REPUBLIC OF KENYA

MINISTRY OF TRANSPORT, INFRASTRUCTURE HOUSING, URBAN DEVELOPMENT AND PUBLIC WORKS

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM & 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST-WAJIR NORTH, WAJIR COUNTY FOR THE KENYA POLICE SERVICE

APPROPRIATE BUILDING MATERIAL TECHNOLOGY (ABMT)

TENDER DOCUMENTS

W.P ITEMS NO D111/NE/WJR/1701/10209N.


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MARCH, 2019
REPUBLIC OF KENYA

MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING URBAN DEVELOPMENT AND PUBLIC WORKS

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM & 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST-WAJIR NORTH COUNTY FOR THE KENYA POLICE SERVICE

W.P ITEM: NO D111/NE/WJR/1709/10209N

TENDER DOCUMENTS

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REPUBLIC OF KENYA

MINISTRY OF TRANSPORT, INFRASTRUCTURE, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT
STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM & 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST-WAJIR NORTH COUNTY FOR THE KENYA POLICE SERVICE

TENDER DOCUMENTS

Supplied as part of the Contract No. D111/NE/WJR/1709/10209N

Issued by:-
Quantities and Contract Department
Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works
P O Box 30743
NAIROBI

The contract for the above mentioned works entered into this ………… day of …………. 2019 by the undersigned refers to these Bills of Quantities and the Ministry of Public Works General Specification dated March 1976 (together with any amendments issued thereto) shall be read and construed as part of the said contract.

........................................... ..............................................
CONTRACTOR PRINCIPAL SECRETARY,

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT.

Date: .................................... Date: .....................................

(ii)
SPECIAL NOTES

The Contractor is required to check the numbers of the pages of these Bills of Quantities and should he find any missing or in duplicate or figures indistinct he must inform the Principal Secretary for State Department for Public Works, Head Office, Ngong Road, Nairobi at once and have the same rectified.

Should the Contractor be in doubt about the precise meaning of any item or figure for any reason whatsoever, he must inform the Principal Secretary, State Department for Public Works, Head Office in order that the correct meaning may be decided before the date for submission of tenders.

No liability will be admitted nor claim allowed in respect of errors in the Contractor’s Tender due to mistakes in the Specifications which should have been rectified in the manner described above.

SIGNATURE PAGE AND NOTES
REPUBLIC OF KENYA

STANDARD TENDER DOCUMENT

FOR

PROCUREMENT OF WORKS
(BUILDING AND ASSOCIATED
CIVIL ENGINEERING WORKS)

PUBLIC PROCUREMENT REGULATORY
AUTHORITY (PPRA)
P.O. BOX 88535 - 00200
NAIROBI.

(REVISED DECEMBER 2015)
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SECTION I

INVITATION FOR TENDERS

Tender reference No. (as per tender document)

Tender Name (as per tender document)


1.2 Interested eligible candidates may obtain further information and inspect tender documents at State department for Public Works, Works Building, Community-Nairobi 4th Floor Room 412 during normal working hours.

1.3 A complete set of tender documents may be obtained by interested candidates upon payment of a non-refundable fees of Kshs.1000 in cash or Bankers Cheque payable to Principal Secretary, State Department for Housing and Urban Development.

1.4 Prices quoted should be net inclusive of all taxes, must be in Kenya shillings and shall remain valid for (120) days from the closing date of tender.

1.5 Completed tender documents are to be enclosed in plain sealed envelopes marked with Tender name and reference number and deposited in the Tender Box at (address and location) or to be addressed to (procurement entity’s name and address) so as to be received on or before (day, date and time).

1.6 Tenders will be opened immediately thereafter in the presence of the candidates or their representatives who choose to attend at (Address and Appropriate Officer)

__________________________________

For (Accounting Officer/Procuring Entity)
## SECTION II

### INSTRUCTIONS TO TENDERERS

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INSTRUCTIONS TO TENDERERS.

1. General/Eligibility/Qualifications/Joint venture/Cost of tendering

1.1 The Employer as defined in the Appendix to Conditions of Contract invites tenders for Works Contract as described in the tender documents. The successful tenderer will be expected to complete the Works by the Intended Completion Date specified in the tender documents.

1.2 All tenderers shall provide the Qualification Information, a statement that the tenderer (including all members of a joint venture and subcontractors) is not associated, or has not been associated in the past, directly or indirectly, with the Consultant or any other entity that has prepared the design, specifications, and other documents for the project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Employer to provide consulting services for the preparation or supervision of the Works, and any of its affiliates, shall not be eligible to tender.

1.3 All tenderers shall provide in the Form of Tender and Qualification Information, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.

1.4 In the event that pre-qualification of potential tenderers has been undertaken, only tenders from pre-qualified tenderers will be considered for award of Contract. These qualified tenderers should submit with their tenders any information updating their original pre-qualification applications or, alternatively, confirm in their tenders that the originally submitted pre-qualification information remains essentially correct as of the date of tender submission.

1.5 Where no pre-qualification of potential tenderers has been done, all tenderers shall include the following information and documents with their tenders, unless otherwise stated:

(a) copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the tender to commit the tenderer:

(b) total monetary value of construction work performed for each of the last five years:

(c) experience in works of a similar nature and size for each of the last five years, and details of work under way or contractually committed; and names and addresses of
clients who may be contacted for further information on these contracts;

(d) major items of construction equipment proposed to carry out the Contract and an undertaking that they will be available for the Contract.

(e) qualifications and experience of key site management and technical personnel proposed for the Contract and an undertaking that they shall be available for the Contract.

(f) reports on the financial standing of the tenderer, such as profit and loss statements and auditor’s reports for the past five years;

(g) evidence of adequacy of working capital for this Contract (access to line(s) of credit and availability of other financial resources);

(h) authority to seek references from the tenderer’s bankers;

(i) information regarding any litigation, current or during the last five years, in which the tenderer is involved, the parties concerned and disputed amount; and

(j) proposals for subcontracting components of the Works amounting to more than 10 percent of the Contract Price.

1.6 Tenders submitted by a joint venture of two or more firms as partners shall comply with the following requirements, unless otherwise stated:

(a) the tender shall include all the information listed in clause 1.5 above for each joint venture partner;

(b) the tender shall be signed so as to be legally binding on all partners;

(c) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;

(d) one of the partners will be nominated as being in charge, authorised to incur liabilities, and receive instructions for and on behalf of all partners of the joint venture; and

(e) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge.
1.7 To qualify for award of the Contract, tenderers shall meet the following minimum qualifying criteria:

(a) annual volume of construction work of at least 2.5 times the estimated annual cashflow for the Contract;

(b) experience as main contractor in the construction of at least two works of a nature and complexity equivalent to the Works over the last 10 years (to comply with this requirement, works cited should be at least 70 percent complete);

(c) proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment listed as required for the Works;

(d) a Contract manager with at least five years’ experience in works of an equivalent nature and volume, including no less than three years as Manager; and

(e) liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of no less than 4 months of the estimated payment flow under this Contract.

1.8 The figures for each of the partners of a joint venture shall be added together to determine the tenderer’s compliance with the minimum qualifying criteria of clause 1.7 (a) and (e); however, for a joint venture to qualify, each of its partners must meet at least 25 percent of minimum criteria 1.7 (a), (b) and (e) for an individual tenderer, and the partner in charge at least 40 percent of those minimum criteria. Failure to comply with this requirement will result in rejection of the joint venture’s tender. Subcontractors’ experience and resources will not be taken into account in determining the tenderer’s compliance with the qualifying criteria, unless otherwise stated.

1.9 Each tenderer shall submit only one tender, either individually or as a partner in a joint venture. A tenderer who submits or participates in more than one tender (other than as a subcontractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the tenderer’s participation to be disqualified.

1.10 The tenderer shall bear all costs associated with the preparation and submission of his tender, and the Employer will in no case be responsible or liable for those costs.

1.11 The tenderer, at the tenderer’s own responsibility and risk, is encouraged to visit and examine the Site of the Works and its surroundings, and obtain all information that may be necessary
for preparing the tender and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the tenderer's own expense.

1.12 The procuring entity’s employees, committee members, board members and their relative (spouse and children) are not eligible to participate in the tender.

1.13 The price to be changed for the tender document shall not exceed Kshs.5,000/=.

1.14 The procuring entity shall allow the tenderer to review the tender document free of charge before purchase.

2. **Tender Documents**

2.1 The complete set of tender documents comprises the documents listed below and any addenda issued in accordance with Clause 2.4.

- (a) These Instructions to Tenderers
- (b) Form of Tender and Qualification Information
- (c) Conditions of Contract
- (d) Appendix to Conditions of Contract
- (e) Specifications
- (f) Drawings
- (g) Bills of Quantities
- (h) Forms of Securities

2.2 The tenderer shall examine all Instructions, Forms to be filled and Specifications in the tender documents. Failure to furnish all information required by the tender documents, or submission of a tender not substantially responsive to the tendering documents in every respect will be at the tenderer’s risk and may result in rejection of his tender.

2.3 A prospective tenderer making an inquiry relating to the tender documents may notify the Employer in writing or by cable, telex or facsimile at the address indicated in the letter of invitation to tender. The Employer will only respond to requests for clarification received earlier than seven days prior to the deadline for submission of tenders. Copies of the Employer’s response will be forwarded to all persons issued with tendering documents, including a description of the inquiry, but without identifying its source.

2.4 Before the deadline for submission of tenders, the Employer may modify the tendering documents by issuing addenda. Any addendum thus issued shall be part of the tendering documents
and shall be communicated in writing or by cable, telex or facsimile to all tenderers. Prospective tenderers shall acknowledge receipt of each addendum in writing to the Employer.

2.5 To give prospective tenderers reasonable time in which to take an addendum into account in preparing their tenders, the Employer shall extend, as necessary, the deadline for submission of tenders, in accordance with Clause 4.2 here below.

3. **Preparation of Tenders**

3.1 All documents relating to the tender and any correspondence shall be in English language.

3.2 The tender submitted by the tenderer shall comprise the following:
   (a) These Instructions to Tenderers, Form of Tender, Conditions of Contract, Appendix to Conditions of Contract and Specifications;

   (b) Tender Security;

   (c) Priced Bill of Quantities ;

   (d) Qualification Information Form and Documents;

   (e) Alternative offers where invited; and

   (f) Any other materials required to be completed and submitted by the tenderers.

3.3 The tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items for which no rate or price is entered by the tenderer will not be paid for when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause relevant to the Contract, as of 30 days prior to the deadline for submission of tenders, shall be included in the tender price submitted by the tenderer.

3.4 The rates and prices quoted by the tenderer shall only be subject to adjustment during the performance of the Contract if provided for in the Appendix to Conditions of Contract and provisions made in the Conditions of Contract.

3.5 The unit rates and prices shall be in Kenya Shillings.
3.6 Tenders shall remain valid for a period of sixty (60) days from the date of submission. However in exceptional circumstances, the Employer may request that the tenderers extend the period of validity for a specified additional period. The request and the tenderers’ responses shall be made in writing. A tenderer may refuse the request without forfeiting the Tender Security. A tenderer agreeing to the request will not be required or permitted to otherwise modify the tender, but will be required to extend the validity of Tender Security for the period of the extension, and in compliance with Clause 3.7 - 3.11 in all respects.

3.7 The tenderer shall furnish, as part of the tender, a Tender Security in the amount and form specified in the appendix to invitation to tenderers. This shall be in the amount not exceeding 2 percent of the tender price.

3.8 The format of the Tender Security should be in accordance with the form of Tender Security included in Section G - Standard forms or any other form acceptable to the Employer. Tender Security shall be valid for 30 days beyond the validity of the tender.

3.9 Any tender not accompanied by an acceptable Tender Security shall be rejected. The Tender Security of a joint venture must define as “Tenderer” all joint venture partners and list them in the following manner: a joint venture consisting of ”………..”, ”………..”, and “………..”.

3.10 The Tender Securities of unsuccessful tenderers will be returned within 28 days of the end of the tender validity period specified in Clause 3.6.

3.11 The Tender Security of the successful tenderer will be discharged when the tenderer has signed the Contract Agreement and furnished the required Performance Security.

3.12 The Tender Security may be forfeited
   (a) if the tenderer withdraws the tender after tender opening during the period of tender validity;
   (b) if the tenderer does not accept the correction of the tender price, pursuant to Clause 5.7;
   (c) in the case of a successful tenderer, if the tenderer fails within the specified time limit to
       (i) sign the Agreement, or
(ii) furnish the required Performance Security.

3.13 Tenderers shall submit offers that comply with the requirements of the tendering documents, including the basic technical design as indicated in the Drawings and Specifications. Alternatives will not be considered, unless specifically allowed in the invitation to tender. If so allowed, tenderers wishing to offer technical alternatives to the requirements of the tendering documents must also submit a tender that complies with the requirements of the tendering documents, including the basic technical design as indicated in the Drawings and Specifications. In addition to submitting the basic tender, the tenderer shall provide all information necessary for a complete evaluation of the alternative, including design calculations, technical specifications, breakdown of prices, proposed construction methods and other relevant details. Only the technical alternatives, if any, of the lowest evaluated tender conforming to the basic technical requirements shall be considered.

3.14 The tenderer shall prepare one original of the documents comprising the tender documents as described in Clause 3.2 of these Instructions to Tenderers, bound with the volume containing the Form of Tender, and clearly marked “ORIGINAL”. In addition, the tenderer shall submit copies of the tender, in the number specified in the invitation to tender, and clearly marked as “COPIES”. In the event of discrepancy between them, the original shall prevail.

3.15 The original and all copies of the tender 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 tenderer, pursuant to Clause 1.5 (a) or 1.6 (b), as the case may be. All pages of the tender where alterations or additions have been made shall be initialled by the person or persons signing the tender.

3.16 Clarification of tenders shall be requested by the tenderer to be received by the procuring entity not later than 7 days prior to the deadline for submission of tenders.

3.17 The procuring entity shall reply to any clarifications sought by the tenderer within 3 days of receiving the request to enable the tenderer to make timely submission of its tender.

3.18 The tender security shall be in the amount of 0.5 – 2 per cent of the tender price.
4. Submission of Tenders

4.1 The tenderer shall seal the original and all copies of the tender in two inner envelopes and one outer envelope, duly marking the inner envelopes as "ORIGINAL" and "COPIES" as appropriate. The inner and outer envelopes shall:
(a) be addressed to the Employer at the address provided in the invitation to tender;
(b) bear the name and identification number of the Contract as defined in the invitation to tender; and
(c) provide a warning not to open before the specified time and date for tender opening.

