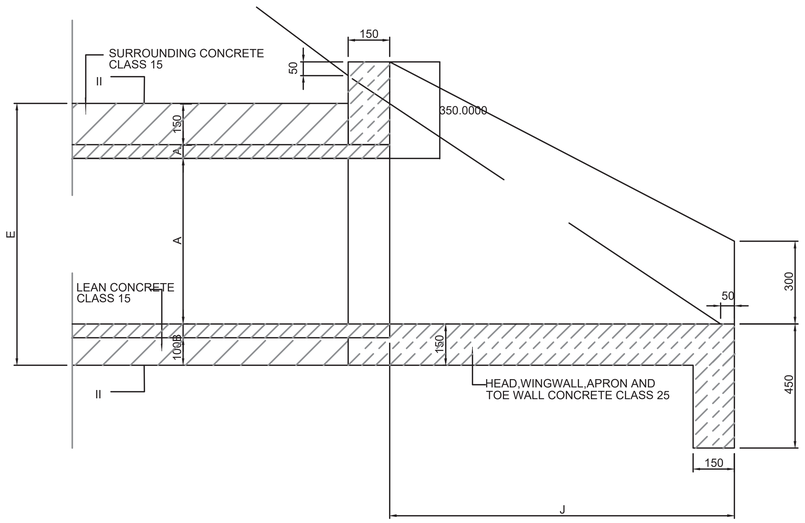
STORMWATER SWALE
SECTION

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DRAWN BY :	RO
DATE:	JANUARY 2026
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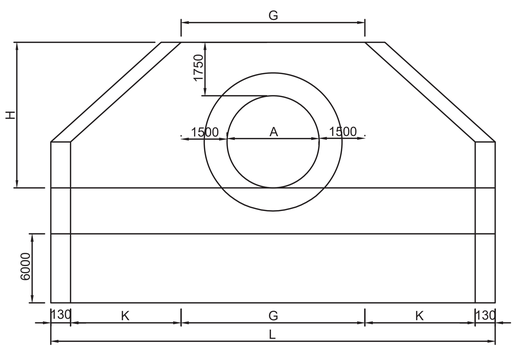
TD Global Project Number	GD Global Drawing Number	Revision
0054	3029	0



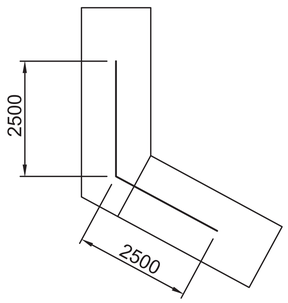
PLAN



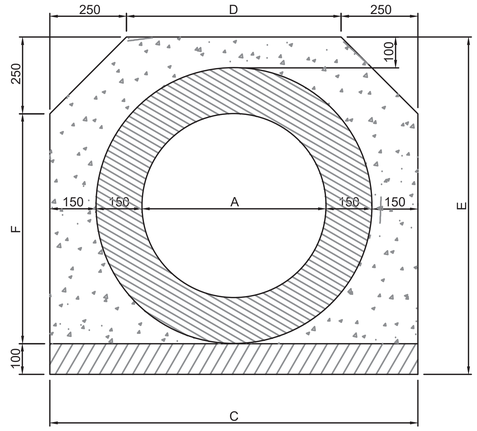
SECTION I-I



FRONT ELEVATION



DOWELL BARS



SECTION II-II

CULVERT	A m	B m	C m	D m	E m	F m	G m	H m	J m	K m	L m	M m	N m	P m	CONCRETE CLASS 25 INLET & OUTLET	CONCRETE CLASS 15 SURROUND & BEAM PER RUNNING M
0.60mØ	0.60	0.05	1.00	0.50	0.95	0.60	1.20	0.95	1.25	0.72	2.90	1.44m	1.53	1.29	1.97m	0.50m
0.90mØ	0.90	0.07	1.34	0.84	1.29	0.94	1.50	1.25	1.70	0.98	3.72	1.96m	2.05	1.59	3.12m	0.82m

NOTES

1. INLET AND OUTLET ARE ONLY REINFORCED WITH DOWELL BARS
2. DOWELL BARS OF Y12 BARS TO BE POSITIONED AT ~0.20m SPACING
3. THE SLOPE OF PIPE SHALL BE AS DIRECTED BY THE ENGINEER'S REPRESENTATIVE

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STRENGTHENING INFRASTRUCTURE THROUGH ADVANCING THE ADAPTATION NEXUS (SINAAN)

PROJECT NAME:
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TD Global Project Number	GD Global Drawing Number	Revision
0054	3030	0

ANNEX 3 - QUALITY ASSURANCE PLAN

Submit a Detailed Proposed Quality Assurance Plan. Below is a guide.

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QUALITY ASSURANCE/QUALITY CONTROL PLAN FOR CONSTRUCTION OF GAROWE COMMUNITY COHESION AND GREEN CULTURAL PARK

Content		
1	Introduction	
2	Objectives	1
3	Scope of Work	2
4	Roles and Responsibilities	3
5	Material control Procedures	4
6	Non-Conformance Management	5
7	Documentation and Records	5
8	Method Statement	6
9	Final Inspection and Handover	20

1. Introduction

This Quality Assurance / Quality Control (QA/QC) Plan defines the procedures, responsibilities, inspections, tests, documentation, and acceptance criteria to ensure that the construction activities are in full compliance with approved designs, technical specifications, applicable codes and standards, manufacturer requirements, and contractual obligations.

The plan applies to all phases of the project including procurement, delivery, installation, testing, commissioning, and handover.

2. Objectives

The objective of this Quality Assurance and Quality Control document is to:

- Ensure installation quality, safety, and long-term system reliability
- Prevent defects, rework, and performance losses
- Verify compliance with approved drawings, specifications, and codes
- Establish clear inspection, testing, and documentation requirements
- Provide traceability and accountability throughout the project lifecycle

3. Scope of Work

The Quality Control Plan covers:

- Site preparation and earthworks
- Foundations (isolated footings / strip footings as applicable)
- Reinforced concrete works
- Masonry works
- Structural steel / light steel frame works
- Roofing system (GI sheets / polycarbonate / shade net structure)
- Plumbing and sewerage work
- PV System Installation
- Sprinkler system installation
- Electrical Works
- CCTV Surveillance system

4. Roles and Responsibilities

4.1 Project Manager

The Project Manager will be responsible for:

- Overall responsibility for QA/QC implementation
- Ensure resources and trained personnel are available
- Approve corrective actions

4.2 Site Engineer / Supervisor

The Site Engineer who will also act as QA/QC Engineer will be responsible for

- Implement and monitor this QA/QC plan
- Prepare inspection and test plans (ITPs)
- Conduct inspections and witness tests
- Ensure installation follows approved drawings and method statements
- Maintain QA/QC records and reports
- Request inspections and tests at hold points
- Rectify non-conformances

5. Material Control Procedures

Quality shall be implemented through structured control stages. Each stage includes defined activities, inspection points, responsibilities, and acceptance criteria to ensure defects are prevented rather than corrected at later stages.

The main QA/QC control stages are:

1. Material Procurement and Approval process
2. Inspection and Test Plan
3. Final Inspection and Handover

5.1 Material Procurement and Delivery Inspection

This stage ensures that all materials supplied to the project meet the approved technical specifications and quality requirements.

Key activities include:

- Verification that procurement is based strictly on approved submittals and manufacturer datasheets
- Inspection of materials upon delivery for quantity, and physical condition
- Ensuring materials are accompanied by test certificates, conformity certificates, and warranties
- Proper storage and handling of materials to prevent damage, deterioration, or loss

Any damaged, non-compliant, or unapproved materials shall be rejected, quarantined, and reported through a Material Inspection Report (MIR).