4.2 Tenders shall be delivered to the Employer at the address specified above not later than the time and date specified in the invitation to tender. However, the Employer may extend the deadline for submission of tenders by issuing an amendment in accordance with Sub-Clause 2.5 in which case all rights and obligations of the Employer and the tenderers previously subject to the original deadline will then be subject to the new deadline.

4.3 Any tender received after the deadline prescribed in clause 4.2 will be returned to the tenderer un-opened.

4.4 Tenderers may modify or withdraw their tenders by giving notice in writing before the deadline prescribed in clause 4.2. Each tenderer’s modification or withdrawal notice shall be prepared, sealed, marked, and delivered in accordance with clause 3.13 and 4.1, with the outer and inner envelopes additionally marked "MODIFICATION" and "WITHDRAWAL", as appropriate. No tender may be modified after the deadline for submission of tenders.

4.5 Withdrawal of a tender between the deadline for submission of tenders and the expiration of the period of tender validity specified in the invitation to tender or as extended pursuant to Clause 3.6 may result in the forfeiture of the Tender Security pursuant to Clause 3.11.

4.6 Tenderers may only offer discounts to, or otherwise modify the prices of their tenders by submitting tender modifications in accordance with Clause 4.4 or be included in the original tender submission.
5. **Tender Opening and Evaluation**

5.1 The tenders will be opened by the Employer, including modifications made pursuant to Clause 4.4, in the presence of the tenderers’ representatives who choose to attend at the time and in the place specified in the invitation to tender. Envelopes marked “WITHDRAWAL” shall be opened and read out first. Tenderers’ and Employer’s representatives who are present during the opening shall sign a register evidencing their attendance.

5.2 The tenderers’ names, the tender prices, the total amount of each tender and of any alternative tender (if alternatives have been requested or permitted), any discounts, tender modifications and withdrawals, the presence or absence of Tender Security, and such other details as may be considered appropriate, will be announced by the Employer at the opening. Minutes of the tender opening, including the information disclosed to those present will be prepared by the Employer.

5.3 Information relating to the examination, clarification, evaluation, and comparison of tenders and recommendations for the award of Contract shall not be disclosed to tenderers or any other persons not officially concerned with such process until the award to the successful tenderer has been announced. Any effort by a tenderer to influence the Employer’s officials, processing of tenders or award decisions may result in the rejection of his tender.

5.4 To assist in the examination, evaluation, and comparison of tenders, the Employer at his discretion, may ask any tenderer for clarification of the tender, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, telex or facsimile but no change in the price or substance of the tender shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered in the evaluation of the tenders in accordance with Clause 5.7.

5.5 Prior to the detailed evaluation of tenders, the Employer will determine whether each tender (a) meets the eligibility criteria defined in Clause 1.7; (b) has been properly signed; (c) is accompanied by the required securities; and (d) is substantially responsive to the requirements of the tendering documents. A substantially responsive tender is one which conforms to all the terms, conditions and specifications of the tendering documents, without material deviation or reservation. A material deviation or reservation is one (a) which
affects in any substantial way the scope, quality, or performance of the works; (b) which limits in any substantial way, inconsistent with the tendering documents, the Employer’s rights or the tenderer’s obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other tenderers presenting substantially responsive tenders.

5.6 If a tender is not substantially responsive, it will be rejected, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

5.7 Tenders determined to be substantially responsive will be checked for any arithmetic errors. Errors will be corrected as follows:

(a) where there is a discrepancy between the amount in figures and the amount in words, the amount in words will prevail; and

(b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will prevail, unless in the opinion of the Employer, there is an obvious typographical error, in which case the adjustment will be made to the entry containing that error.

(c) In the event of a discrepancy between the tender amount as stated in the Form of Tender and the corrected tender figure in the main summary of the Bill of Quantities, the amount as stated in the Form of Tender shall prevail.

(d) The Error Correction Factor shall be computed by expressing the difference between the tender amount and the corrected tender sum as a percentage of the corrected Builder’s Work (i.e. Corrected tender sum less P.C. and Provisional Sums)

(e) The Error Correction Factor shall be applied to all Builder’s Work (as a rebate or addition as the case may be) for the purposes of valuations for Interim Certificates and valuation of variations.

(f) the amount stated in the tender will be adjusted in accordance with the above procedure for the correction of errors and, with concurrence of the tenderer, shall be considered as binding upon the tenderer. If the tenderer does not accept the corrected amount, the tender may be rejected and the
Tender Security may be forfeited in accordance with clause 3.11.

5.8 The Employer will evaluate and compare only the tenders determined to be substantially responsive in accordance with Clause 5.5

5.9 In evaluating the tenders, the Employer will determine for each tender the evaluated tender price by adjusting the tender price as follows:
(a) making any correction for errors pursuant to clause 5.7;
(b) excluding provisional sums and the provision, if any, for contingencies in the Bill of Quantities, but including Dayworks where priced competitively.
(c) making an appropriate adjustment for any other acceptable variations, deviations, or alternative offers submitted in accordance with clause 3.12; and
(d) making appropriate adjustments to reflect discounts or other price modifications offered in accordance with clause 4.6

5.10 The Employer reserves the right to accept or reject any variation, deviation, or alternative offer. Variations, deviations, and alternative offers and other factors which are in excess of the requirements of the tender documents or otherwise result in unsolicited benefits for the Employer will not be taken into account in tender evaluation.

5.11 The tenderer shall not influence the Employer on any matter relating to his tender from the time of the tender opening to the time the Contract is awarded. Any effort by the Tenderer to influence the Employer or his employees in his decision on tender evaluation, tender comparison or Contract award may result in the rejection of the tender.

5.12 Firms incorporated in Kenya where indigenous Kenyans own 51% or more of the share capital shall be allowed a 10% preferential bias provided that they do not sub-contract work valued at more than 50% of the Contract Price excluding Provisional Sums to a non-indigenous sub-contractor.

6. **Award of Contract**
6.1 Subject to Clause 6.2, the award of the Contract will be made to the tenderer whose tender has been determined to be substantially
responsive to the tendering documents and who has offered the lowest evaluated tender price, provided that such tenderer has been determined to be (a) eligible in accordance with the provision of Clauses 1.2, and (b) qualified in accordance with the provisions of clause 1.7 and 1.8.

6.2 Notwithstanding clause 6.1 above, the Employer reserves the right to accept or reject any tender, and to cancel the tendering process and reject all tenders, at any time prior to the award of Contract, without thereby incurring any liability to the affected tenderer or tenderers or any obligation to inform the affected tenderer or tenderers of the grounds for the action.

6.3 The tenderer whose tender has been accepted will be notified of the award prior to expiration of the tender validity period in writing or by cable, telex or facsimile. This notification (hereinafter and in all Contract documents called the “Letter of Acceptance”) will state the sum (hereinafter and in all Contract documents called the “Contract Price”) that the Employer will pay the Contractor in consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract. At the same time the other tenderers shall be informed that their tenders have not been successful.

The contract shall be formed on the parties signing the contract.

6.4 The Agreement will incorporate all agreements between the Employer and the successful tenderer. Within 14 days of receipt the successful tenderer will sign the Agreement and return it to the Employer.

6.5 Within 21 days after receipt of the Letter of Acceptance, the successful tenderer shall deliver to the Employer a Performance Security in the amount stipulated in the Appendix to Conditions of Contract and in the form stipulated in the Tender documents. The Performance Security shall be in the amount and specified form.

6.6 Failure of the successful tenderer to comply with the requirements of clause 6.5 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Tender Security.

6.7 Upon the furnishing by the successful tenderer of the Performance Security, the Employer will promptly notify the other tenderers that their tenders have been unsuccessful.

6.8 Preference where allowed in the evaluation of tenders shall not be allowed for contracts not exceeding one year (12 months).
6.9 The tender evaluation committee shall evaluate the tender within 30 days of the validity period from the date of opening the tender.

6.10 The parties to the contract shall have it signed within 30 days from the date of notification of contract award unless there is an administrative review request.

6.11 Contract price variations shall not be allowed for contracts not exceeding one year (12 months)

6.12 Where contract price variation is allowed, the variation shall not exceed 15% of the original contract price.

6.13 Price variation request shall be processed by the procuring entity within 30 days of receiving the request.

6.14 The procuring entity may at any time terminate procurement proceedings before contract award and shall not be liable to any person for the termination.

6.15 The procuring entity shall give prompt notice of the termination to the tenderers and on request give its reasons for termination within 14 days of receiving the request from any tenderer.

6.16 A tenderer who gives false information in the tender document about its qualification or who refuses to enter into a contract after notification of contract award shall be considered for debarment from participating in future public procurement.

7. **Corrupt and Fraudulent practices**

7.1 The procuring entity requires that tenderers observe the highest standards of ethics during procurement process and execution of contracts. A tenderer shall sign a declaration that he has not and will not be involved in corrupt and fraudulent practices.
APPENDIX TO INSTRUCTIONS TO TENDERERS

The following clauses shall be amended as follows;

Clause 1.4: Delete the entire clause

Clause 1.5: a) Delete the entire subclause and substitute with the words “a copy of the current registration certificate with the Relevant Statutory body and NCA under the relevant category”.

d) Delete the word ‘Major’ and substitute with the word ‘Relevant’

Clause 1.7: d) Delete the words ‘contract manager’ and ‘manager’ at the beginning and end of the subclause and substitute with the words ‘general foreman’ and ‘foreman’ respectively

e) Delete the figure ‘4’ and substitute with figure ‘2’

Clause 3.6: Amend the first sentence to read as follows: ‘Tenders shall remain valid for a period of 120 days from the date of submission’

Clause 3.14: Delete the entire clause and substitute with the following;

The tenderer shall prepare one original of the volume of tender documents comprising the documents as described in clause 3.2 of these instructions and clearly marked ‘ORIGINAL’

Clause 3.15: Delete the words ‘original and all copies’ and insert the word ‘original’ after the word ‘the’

Clause 4.1: Delete the first paragraph and insert the words ‘The tenderer shall seal the original of the tender documents in one envelop duly marked original’

Clause 6.12: Delete 15% and substitute with 25%
APPENDIX TO INSTRUCTIONS TO TENDERERS

Change Instruction 1.5: To read “This invitation to tender is “open to all eligible tenderers as per the tender invitation notice”

Add to Instruction 3.3: The rates and prices set down by the tenderer against the items in the Bills of Quantities are to be the full inclusive value of the finished work described thereunder and are to include for profits, taxes and all obligations and liabilities of every kind which under the contract are to be borne by the Contractor. The tenderer’s attention is particularly drawn to the Preliminaries section, where provision is made for the pricing of the contractor’s general obligations. Any item not priced either in this section or elsewhere in the Bills of Quantities will be deemed to have been allowed for the prices inserted against other items in the Bills of Quantities.

The pricing should be inclusive of VAT; the contractor shall include his/her allowance for VAT in the all-in rates for individual items. The VAT should not be added as a separate item on the GRAND SUMMARY page.

Add to Instruction 6.5: The amount of Performance Security shall be five percent (5%) of the contract price and shall be in form of a Bank Guarantee

Modify instruction 5.8 & 5.9: The Tender Evaluation Criteria shall be as follows: -
TENDER EVALUATION CRITERIA

After tender opening, the tenders will be evaluated in 3 stages, namely:

i. Preliminary evaluation

ii. Technical Evaluation; and


6.1 PRELIMINARY EVALUATION

i. Preliminary evaluation to open tenders

Tenders shall be subjected to a preliminary evaluation to determine weather:

a. The tender has been submitted in the required format as per the advertisement and tender instructions

b. Any tender security submitted is in the required form, amount and validity period (150 days); only From a Bank or an Insurance Company approved by the PPRA

c. The tender has been signed by the persons lawfully authorized to do so (signed and stamped form of tender);

d. The required number of copies of the tender has been submitted as per the advertisement and tender instructions.

e. The tender is valid for the period required.

ii. Mandatory /Statutory requirements

a) Certificate of company / Firm Registration

b) Updated list of directors with respect to shareholding & details of citizenship which should not be more than 6 months at the time of tender opening.

c) Valid tax compliance certificate;

d) Audited accounts for each of the last four years (i.e. 2015-2018) with annual turnover of at least Kenya shillings Forty Million (Kshs 40,000,000.00).

e) National Construction Authority (NCA) Registration category 3 and above for both the Main and Subcontractors.

f) Current annual practicing license from the NCA.

g) Bid Bond of 2% of tender sum in form of a guarantee from reputable bank or Insurance Company approved by PPRA and located in Kenya and valid for 150 days from the closing date of the tender.

h) Power of attorney (of Tender signatory).

i) Signed and stamped statement of Verification that not debarred in matters of Public procurement and Disposal Act. (Form attached)

j) Dully filled and signed tender questionnaire.

k) Dully filled business questionnaire

l) Tenderers who fail to attend the mandatory pre-tender conference shall also be considered non-responsive. Attendance register shall be signed on the material date and the pretender conference form (to be availed during the said conference)
m) Tenders who have incomplete projects and do not have approved extension of time or have received default notices / warnings are not responsive

**NOTE:** The employer may seek further clarification/confirmation with relevant bodies/institutions if necessary, to confirm authenticity/compliance of any of the information provided by the tenderer.