5.2 Inspection and Test Plan

5.2.1 Site Preparation

Activity	Inspection	Frequency	Acceptance Criteria
Setting out	Survey check	Each grid	±10mm tolerance
Excavation	Depth & width check	Each footing	As per drawings

5.2.2 Concrete Works

Pre-Pour Inspection:

- Formwork alignment and rigidity
- Reinforcement size, spacing, cover
- Anchor bolts alignment
- Embedded items

Concrete Testing:

- Slump test – Each truck
- Cube test – 3 cubes per 25 m^3
- Compressive strength – 7 & 28 days

Acceptance based on approved design mix

5.2.3 Steel Reinforcement Works

- Verify bar diameter
- Check spacing

- Ensure adequate concrete cover
- Confirm lapping length as per design

5.2.4 Structural Steel Works

- Manufacturer certificates verification
- Welding inspection (visual)
- Bolt torque check
- Alignment and plumb check

5.2.5 Roofing Works

- Slope verification
- Proper fixing of sheets
- Overlap compliance
- Leak test (if required)

5.2.6 Testing Requirements

Below are the minimum Testing requirements for concrete and steel

Test	Standard	Frequency
Concrete Compressive Strength	ASTM / BS	As per mix
Steel Tensile Test	Manufacturer Certificate	Per batch

6. Non-Conformance Management

In case of non-conformance:

- Non-Conformance Reports (NCR) will be issued for deviations
- Root cause analysis will be conducted
- Corrective and preventive actions will be implemented
- Re-inspection and closure documented

7. Documentation and Records

Comprehensive and accurate documentation is essential to demonstrate compliance with QA/QC requirements and to support operation, maintenance, and warranty claims throughout the system life.

The following QA/QC records shall be maintained, controlled, and submitted as part of the project QA/QC dossier:

- Approved design drawings, specifications, and revisions
- Method Statements
- Material Inspection Reports (MIR) and delivery notes
- Site inspection checklists
- Inspection and Test Plans (ITPs) and completed test records
- Non-Conformance Reports (NCR), corrective and preventive action records
- As-built drawings reflecting actual installation
- Operation & Maintenance (O&M) manuals
- Equipment warranties, guarantees, and certificates of conformity
- Training records and handover certificates

All documents shall be properly indexed, version-controlled, and retained for the duration of the warranty and defects liability period, or as required by contract and regulatory authorities.

8. Method Statements

8.1 Excavation and Back Filling

The purpose is to define the procedure for safe and controlled excavation, foundation preparation, and backfilling works to ensure compliance with project specifications and approved drawings. This method statement will cover

- Setting out: The Surveyor shall establish grid lines and reference levels and mark foundation boundaries. The site engineer approval required prior to excavation.
- Excavation for foundations: The contractor will be responsible to perform excavation to required depth and width as per drawings and to maintain side slopes to prevent collapse.

  Bottom trimming and levelling will be done manually. In event of Over-excavation, it shall be corrected with lean concrete without any extra cost to client. The contractor will raise Inspection Request (IR) for approval before proceeding
- Subgrade Inspection: The contractor will Confirm that levels are according to design. The contractor will check soil bearing condition and if unsuitable soil encountered, the contractor will inform Engineer immediately.
- Compaction of Subgrade: Compaction of subgrade will be done using mechanical compactor to achieve minimum 95% MDD. Field density test conducted (as per ITP) if required.
- Backfilling: Backfilling will only be done after the concrete achieves required strength. The layer thickness for backfilling shall not exceed 200mm. Each layer will be compacted to minimum 95% MDD. Field density tests will be conducted per layer.
- Safety Precautions: The contractor will be responsible to Barricade excavation area and No personnel will be allowed near unsupported edges. Contractor will ensure proper PPE at site all the times

Inspection and Test Plan for Excavation

Sr	Activity	Inspection / Test	Acceptance Criteria	Method/ Standard	Frequency	Responsibility	Record
1	Setting Out	Grid & level verification	±10mm tolerance	Survey equipment	Each location	Surveyor	Survey Report
2	Excavation	Depth & width check	As per drawing	Tape/Level	Each footing	Site Eng.	Inspection report
3	Excavation Bottom	Soil bearing verification	As per soil report	Visual/Engineer review	Each footing	QA/QC Eng.	Inspection report
4	Subgrade Preparation	Compaction test	≥95% MDD	Field Density Test	Each layer	QA/QC Eng.	Test Report
5	Backfilling	Layer thickness check	≤200mm per layer	Visual	Each layer	Site Eng.	Inspection report
6	Backfilling	Compaction test	≥95% MDD	Field Density Test	Per layer	QA/QC Eng.	Lab Report
7	Final Level	Finished level check	±10mm	Survey	Each area	Surveyor	Level Report

8.2 Concrete Casting Works

The purpose is to define procedure for batching, placing, compacting, finishing and curing of concrete works. The scope of concrete for this project is Column bases, Strip footing and pedestals. Contractor is required to ensure provision of following equipment at site.

- Concrete mixer
- Needle/Poker vibrator
- Slump cone apparatus
- Cube molds

- Trowels and finishing tools

In order to ensure the concrete casting quality following procedures shall be followed

- Pre-Pour Inspection: The site engineer jointly with contractor will verify formwork alignment and rigidity. He will check reinforcement size and spacing and will ensure adequate cover blocks. He will confirm that Anchor bolts properly aligned and will ensure that the contractor has removed the debris and standing water.
- Concrete Mixing: Concrete mixing will only be done by approved mechanical means as per approved mixing ratio. Slump test will be conducted for each batch.
- Placing and Compaction: Concrete shall be placed within 30 minutes of mixing. The contractor will compact the concrete using Poker vibrator and will ensure that there is no segregation and honey combing in the concrete.
- Finishing: Surface finishing will be done as specified
- Curing: The contractor will ensure curing of the concrete using water or curing compound for 14 days in order to achieve required strength
- Acceptance Criteria: Concrete strength should be as per required criteria. Finish surface shall be free from cracks and honey combing. The acceptable alignment tolerance is ±5mm.

Inspection and Test Plan for Concrete Casting

Sr	Activity	Inspection / Test	Acceptance Criteria	Method/ Standard	Frequency	Responsibility	Record
1	Formwork	Alignment & dimensions	±5mm tolerance	Visual/Level	Each pour	QA/QC Eng.	Inspection report
2	Reinforcement	Bar size & spacing	As per drawings	Visual/ Measurement	Each pour	QA/QC Eng.	Inspection report
3	Cover Blocks	Concrete cover	As per drawing	Cover meter/Visual	Each pour	QA/QC Eng.	Checklist
4	Embedded Items	Anchor bolt alignment	±3mm tolerance	Measurement	Each location	QA/QC Eng.	Inspection report
5	Concrete Delivery	Slump Test	75–100mm (or design value)	Slump cone	Each truck	QA/QC Eng.	Slump Report
6	Sampling	Cube casting	3 cubes / 25m³	Lab test	Each batch	QA/QC Eng.	Cube Register
7	Placing	Vibration check	No honeycombing	Visual	Continuous	Site Eng.	Site Log
8	Curing	Curing duration	Min 7 days	Visual	Daily	Site Eng.	Curing Log
9	Strength Test	7&28 days compressive strength	As per design	Lab Test	Each sample	QA/QC Eng.	Lab Report

8.3 Block Masonry Works

The purpose is to define and ensure that all masonry works are executed in accordance with approved drawings, specifications, and applicable standards, achieving the required quality, strength, and durability. The scope includes

- Block/brick work
- Mortar preparation and application
- Reinforced masonry (if applicable)
- Plastering interfaces related to masonry
- Openings, lintels, and embedded items

Applicable Standards are:

- ASTM C90 / BS EN 771 – Masonry Units
- ASTM C270 – Mortar
- ASTM E447 – Inspection of Masonry
- Project Specifications & Approved Drawings

In order to ensure the quality following procedures shall be followed

- For Masonry Units (Blocks/Bricks): Ensure that the contractor procure from approved source. Blocks should be free from cracks, defects, and damage.
- Cement: Check for the manufacturer certificate and date of manufacturing. Store in a dry condition.
- Sand: Ensure that sand is Clean, well-graded, free from organic impurities.
- Water: Water should be clean and potable.
- Mortar Mix Control: Ensure that mix ratio is as per specifications. Mortar should be used with in specified time i.e. between 30 to 45 min after mixing.