**Tenderers who do not satisfy any of the above requirements shall be considered NON-RESPONSIVE and their tenders will not be evaluated further.**

**iii) Details Technical Examination**

Tenders shall be examined based on Instruction to Tenderers which states as follows

“In accordance to instruction to tenders, the tenderers shall be required to prove evidence eligibility of award of the tender by satisfying the Employer of their eligibility and adequacy of resources to effectively carry out the subject contract. The Tenderer shall be required to fill the standard forms provided for the purpose providing the required information. The tenderer may attach the required information, if they so desire”

### 6.2 TECHNICAL EVALUATION

Award of points for the **Technical Evaluation** will be as follows:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Maximum Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Key personnel</td>
<td>15</td>
</tr>
<tr>
<td>(2) Registration of sub-contractors</td>
<td>15</td>
</tr>
<tr>
<td>(3) Contracts completed in the last five (5) years</td>
<td>15</td>
</tr>
<tr>
<td>(4) Schedules of on-going projects</td>
<td>6</td>
</tr>
<tr>
<td>(5) Schedules of contractor’s equipment</td>
<td>10</td>
</tr>
<tr>
<td>(6) Audited Financial Report for the last 4 years</td>
<td>15</td>
</tr>
<tr>
<td>(7) Evidence of Financial Resources</td>
<td>15</td>
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<tr>
<td>(8) Litigation History</td>
<td>5</td>
</tr>
<tr>
<td>(9) Detailed works program and methodology</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
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</tbody>
</table>

The detailed scoring plan shall be as shown in Table 1 overleaf:-
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Points Scored</th>
<th>Max. Points</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>Key Personnel (Attach evidence)</strong></td>
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<td></td>
<td><strong>Director of the firm</strong></td>
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<td></td>
<td>• Holder of degree or diploma in a relevant Engineering field</td>
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<td>• Holder of certificate in relevant Engineering field</td>
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<td></td>
<td>• Holder of trade test certificate in relevant Engineering field</td>
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<td></td>
<td>• No relevant certificate</td>
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<td></td>
<td><strong>At least 1 No. degree/diploma of the key personnel in relevant Engineering field</strong></td>
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<td></td>
<td>• With over 10 years relevant experience</td>
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<td>• With over 5 years relevant experience</td>
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<tr>
<td></td>
<td>• With under 5 years relevant experience</td>
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<td></td>
<td><strong>At least 2 No. certificate holder of key personnel in relevant Engineering field</strong></td>
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<td>• With over 10 years relevant experience</td>
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<td></td>
<td>• With over 5 years relevant experience</td>
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<td>• With under 5 years relevant experience</td>
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<td></td>
<td>15</td>
<td></td>
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<td>2</td>
<td><strong>Registration of Domestic sub-contractors</strong></td>
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<td></td>
<td>Electrical sub-contractor NCA registration</td>
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<td></td>
<td>Mechanical sub contractor (Plumbing etc)</td>
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<td></td>
<td>15</td>
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</tbody>
</table>
### 3 Contract completed in the last five (5) years; a max of 3 No. projects
- Project of similar nature, complexity and magnitude using the proposed ABMT
- Project of similar nature, complexity and magnitude using conventional materials
- Project of similar nature but of lower value than the one in consideration
- Project of similar magnitude
- No completed project of similar nature

<table>
<thead>
<tr>
<th>4 On-going projects (A max of 5 No. projects)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Project of similar nature, complexity and magnitude using the proposed AMBT</td>
</tr>
<tr>
<td>- Project of similar nature conventional system, complexity and magnitude</td>
</tr>
<tr>
<td>- Project of similar nature but of lower value than the one in consideration</td>
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<tr>
<td>- No ongoing project of similar nature</td>
</tr>
</tbody>
</table>

### 5 Schedules of contractor’s equipment
For each specific equipment required in the construction work being tendered for. (Maximum No. of equipment to be considered – 5 No.)
| 6 | Financial report  
• Turn over greater or equal to 3 times the cost of the project  
• Turn over greater or equal to 2 times the cost of the project  
• Turn over greater or equal to the cost of the project  
• Turn over below the cost of the project |
|---|---|

| 7 | Evidence of financial resources (cash in hand, lines of credit, over draft facility etc)  
• Has financial resources equal or above the cost of the project  
• Has financial resources below the cost of the project, but over 50% of the cost of the project  
• Has financial resources below 50% of the cost of the project or has not given evidence for the financial resources |
|---|---|

| 8 | Litigation History  
• Has no construction-related litigation or arbitration case in the last five years  
• Has not more than three construction-related litigation or arbitration cases in the last five years  
• Has more than three construction-related litigation or arbitration cases in the last five years |
|---|---|

| 9 | Detailed works program outlining the methodology of implementing the project to completion including the defects liability period.  
• Works program and work methodology provided.  
• No works program or methodology provided. |
|---|---|

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| TOTAL | 100 |

Any bidder who scores 70 points and above in this Technical Evaluation shall be considered for further evaluation.
6.3  **FINANCIAL EVALUATION**

Bids that pass the Technical Evaluation shall be subjected to the Financial Evaluation in two stages, as follows:

1. Tender Sums; and
2. Tender Rates and arithmetic Errors.

### 6.3.1 Tender Sums

- **Working mean:**
  
  The average of the submitted responsive tender sums will be worked out. Any tender that is 10% lower or higher than the average shall be eliminated from calculating the working mean.

- **Working mean calculation:**
  
  a) The average of all bids not eliminated above shall be calculated.
  b) The working mean shall be half the sum of (a) above and the engineer’s estimate.
  c) Bids found to be +10% of this mean shall be considered too expensive, therefore not competitive and financially non-responsive. They will not be considered for further evaluation.

### 6.3.2 Tender Rates

- Material deviation, Market prices and Consistency of rates

Evaluation of the tender rates will constitute examination of:

- Pricing consistency (same rates for similar items, price distribution amongst sections, etc);
- Reasonableness of pricing (comparison with prevailing market levels, inclusion of taxes [VAT, etc] in the rates); and
- Arithmetic errors.

The bidders who pass the test of price consistency and reasonableness, and accept their arithmetic errors (if any) shall finally be graded in terms of their submitted tender sums. The lowest bid in this group shall be the lowest evaluated price as per Section 66(4) of the Public Procurement Regulatory Authority (PPRA) and section 6.1 of the instructions to tenderers herein.

A tenderer shall be awarded not more than two (2) contracts (projects), where upon the next lowest responsive tenderer shall be recommended for award at the lowest responsive tenderer’s figure.
SECTION III

CONDITIONS OF CONTRACT

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<td>Settlement of Disputes</td>
<td>39 - 40</td>
</tr>
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</table>
CONDITIONS OF CONTRACT

1. Definitions

1.1 In this Contract, except where context otherwise requires, the following terms shall be interpreted as indicated:

“Bill of Quantities” means the priced and completed Bill of Quantities forming part of the tender.

“Compensation Events” are those defined in Clause 24 hereunder.

“The Completion Date” means the date of completion of the Works as certified by the Project Manager, in accordance with Clause 31.

“The Contract” means the agreement entered into between the Employer and the Contractor as recorded in the Agreement Form and signed by the parties including all attachments and appendices thereto and all documents incorporated by reference therein to execute, complete, and maintain the Works.

“The Contractor” refers to the person or corporate body whose tender to carry out the Works has been accepted by the Employer.

“The Contractor’s Tender” is the completed tendering document submitted by the Contractor to the Employer.

“The Contract Price” is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

“Days” are calendar days; “Months” are calendar months.

“A Defect” is any part of the Works not completed in accordance with the Contract.

“The Defects Liability Certificate” is the certificate issued by Project Manager upon correction of defects by the Contractor.

“The Defects Liability Period” is the period named in the Contract Data and calculated from the Completion Date.

“Drawings” include calculations and other information provided or approved by the Project Manager for the execution of the Contract.
“Dayworks” are Work inputs subject to payment on a time basis for labour and the associated materials and plant.

“Employer”, or the “Procuring entity” as defined in the Public Procurement Regulations (i.e. Central or Local Government administration, Universities, Public Institutions and Corporations, etc) is the party who employs the Contractor to carry out the Works.

“Equipment” is the Contractor’s machinery and vehicles brought temporarily to the Site for the execution of the Works.

“The Intended Completion Date” is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.

“Materials” are all supplies, including consumables, used by the Contractor for incorporation in the Works.

“Plant” is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.

“Project Manager” is the person named in the Appendix to Conditions of Contract (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract and shall be an “Architect” or a “Quantity Surveyor” registered under the Architects and Quantity Surveyors Act Cap 525 or an “Engineer” registered under Engineers Registration Act Cap 530.

“Site” is the area defined as such in the Appendix to Condition of Contract.

“Site Investigation Reports” are those reports that may be included in the tendering documents which are factual and interpretative about the surface and subsurface conditions at the Site.

“Specifications” means the Specifications of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
“Start Date” is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with the Site possession date(s).

“A Subcontractor” is a person or corporate body who has a Contract with the Contractor to carry out a part of the Work in the Contract, which includes Work on the Site.

“Temporary works” are works designed, constructed, installed, and removed by the Contractor which are needed for construction or installation of the Works.

“A Variation” is an instruction given by the Project Manager which varies the Works.

“The Works” are what the Contract requires the Contractor to construct, install, and turnover to the Employer, as defined in the Appendix to Conditions of Contract.

2. Interpretation

2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning in English Language unless specifically defined. The Project Manager will provide instructions clarifying queries about these Conditions of Contract.

2.2 If sectional completion is specified in the Appendix to Conditions of Contract, reference in the Conditions of Contract to the Works, the Completion Date and the Intended Completion Date apply to any section of the Works (other than references to the Intended Completion Date for the whole of the Works).

2.3 The following documents shall constitute the Contract documents and shall be interpreted in the following order of priority;

(1) Agreement,
(2) Letter of Acceptance,
(3) Contractor’s Tender,
(4) Appendix to Conditions of Contract,
(5) Conditions of Contract,
(6) Specifications,
(7) Drawings,

(8) Bill of Quantities,

(9) Any other documents listed in the Appendix to Conditions of Contract as forming part of the Contract.

Immediately after the execution of the Contract, the Project Manager shall furnish both the Employer and the Contractor with two copies of each of all the Contract documents. Further, as and when necessary the Project Manager shall furnish the Contractor [always with a copy to the Employer] with three [3] copies of such further drawings or details or descriptive schedules as are reasonably necessary to explain or amplify the Contract drawings or to enable the Contractor to carry out and complete the Works in accordance with these Conditions.

3. **Language and Law**

   3.1 Language of the Contract and the law governing the Contract shall be English language and the Laws of Kenya respectively unless otherwise stated.

4 **Project Manager’s Decisions**

   4.1 Except where otherwise specifically stated, the Project Manager will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5 **Delegation**

   5.1 The Project Manager may delegate any of his duties and responsibilities to others after notifying the Contractor.

6 **Communications**

   6.1 Communication between parties shall be effective only when in writing. A notice shall be effective only when it is delivered.
7 Subcontracting

7.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor’s obligations.

8 Other Contractors

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities etc. as listed in the Appendix to Conditions of Contract and also with the Employer, as per the directions of the Project Manager. The Contractor shall also provide facilities and services for them. The Employer may modify the said List of Other Contractors etc., and shall notify the Contractor of any such modification.

9 Personnel

9.1 The Contractor shall employ the key personnel named in the Qualification Information, to carry out the functions stated in the said Information or other personnel approved by the Project Manager. The Project Manager will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel listed in the Qualification Information. If the Project Manager asks the Contractor to remove a person who is a member of the Contractor’s staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the Work in the Contract.

10 Works

10.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings. The Works may commence on the Start Date and shall be carried out in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

11 Safety and Temporary Works

11.1 The Contractor shall be responsible for the design of temporary works. However before erecting the same, he shall submit his designs including specifications and drawings to the Project Manager and to any other relevant third parties for their approval. No erection of temporary works shall be done until such approvals are obtained.
11.2 The Project Manager’s approval shall not alter the Contractor’s responsibility for design of the Temporary works and all drawings prepared by the Contractor for the execution of the temporary or permanent Works, shall be subject to prior approval by the Project Manager before they can be used.

11.3 The Contractor shall be responsible for the safety of all activities on the Site.

12. Discoveries

12.1 Anything of historical or other interest or of significant value unexpectedly discovered on Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager’s instructions for dealing with them.

13. Work Program

13.1 Within the time stated in the Appendix to Conditions of Contract, the Contractor shall submit to the Project Manager for approval a program showing the general methods, arrangements, order, and timing for all the activities in the Works. An update of the program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining Work, including any changes to the sequence of the activities.

The Contractor shall submit to the Project Manager for approval an updated program at intervals no longer than the period stated in the Appendix to Conditions of Contract. If the Contractor does not submit an updated program within this period, the Project Manager may withhold the amount stated in the said Appendix from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue program has been submitted. The Project Manager’s approval of the program shall not alter the Contractor’s obligations. The Contractor may revise the program and submit it to the Project Manager again at any time. A revised program shall show the effect of Variations and Compensation Events.
14. **Possession of Site**

14.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the Appendix to Conditions of Contract, the Employer will be deemed to have delayed the start of the relevant activities, and this will be a Compensation Event.

15. **Access to Site**

15.1 The Contractor shall allow the Project Manager and any other person authorised by the Project Manager, access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

16. **Instructions**

16.1 The Contractor shall carry out all instructions of the Project Manager which are in accordance with the Contract.

17. **Extension or Acceleration of Completion Date**

17.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a variation is issued which makes it impossible for completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining Work, which would cause the Contractor to incur additional cost. The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager in writing for a decision upon the effect of a Compensation Event or variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay caused by such failure shall not be considered in assessing the new (extended) Completion Date.

17.2 No bonus for early completion of the Works shall be paid to the Contractor by the Employer.
18. **Management Meetings**

18.1 A Contract management meeting shall be held monthly and attended by the Project Manager and the Contractor. Its business shall be to review the plans for the remaining Work and to deal with matters raised in accordance with the early warning procedure. The Project Manager shall record the minutes of management meetings and provide copies of the same to those attending the meeting and the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

19. **Early Warning**

19.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the Work, increase the Contract Price or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

19.2 The Contractor shall cooperate with the Project Manager in making and considering proposals on how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the Work and in carrying out any resulting instructions of the Project Manager.

20. **Defects**

20.1 The Project Manager shall inspect the Contractor’s work and notify the Contractor of any defects that are found. Such inspection shall not affect the Contractor’s responsibilities. The Project Manager may instruct the Contractor to search for a defect and to uncover and test any Work that the Project Manager considers may have a defect. Should the defect be found, the cost of uncovering and making good shall be borne by the Contractor. However, if there is no defect found, the cost of uncovering and making good shall be treated as a variation and added to the Contract Price.
20.2 The Project Manager shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the Appendix to Conditions of Contract. The Defects Liability Period shall be extended for as long as defects remain to be corrected.

20.3 Every time notice of a defect is given, the Contractor shall correct the notified defect within the length of time specified by the Project Manager’s notice. If the Contractor has not corrected a defect within the time specified in the Project Manager’s notice, the Project Manager will assess the cost of having the defect corrected by other parties and such cost shall be treated as a variation and be deducted from the Contract Price.

21. Bills Of Quantities

21.1 The Bills of Quantities shall contain items for the construction, installation, testing and commissioning of the Work to be done by the Contractor. The Contractor will be paid for the quantity of the Work done at the rate in the Bills of Quantities for each item.

21.2 If the final quantity of the Work done differs from the quantity in the Bills of Quantities for the particular item by more than 25 percent and provided the change exceeds 1 percent of the Initial Contract price, the Project Manager shall adjust the rate to allow for the change.

21.3 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bills of Quantities.

22. Variations

22.1 All variations shall be included in updated programs produced by the Contractor.

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

22.3 If the work in the variation corresponds with an item description in the Bills of Quantities and if in the opinion of the Project Manager, the quantity of work is not above the limit stated in Clause 21.2 or the timing of its execution does not cause the
cost per unit of quantity to change, the rate in the Bills of Quantities shall be used to calculate the value of the variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the variation does not correspond with items in the Bills of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of Work.

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

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

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

22.7 When the Program is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast.

23. Payment Certificates, Currency of Payments and Advance Payments

23.1 The Contractor shall submit to the Project Manager monthly applications for payment giving sufficient details of the Work done and materials on Site and the amounts which the Contractor considers himself to be entitled to. The Project Manager shall check the monthly application and certify the amount to be paid to the Contractor within 14 days. The value of Work executed and payable shall be determined by the Project Manager.

23.2 The value of Work executed shall comprise the value of the quantities of the items in the Bills of Quantities completed, materials delivered on Site, variations and compensation events. Such materials shall become the property of the Employer once the Employer has paid the Contractor for their value. Thereafter, they shall not be removed from Site without the Project Manager's instructions except for use upon the Works.

23.3 Payments shall be adjusted for deductions for retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 30 days of the date of issue of each
certificate. If the Employer makes a late payment, the Contractor shall be paid simple interest on the late payment in the next payment. Interest shall be calculated on the basis of number of days delayed at a rate three percentage points above the Central Bank of Kenya’s average rate for base lending prevailing as of the first day the payment becomes overdue.

23.4 If an amount certified is increased in a later certificate or as a result of an award by an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

23.5 Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

23.6 The Contract Price shall be stated in Kenya Shillings. All payments to the Contractor shall be made in Kenya Shillings and foreign currency in the proportion indicated in the tender, or agreed prior to the execution of the Contract Agreement and indicated therein. The rate of exchange for the calculation of the amount of foreign currency payment shall be the rate of exchange indicated in the Appendix to Conditions of Contract. If the Contractor indicated foreign currencies for payment other than the currencies of the countries of origin of related goods and services the Employer reserves the right to pay the equivalent at the time of payment in the currencies of the countries of such goods and services. The Employer and the Project Manager shall be notified promptly by the Contractor of changes in the expected foreign currency requirements of the Contractor during the execution of the Works as indicated in the Schedule of Foreign Currency Requirements and the foreign and local currency portions of the balance of the Contract Price shall then be amended by agreement between Employer and the Contractor in order to reflect appropriately such changes.

23.7 In the event that an advance payment is granted, the following shall apply:-

a) On signature of the Contract, the Contractor shall at his request, and without furnishing proof of expenditure, be entitled to an advance of 10% (ten percent) of the original amount of the Contract. The advance shall not be subject to retention money.
b) No advance payment may be made before the Contractor has submitted proof of the establishment of deposit or a directly liable guarantee satisfactory to the Employer in the amount of the advance payment. The guarantee shall be in the same currency as the advance.

c) Reimbursement of the lump sum advance shall be made by deductions from the Interim payments and where applicable from the balance owing to the Contractor. Reimbursement shall begin when the amount of the sums due under the Contract reaches 20% of the original amount of the Contract. It shall have been completed by the time 80% of this amount is reached.

The amount to be repaid by way of successive deductions shall be calculated by means of the formula:

\[ R = \frac{A(x^1 - x^{11})}{80 - 20} \]

Where:

- \( R \) = the amount to be reimbursed
- \( A \) = the amount of the advance which has been granted
- \( x^1 \) = the amount of proposed cumulative payments as a percentage of the original amount of the Contract. This figure will exceed 20% but not exceed 80%.
- \( x^{11} \) = the amount of the previous cumulative payments as a percentage of the original amount of the Contract. This figure will be below 80% but not less than 20%.

d) with each reimbursement the counterpart of the directly liable guarantee may be reduced accordingly.
24. **Compensation Events**

24.1 The following issues shall constitute Compensation Events:

(a) The Employer does not give access to a part of the Site by the Site Possession Date stated in the Appendix to Conditions of Contract.

(b) The Employer modifies the List of Other Contractors, etc., in a way that affects the Work of the Contractor under the Contract.

(c) The Project Manager orders a delay or does not issue drawings, specifications or instructions required for execution of the Works on time.

(d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon the Work, which is then found to have no defects.

(e) The Project Manager unreasonably does not approve a subcontract to be let.

(f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to tenderers (including the Site investigation reports), from information available publicly and from a visual inspection of the Site.

(g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer or additional work required for safety or other reasons.

(h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.

(i) The effects on the Contractor of any of the Employer’s risks.

(j) The Project Manager unreasonably delays issuing a Certificate of Completion.

(k) Other compensation events described in the Contract or determined by the Project Manager shall apply.
24.2 If a compensation event would cause additional cost or would prevent the Work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

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

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

24.5 Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in the Appendix to Conditions of Contract.

24.6 The Contractor shall give written notice to the Project Manager of his intention to make a claim within thirty days after the event giving rise to the claim has first arisen. The claim shall be submitted within thirty days thereafter.

Provided always that should the event giving rise to the claim of continuing effect, the Contractor shall submit an interim claim within the said thirty days and a final claim within thirty days of the end of the event giving rise to the claim.

25. **Price Adjustment**

25.1 The Project Manager shall adjust the Contract Price if taxes, duties and other levies are changed between the date 30 days before the submission of tenders for the Contract and the date of Completion. The adjustment shall be the change in the amount of tax payable by the Contractor.

25.2 The Contract Price shall be deemed to be based on exchange rates current at the date of tender submission in calculating the cost to the Contractor of materials to be specifically imported (by express provisions in the Contract Bills of Quantities or Specifications) for permanent incorporation in the Works.
Unless otherwise stated in the Contract, if at any time during the period of the Contract exchange rates shall be varied and this shall affect the cost to the Contractor of such materials, then the Project Manager shall assess the net difference in the cost of such materials. Any amount from time to time so assessed shall be added to or deducted from the Contract Price, as the case may be.

25.3 Unless otherwise stated in the Contract, the Contract Price shall be deemed to have been calculated in the manner set out below and in sub-clauses 25.4 and 25.5 and shall be subject to adjustment in the events specified thereunder;

(i) The prices contained in the Contract Bills of Quantities shall be deemed to be based upon the rates of wages and other emoluments and expenses as determined by the Joint Building Council of Kenya (J.B.C.) and set out in the schedule of basic rates issued 30 days before the date for submission of tenders. A copy of the schedule used by the Contractor in his pricing shall be attached in the Appendix to Conditions of Contract.

(ii) Upon J.B.C. determining that any of the said rates of wages or other emoluments and expenses are increased or decreased, then the Contract Price shall be increased or decreased by the amount assessed by the Project Manager based upon the difference, expressed as a percentage, between the rate set out in the schedule of basic rates issued 30 days before the date for submission of tenders and the rate published by the J.B.C. and applied to the quantum of labour incorporated within the amount of Work remaining to be executed at the date of publication of such increase or decrease.

(iii) No adjustment shall be made in respect of changes in the rates of wages and other emoluments and expenses which occur after the date of Completion except during such other period as may be granted as an extension of time under clause 17.0 of these Conditions.

25.4 The prices contained in the Contract Bills of Quantities shall be deemed to be based upon the basic prices of materials to be permanently incorporated in the Works as determined by the J.B.C. and set out in the schedule of basic rates issued 30 days before the date for submission of tenders. A copy of the schedule used by the Contractor in his pricing shall be attached in the Appendix to Conditions of Contract.
25.5 Upon the J.B.C. determining that any of the said basic prices are increased or decreased then the Contract Price shall be increased or decreased by the amount to be assessed by the Project Manager based upon the difference between the price set out in the schedule of basic rates issued 30 days before the date for submission of tenders and the rate published by the J.B.C. and applied to the quantum of the relevant materials which have not been taken into account in arriving at the amount of any interim certificate under clause 23 of these Conditions issued before the date of publication of such increase or decrease.

25.6 No adjustment shall be made in respect of changes in basic prices of materials which occur after the date for Completion except during such other period as may be granted as an extension of time under clause 17.0 of these Conditions.

25.7 The provisions of sub-clause 25.1 to 25.2 herein shall not apply in respect of any materials included in the schedule of basic rates.

26. Retention

26.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the Appendix to Conditions of Contract until Completion of the whole of the Works. On Completion of the whole of the Works, half the total amount retained shall be repaid to the Contractor and the remaining half when the Defects Liability Period has passed and the Project Manager has certified that all defects notified to the Contractor before the end of this period have been corrected.

27. Liquidated Damages

27.1 The Contractor shall pay liquidated damages to the Employer at the rate stated in the Appendix to Conditions of Contract for each day that the actual Completion Date is later than the Intended Completion Date. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not alter the Contractor’s liabilities.

27.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rate specified in Clause 23.30.
28. **Securities**

28.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a reputable bank acceptable to the Employer, and denominated in Kenya Shillings. The Performance Security shall be valid until a date 30 days beyond the date of issue of the Certificate of Completion.

29. **Day works**

29.1 If applicable, the Day works rates in the Contractor’s tender shall be used for small additional amounts of Work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

29.2 All work to be paid for as Day works shall be recorded by the Contractor on Forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the Work being done.

29.3 The Contractor shall be paid for Day works subject to obtaining signed Day works forms.

30. **Liability and Insurance**

30.1 From the Start Date until the Defects Correction Certificate has been issued, the following are the Employer’s risks:

(a) The risk of personal injury, death or loss of or damage to property (excluding the Works, Plant, Materials and Equipment), which are due to;

   (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works, or

   (ii) negligence, breach of statutory duty or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.

(b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in Employer’s design, or due to war or radioactive contamination directly affecting the place where the Works are being executed.
30.2 From the Completion Date until the Defects Correction Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is the Employer’s risk except loss or damage due to:

(a) a defect which existed on or before the Completion Date.

(b) an event occurring before the Completion Date, which was not itself the Employer’s risk.

(c) the activities of the Contractor on the Site after the Completion Date.

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

The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts stated in the Appendix to Conditions of Contract for the following events:

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

30.4 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager’s approval before the Start Date. All such insurance shall provide for compensation required to rectify the loss or damage incurred.

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

30.6 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager. Both parties shall comply with any conditions of insurance policies.
31. **Completion and taking over**

31.1 Upon deciding that the Works are complete, the Contractor shall issue a written request to the Project Manager to issue a Certificate of Completion of the Works. The Employer shall take over the Site and the Works within seven [7] days of the Project Manager’s issuing a Certificate of Completion.

32. **Final Account**

32.1 The Contractor shall issue the Project Manager with a detailed account of the total amount that the Contractor considers payable to him by the Employer under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 30 days of receiving the Contractor’s account if it is correct and complete. If it is not, the Project Manager shall issue within 30 days a schedule that states the scope of the corrections or additions that are necessary. If the final account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a Payment Certificate. The Employer shall pay the Contractor the amount due in the Final Certificate within 60 days.

33. **Termination**

33.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract. These fundamental breaches of Contract shall include, but shall not be limited to, the following:

(a) the Contractor stops work for 30 days when no stoppage of work is shown on the current program and the stoppage has not been authorised by the Project Manager;

(b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days;

(c) the Contractor is declared bankrupt or goes into liquidation other than for a reconstruction or amalgamation;

(d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 30 days (for Interim Certificate) or 60 days (for Final Certificate) of issue.
the Project Manager gives notice that failure to correct a particular defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;

the Contractor does not maintain a security, which is required.

33.2 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under Clause 33.1 above, the Project Manager shall decide whether the breach is fundamental or not.

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

33.4 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible. The Project Manager shall immediately thereafter arrange for a meeting for the purpose of taking record of the Works executed and materials, goods, equipment and temporary buildings on Site.

34. **Payment Upon Termination**

34.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the Work done and materials ordered and delivered to Site up to the date of the issue of the certificate. Additional liquidated damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable by the Contractor.

34.2 If the Contract is terminated for the Employer’s convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the Work done, materials ordered, the reasonable cost of removal of equipment, repatriation of the Contractor’s personnel employed solely on the Works, and the Contractor’s costs of protecting and securing the Works.

34.3 The Employer may employ and pay other persons to carry out and complete the Works and to rectify any defects and may enter upon the Works and use all materials on the Site, plant, equipment and temporary works.
34.4 The Contractor shall, during the execution or after the completion of the Works under this clause remove from the Site as and when required, within such reasonable time as the Project Manager may in writing specify, any temporary buildings, plant, machinery, appliances, goods or materials belonging to or hired by him, and in default the Employer may (without being responsible for any loss or damage) remove and sell any such property of the Contractor, holding the proceeds less all costs incurred to the credit of the Contractor. Until after completion of the Works under this clause the Employer shall not be bound by any other provision of this Contract to make any payment to the Contractor, but upon such completion as aforesaid and the verification within a reasonable time of the accounts therefore the Project Manager shall certify the amount of expenses properly incurred by the Employer and, if such amount added to the money paid to the Contractor before such determination exceeds the total amount which would have been payable on due completion in accordance with this Contract the difference shall be a debt payable to the Employer by the Contractor; and if the said amount added to the said money be less than the said total amount, the difference shall be a debt payable by the Employer to the Contractor.

35. **Release from Performance**

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

36. **Corrupt gifts and payments of commission**

The Contractor shall not;

(a) Offer or give or agree to give to any person in the service of the Employer any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other Contract for the Employer or for showing or forbearing to show favour or disfavour to any person in relation to this or any other contract for the Employer.
(b) Enter into this or any other contract with the Employer in connection with which commission has been paid or agreed to be paid by him or on his behalf or to his knowledge, unless before the Contract is made particulars of any such commission and of the terms and conditions of any agreement for the payment thereof have been disclosed in writing to the Employer.

Any breach of this Condition by the Contractor or by anyone employed by him or acting on his behalf (whether with or without the knowledge of the Contractor) shall be an offence under the provisions of the Public Procurement Regulations issued under The Exchequer and Audit Act Cap 412 of the Laws of Kenya.

37. Settlement Of Disputes

37.1 In case any dispute or difference shall arise between the Employer or the Project Manager on his behalf and the Contractor, either during the progress or after the completion or termination of the Works, such dispute shall be notified in writing by either party to the other with a request to submit it to arbitration and to concur in the appointment of an Arbitrator within thirty days of the notice. The dispute shall be referred to the arbitration and final decision of a person to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed by the Chairman or Vice Chairman of any of the following professional institutions;

(i) Architectural Association of Kenya
(ii) Institute of Quantity Surveyors of Kenya
(iii) Association of Consulting Engineers of Kenya
(iv) Chartered Institute of Arbitrators (Kenya Branch)
(v) Institution of Engineers of Kenya

On the request of the applying party. The institution written to first by the aggrieved party shall take precedence over all other institutions.

37.2 The arbitration may be on the construction of this Contract or on any matter or thing of whatsoever nature arising thereunder or in connection therewith, including any matter or thing left by this Contract to the discretion of the Project Manager, or the withholding by the Project Manager of any certificate to which the Contractor may claim to be entitled to or the measurement
and valuation referred to in clause 23.0 of these conditions, or the rights and liabilities of the parties subsequent to the termination of Contract.

37.3 Provided that no arbitration proceedings shall be commenced on any dispute or difference where notice of a dispute or difference has not been given by the applying party within ninety days of the occurrence or discovery of the matter or issue giving rise to the dispute.