Inspection and Test Plan for Masonry Works

Sr	Activity	Inspection / Test	Frequency	Responsibility	Record
1	Material approval	Visual & lab tests	Each batch	QA/QC Eng.	MTC File
2	Mortar Mix	Ratio Check	Daily	QA/QC Eng.	Inspection report
3	Block Work Alignment	Line and Level Check	Continuous	Site Eng.	Alignment Report
4	Joint Thickness	Measurement	Random	Site Eng.	Inspection report
5	Compressive Strength	Lab test	As required	QA/QC Eng.	MTC File
6	Final Inspection	Visual inspection	Each area	QA/QC Eng.	Final Inspection report

8.4 Steel Erection Works

The purpose is to define safe erection of steel frame for proposed structures. The scope will include erection of Columns, rafters, trusses, purlins and bracing members. Contractor is required to ensure provision of following equipment at site.

- Mobile crane
- Chain blocks
- Torque wrench
- Spirit level
- Scaffolding

In order to ensure the Structural steel installation/erection quality following procedures shall be followed

- Pre-Erection Checks will include Verification of anchor bolt alignment. Verification of bolt size and grade. Inspection of any damages.
- Erection: As a first step Erection of column will be conducted followed by installation of trusses, purlins and bracings
- Alignment: Check the plumbness for each column. Verify levels and tighten the bolts using torque wrench
- Welding (if applicable): Visual inspection for cracks or porosity
- Safety: PPE required all the time for working at elevations and for welding works

Inspection and Test Plan for Steel Erection Works

Sr	Activity	Inspection /	Acceptance	Method/	Frequency	Responsibility	Record

		Test	Criteria	Standard			
1	Material Delivery	Manufacturer certificate review	Approved material grade	Document review	Each batch	QA/QC Eng.	MTC File
2	Anchor Bolts	Position & projection	±3mm	Measurement	Each column	QA/QC Eng.	Inspection report
3	Column Erection	Plumbness	1/1000 height	Level	Each column	Site Eng.	Alignment Report
4	Beam Installation	Level check	±5mm	Level	Each beam	Site Eng.	Inspection report
5	Bolt Tightening	Torque test	As per bolt spec	Torque wrench	Random 10%	QA/QC Eng.	Torque Log
6	Welding	Visual inspection	No cracks/ porosity	Visual	Each joint	QA/QC Eng.	Weld Log
7	Final Alignment	Structural alignment	Within tolerance	Survey	Entire frame	QA/QC Eng.	Final Inspection report

8.5 Roof Installation Works

The purpose is to define installation procedure of roofing sheets for proposed structures. The scope includes Installation of GI sheets and ridge cap.
In order to ensure the quality of roof sheet installation following procedures shall be followed.

- Pre installation checks will include verification of steel alignment, confirmation of purlins spacing and ensure safety harness and access
- Sheet Installation procedure will include to start installation from Leeward side and maintaining a minimum specified side overlap. End overlap should be 150mm. Fastener spacings should be as per drawings
- Ridge cap: Contractor will ensure installation of ridge cap with proper sealing.
- Final Inspection will be conducted to ensure the correctness of alignment, tightening of all screws, and sealing of all joints
- Safety: PPE required all times. Contractor will provide full fall protection system.

Inspection and Test Plan for Roof Installation Works

Sr	Activity	Inspection / Test	Acceptance Criteria	Method/ Standard	Frequency	Responsibility	Record
1	Structure Readiness	Purlin spacing & alignment	As per drawing	Measurement	Entire roof	QA/QC Eng.	Inspection report
2	Sheet Placement	Overlap check	1 corrugation min	Visual	Each sheet row	Site Eng.	Checklist
3	Fastening	Screw spacing	As per spec	Visual	Random check	QA/QC Eng.	Inspection report
4	Ridge Cap	Installation check	Proper sealing	Visual	Each ridge	Site Eng.	Inspection report
5	Sealant	Application check	No visible gaps	Visual	Random	QA/QC Eng.	Checklist
6	Water Tightness	Spray test (if required)	No leakage	Water spray	Entire roof	QA/QC Eng.	Test Report
7	Final Inspection	Overall alignment	Acceptable finish	Visual	Entire roof	QA/QC Eng.	Final Inspection report

8.6 Plastering and Painting Works

The purpose is to ensure plastering and painting works are executed in compliance with project specifications, achieving required surface finish, durability, and aesthetic quality.

The scope covers

- Internal and external plastering
- Surface preparation
- Putty works
- Primer and painting applications
- Final finishing and touch-ups

Below are the applicable standards

- ASTM C926 – Application of Portland Cement-Based Plaster
- ASTM C840 – Finishing of Gypsum Board (if applicable)
- ASTM D3359 – Adhesion Test for Paint
- Project Specifications & Approved Material Submittals

In order to ensure the quality of plastering and painting following procedures shall be followed.

- **Plaster Materials**: Cement should be of approved brand with valid tests. Sand should be clean and free from all impurities. Water should be clean and potable.
- For workman ship quality control:
  - Before Plastering ensure that the surface is clean from dust, oil or any loose particles. Joints are properly raked. Masonry surface is wetted. Chicken mesh is fixed at joints. Level dots and screed is established.
  - During execution ensure mixing ratio is as per specifications. Plater should be applied in uniform thickness. Should be smooth with even finish. Curing should be dome at least for 7 days.
- **Paint Material:** Ensure that the paint material i.e primer, putty, finish coat are preapproved. Manufacturers certification and data sheet is provided. Materials should be stored in dry and shaded area.
- For workman ship quality control:
  - Before painting surface should be fully cured and dry. Cracks should be repaired and surface sanded smooth. Ensure that all dust and contamination have been removed.
  - During execution ensure to follow the sequence i.e. Surface Preparation, Putty application, Sanding, Primer coat, First paint coat, Final paint coat. Also ensure proper drying time between coats. Application should be uniform. Paint should be diluted as per manufacture recommendation.

Inspection and Test Plan for Plaster and Paint Works

Sr	Activity	Inspection / Test	Acceptance Criteria	Frequency	Responsibility	Record
1	Material approval (cement, sand, paint)	Document review & visual	As per approved submittals and specs	Each batch	QA/QC Eng.	Inspection report
2	Surface preparation (plaster)	Visual inspection	Clean, dust-free, properly wetted, mesh fixed at joints	Each area	QA/QC Eng	Checklist
3	Plaster thickness	Measurement	±3 mm from specified thickness	Random	QA/QC Eng	Inspection report
4	Surface evenness (plaster)	2 m straight edge	Max deviation ±3 mm	Random	QA/QC Eng	Inspection report
5	Verticality (plaster)	Plumb check	Max deviation ±5 mm per 3 m height	Random	QA/QC Eng.	Checklist

6	Plaster finish	Visual & tapping	No cracks, no hollow sound, uniform finish	Continuous	QA/QC Eng.	Inspection report
7	Curing	Visual	Minimum 7 days curing maintained	Each area	Site Eng.	Final Inspection report
8	Surface preparation (painting)	Visual inspection	Smooth, dry, crack-free, properly sanded	Each area	QA/QC Eng.	Checklist
9	Putty application	Visual & thickness	Even surface, no undulations or pinholes	Each coat	QA/QC Eng.	Checklist
10	Primer application	Visual	Uniform coverage, no patchiness	Each coat	QA/QC Eng.	Checklist
11	Paint coat application	Visual	No streaks, roller marks, or color variation	Each coat	QA/QC Eng.	Checklist
12	Paint thickness (if specified)	DFT measurement	As per manufacturer specs (±10% typical)	Random	QA/QC Eng.	Checklist
13	Paint adhesion test	Cross-cut test	Minimum rating as per ASTM D3359 (e.g., 4B/5B)	Random	QA/QC Eng.	Checklist
14	Final finish inspection	Visual	Uniform color, smooth finish, no defects	Each Area	QA/QC Eng.	Final Inspection report

8.7 Electrical Works

This Quality Assurance and Quality Control (QA/QC) Plan defines the procedures, inspection requirements, testing activities, and quality control measures to be implemented during the execution of electrical works. The purpose of this plan is to ensure that all electrical installations are carried out in accordance with approved drawings, project specifications, contract requirements, applicable international standards, manufacturer recommendations, and relevant statutory regulations. The plan establishes a systematic approach to monitoring, inspecting, testing, and documenting all electrical activities to achieve the required quality standards and ensure safe, reliable, and defect-free electrical systems.

Scope: This QA/QC Plan applies to all electrical installation activities associated with the project, including the installation of conduits, trunking systems, cable trays and ladders, power and lighting systems, switchboards and distribution boards, transformers, generators, earthing and bonding systems, low-current systems, fire alarm systems, cable pulling and termination, testing, commissioning, and final handover. All subcontractors, suppliers, supervisors, and quality personnel involved in electrical works shall comply with the requirements outlined in this plan.

Below are the applicable standards

- IEC Standards
- IEEE Standards
- NEC (where applicable)
- Local Electrical Authority Regulations
- Project Specifications
- Approved Shop Drawings

- Manufacturer Recommendations
- Contract Requirements

8.7.1 Material Quality Control

All electrical materials and equipment delivered to the project site shall be inspected upon receipt to verify compliance with approved material submittals and project specifications. Material inspections shall include verification of manufacturer certificates, test certificates, product data sheets, delivery documentation, and physical condition. Electrical cables shall be inspected for correct size, insulation type, voltage rating, and physical damage. Conduits, cable trays, switchboards, distribution boards, light fixtures, and earthing materials shall be checked for dimensions, ratings, finishes, and compliance with approved specifications. Materials shall be stored in suitable conditions to prevent deterioration, moisture ingress, corrosion, contamination, or mechanical damage.

8.7.2 Installation Quality Control

Prior to commencement of installation activities, approved shop drawings, material approvals, method statements, and work permits shall be verified. Conduit installations shall be inspected for correct routing, sizing, support spacing, bend radius, accessibility of junction boxes, and compliance with approved drawings. Cable trays and ladders shall be inspected for alignment, support spacing, grounding continuity, expansion provisions, and overall workmanship. During cable pulling operations, cable identification, pulling methods, bending radius, pulling tension, and cable condition shall be monitored to prevent damage. Cable terminations shall be inspected for proper gland installation, lug crimping, torque application, phase identification, and insulation protection. Electrical panels and switchboards shall be checked for mounting, alignment, anchorage, labeling, internal wiring, and accessibility for operation and maintenance. Earthing and bonding systems shall be inspected to verify conductor sizing, continuity, connection integrity, and compliance with design requirements. Lighting installations shall be inspected for fixture type, mounting arrangement, alignment, wiring integrity, and operational functionality.

8.7.3 Testing and Commissioning

Testing and commissioning activities shall be conducted in accordance with approved procedures and applicable standards. Insulation resistance testing shall be performed on power and control cables prior to energization to verify insulation integrity. Continuity testing shall be conducted on conductors, earthing systems, and bonding networks to ensure electrical continuity. Earth resistance measurements shall be carried out to verify compliance with project requirements. Phase sequence testing shall be performed before energizing three-phase systems to ensure correct phase rotation. Functional testing shall be conducted for lighting systems, power distribution systems, protective devices, emergency systems, fire alarm systems, control systems, and interlocking arrangements. All test results shall be recorded and reviewed before acceptance.

8.7.4 Non-Conformance Management

Any deviation from approved specifications, drawings, standards, or quality requirements shall be documented through a Non-Conformance Report (NCR). The NCR process shall include identification of the non-conformance, investigation of the root cause, implementation of corrective actions, re-inspection of affected work, and formal closure following verification of compliance. Preventive actions shall be implemented to eliminate recurring issues and improve overall quality performance.

8.7.5 Calibration of Test Equipment

All measuring and testing equipment used for inspections and commissioning activities shall possess valid calibration certificates issued by accredited laboratories. Calibration records shall be maintained on site and made available for review during audits and inspections. Equipment requiring calibration may include insulation resistance testers, earth resistance testers, multimeters, clamp meters, power analyzers, torque wrenches, and other specialized instruments.

8.7.6 Documentation and Records

Comprehensive quality records shall be maintained throughout the project. Documentation shall include material inspection reports, inspection requests, inspection checklists, test reports, calibration certificates, NCR records, corrective action reports, commissioning reports, approved shop drawings, as-built drawings, and final

handover documentation. All records shall be maintained in an organized and traceable manner to demonstrate compliance with project quality requirements.

8.7.7 Final Inspection and Handover

Upon completion of electrical works, a final inspection shall be conducted to verify that all installations have been completed in accordance with approved drawings and specifications. All inspection and testing activities shall be completed, outstanding non-conformances shall be closed, and punch-list items shall be resolved prior to handover. Final handover documentation shall include test certificates, commissioning reports, operation and maintenance manuals, warranties, calibration certificates, approved as-built drawings, and quality records necessary for project acceptance.

Inspection and Test Plan (ITP) – Electrical Works

Sr	Activity	Inspection / Test	Acceptance Criteria	Inspection Type	Responsibility
1	Material Receiving	Verification of certificates and physical inspection	Approved material submittal and specifications	Review & Visual	QA/QC Engineer
2	Conduit Installation	Routing, support spacing, bends, sizing	Approved drawings and specifications	Visual Inspection	QA/QC Engineer
3	Concealed Conduits	Inspection before concrete pour or closure	Approved installation completed	Hold Point (H)	QA/QC Engineer
4	Cable Tray Installation	Alignment, supports, grounding	Approved drawings and workmanship standards	Visual Inspection	QA/QC Engineer
5	Earthing Conductor Installation	Size, routing, connections	Approved drawings and specifications	Visual Inspection	QA/QC Engineer
6	Earth Electrode Installation	Location and installation method	Design requirements	Visual Inspection	QA/QC Engineer
7	Cable Pulling	Identification, bending radius, damage check	No physical damage and correct routing	Surveillance	QA/QC Engineer
8	Cable Termination	Glands, lugs, torque, identification	Manufacturer recommendations and specifications	Visual Inspection	QA/QC Engineer
9	Distribution Board Installation	Alignment, mounting, labeling	Approved drawings and specifications	Visual Inspection	QA/QC Engineer
10	Switchboard Installation	Anchoring, accessibility, internal inspection	Approved drawings and manufacturer requirements	Visual Inspection	QA/QC Engineer
11	Lighting Fixture Installation	Type, location, mounting	Approved drawings and specifications	Visual Inspection	QA/QC Engineer
12	Insulation Resistance Test	Megger test of cables	Minimum value as per specification	Test	QA/QC Engineer
13	Continuity Test	Conductors and earthing systems	Continuous electrical path	Test	QA/QC Engineer
14	Earth Resistance Test	Grounding system testing	Project specified value (typically ≤ 5 Ω)	Test	QA/QC Engineer
15	Phase	Verify phase rotation	Correct phase	Test	QA/QC Engineer

	Sequence Test		sequence		
16	Functional Testing	Operation of lighting, power, controls	Fully functional system	Test	QA/QC Engineer
17	Protection Relay Testing	Relay operation and settings	Approved protection settings	Test	Specialist / QAQC
18	Pre-Commissioning Inspection	Complete installation review	No outstanding defects	Hold Point (H)	QA/QC Manager
19	Final Commissioning	System performance verification	Meets design and operational requirements	Hold Point (H)	QA/QC Manager
20	Final Handover Inspection	Documentation and system acceptance	All records completed and approved	Hold Point (H)	QA/QC Manager

Legend
H = Hold Point (Work cannot proceed until approval is obtained.

8.8 Plumbing and Sewage Works

This Quality Assurance and Quality Control (QA/QC) Plan establishes the quality management procedures, inspection requirements, testing activities, and documentation controls necessary to ensure that all plumbing and sewage works are executed in accordance with approved drawings, project specifications, contract requirements, applicable standards, and local authority regulations. The purpose of this plan is to ensure that plumbing and drainage systems are installed safely, efficiently, and in compliance with the required quality standards to achieve reliable long-term performance and client satisfaction.