37.4 Notwithstanding the issue of a notice as stated above, the arbitration of such a dispute or difference shall not commence unless an attempt has in the first instance been made by the parties to settle such dispute or difference amicably with or without the assistance of third parties. Proof of such attempt shall be required.

37.5 Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Works or abandonment of the Works or termination of the Contract by either party:

37.5.1.1 The appointment of a replacement Project Manager upon the said person ceasing to act.

37.5.1.2 Whether or not the issue of an instruction by the Project Manager is empowered by these Conditions.

37.5.1.3 Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.

37.5.1.4 Any dispute or difference arising in respect of war risks or war damage.

37.6 All other matters shall only be referred to arbitration after the completion or alleged completion of the Works or termination or alleged termination of the Contract, unless the Employer and the Contractor agree otherwise in writing.

37.7 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, tests or valuations as may in his opinion be desirable in order to determine the rights of the parties and assess and award any sums which ought to have been the subject of or included in any certificate.
37.8 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision requirement or notice had been given.

37.9 The award of such Arbitrator shall be final and binding upon the parties.
SECTION IV – APPENDIX TO CONDITIONS OF CONTRACT

THE EMPLOYER IS

Name: MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING, URBAN DEVELOPMENT AND PUBLIC WORKS (STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT)

Address: P.O. BOX 30119-00100, NAIROBI.

Name of Authorised Representative: PRINCIPAL SECRETARY
Address: P.O. BOX 30450-00100, NAIROBI.

The Project Manager is;

Name: WORKS SECRETARY, MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING, URBAN DEVELOPMENT AND PUBLIC WORKS (STATE DEPARTMENT FOR PUBLIC WORKS)

Address: P.O. BOX 30743-00100 NAIROBI
Telephone: 2723101
Email: www.publicworks.go.ke

The name (and identification number) of the Contract is PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM & 48NO. BEDSITTER UNITS AT MALKAGUFU POLICE POST-WAJIR NORTH COUNTY FOR THE KENYA POLICE SERVICE

W.P ITEM NO: D111/NE/WJR/1709/10209N

The Works consist of: Erection and completion of 1no. block of 12no. two bedroom & 48no. bedsitter units on reinforced concrete raft foundations. The superstructure will be of any Industrial Building Systems or any other approved Appropriate Building Technology, generally finished both externally and internally in plaster and paint or to match the appropriate building technology. Floors to be finished with approved ceramic tiles on cement sand screed backing. The roof covering is of 28 Gauge G.C.I sheets fixed on light gauge steel trusses or of the matching Appropriate building technology used. Ceiling finishes are in plaster and paint and celotex ceiling on timber brandering. External doors are of 45mm thick timber panels while internal doors are semi solid core timber flush doors. Windows are in glazed steel casement.

Civil works comprises of septic tanks with radial arms and road works and parkings around the building are of compacted hardcore and murram surface in accordance to civil engineer’s instructions.
Electrical works include electrical wiring, fittings and K.P.L.C power connection, Mechanical works are water reticulation, piping within the building, sanitary fittings, high and low level water tanks.

The Start Date shall be AGREED WITH THE PROJECT MANAGER

The Intended Completion Date for the whole of the Works shall be 24 WEEKS FROM DATE OF POSSESSION

The following documents also form part of the Contract:
AS LISTED IN CLAUSE 2.3 OF CONDITIONS OF CONTRACT
The Contractor shall submit a revised program for the Works within SEVEN (7) days of delivery of the Letter of Acceptance.
The Site Possession Date shall be AGREED WITH THE PROJECT MANAGER

The Site is located in Located in Malkagufi Police Post in Wajir north-Wajir County, approximately 515 kilometers via Isiolo Mandera Road from Nairobi City Centre and 120 kilometers off Isiolo Mandera Road from Wajir Town.
The Defects Liability period is 360 days.

Other Contractors, utilities etc., to be engaged by the Employer on the Site Include those for the execution of;

1. PLUMBING AND DRAINAGE WORKS
2. ELECTRICAL WORKS
3. CIVIL WORKS

The minimum insurance covers shall be;

2. The minimum cover for insurance of the Works and of Plant and Materials in respect of the Contractor’s faulty design is; N/A
3. The minimum cover for loss or damage to Equipment is; -----NIL----
4. The minimum for insurance of other property is; Kshs 500,000.00
5. The minimum cover for personal injury or death insurance
   • For the Contractor’s employees is; Kshs 1,000,000.00
   • And for other people is; Kshs 1,000,000.00
The following events shall also be Compensation Events:

NONE (ONLY AS LISTED IN CLAUSE 24 OF THE CONDITIONS OF CONTRACT)

The period between Program updates is 30 days.

The amount to be withheld for late submission of an updated Program is; FULL CERTIFICATE

The proportion of payments retained is 10% percent.

The Price Adjustment Clause SHALL apply

Advance Payment ______________ shall __ Not ______________ be granted

The liquidated damages for the whole of the Works is Kshs. 100,000/= (per week)

The Performance Security shall be 5 percent (%) of the Contract Price.

The Completion Period for the Works is 24 WEEKS.

The rate of exchange for calculation of foreign currency payments is not applicable
PRETENDER CONFERENCE/SITE VIST

There will be a **mandatory** pretender conference to be held on ............ Day of ............ 2019 on 6th floor conference room, Ardhi House Wing “B”, 1st Ngong Avenue, off Ngong’ Road, Community - Nairobi.

Failure to attend this Pretender conference will lead to automatic disqualification of the tenderer.

**Contractors representative’s name..........................................................................................**

Signature..................................................................Date.........................................................

**Client or Project manager’s representative..........................................................**

Signature and Stamp........................................Date..............................................................
SECTION V - DRAWINGS

1. Architectural drawings (see Appendix B)

2. Electrical and mechanical drawings
SECTION VI – STANDARD FORMS

(i) Form of Invitation for Tenders
(ii) Form of Tender
(iii) Letter of Acceptance
(iv) Form of Agreement
(v) Form of Tender Security
(vi) Performance Bank Guarantee
(vii) Bank Guarantee for Advance Payment
(viii) Qualification Information
(ix) Tender Questionnaire
(x) Confidential Business Questionnaire
(xi) Details of Sub-Contractors
FORM OF INVITATION FOR TENDERS

[date]

To: ____________________________ [name of Contractor]

___________________________ [address]

Dear Sirs:

Reference: ____________________________ [Contract Name]

You have been prequalified to tender for the above project.

We hereby invite you and other prequalified tenderers to submit a tender for the execution and completion of the above Contract.

A complete set of tender documents may be purchased by you from ____________________________ [mailing address, cable/telex/facsimile numbers].

Upon payment of a non-refundable fee of Kshs ____________________________

All tenders must be accompanied by ____________________________ number of copies of the same and a security in the form and amount specified in the tendering documents, and must be delivered to ____________________________ [address and location]

at or before ____________________________ (time and date). Tenders will be opened immediately thereafter, in the presence of tenderers’ representatives who choose to attend.

Please confirm receipt of this letter immediately in writing by cable/facsimile or telex.

Yours faithfully,

___________________________ Authorised Signature

___________________________ Name and Title
FORM OF TENDER

TO: ……………………………………………………………………………………………………………………………………………………………...
………………………………………………………………………………………………
……………………………………

Dear Sir,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct, install and complete such Works and remedy any defects therein for the sum of KENYA SHILLINGS ……………………………………………………………………………………………
……………………………………………………………………………………………………
…………………………………….(kshs………………………)

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Project Manager’s notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Appendix to Conditions of Contract.

3. We agree to abide by this tender until _______________[Insert date], and it shall remain binding upon us and may be accepted at any time before that date.

4. Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereof, shall constitute a binding Contract between us.

5. We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this ________________ day of ___________ 20___________

Signature ________________ in the capacity of__________________________

duly authorized to sign tenders for and on behalf of ________________________ [Name of Employer]
of ____________________________ [Address of Employer]

Witness; Name____________________________

Address______________________________

Signature______________________________

Date______________________________
LETTER OF ACCEPTANCE

[letterhead paper of the Employer]

_______________________[date]

To: _______________________
    [name of the Contractor]
    _______________________
    [address of the Contractor]

Dear Sir,

This is to notify you that your Tender dated ___________________________ for the execution of  ________________________________________________
    [name of the Contract and identification number, as given in the Tender
    documents] for the Contract Price of Kshs. __________________________
    [amount in figures] [Kenya Shillings ____________________________ (amount in
    words) ] in accordance with the Instructions to Tenderers is hereby
    accepted.

You are hereby instructed to proceed with the execution of the said Works in
    accordance with the Contract documents.

Authorized Signature  ……………………………………………………………

Name and Title of Signatory  ……………………………………………………………

Attachment: Agreement
FORM OF AGREEMENT

THIS AGREEMENT, made the _________________ day of ________ 20 ______ between________________________________________________of[or whose registered office is situated at]__________________________________________ (hereinafter called “the Employer”) of the one part AND ________________________________________________ (hereinafter called “the Contractor”) of the other part.

WHEREAS THE Employer is desirous that the Contractor executes __________________________________________________________________________ (name and identification number of Contract) (hereinafter called “the Works”) located at__________________________________________________________ [Place/location of the Works] and the Employer has accepted the tender submitted by the Contractor for the execution and completion of such Works and the remedying of any defects therein for the Contract Price of Kshs___________________________ [Amount in figures], Kenya Shillings_____________________________________________ [Amount in words].

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

2. The following documents shall be deemed to form and shall be read and construed as part of this Agreement i.e.

   (i) Letter of Acceptance

   (ii) Form of Tender

   (iii) Conditions of Contract Part I

   (iv) Conditions of Contract Part II and Appendix to Conditions of Contract

   (v) Specifications

   (vi) Drawings

   (vii) Priced Bills of Quantities

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby
covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The common Seal of _________________________________________________

Was hereunto affixed in the presence of ________________________________

Signed Sealed, and Delivered by the said ________________________________

Binding Signature of Employer ________________________________________

Binding Signature of Contractor ________________________________________

In the presence of (i) Name__________________________________________

Address__________________________________________________________

Signature__________________________________________________________

[ii] Name _________________________________________________________

Address__________________________________________________________

Signature__________________________________________________________
FORM OF TENDER SECURITY

WHEREAS .............................. (hereinafter called “the Tenderer”) has submitted his tender dated ................................ for the construction of ................................................................. ........................................ (Name of Contract)

KNOW ALL PEOPLE by these presents that WE ........................... having our registered office at ......................(hereinafter called “the Bank”), are bound unto ...............................(hereinafter called “the Employer”) in the sum of Kshs......................... for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors and assigns by these presents sealed with the Common Seal of the said Bank this .............. Day of ........20 ...........

THE CONDITIONS of this obligation are:

1. If after tender opening the tenderer withdraws his tender during the period of tender validity specified in the instructions to tenderers
Or

2. If the tenderer, having been notified of the acceptance of his tender by the Employer during the period of tender validity:
   (a) fails or refuses to execute the form of Agreement in accordance with the Instructions to Tenderers, if required; or
   (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Tenderers;

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including thirty (30) days after the period of tender validity, and any demand in respect thereof should reach the Bank not later than the said date.

[Date ]  [signature of the Bank]

[Witness]  [Seal]
PERFORMANCE BANK GUARANTEE

To: _________________________（Name of Employer） ____________(Date)
__________________________（Address of Employer）

Dear Sir,

WHEREAS ________________（hereinafter called “the Contractor”) has
undertaken, in pursuance of Contract No. _____________ dated _________ to
execute _______________（hereinafter called “the Works”）;

AND WHEREAS it has been stipulated by you in the said Contract that the
Contractor shall furnish you with a Bank Guarantee by a recognised bank
for the sum specified therein as security for compliance with his obligations
in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank
Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and
responsible to you, on behalf of the Contractor, up to a total of Kshs.
_____________（amount of Guarantee in figures） Kenya
Shillings_____________（amount of Guarantee in words），and we undertake to pay you, upon your first written demand and
without cavil or argument, any sum or sums within the limits of Kenya
Shillings ________________（amount of Guarantee in words） as
aforesaid without your needing to prove or to show grounds or reasons for
your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the
Contractor before presenting us with the demand.

We further agree that no change, addition or other modification of the terms
of the Contract or of the Works to be performed thereunder or of any of the
Contract documents which may be made between you and the Contractor
shall in any way release us from any liability under this Guarantee, and we
hereby waive notice of any change, addition, or modification.

This guarantee shall be valid until the date of issue of the Certificate of
Completion.

SIGNATURE AND SEAL OF THE GUARANTOR ________________

Name of Bank  _______________________________
BANK GUARANTEE FOR ADVANCE PAYMENT

To: ____________________ [name of Employer]  ________(Date)  _______________________[address of Employer]

Gentlemen,

Ref: ______________________________________ [name of Contract]

In accordance with the provisions of the Conditions of Contract of the above-mentioned Contract, We, ________________________________ [name and Address of Contractor] (hereinafter called “the Contractor”) shall deposit with ___________________________ [name of Employer] a bank guarantee to guarantee his proper and faithful performance under the said Contract in an amount of Kshs. ________ [amount of Guarantee in figures] Kenya Shillings ______________________ [amount of Guarantee in words].

We, __________________ [bank or financial institution], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to ___________________________ [name of Employer] on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding Kshs. _____________ [amount of Guarantee in figures] Kenya Shillings ______________________ [amount of Guarantee in words], such amount to be reduced periodically by the amounts recovered by you from the proceeds of the Contract.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between ___________________________ [name of Employer] and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

No drawing may be made by you under this guarantee until we have received notice in writing from you that an advance payment of the amount listed above has been paid to the Contractor pursuant to the Contract.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until
(name of Employer) receives full payment of the same amount from the Contract.

Yours faithfully,

Signature and Seal ________________________________

Name of the Bank or financial institution _________________________

Address _________________________________________________________

Date _____________________________________________________________

Witness: Name: _________________________________________________

Address: _________________________________________________________

Signature: _________________________________________________________

Date: _____________________________________________________________
**QUALIFICATION INFORMATION**

1. **Individual Tenderers or Individual Members of Joint Ventures**

   1.1 Constitution or legal status of tenderer (attach copy or Incorporation Certificate);  
      Place of registration: ________________________________
      Principal place of business ____________________________
      Power of attorney of signatory of tender ________________

   1.2 Total annual volume of construction work performed in the last five years

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
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<tbody>
<tr>
<td></td>
<td>Currency</td>
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<td>__________</td>
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</table>

   1.3 Work performed as Main Contractor on works of a similar nature and volume over the last five years. Also list details of work under way or committed, including expected completion date.