Scope: This QA/QC Plan applies to all plumbing and sewage installation activities associated with the project, including potable water distribution systems, hot and cold-water piping, sanitary drainage systems, vent piping systems, underground sewer networks, manholes, inspection chambers, grease traps, sump pits, pumps, plumbing fixtures, water storage tanks, testing, commissioning, and final handover. The plan shall be implemented by all contractors, subcontractors, suppliers, supervisors, and quality personnel involved in plumbing and sewage works.

8.8.1 Material Quality Control

All plumbing and sewage materials shall be inspected upon delivery to the site to verify compliance with approved material submittals and project specifications. Material inspections shall include verification of manufacturer certificates, compliance certificates, test reports, delivery documents, and physical condition. Pipes, fittings, valves, fixtures, pumps, tanks, manhole components, and accessories shall be checked for size, pressure rating, material type, dimensions, and physical damage. Defective or non-compliant materials shall be rejected and removed from the site. Approved materials shall be stored in designated areas and protected from sunlight, contamination, corrosion, moisture, and mechanical damage.

8.8.2 Installation Quality Control

Prior to installation, approved shop drawings, material approvals, and method statements shall be reviewed and verified. Plumbing pipework shall be inspected for correct routing, alignment, support spacing, slope, jointing methods, and accessibility for maintenance. Water supply piping shall be installed according to approved layouts with proper support, insulation, identification, and pressure ratings. Sanitary drainage and vent systems shall be installed with the specified gradients to ensure effective flow and prevent blockages. Underground sewer pipelines shall be inspected for alignment, bedding preparation, joint integrity, and compliance with approved levels. Manholes and inspection chambers shall be constructed in accordance with approved drawings and checked for dimensions, benching, channel formation, watertightness, and cover installation. Plumbing fixtures shall be inspected for proper mounting, alignment, connection, and functionality. Pumps, tanks, and associated equipment shall be installed according to manufacturer recommendations and project specifications.

8.8.3 Testing and Commissioning

All plumbing and sewage systems shall undergo testing and commissioning before acceptance. Potable water piping systems shall be subjected to hydrostatic pressure testing to verify joint integrity and leak-free performance. Sanitary drainage and vent systems shall undergo water tests or air tests to confirm watertightness and proper installation. Underground sewer lines shall be tested for leakage, alignment, and flow performance. Manholes and inspection chambers shall be checked for watertightness and proper operation. Water storage tanks shall be inspected and tested for leakage and cleanliness before commissioning. Pumps shall undergo operational testing to verify flow rates, pressure performance, automatic controls, and overall functionality. All test results shall be documented and approved before the systems are placed into service.

8.8.4 Non-Conformance Management

Any work that does not comply with approved drawings, specifications, standards, or quality requirements shall be documented through a Non-Conformance Report (NCR). The NCR process shall include identification of the deficiency, investigation of the root cause, implementation of corrective actions, re-inspection, and formal closure following verification of compliance. Corrective and preventive actions shall be implemented to prevent recurrence and improve quality performance.

8.8.5 Calibration of Testing Equipment

All testing and measuring equipment used during inspections and commissioning shall possess valid calibration certificates. Calibration records shall be maintained and made available for review. Equipment requiring calibration may include pressure gauges, flow meters, laser levels, water level gauges, measuring tapes, and other testing instruments.

8.8.6 Documentation and Quality Records

Comprehensive quality records shall be maintained throughout the project. These records shall include material inspection reports, inspection requests, approved submittals, pressure test reports, leakage test reports, manhole inspection records, calibration certificates, NCR records, corrective action reports, commissioning reports, operation and maintenance manuals, and approved as-built drawings. All records shall be filed and maintained in a controlled and traceable manner.

8.8.7 Final Inspection and Handover

A final inspection shall be conducted upon completion of all plumbing and sewage works to verify compliance with approved drawings and specifications. All inspections, tests, and commissioning activities shall be completed successfully, and all punch-list items and non-conformances shall be closed before handover. The final handover package shall include test certificates, commissioning reports, warranties, operation and maintenance manuals, calibration certificates, approved as-built drawings, and all required quality records for project acceptance.

Inspection and Test Plan (ITP) – Plumbing and Sewage Works

Sr	Activity	Inspection / Test	Acceptance Criteria	Inspection Type	Responsibility
1	Material Receiving	Verification of materials, certificates, dimensions	Approved submittals and specifications	Review & Visual	QA/QC Engineer
2	Pipe Storage	Storage conditions and protection	Manufacturer requirements	Visual Inspection	QA/QC Engineer
3	Excavation for Underground Pipes	Depth, width, safety, bedding preparation	Approved drawings and specifications	Visual Inspection	Site Engineer / QAQC
4	Pipe Bedding	Material, thickness, compaction	Project specification requirements	Inspection	QA/QC Engineer
5	Underground Sewer Pipe Installation	Alignment, gradient, joints	Approved drawings and specifications	Visual Inspection	QA/QC Engineer
6	Backfilling of	Layer thickness	Approved	Hold Point	QA/QC

	Underground Pipes	and compaction	specification	(H)	Engineer
7	Water Supply Pipe Installation	Routing, supports, joints	Approved drawings and standards	Visual Inspection	QA/QC Engineer
8	Drainage and Vent Pipe Installation	Slope, support spacing, jointing	Approved drawings and specifications	Visual Inspection	QA/QC Engineer
9	Valve Installation	Location, accessibility, direction	Approved drawings and manufacturer requirements	Visual Inspection	QA/QC Engineer
10	Plumbing Fixture Installation	Position, alignment, connections	Approved drawings and specifications	Visual Inspection	QA/QC Engineer
11	Water Tank Installation	Foundation, level, connections	Approved drawings and manufacturer recommendations	Visual Inspection	QA/QC Engineer
12	Pump Installation	Alignment, anchoring, connections	Approved specifications	Visual Inspection	QA/QC Engineer
13	Manhole Construction	Dimensions, benching, channels	Approved drawings and specifications	Visual Inspection	QA/QC Engineer
14	Inspection Chamber Construction	Dimensions and workmanship	Approved drawings and specifications	Visual Inspection	QA/QC Engineer
15	Hydrostatic Pressure Test (Water Pipes)	Pressure test for leaks	No pressure loss or leakage	Test	QA/QC Engineer
16	Drainage Water Test	Water-tightness verification	No leakage observed	Test	QA/QC Engineer
17	Air Test (Drainage System)	Air pressure retention	Within specified limits	Test	QA/QC Engineer
18	Sewer Line Leakage Test	Leak and infiltration check	No leakage	Test	QA/QC Engineer
19	Flow Test	Drainage performance verification	Free and unobstructed flow	Test	QA/QC Engineer
20	Pump Functional Test	Capacity, controls, alarms	Meets design requirements	Test	QA/QC Engineer
21	Tank Leakage Test	Water retention verification	No leakage	Test	QA/QC Engineer
22	System Flushing and Cleaning	Cleanliness of piping systems	No debris or contamination	Inspection	QA/QC Engineer
23	Pre-Commissioning Inspection	Completion of installations and tests	No outstanding defects	Hold Point (H)	QA/QC Manager
24	Final Commissioning	Operational performance verification	Fully functional system	Hold Point (H)	QA/QC Manager
25	Final Handover Inspection	Documentation and acceptance review	All quality records approved	Hold Point (H)	QA/QC Manager

Legend
H = Hold Point (Work cannot proceed without approval)

8.9 CCTV System Installation Works

This Quality Assurance and Quality Control (QA/QC) Plan establishes the procedures, inspection requirements, testing methods, and documentation controls necessary to ensure that all Closed-Circuit Television (CCTV) system installation works are performed in accordance with approved drawings, project specifications, manufacturer recommendations, applicable international standards, and client requirements.

The purpose of this plan is to ensure that the CCTV system is installed correctly, operates reliably, and provides the required surveillance coverage and performance for the intended application.

Scope: This QA/QC Plan applies to all activities associated with the installation, testing, commissioning, and handover of CCTV systems, including conduits and containment systems, cabling infrastructure, network equipment, CCTV cameras, network video recorders (NVRs), digital video recorders (DVRs), video management software (VMS), monitoring workstations, control room equipment, power supplies, racks, cabinets, and associated accessories. The plan covers both indoor and outdoor CCTV installations and applies to all contractors, subcontractors, suppliers, and quality personnel involved in the works.

8.9.1 Material Quality Control

All CCTV materials and equipment delivered to site shall be inspected upon receipt to verify compliance with approved material submittals and project specifications. Inspections shall include verification of manufacturer certificates, compliance certificates, technical datasheets, warranty documents, and physical condition. Cameras, NVRs, DVRs, network switches, fiber optic components, structured cabling, power supplies, racks, monitors, and accessories shall be checked for correct model numbers, specifications, ratings, and any signs of damage during transportation. Non-conforming materials shall be rejected and removed from site. Approved materials shall be stored in a secure, dry, and protected environment.

8.9.2 Installation Quality Control

Prior to installation, approved shop drawings, coordinated layouts, material approvals, and method statements shall be reviewed and verified. Conduits, trunking, cable trays, and cable containment systems shall be inspected for routing, support spacing, workmanship, and compliance with approved drawings. CCTV cables shall be installed according to approved routes with proper identification, segregation from power cables, support, and protection against mechanical damage. Camera mounting locations shall be verified to ensure compliance with design coverage requirements, viewing angles, mounting heights, and accessibility for maintenance. Equipment racks and cabinets shall be inspected for alignment, grounding, cable management, ventilation, and accessibility. Network devices, NVRs, DVRs, monitors, and power supplies shall be installed in accordance with manufacturer instructions and project specifications. All connections and terminations shall be inspected for proper workmanship, labeling, and functionality.

8.9.3 Testing and Commissioning

Upon completion of installation works, comprehensive testing and commissioning activities shall be conducted. Cable continuity testing shall be performed to verify proper cable installation and termination. Network connectivity tests shall confirm communication between cameras, network switches, servers, and monitoring stations. Camera functionality tests shall verify image quality, focus, field of view, motion detection, infrared operation, pan-tilt-zoom (PTZ) functionality where applicable, and recording performance. Video storage systems shall be tested to verify recording, playback, backup, retention periods, and system capacity. Power supply systems and UPS units shall be tested to ensure continuous operation during power interruptions. Integrated system testing shall verify alarm integration, remote monitoring, network communication, and overall system functionality. All test results shall be documented and approved before system acceptance.

8.9.4 Non-Conformance Management

Any installation, material, or testing activity that does not comply with approved specifications, drawings, standards, or manufacturer recommendations shall be documented through a Non-Conformance Report (NCR). The NCR process shall include identification of the deficiency, investigation of root causes, implementation of corrective actions, re-inspection, retesting where necessary, and formal closure upon verification of compliance. Preventive actions shall be implemented to avoid recurrence of similar issues.

8.9.5 Calibration of Testing Equipment

All testing instruments used during installation and commissioning shall possess valid calibration certificates issued by accredited laboratories where applicable. Calibration records shall be maintained and made available for review. Testing equipment may include cable testers, network analyzers, optical power meters, fiber testing equipment, multimeters, and other specialized devices.

8.9.6 Documentation and Quality Records

Quality records shall be maintained throughout the project and shall include material inspection reports, approved submittals, inspection requests, cable test reports, network test reports, commissioning reports, calibration certificates, NCR records, corrective action reports, operation and maintenance manuals, warranties, training records, and approved as-built drawings. All documentation shall be maintained in a controlled and traceable manner.

8.9.7 Final Inspection and Handover

A final inspection shall be conducted to verify that all CCTV system components have been installed and tested in accordance with approved drawings and specifications. All inspections, testing, commissioning activities, and corrective actions shall be completed prior to handover. The final handover package shall include test reports, commissioning certificates, operation and maintenance manuals, warranties, training records, calibration certificates, approved as-built drawings, and all required quality documentation for client acceptance.

Inspection and Test Plan (ITP) – CCTV System Installation Works

Sr	Activity	Inspection / Test	Acceptance Criteria	Inspection Type	Responsibility
1	Material Receiving	Verify equipment, certificates, and specifications	Approved material submittals	Review & Visual	QA/QC Engineer
2	Storage of Equipment	Protection from damage and environmental exposure	Manufacturer recommendations	Visual Inspection	QA/QC Engineer
3	Conduit/Containment Installation	Routing, supports, workmanship	Approved drawings and specifications	Visual Inspection	QA/QC Engineer
4	Cable Tray/Trunking Installation	Alignment, support spacing, grounding	Approved drawings	Visual Inspection	QA/QC Engineer
5	CCTV Cable Installation	Correct routing, labeling, segregation	Approved drawings and specifications	Visual Inspection	QA/QC Engineer
6	Fiber Optic Cable Installation (if applicable)	Routing, bend radius, protection	Manufacturer requirements	Visual Inspection	QA/QC Engineer
7	Equipment Rack Installation	Alignment, grounding, accessibility	Approved shop drawings	Visual Inspection	QA/QC Engineer
8	Camera Mounting Installation	Location, height, orientation	Approved camera layout drawings	Visual Inspection	QA/QC Engineer
9	NVR/DVR Installation	Mounting, connections, labeling	Manufacturer recommendations	Visual Inspection	QA/QC Engineer
10	Network Switch	Connectivity and configuration	Approved design	Visual	QA/QC

	Installation	readiness	requirements	Inspection	Engineer
11	Power Supply/UPS Installation	Capacity, wiring, grounding	Approved specifications	Visual Inspection	QA/QC Engineer
12	Cable Continuity Test	Cable integrity verification	Pass continuity test	Test	QA/QC Engineer
13	Fiber Optic Testing (if applicable)	Optical loss measurement	Within specified limits	Test	QA/QC Engineer
14	Network Connectivity Test	Communication between devices	Successful connectivity	Test	QA/QC Engineer
15	Camera Functionality Test	Live image, focus, viewing angle	Meets design requirements	Test	QA/QC Engineer
16	PTZ Camera Test (if applicable)	Pan, tilt, zoom operation	Full operational functionality	Test	QA/QC Engineer
17	Infrared/Night Vision Test	Night-time image quality	Clear image as specified	Test	QA/QC Engineer
18	Recording System Test	Recording and playback verification	Successful recording and retrieval	Test	QA/QC Engineer
19	Storage Capacity Verification	Retention period compliance	Meets project requirements	Test	QA/QC Engineer
20	Power Backup Test	System operation during power failure	Continuous operation within specified duration	Test	QA/QC Engineer
21	Integrated System Test	End-to-end CCTV operation	Full system functionality	Test	QA/QC Engineer
22	User Acceptance Test (UAT)	Client verification of system performance	Client approval	Hold Point (H)	QA/QC Manager
23	Pre-Commissioning Inspection	Completion of installation and testing	No outstanding defects	Hold Point (H)	QA/QC Manager
24	Final Commissioning	Full operational verification	Meets design and performance requirements	Hold Point (H)	QA/QC Manager
25	Final Handover Inspection	Documentation and system acceptance	Complete approved records	Hold Point (H)	QA/QC Manager

Legend
H = Hold Point (Work cannot proceed without approval)

9. Final Inspection and Handover

- Completion of all inspections and tests
- Submission of QA/QC dossier
- Client/Engineer final walkthrough
- Issuance of completion certificate

ANNEX 4 - ENVIRONMENTAL MITIGATION REQUIREMENTS

S/No	Project Stage and Activity	Potential for Negative Impacts	Mitigation Action for the Negative Impacts
1.	**Implementation**		
1.1	Demolition of existing failed structures, and carting away surplus materials	Avoid adjacent building, and damaging or destroying sensitive terrestrial ecosystems in the course of site	Develop plan to reduce and minimize impacts of falling objects and native flora during construction from damaging inhabitants, ecosystems and labours. Remove large objects without destroying. Cart away surplus debris and other hazardous materials to recommended proper damp sites.
1.2	Site clearing and/ or levelling, and construction stake out	Disturbing natural flow of accumulation of watershed of the land topography and property line	Minimize disturbance of native flora during construction. Remove, without destroying, large
1.3	Drainage	Cause erosion, siltation, changes in natural water flow, and/or damage to aquatic ecosystems when excavated soil is piled inappropriately. Expose inhabitants and crew to risk of falls and injuries in excavation pits.	• Install drainage structure during construction • Putting operation and maintenance programme into effect to prevent and mitigate environmental impacts • Factor climate change scenario • Clearly define the type of the drainage purposing, ditches or self-drainage to control surface water drainage system • Extend run out drains for enough to allow water to dissipate evenly into ground. • Add Gutters to roofs. • Clean and Extend volume of Septic tanks.