<table>
<thead>
<tr>
<th>Project name</th>
<th>Name of client and contact person</th>
<th>Type of work performed and year of completion</th>
<th>Value of Contract</th>
</tr>
</thead>
</table>
   | ____________ | ___________                      | ______________________ | __________
   | ____________ | ___________                      | ______________________ | __________
   | ____________ | ___________                      | ______________________ | __________

   1.4 Major items of Contractor’s Equipment proposed for carrying out the Works. List all information requested below.

<table>
<thead>
<tr>
<th>Item of Equipment</th>
<th>Description, Make and age (years)</th>
<th>Condition(new, good, poor) and number available</th>
<th>Owned, leased (from whom?), or to be purchased (from whom?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>____________</td>
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<td>(etc.)</td>
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</table>
1.5 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data.

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Years of experience (general)</th>
<th>Years of experience in proposed position</th>
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<tbody>
<tr>
<td>Project Manager</td>
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<td>(etc.)</td>
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</table>

1.6 Financial reports for the last five years: balance sheets, profit and loss statements, auditor’s reports, etc. List below and attach copies.

________________________________________________________________________
________________________________________________________________________

1.7 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of supportive documents.

________________________________________________________________________
________________________________________________________________________

1.8 Name, address and telephone, telex and facsimile numbers of banks that may provide reference if contacted by the Employer.

________________________________________________________________________
________________________________________________________________________

1.9 Statement of compliance with the requirements of Clause 1.2 of the Instructions to Tenderers.

________________________________________________________________________
________________________________________________________________________
1.10 Proposed program (work method and schedule) for the whole of the Works.

2 Joint Ventures

2.4 The information listed in 1.1 – 1.10 above shall be provided for each partner of the joint venture.

2.5 The information required in 1.11 above shall be provided for the joint venture.

2.6 Attach the power of attorney of the signatory(ies) of the tender authorizing signature of the tender on behalf of the joint venture.

2.7 Attach the Agreement among all partners of the joint venture (and which is legally binding on all partners), which shows that:

a) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;

b) one of the partners will be nominated as being in charge, authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture; and

c) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge.
TENDER QUESTIONNAIRE

Please fill in block letters.

1. Full names of tenderer

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

2. Full address of tenderer to which tender correspondence is to be sent
(unless an agent has been appointed below)

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

3. Telephone number (s) of tenderer

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

4. Telex address of tenderer

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

5. Name of tenderer’s representative to be contacted on matters of the
   tender during the tender period

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

6. Details of tenderer’s nominated agent (if any) to receive tender notices.
   This is essential if the tenderer does not have his registered address in
   Kenya (name, address, telephone, telex)

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

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

_______________________
Signature of Tenderer

Make copy and deliver to:_____________________(Name of Employer)
CONFIDENTIAL BUSINESS QUESTIONNAIRE

You are requested to give the particulars indicated in Part 1 and either Part 2 (a), 2 (b) or 2 (c) and 2 (d) whichever applies to your type of business.

You are advised that it is a serious offence to give false information on this Form.

Part 1 – General

Business Name ...........................................................................................................

Location of business premises; Country/Town............................................................

Plot No........................................ Street/Road ..........................................................

Postal Address................................. Tel No.........................................................

Nature of Business...................................................................................................

Current Trade Licence No........... Expiring date.....................................................

Maximum value of business which you can handle at any time: K. pound............... 

Name of your bankers..............................................................................................

Branch....................................................................................................................

Part 2 (a) – Sole Proprietor

Your name in full........................................... Age..............................

Nationality........................................... Country of Origin......................

*Citizenship details ................................................................................................

Part 2 (b) – Partnership

Give details of partners as follows:

<table>
<thead>
<tr>
<th>Name in full</th>
<th>Nationality</th>
<th>Citizenship Details</th>
<th>Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.............</td>
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<td>2.............</td>
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<tr>
<td>3.............</td>
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<td></td>
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</tr>
</tbody>
</table>

Part 2(c) – Registered Company:
Private or public

State the nominal and issued capital of the Company:

Nominal Kshs

Issued Kshs

Give details of all directors as follows:


1.

2.

3.

4.

Part 2(d) – Interest in the Firm:

Is there any person / persons in ......... .......(Name of Employer) who has interest in this firm? Yes/No .......(Delete as necessary)

I certify that the information given above is correct.

(Title) (Signature) (Date)

- Attach proof of citizenship
STATEMENT OF FOREIGN CURRENCY REQUIREMENTS

(See Clause 23] of the Conditions of Contract)

In the event of our Tender for the execution of ________________
______________ (name of Contract) being accepted, we would
require in accordance with Clause 21 of the Conditions of Contract,
which is attached hereto, the following percentage:

(Figures).......................... (Words)...........................................

of the Contract Sum, (Less Fluctuations) to be paid in foreign
currency.

Currency in which foreign exchange element is required:

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

Date: The ........ Day of .............. 20............

Enter 0% (zero percent) if no payment will be made in foreign currency.

Maximum foreign currency requirement shall be ___________(percent)
of the Contract Sum, less Fluctuations.

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

(Signature of Tenderer)
DETAILS OF SUB-CONTRACTORS

If the Tenderer wishes to sublet any portions of the Works under any heading, he must give below details of the sub-contractors he intends to employ for each portion.

Failure to comply with this requirement may invalidate the tender.

(1) Portion of Works to be sublet: ..............................................

   [i] Full name of Sub-contractor and address of head office: ..............................................

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

   (ii) Sub-contractor’s experience of similar works carried out in the last 3 years with Contract value: ..............................................

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

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

(2) Portion of Works to be sublet: ..............................................

   (i) Full name of sub-contractor and address of head office: ..............................................

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

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

   (ii) Sub-contractor’s experience of similar works carried out in the last 3 years with contract value: ..............................................

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

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

 [Signature of Tenderer) ___________________________ Date ___________________________
LETTER OF NOTIFICATION OF AWARD

Address of Procuring Entity

To:__________________

__________________

__________________

RE: Tender No.______________

Tender Name______________

This is to notify that the contract/s stated below under the above mentioned tender have been awarded to you.

1. Please acknowledge receipt of this letter of notification signifying your acceptance.

2. The contract/contracts shall be signed by the parties within 30 days of the date of this letter but not earlier than 14 days from the date of the letter.

3. You may contact the officer(s) whose particulars appear below on the subject matter of this letter of notification of award.

(FULL PARTICULARS)______________________________

______________________________

SIGNED FOR ACCOUNTING OFFICER
FORM RB 1

REPUBLIC OF KENYA

PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

APPLICATION NO………………………………OF………………20………….

BETWEEN

………………………………………………………………………APPLICANT

AND

…………………………………………………………………………RESPONDENT (procuring entity)

Request for review of the decision of the
……………………………………………………… (Name of procuring entity)
of…………………………dated the ……………….20………..in the matter of
tender no. …………….of …………..20…………

REQUEST FOR REVIEW

I/We ……………………………, the above named Applicant(s), of address:
Physical address……………………Fax No……………tel.
No........Email..........., hereby request the Public Procurement
Administrative Review Board to review the whole/part of the above
mentioned decision on the following grounds, namely:-

1.
2.
3.
Etc.

By this memorandum, the applicant requests the Board for order/orders that:-

1.
2.
Etc

Signed…………………………………(Applicant)
Dated on………………………………day of ………………/20.......
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>KSHS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PARTICULAR PRELIMINARIES</td>
<td></td>
</tr>
<tr>
<td>A.</td>
<td>EMPLOYER</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Employer is the Principal Secretary, State Department for Housing and Urban Development. (Ministry of Transport, Infrastructure Housing, Urban Development and Public Works.) The term &quot;Employer&quot; and &quot;Government&quot; wherever used in the contract document shall be synonymous.</td>
<td></td>
</tr>
<tr>
<td>B.</td>
<td>PROJECT MANAGER</td>
<td></td>
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<tr>
<td></td>
<td>The term &quot;PM&quot; wherever used in these Bills of Quantities shall be deemed to imply the project Manager as defined in Condition 1 of the Conditions of Contract or such or persons as may be duly authorised to represent him on behalf of the Government.</td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td>ARCHITECT</td>
<td></td>
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<td></td>
<td>The term &quot;Architect&quot; shall be deemed to mean &quot;The P.M &quot; as defined above whose address unless otherwise notified is Ministry of Transport, Infrastructure, Housing, Urban Development, Public Works. State Department for Public Works, P.O Box</td>
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<td>D.</td>
<td>QUANTITY SURVEYOR</td>
<td></td>
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<td></td>
<td>The term &quot;Quantity Surveyor&quot; shall be deemed to mean &quot;The P.M &quot; as defined above whose address unless otherwise notified is Ministry of Transport, Infrastructure, Housing, Urban Development, Public Works. State department for Public Works, P.O Box 30743, NAIROBI.</td>
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<tr>
<td>E.</td>
<td>ELECTRICAL ENGINEER</td>
<td></td>
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<td></td>
<td>The term &quot;Electrical Engineer&quot; shall be deemed to mean &quot;The P.M &quot; as defined above whose address unless otherwise notified is Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works. State Department for Public Works, P.O Box 30743, NAIROBI.</td>
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<td>F.</td>
<td>MECHANICAL ENGINEER</td>
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<td>The term &quot;Mechanical Engineer&quot; shall be deemed to mean &quot;The P.M &quot; as defined above whose address unless otherwise notified is Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works, State Department for Public Works, P.O Box 30743, NAIROBI.</td>
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<tr>
<td>G.</td>
<td>STRUCTURAL ENGINEER</td>
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<td>The term &quot;Structural Engineer&quot; shall be deemed to mean &quot;The P.M &quot; as defined above whose address unless otherwise notified is Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works. State Department for Public Works, P.O Box 30743, NAIROBI.</td>
<td></td>
</tr>
</tbody>
</table>

Carried to collection
A. **NOTE::RESPONSIBILITY**

The responsibility for the details designs and performance of the building is to be borne by the contractor. All designs, details and specifications shall be approved by the Project Manager before they can be used.

B. **PRICING ITEMS OF PRELIMINARIES**

Prices **SHALL BE INSERTED** against items of “preliminaries” in the tenderer’s priced Bills of Quantities. The contractor is advised to read and understand all preliminary items.

**SCOPE OF CONTRACT**

The works to be carried out comprises of erection and completion of 1No. 4 storey block of 12 No two bedroom units and 48 No bedsitters units and associated Civil, Electrical and Mechanical Installations works at Kitui Border Patrol School.

C. **DESCRIPTION OF THE WORKS**

The works consists of the erection and completion of 1No. block of 12 No two bedroom units and 48 No bedsitters units on reinforced concrete raft foundations and columns. The superstructure will be of approved Appropriate Building Material Technology (ABMT) for walls, suspended floors, and staircases as per appendix ‘A’, finished as necessary for the technology both externally and internally including painting, ceramic tiling to floors, washroom and kitchen walls. The roof covering is of 28 Gauge G.C.I sheets fixed on light gauge steel trusses, or as per the roof construction and covering for the Appropriate Building Material Technology (ABMT). Ceiling finishes are plaster and paint and softboard on timber brandering, or as per the ceiling finish for the ABMT in use. External doors are of 45mm thick hardwood panels while internal doors are semi solid core timber flush doors. Civil works comprises of septic tanks with radial arms where appropriate or other equal and approved. Road works and parkings around the building are of well compacted hardcore finished with murrum all in accordance with civil engineer's Electrical works include electrical wiring, fittings and K.P.L.C power connection for the whole block.

Mechanical works are water reticulation, piping within the building, sanitary fittings, kitchen sinks, high and low level water tanks with booster pumps.

D. **MEASUREMENTS**

In the event of any discrepancies arising between the Bills of Quantities and the actual works, the site measurements shall generally take precedence. However, such discrepancies between any contract documents shall immediately be referred to the PROJECT MANAGER in accordance with Clause 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.

---

**Carried to collection**
A. FLOOR AREAS

<table>
<thead>
<tr>
<th>Ground floor</th>
<th>562 SM</th>
</tr>
</thead>
<tbody>
<tr>
<td>First floor</td>
<td>502 SM</td>
</tr>
<tr>
<td>Second floor</td>
<td>502 SM</td>
</tr>
<tr>
<td>Third floor</td>
<td>524 SM</td>
</tr>
<tr>
<td><strong>Total area</strong></td>
<td><strong>2090 SM</strong></td>
</tr>
</tbody>
</table>

Floor ceiling height = 2.7 Meters

The scheme designs indicating the floor areas are a guide only. The IBS may adopt or modify the drawings according to their system while maintaining the given floor areas as much as possible.

B. LOCATION OF SITE

The site of the proposed works is located in Malkagufi Police Post in Wajir north-Wajir County, approximately 515 kilometers via Isiolo Mandera Road from Nairobi City Centre and 120 kilometers off Isiolo Mandera Road from Wajir Town. The Contractor is advised to visit the site, to familiarize with the nature and position of the site. No claims arising from the Contractor’s failure to do so will be entertained.

C. SIGNING OF THE TENDER DOCUMENTS

The bidder shall append his / her signature and / or company’s rubberstamp on each and every page of tender document.

D. DEMOLITIONS AND ALTERATIONS

The Contractor is to allow for all temporary protection required during the works including ordinary and special dust screens, hoardings, barriers, warning signs, etc as directed by the Project Manager and as necessary for the adequate propping and protection of existing property, finishes, workmen employed on the site, employer's agents and the public. Any damage or loss incurred due to the insufficiency of such protection must be made good by the Contractor. All protective devices are to be removed on completion of the works and any necessary making good consequent upon this is to be executed to the satisfaction of the Project Manager.

The works shall be propped, strutted and supported as necessary before any alteration or demolition work commences. Prices shall include for all cleaning and preparatory work to structure and finishes and for making good to all finishes on completion whether or not specifically described.

Unless described as set aside for re-use all arising debris and surplus materials shall be carefully removed from building and carted away from site.

The Contractor shall be entirely responsible for any breakage or damage which may occur to materials required for re-use during their removal unless it is certified by the Project Manager that such damage or breakage was inevitable as a result of the condition of the item concerned.

Carried to collection
ITEM | DESCRIPTION | KSHS
---|---|---
A. CLEARING AWAY  
The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused materials and stains and leave in a clean and tidy state to the reasonable satisfaction of the Project Manager. The whole of the works shall be delivered up clean, complete and in perfect condition in every respect to the satisfaction of the Project Manager.

B. CLAIMS  
It shall be a condition of this contract that upon it becoming reasonably apparent to the Contractor that he has incurred losses and / or expenses due to any of the contract conditions, or by any other reason whatsoever, he shall present such a claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claim shall be entertained upon the expiry of the said contact period.