1.4	Cladding of the structures	Possibility of contamination of soil and ground water by Ferrous (III) Oxide when rain water falls and drains on rusted iron sheets	The design and specifications binding with BoQ will recommend the use of pre-painted iron sheets to avoid rust. The site supervisors will ensure that the iron sheets delivered for the works are pre-painted and the correct gauge. No Painting at all
2	**Operation**		
1.1	Dust	Pollution of surface or ground water due to dust	Water trucks for reducing dust during rehab of roads
1.2	Concrete Mixing	Hardening of extra concrete after every stage of concrete mixing.	Site supervisors should make sure to be cleaned and removed extra concretes after mixing and casting is completed.

ANNEX 5 - HEALTH, ENVIRONMENTAL, SAFETY & SECURITY PLAN (HESSP) GUIDE

Submit Detailed HESSP Plan. Below is a guide.

DT Global

sinaan
sikastaba | in every way

UK International Development
Partnership | Progress | Prosperity

Health, Environmental, Safety & Security Plan (HESSP) Template

Table of Content

1. Introduction
2. Objective
3. Scope
4. Responsibilities
   - 4.1 Director of the Company
   - 4.2 Project Manager
   - 4.3 Safety and Health Professional
   - 4.4 Labors and workers
5. Submittal
6. Risks and Hazards
7. PERSONAL PROTECTIVE EQUIPMENT
   - 7.1 Safety Glasses
   - 7.2 Hard Hats
   - 7.3 Footwear:
   - 7.4 Clothing:
   - 7.5 Hand Protection:
   - 7.6 Hearing Protection
8. Training
9. Environmental Mitigation Measure
10. Security Program

Construction Environmental, Health, Safety & Security Plan

for

Project Name

Project Location: Insert Project Location

Project Number: Insert Project Number

Prepared By: XYZ Company

Submitted To: SINAAN

Submission Date: ……/…../20….

There is no work, or the job is important than human life and health. This Health, Environmental, Safety & Security Plan (HESSP) will guide the contractor to plan their employees safe working conditions and will not create any damage to the public health or the environment due to the construction activities. Safety must be an integral part of each job. Full participation, cooperation, and support are necessary to ensure the safety and health of all persons and property involved in the project. Good project managers are trying to prepare precise action plans for safety and QC to ensure that the job is done right in a safe surrounding and that no major accidents occur on project site.

XYZcompany policy about safety is to perform all tasks and construction activities, safely with full regard to the well-being of workers, visitors, public, and the environment. If a job represents potential safety or health threat, every effort will be made to plan a safe way to do the job. We believe that if there is no any way to do a job safely, then it shall not be done at all. The following pages describe the **XYZ** performance in regard to safety assurance during the implementation of **Insert Project # & Name**, projects that comprises of the following major activities or tasks.

1. ----------

2. ----------
3. ----------
4. ----------
5. ----------
6. ----------
7. ----------
8. ----------
9. ----------

1. Introduction

XYZ Company as a contractor for implementing the project **Insert Project # and Name**

And according to his contractual responsibility has to provide safety plan to maintain safe work performance, protect labor's life and health and not damage the environment. A safety plan is a fundamental element of the subproject implementation system. The plan in general; outlines all activities that should be considered for safety performing construction work on site and includes steps that to be taken during all phases of implementation of the project. This plan has been arranged according to the international safety acts, by SINAAN as a measure to meet local best management practices.
It should be mentioned that this plan is prepared in accordance to the size, extent, and the complexity of the project to be implemented as well as according to the present condition, existing facilities and potential resources available in the region. All management, particularly line managers are responsible for controlling the project site during the implementation of the subproject, and supervise all the issues and mitigation measures that relate to workplace secure, safe, healthy, and without causing environment problems.

2. Objectives

This Safety Plan provides both general and specific information to XYZ Contractors on the requirements and procedures for accident prevention, safety, and security at **(Insert Project # and Name)** construction site. This includes construction, rehabilitation, repair, or services required by SINAAN.

The XYZ Company safety objective is to achieve accident-free construction/PV installation projects. It can only be achieved when all operations have been conducted in a manner that will provide safe working conditions for all employees and labors, and protect the public and all others who may be affected by construction activities. The main objectives of this safety plan can be summarized as follow:

- To eliminate hazards, or minimize it to an acceptable level of risk for people, plant and the environment.
- To promote and maintain (provide) healthy and safe work condition for employee, labors, service providers and all others involving in the construction of the project.

3. Scope

This Site Construction Safety Plan applies to all aspects of the construction/rehabilitation/PV Installation works and associated activities, to be performed for carrying out subproject **(Insert Project # and Name)** from start to the end. XYZ Company is responsible for considering all clauses of these documents during the implementation of the project.

4. Responsibilities

Safety must be an integral part of each job especially construction activities. Full participation, cooperation, and support are necessary to ensure the safety and health of all persons and property involved in the project. So that throughout all phases of construction, managers, supervisors, project managers, construction inspectors, construction safety specialists, and other personnel overseeing construction must monitor field activities frequently to ensure that they are conducted safely. They must ensure that appropriate measures are taken to minimize the possibility of personal injury, damage to property, adverse effects to the environment, and program disruptions or delays resulting from the accident.

All management staffs and especially line managers in XYZ Company will combine their efforts to produce a safe surrounding in the project site. Following is a short description of responsibilities of relevant management authority at the different level of XYZ Company in this regard.

4.1 Director of the Company

The director of the company is ultimately responsible for the safe performance of onsite activities, from start to end of the project. So that:

a- He/She is responsible for producing and enhancing the system of HES&S for the project and facilitate for the smooth running of the system.

b- He should frequently supervise the activities, project management staffs, labors, equipment and job site for safety, and analyze the safety system time by time to bring farther more improvement in HES&S system.

c- He will assign an on-site safety and health professional with authority to enforce all the safety requirements for the project to control all aspects related directly or indirectly to safety issues. It is not necessary the safety, and health professional is a full-time employee of XYZ Company, but he shall visit the site daily, or as common understanding between XYZ Company and SINAAN.

4.2 Project Manager

a- As a main responsible person on job site, the project manager will maintain his close cooperation with the safety specialist. He will always supervise the activities don by safety specialist and provide good support for him to perform his duty in the best manner.

b- He will prepare and maintain necessary facilities for safety and health professional to perform his duties properly and without anxiety. He will cooperate with him to apply safety requirement and regulation in the job site.

4.3 Safety and Health Professional

a- As the focal person for implementing SH&E regulations and plan on job site, he is responsible for creating, developing, applying and conducting safety and health principles in the workplace.

b- He will analyze situations and conditions, predict probably risks and hazards and prepare an action plan to mitigate or eliminate the effects of risk if it happens.

c- He will recognize the urgent needs of all those who are working in job site for protective wearing and equipment and furnish them with required wearing and equipment.

d- In the case of occurrence an accident, he will spend his all efforts to control the situation and take urgent action to mitigate the accident effects to the minimum possible level.

e- The safety and health professional will schedule and hold safety meetings (training) for employees, skilled and unskilled labors and all other those who are involving in construction activities.

f- In addition to above, he will do the short sentence we can summarize the job of safety and health professional as follow:

- Assist in conducting a workplace hazard assessment.
- Assist in PPE selection.
- Assist in developing worker training.
- Conduct periodic audits of PPE program.