C. PAYMENTS  
The tenderer’s attention is drawn to the fact that the GOVERNMENT DOES NOT MAKE ADVANCE PAYMENTS but pays for work done and materials delivered to sit: all in accordance with Clause 23 of the Conditions of Contract Agreement. In order to facilitate this, a list of the general component elements for the works is given at the summary page of these specifications and the tenderer is requested to break down his tender sum commensurate to the said elements.

D. PREVENTION OF ACCIDENT, DAMAGE OR LOSS  
The Contractor is notified that these works are to be carried out on a restricted site where the client is going on with other normal activities. The Contractor is thus instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of activities being carried out by the Client. The Contractor shall allow in his rates any expense he deemed necessary by taking such care within the site.

E. WORKING CONDITIONS  
The Contractor shall allow in his rates for any interference that he may encounter in the course of the works for the Client may in some cases ask the Contractor not to proceed with the works until some activities within the site are completed, as the facility will be operating as usual during the course of the contract.

F. SIGNBOARD  
Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away a signboard as designed, specified and approved by the Project Manager.

Carried to collection
A. LABOUR CAMPS
The Contractor shall not be allowed to house labour on site. Allow for transporting workers to and from the site during the tenure of the contract.

B. MATERIALS FROM DEMOLITIONS
Any materials arising from demolitions and not re-used shall become the property of the client. The Contractor shall allow in his rates the cost of disposing the demolished materials as directed.

C. PRICING RATES
The tenderer shall include for all costs in executing the whole of the works, including transport, replacing damaged items, fixing, all to comply with the said Conditions of Contract.

D. SECURITY
The Contractor shall allow for providing adequate security for the works and the workers in the course of execution of this contract. No claim will be entertained from the Contractor for not maintaining adequate security for both the works and workers.

E. URGENCY OF THE WORKS
The Contractor is notified that these "works are urgent" and should be completed within the period stated in these Particular Preliminaries (24 weeks). The Contractor shall allow in his rates for any costs he/she deems that he/she may incur by having to complete these works within the stipulated contract period.

F. PAYMENT FOR MATERIALS ON SITE
All materials for incorporation in the works must be stored on site before payment is effected, unless specifically exempted by the Project Manager. This is to include materials of the Contractor, nominated sub-Contractors and nominated suppliers.

G. EXISTING SERVICES
Prior to the commencement of any work, the Contractor is to ascertain from the relevant authority the exact position, depth and level of all existing services in the area and he/she shall make whatever provisions may be required by the authorities concerned for the support, maintenance and protection of such services.

H. TENDER DOCUMENTS
Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer’s Page STD/9

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
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<tr>
<td>B.</td>
<td>MATERIALS FROM DEMOLITIONS</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>C.</td>
<td>PRICING RATES</td>
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<tr>
<td></td>
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<td>D.</td>
<td>SECURITY</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>E.</td>
<td>URGENCY OF THE WORKS</td>
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<td></td>
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</tr>
<tr>
<td>G.</td>
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</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>H.</td>
<td>TENDER DOCUMENTS</td>
</tr>
<tr>
<td></td>
<td>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer’s Page STD/9</td>
</tr>
</tbody>
</table>

Carried to collection
A. CONTRACT COMPLETION PERIOD

The contract completion period in accordance with condition 31 of the Conditions of contract must be adhered to.

The ‘PROJECT MANAGER’ shall strictly monitor the Contractors progress in relation to the progress chart and should it be found necessary the ‘PROJECT MANAGER’ shall inform the Contractor in writing that his actual performance on site is not satisfactory. In all such cases the Contractor shall accelerate his rate of performance production and progress by all means such as additional labour, plant, et c and working overtime all at his cost.

B. PERFORMANCE BOND

A bond of 5% of the contract sum will be required in accordance with clause 6.00 (as amended) on award of contract of the Instructions to Tenderer’s. No payment on account for the works executed will be made to the contractor until he has submitted the Performance Bond to the Project Manager duly signed, sealed and stamped from an approved Bank.

C. DELIVERY OF TENDER

Tenders and all documents in connection therewith, as specified above must be delivered in the addressed envelope which should be properly sealed and deposited at the offices as specified in the letter accompanying these documents or as indicated in the advertisement.

Tenders will be opened at the time specified in the letter accompanying these Tender Documents or as indicated in the advertisement. Tenders delivered/received later than the above time will not be opened.

D. VALUE ADDED TAX

The Contractor’s attention is drawn to the Legal Notice in the Finance Act part 3 Section 21(b) operative from 1st September, 1993 which requires payment of VAT on all contracts. The Contractor should therefore include allowance in his rates and prices for prices for VAT and any other Government taxes currently in force.

The tenderer is advised that in accordance with Government public notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, VAT will be deducted against the contract sum at the prevailing rate by the Employer and remitted directly to the Commissioner of VAT through all interim certificates. It should however be noted that this is not additional tax but a new mode of payment for VAT, any excess payment will be refundable once the Contractor has submitted monthly returns to the Commissioner of VAT who will do the refunds when satisfied that the VAT regulations have been complied with.

NB: The Contractor should therefore include the tax within the rates.
### A. EXISTING BUILDING MATERIALS

NOTE: Any materials found usable for the works shall be given to the contractor on credit with the approval of the client

### PROJECT MANAGERS EXPENSES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>KSHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.</td>
<td>Provide a provisional sum of Kenya Shillings Six Hundred Thousand (Kshs 600,000.00) only for Clerk of works expenses</td>
<td>600,000.00</td>
</tr>
<tr>
<td></td>
<td>Allow for Contractor’s profit and overheads (--------%)</td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td>Provide mobile phone airtime worth Kenya Shillings Two thousand (Kshs2,000.00) only per person per calendar month for Thirteen (13No.) Ministry of Transport, Infrastructure, Housing and Urban Development (state department of Public works) Officers for the duration of the contract period.</td>
<td>156,000.00</td>
</tr>
<tr>
<td></td>
<td>Allow for Contractor’s profit and overheads (--------%)</td>
<td></td>
</tr>
<tr>
<td>D.</td>
<td>Provide per Diem allowances worth Kenya Shillings Two Million Four Hundred Thousand (kshs. 2,400,000.00) for site visits and inspections for Thirteen (13No.) Ministry of Transport, Infrastructure, Housing and Urban Development Officers site supervision expenses for the duration of the contract period.</td>
<td>2,400,000.00</td>
</tr>
<tr>
<td></td>
<td>Allow for Contractor’s profit and overheads (--------%)</td>
<td></td>
</tr>
<tr>
<td>E.</td>
<td>Provide sum of Kenya Shillings Five Hundred thousand (Kshs500,000.00) only for stationery</td>
<td>500,000.00</td>
</tr>
<tr>
<td></td>
<td>Allow for Contractor’s profit and overheads (--------%)</td>
<td></td>
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</tbody>
</table>

**Carried to collection**
The following are the insertions to be made in the appendix to the Contract Agreement:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>PARTICULARS OF INSERTIONS TO BE MADE IN APPENDIX TO CONTRACT AGREEMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Period of Final Measurement</td>
<td>6 Months From Practical completion</td>
<td></td>
</tr>
<tr>
<td>Defects Liability Period</td>
<td>12 Months from Practical completion</td>
<td></td>
</tr>
<tr>
<td>Date for Possession</td>
<td>To be agreed with the Project Manager</td>
<td></td>
</tr>
<tr>
<td>Date for Completion</td>
<td>…24. Weeks from date of Possession</td>
<td></td>
</tr>
<tr>
<td>Liquidated and Ascertained</td>
<td>At the rate of Kshs.. 100,000… per week or part thereof:</td>
<td></td>
</tr>
<tr>
<td>Prime cost</td>
<td>………………………………………………………………..</td>
<td></td>
</tr>
<tr>
<td>The Contractor desires to tender</td>
<td>………………………………………………………………..</td>
<td></td>
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<tr>
<td>Period of Interim Certificates</td>
<td>Monthly</td>
<td></td>
</tr>
<tr>
<td>Period of Honouring Certificates</td>
<td>60 days</td>
<td></td>
</tr>
<tr>
<td>Percentage of Certified Value Retained</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Limit of Retention Fund</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>

*Carried to collection*
**PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>KSHS</th>
</tr>
</thead>
</table>

**MANDATORY PRE - TENDER SITE VISIT**

There will be a mandatory pre-tender site visit to be held on ………………..Day of ………………..2019.
Failure to attend this pretender site visit will lead to automatic disqualification of the tenderer.

**Contractors representative Name……………………………………..**
**signature………………………..Date……………………………….**

**Clients or Project Manger's representative…………………………..**
**Signature and stamp………………………………….**

**Date;……………………………….**

**CARRIED TO COLLECTION**
<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>KSHS</th>
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<tbody>
<tr>
<td>COLLECTION</td>
<td>Brought forward from page PP/1</td>
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<tr>
<td></td>
<td>Brought forward from page PP/2</td>
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<td>Brought forward from page PP/8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brought forward from page PP/9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL FOR PARTICULAR PRELIMINARIES CARRIED TO GRAND SUMMARY</th>
<th></th>
</tr>
</thead>
</table>
### GENERAL PRELIMINARIES

#### A. PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES

Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.

The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.

#### B. ABBREVIATIONS

Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:

- **C.M.** Shall mean cubic metre
- **S.M.** Shall mean square metre
- **L.M.** Shall mean linear metre
- **MM** Shall mean Millimetre
- **Kg.** Shall mean Kilogramme
- **No.** Shall mean Number
- **Prs.** Shall mean Pairs
- **B.S.** Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.I., England.
- **Ditto** Shall mean the whole of the preceding description except as qualified in the description in which it occurs.
- **m.s.** Shall mean measured separately.
- **a.b.d** Shall mean as before described.

---

**ITEM** | **DESCRIPTION** | **KSHS**
---|---|---

**GENERAL PRELIMINARIES**

**A. PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES**

Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.

The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.

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- **m.s.** Shall mean measured separately.
- **a.b.d** Shall mean as before described.

---

*Carried to Collection*
### A. EXCEPTION TO THE STANDARD METHOD OF MEASUREMENT

**Attendance**: Clause B19(a) of the Standard Method of Measurement is deleted and the following clause is substituted:-

Attendance on nominated Sub-Contractors shall be given as an item in each case shall be deemed to include: allowing use of standing scaffolding, mess rooms, sanitary accommodation and welfare facilities; provision of special scaffolding where necessary; providing space for office accommodation and for storage of plant and materials; providing light and water for their work; clearing away rubbish; unloading, checking and hoisting: providing electric power and removing and replacing duct covers, pipe casings and the like necessary for the execution and testing of Sub-Contractors’ work and being responsible for the accuracy of the same.

**Fix Only**: -

"Fix Only" shall mean take delivery at nearest railway station (Unless otherwise stated), pay all demurrage charges, load and transport to site where necessary, unload, store, unpack, assemble as necessary, distribute to position, hoist and fix only.

### B. FORM OF CONTRACT


**Conditions of Contract**

These are numbered from 1 to 37 as set out in pages 18 to 37 of these tender documents. Particulars of insertions to be made in the Appendix to the Contract Agreement will be found in the Particular Preliminaries part of these Bills of Quantities.

### C. PLANT, TOOLS AND VEHICLES

Allow for providing all scaffolding, plant, tools and vehicles required for the works except in so far as may be stated otherwise herein and except for such items specifically and only required for the use of nominated Sub-Contractors as described herein. No timber used for scaffolding, formwork or temporary works of any kind shall be used afterwards in the permanent work.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>KSHS</th>
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</tbody>
</table>

*Carried to Collection*
ITEM | DESCRIPTION | KSHS
--- | --- | ---
A. | TRANSPORT. | 
Allow for transport of workmen, materials, etc., to and from the site at such hours and by such routes as may be permitted by the competent authorities.

B. | MATERIALS AND WORKMANSHIP. | 
All materials and workmanship used in the execution of the work shall be of the best quality and description unless otherwise stated. The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also order materials to be obtained from local sources as early as necessary to ensure that they are onsite when required for use in the works. The Bills of Quantities shall not be used for the purpose of ordering materials.

C. | SIGN FOR MATERIALS SUPPLIED. | 
The Contractor will be required to sign a receipt for all articles and materials supplied by the PROJECT MANAGER at the time of taking deliver thereof, as having received them in good order and condition, and will thereafter be responsible for any loss or damage and for replacements of any such loss or damage with articles and/or materials which will be supplied by the PROJECT MANAGER at the current market prices including Customs Duty and V.A.T., all at the Contractor's own cost and expense, to the satisfaction of the PROJECT MANAGER.

D. | STORAGE OF MATERIALS | 
The Contractor shall provide at his own risk and cost where directed on the site weather proof lock-up sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the PROJECT MANAGER. Nominated Sub-Contractors are to be made liable for the cost of any storage accommodation provided especially for their use.

E. | SAMPLES | 
The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the Ministry of Public Works. The procedure for submitting samples of materials for testing and the method of marking for identification shall be as laid down by the PROJECT MANAGER. The Contractor shall allow in his tender for such samples and tests except those in connection with nominated sub-contractors' work.