4.4 Labors and workers

- Attend training.
- Use personal protection equipment (PPE) when necessary

5. Submittal

XYZ company will submit the following documentation, for review and acceptance by the SINAAN.

- SH&F plan prepared by the company at least one week before commencing physical activities of the project.
- Documented evidence (CV/RESUME) of the Safety Professional.
- On time accident report, if it happened, not latter then the first 12 hrs.

6. Risks & Hazards

Construction sites are hazardous by nature. The environment is not only dangerous, the materials and chemicals that are used also pose a health threat to construction workers and others at the site. To make construction site safe, we can minimize the hazards, train employees in safe work practices and increase awareness of construction site safety. In general, there are several types of risks in construction sites that to be predicted and protected. These risks if happen; produce death, injury,

and delay in project duration, waste of resources and a series of other problems. The important type of them which XYZ company is dealing whit here is health hazards on job site that can be predicted and take protective action plan for them.

Following table describes tasks, related risk, results and how to protect employees and labors.

SAMPLE TABLE FOR SITE RELATED SITE RELATED RISKS AND PREVENTIVE ACTIONS			
Type of work	Risk	Result	Protection and preventive actions
Excavations and trenches	The collapse of the side walls, Damage to underground utilities, falling of humans, equipment, and animals	Death, Physical Injury, Waste of Resources	Prevent the side walls from collapsing or slide, by battering them to a safe angle or supporting them with timber, sheeting or other proper supporting systems. Be aware of underground utilities. Provide substantial barriers: e.g., guard rails and toe boards.
Demolition	Falling material, Dust, and Pollutions, Noise, Vibration	Physical Injury, Sickness, environment damage	Always choose the lowest impact tool available that will still effectively perform the task When breaking up a slab, angle the tool to the surface and make fissures in the material. Avoiding positioning the tool perpendicular to the work
Scaffoldings	The disintegration of Scaffolding parts, Falling workers, and things	Death, Physical Injury, Waste of Resources	Assigning professional scaffolding worker. Selecting the Right Scaffold for the Job. Sound design and proper erection. Installing proper guardrails. Shall not be loaded beyond their rated and maximum capacity. Tag any incomplete scaffold or damaged component out of service
Work in elevations and towers	Falling workers and things	Death, Physical Injury, Waste of Resources	Provide -Safe access to workplace. - full body harness -Anchorage points. –Guardrails. – Maybe canopy
Painting	Existing of lead in oil paint composition	Illness	Using lead-free paints

Note: This table is prepared just as a sample. Companies shall prepare their own according to their projects

7. Personal Protective Equipment

Personal protective equipment (PPE) is used to increase individual safety while performing potentially hazardous tasks. PPE may include safety glasses, hard hats, gloves, respirators, or any equipment or clothing used to protect against injury or illness. XYZ Construction Company will ensure that the proper types of PPE are available and used by employees.

PPE comprises of special clothes and other protective elements as follows

7.1 Safety glasses

With side shields to protect against flying particles (e.g., sawdust, nails, metal shavings, etc.). Goggles should be used to protect against molten metal, liquid chemicals, acids and caustic liquids, chemical gases and vapors. Shaded eyewear should be used to protect against potentially injurious light radiation (e.g., cutting and welding, lasers).

7.2 Hard hats

Must be worn at all times during a construction project until the ceiling is finished or equivalent has been installed. All workers in areas where there is a possible danger of head injury from impact, from falling or flying objects, or from electrical shock and burns must also be protected by a hardhat.

7.3 Footwear:

Leather work shoes are required. Sneakers are not permitted. Protective footwear (e.g., steel toe boots, reinforced soles, insulated, etc.) must be worn in areas where there is the potential for foot injuries from falling or rolling objects, from objects piercing the sole, or from exposed energized electrical conductors that could contact the feet.

7.4 Clothing:

Pants must be worn while at a construction site. Shorts are not permitted.

7.5 Hand protection:

Proper hand protection (e.g., leather work gloves, welder's gloves, appropriate chemical protective gloves, etc.) to protect against cuts or lacerations, abrasions, punctures, hazards of skin absorption of harmful substances, chemical burns, thermal burns, or harmful temperature extremes must be worn.

7.6 Hearing protection

Must be worn on the job site when noise levels exceed the permissible exposure limit defined by the Occupational Safety and Health Administration under requirements outlined in OSHA 1910.95

8. Training

Each worker required to use PPE must receive training in the following:

- how to properly wear PPE
- what types of PPE protect against the hazards identified during the assessment
- when PPE must be used · the proper care and useful life of PPE
- proper disposal of damaged PPE

XYZ Company will certify in writing that workers have received and understood this training. Training assistance is available through EHS.

9. Environmental Mitigation Measures

Environmental protection is a requirement for work on SINAAN projects and will be monitored by SINAAN Engineers. The XYZ Company is therefore required to submit as part of the HESSP, a list of mitigation measures that will be used to reduce or eliminate the risk of adverse environmental impacts. There are several types of environmental risks on construction sites that can be predicted and protected. These risks if they occur can result in degradation of natural resources including surface and groundwater, soil and air quality.

The following table provides a list of standard mitigation measures that should be considered before submitting the HESSP to SINAAN for review and approval.

Project Phase	Activity	Potential Environmental / Social Impact	Mitigation Measures
Pre-Construction	Site selection and layout design	Impacts on sensitive habitats, land use conflicts	• Conduct environmental and social screening • Avoid protected areas, wetlands, cultural heritage sites • Optimize layout to minimize footprint
	Land acquisition and access	Land disputes, loss of livelihoods	Use government/municipal land where possible • Avoid involuntary resettlement • Prepare Resettlement Action Plan/Livelihood Restoration Plan if required

Construction	Site clearing and earthworks	Vegetation loss, soil erosion	• Limit clearing to approved areas • Mark no-go zones • Restore disturbed areas after works
	Excavation and trenching	Soil erosion, sediment runoff	• Install erosion and sediment control (berms, silt fences) • Avoid works during heavy rains
	Material transport and site traffic	Dust emissions, nuisance to communities	• Water spraying on access roads • Cover transported materials • Enforce speed limits
	Construction machinery and equipment	Noise and vibration impacts	• Restrict noisy works to daytime • Maintain equipment • Provide PPE to workers
	Construction waste generation	Soil and visual pollution	• Prepare Waste Management Plan • Segregate recyclable waste • Dispose at approved sites
	Fuel and oil storage	Soil and water contamination	• Store fuel in bunded areas • Spill kits available onsite • Train staff in spill response
	Electrical and working-at-height activities	Worker accidents and injuries	• Implement OHS Plan • Provide PPE • Toolbox talks • Emergency response plan
Operation	PV system operation	Glare and visual impacts	• Use anti-reflective PV modules • Maintain buffer distances
	Routine maintenance	Waste from damaged panels	• Store damaged panels safely • Recycle through approved recyclers

	Electrical systems	Fire and safety risks	• Install fire protection systems • Routine inspections and maintenance
	Stormwater management	Localized flooding or erosion	• Maintain drainage channels • Inspect after heavy rains
Decommissioning	Dismantling of PV system	Waste generation, land degradation	• Prepare Decommissioning Plan • Recycle panels, metals, cables • Restore site

Note: This table is prepared just as a sample. Companies shall prepare their own according to their projects

10. Security Program,

Contractors Security Program should include minimum of the following

a. Project Site Entry Control
b. Restrictions
c. Project Site Security Services
d. CV of a security person
e. Transportation of DT GLOBAL SINAAN Local National staff to and from the job site (if required)
f. Security Plan for provided Facilities/ Equipment (office …etc.)
g. Site Security Plan
h. Security Organization Chart
i. Emergency Procedures
j. Parking of Machinery at site
k. Ascertaining of the Security Threats in advance
l. Reporting Mechanism
m. Evacuation Plan