Carried to Collection

JOB NO. 10209N

GP/13
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<thead>
<tr>
<th>ITEM</th>
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</tr>
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<tbody>
<tr>
<td>A.</td>
<td>GOVERNMENT ACTS REGARDING WORK, PEOPLE ETC.</td>
<td></td>
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<tr>
<td></td>
<td>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps, passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of knowledge in this connection will be entertained.</td>
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<tr>
<td>B.</td>
<td>SECURITY OF WORKS ETC.</td>
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<td></td>
<td>The Contractor shall be entirely responsible for the security of all the works stores, materials, plant, personnel, etc., both his own and sub-contractors' and must provide all necessary watching, lighting and other precautions as necessary to ensure security against theft, loss or damage and the protection of the public.</td>
<td></td>
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<tr>
<td>C.</td>
<td>PUBLIC AND PRIVATE ROADS.</td>
<td></td>
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<tr>
<td></td>
<td>Maintain as required throughout the execution of the works and make good any damage to public or private roads arising from or consequent upon the execution of the works to the satisfaction of the local and other competent authority and the PROJECT MANAGER.</td>
<td></td>
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<tr>
<td>D.</td>
<td>EXISTING PROPERTY.</td>
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</tr>
<tr>
<td></td>
<td>The Contractor shall take every precaution to avoid damage to all existing property including roads, cables, drains and other services and he will be held responsible for and shall make good all such damage arising from the execution of this contract at his own expense to the satisfaction of the PROJECT MANAGER.</td>
<td></td>
</tr>
<tr>
<td>E.</td>
<td>VISIT SITE AND EXAMINE DRAWINGS.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Contractor is recommended to examine the drawings and visit the site the location of which is described in the Particular Preliminaries hereof. He shall be deemed to have acquainted himself therewith as to its nature, position, means of access or any other matter which, may affect his tender. No claim arising from his failure to comply with this recommendation will be considered.</td>
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*Carried to Collection*
### Item Description

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<tr>
<th>Item</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>A.</strong> ACCESS TO SITE AND TEMPORARY ROADS.</td>
<td></td>
</tr>
</tbody>
</table>
Means of access to the Site shall be agreed with the PROJECT MANAGER prior to commencement of the work and Contractor must allow for building any necessary temporary access roads for the transport of the materials, plant and workmen as may be required for the complete execution of the works including the provision of temporary culverts, crossings, bridges, or any other means of gaining access to the Site. Upon completion of the works, the Contractor shall remove such temporary access roads; temporary culverts, bridges, etc., and make good and reinstate all works and surfaces disturbed to the satisfaction of the PROJECT MANAGER. |
| **B.** AREA TO BE OCCUPIED BY THE CONTRACTOR |  
The area of the site which may be occupied by the Contractor for use of storage and for the purpose of erecting workshops, etc., shall be defined on site by the PROJECT MANAGER. |
| **C.** OFFICE ETC. FOR THE PROJECT MANAGER |  
The Contractor shall provide, erect and maintain where directed on site and afterwards dismantle the site office of the standard type, complete with furniture. He shall also provide a strong metal trunk complete with strong hasp and staple fastening and two keys. He shall provide, erect and maintain a lock-up type water or bucket closet for the sole use of the PROJECT MANAGER including making temporary connections to the drain where applicable to the satisfaction of Government and Medical Officer of Health and shall provide services of cleaner and pay all conservancy charges and keep both office and closet in a clean and sanitary condition from commencement to the completion of the works and dismantle and make good disturbed surfaces. The office and closet shall be completed before the Contractor is permitted to commence the works. The Contractor shall make available on the Site as and when required by the "PROJECT MANAGER" a modern and accurate level together with levelling staff, ranging rods and 50 metre. |
| **D.** WATER AND ELECTRICITY SUPPLY FOR THE WORKS |  
Electric light and power required for use in the works. The Contractor must make his own arrangements for connection to the nearest suitable water main and for metering the water used. He must also provide temporary tanks and meters as required at his own cost and clear away when no longer required and make good on completion to the entire satisfaction of the PROJECT MANAGER. The Contractor shall pay all charges in connection herewith. No guarantee is given or implied that sufficient water will be available from mains and the Contractor must make his own arrangements for augmenting this supply at his own cost. Nominated Sub-contractors are to be made liable for the cost of any water or electric current used and for any installation provided especially for their own use. |
A. SANITATION OF THE WORKS

The Sanitation of the works shall be arranged and maintained by the Contractor to the satisfaction of the Government and/or Local Authorities, Labour Department and the PROJECT MANAGER.

B. SUPERVISION AND WORKING HOURS

The works shall be executed under the direction and to the entire satisfaction in all respects of the PROJECT MANAGER who shall at all times during normal working hours have access to the works and to the yards and workshops of the Contractor and sub-Contractors or other places where work is being prepared for the contract.

C. PROVISIONAL SUMS.

The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement mentioned in Condition No. 16 of the conditions of Contract. Such sums are net and no addition shall be made to them for profit.

D. PRIME COST (OR P.C.) SUMS.

The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement mentioned in Condition No. 16 of the conditions of Contract. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods as stated in Condition No. 20 of the Conditions of Contract are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.

E. PROGRESS CHART.

The Contractor shall provide within two weeks of Possession of Site and in agreement with the PROJECT MANAGER a Progress Chart for the whole of the works including the works of Nominated Sub-Contractors; one copy to be handed to the PROJECT MANAGER and a further copy to be retained on Site. Progress to be recorded and chart to be amended as necessary as the work proceeds.

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**Carried to Collection**
# PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT
# MALKAGUFI POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE

## Item | Description | KShs
--- | --- | ---
A. | ADJUSTMENT OF P.C. SUMS. | 

In the final account all P.C. Sums shall be deducted and the amount properly expended upon the PROJECT MANAGER’S order in respect of each of them added to the Contract sum. The Contractor shall produce to the PROJECT MANAGER such quotations, invoices or bills, properly receipted, as may be necessary to show the actual details of the sums paid by the Contractor. Items of profit upon P.C. Sums shall be adjusted in the final account pro-rata to the amount paid. Items of "attendance” (as previously described) following P.C. Sums shall be adjusted pro-rata to the physical extent of the work executed (not pro-rata to the amount paid) and this shall apply even though the Contractor's priced Bill shows a percentage in the rate column in respect of them. Should the Contractor be permitted to tender and his tender be accepted of any work for which a P.C. Sum is included in these Bill of Quantities profit and attendance will be allowed at the same rate as it would be if the work were executed by a Nominated Sub-Contractor.

B. | Nominated Sub-Contractors | 

When any work is ordered by the PROJECT MANAGER to be executed by nominated sub-contractors, the Contractor shall enter into sub-contracts as described in Condition No. 20 of the Conditions of Contract and shall thereafter be responsible for such sub-contractors in every respect. Unless otherwise described the Contractor is to provide for such Sub-Contractors any or all of the facilities described in these Preliminaries. The Contractor should price for these with the nominated Sub-contract Contractor's work concerned in the P.C. Sums under the description "add for Attendance”.

C. | DIRECT CONTRACTS | 

Notwithstanding the foregoing conditions, the Government reserves the right to place a “Direct Contract” for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum the priced Bills of Quantities will be adjusted as described for P.C. Sums and allowed.

D. | ATTENDANCE UPON OTHER TRADESMEN, ETC. | 

The Contractor shall allow for the attendance of trade upon trade and shall afford any tradesmen or other persons employed for the execution of any work not included in this Contract every facility for carrying out their work and also for use of his ordinary scaffolding. The Contractor, however, shall not be required to erect any special scaffolding for them. The Contractor shall perform such cutting away for and making good after the work of such tradesmen or persons as may be ordered by the PROJECT MANAGER and the work will be measured and paid for to the extent executed at rates provided in these Bills.

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<tbody>
<tr>
<td>A.</td>
<td>INSURANCE</td>
<td></td>
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<tr>
<td></td>
<td>The Contractor shall insure as required in Conditions No 30 of the Conditions of Contract. No payment on account of the work executed will be made to the production of an Insurance Policy or an Insurance Certificate that the provision of the foregoing Insurance Clauses have been complied with in all respects. Thereafter the PROJECT MANAGER shall from time to time ascertain that premiums are duly paid up by the Contractor who shall if called upon to do so, produce the receipted premium renewals for the PROJECT MANAGER's inspection.</td>
<td></td>
</tr>
<tr>
<td>B.</td>
<td>BLASTING OPERATIONS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blasting will only be allowed with the express permission of the PROJECT MANAGER in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost in accordance with any Government regulations in force for the time being, and any special regulations laid down by the PROJECT MANAGER governing the use and storage of explosives.</td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td>PROVISIONAL WORK</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All work described as &quot;Provisional&quot; in these Bills of Quantities is subject to remeasurement in order to ascertain the actual quantity executed for which payment will be made. All &quot;Provisional&quot; and other work liable to adjustment under this Contract shall be left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the PROJECT MANAGER. Immediately the work is ready for measuring, the Contractor shall give notice to the PROJECT MANAGER. If the Contractor makes default in these respects he shall if the PROJECT MANAGER so directs uncover the work to enable all measurements to be taken and afterwards reinstate at his own expense.</td>
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<tr>
<td>D.</td>
<td>ALTERATIONS TO BILLS, PRICING, ETC.</td>
<td></td>
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<tr>
<td></td>
<td>Any unauthorised alteration or qualification made to the text of the Bills of Quantities may cause the Tender to be disqualified and will in any case be ignored. The Contractor shall be deemed to have made allowance in his prices generally to cover any items against which no price has been inserted in the priced Bills of Quantities. All items of measured work shall be priced in detail and the Tenders containing Lump Sums to cover trades or groups of work must be broken down to show the price of each item before they will be accepted.</td>
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<tr>
<td>E.</td>
<td>PROTECTION OF THE WORKS.</td>
<td></td>
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<tr>
<td></td>
<td>Quantities, including casing, casing up, covering or such other means as may be necessary to avoid damage to the satisfaction of the PROJECT MANAGER and remove such protection when no longer required and make good any damage which may nevertheless have been done at completion free of cost to the Government.</td>
<td></td>
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</tbody>
</table>

Carried to collection
A. MATERIALS ARISING FROM EXCAVATIONS

Materials of any kind obtained from the excavations shall be the property of the Government. Unless the PROJECT MANAGER directs otherwise such materials shall be dealt with as provided in the Contract. Such materials shall only be used in the works, in substitution of materials which the Contractor would otherwise have had to supply with the written permission of the PROJECT MANAGER. Should such permission be given, the Contractor shall make due allowance for the value of the materials so used at a price to be agreed.

B. WORKS TO BE DELIVERED UP CLEAN

Clean and flush all gutters, rainwater and waste pipes, manholes and drains, wash (except where such treatment might cause damage) and clean all floors, sanitary fittings, glass inside and outside and any other parts of the works and remove all marks, blemishes, stains and defects from joinery, fittings and decorated surfaces generally, polish door furniture and bright parts of metalwork and leave the whole of the buildings watertight, clean, perfect and fit for occupation to the approval of the PROJECT MANAGER.

C. GENERAL SPECIFICATION.

For the full description of materials and workmanship, method of execution of the work and notes for pricing, the Contractor is referred to the Ministry of Roads and Public Works and Housing General Specification dated 1976 or any subsequent revision thereof which is issued as a separate document, and which shall be allowed in all respects unless it conflicts with the General Preliminaries, Trade Preambles or other items in these Bills of Quantities.

D. TRAINING LEVY

The Contractor's attention is drawn to the legal notice which requires payment all contracts of more than KShs. 1,000,000.00 in value.

E. MATERIALS ON SITE

All materials for incorporation in the works must be stored on or adjacent to the site before payment is effected unless specifically exempted by the PROJECT MANAGER. This includes the materials of the Main Contractor, Nominated Sub-Contractors and Nominated Suppliers.

F. HOARDING

with a hoarding 2400 mm high consisting of iron sheets on 100 x 50 mm timber posts firmly secured at 1800 mm centres with two 75 x 50 mm timber rails. The Contractor is in addition required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.

Carried to Collection
A. **CONTRACTOR'S SUPERINTENDENCE/SITE AGENT**

The Contractor shall constantly keep on the works a literate English speaking Agent or Representative, competent and experienced in the kind of work involved who shall give his whole experience in the kind of work involved and shall give his whole time to the superintendence of the works. Such Agent or Representative shall receive on behalf of the Contractor all directions and instructions from the Project Manager and such directions shall be deemed to have been given to the Contractor in accordance with the Conditions of

B. **DOMESTIC SUB CONTRACTORS**

Domestic sub contractors involved in the works must be registered with National Construction Authority (NCA) and proof of registrations must be provided when so required by the PM

C. **NATIONAL CONSTRUCTION AUTHORITY (NCA) REGULATIONS**

The Contractor's attention is drawn to the requirement that all the new projects must be registered with the National Construction Authority (NCA) before commencement of the project. The tenderer is to allow for any cost that they may be incurred in order to meet this requirement

D. **NEMA EIA REGULATION**

The contractor's attention is drawn to the NEMA requirement that all new projects must conduct an Environmental Impact and Assessment (EIA) by an EIA expert and a report provided at the commencement of the project. The tenderer is to allow for any cost that may be incurred in order to meet this requirement.
### COLLECTION

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</table>

**TOTAL FOR GENERAL PRELIMINARIES CARRIED TO BILL GRAND SUMMARY**
PREAMBLES AND PRICING NOTES

A. GENERALLY

All work to be carried out in accordance with the Ministry of Public Works General Specifications for Building Works issued in 1976 or as qualified or amended below.

B. MANUFACTURERS’ NAMES

Where manufacturers’ names and catalogue references are given for guidance to quality and standard only. Alternative manufacturer of equal quality will be accepted at the discretion of the Project Manager.

C. WALLING

All precast concrete blocks shall be manufactured by the methods and to the sizes specified in the Ministry of Public Works “Specification for Metric Sized Concrete Blocks for Building (1972)”

Walling of 100 mm thickness or under shall be reinforced with hoop iron every alternate course.

Prices for walling must allow for all costs in preparing, packing and sending sample blocks for testing as and when required by the Project Manager.

D. CARPENTRY

The grading rules for cypress shall be the same for podocarpus and all timber used for structural work shall be select (second grade).

All structural timber must conform to the minimum requirements for moisture content and preservative treatment and timber prices must allow for preparing, packing and sending samples for testing when required.

Prices must also include for all nails and fasteners.
A. **JOINERY**

Cypress for joinery shall be second grade in accordance with the latest grading rules of the Kenya Government.

Where Mahogany is specified, this refers to prime grade only. The Contractor may with the approval of the Project Manager; use either Msharagi or Mvuli in lieu of Mahogany but such approval will be given only in the case of shortages of the hardwoods specified.

Plugging shall be carried out by drilling walling or concrete with masonry drill and filling with propriety plugs of the correct sizes. Cutting with hammer and chisel will not be allowed.

Prices for joinery must include for pencil rounded arises, protection against damage, nails, screws, framing and bedding in cement mortar as required.

Sizes given for joinery items are nominal sizes and exact dimensions of doors, etc, must be ascertained on site.

B. **IRONMONGERY**

Ironmongery shall be specified in the Bills of Quantities or equal and approved.

Prices must include for removing and re-fixing during and after painting, labeling all keys, and for fixing to hardwood, softwood, concrete or blockwork.

Catalogue references given for ironmongery are for purposes of indicating quality and size of item(s). Should the Contractor wish to substitute the specified item(s) with others of equal manufacture, he must inform the Project Manager and obtain approval in writing.

C. **STRUCTURAL STEELWORK**

All structural steelwork shall comply with the Ministry of Public Works “Structural Steelwork Specification (1973) and shall be executed by an approved Sub-contractor.
A. PLASTERWORK AND OTHER FINISHES

All finishings shall be as described in the general specifications and in these Bills of Quantities.

Prices for pavings are to include for brushing concrete clean, wetting and coating with cement and sand grout 1:1.

Rates for glazed wall tiling are to include for a 12 mm cement and sand (1:4) backing screed unless otherwise specified in these Bills of Quantities.

B. GLAZING

Where polished plate glass is specified, this refers to general glazing quality.

Prices for glazing shall include for priming of rebates before placing putty.

The Contractor will be responsible for replacing any broken or scratched glass and handing over in perfect condition.

C. PAINTING

Painting shall be applied in accordance with the manufacturers’ instructions.

Prices for painting are to include for scaffolding, preparatory work, priming coats, protection of other works and for cleaning up on completion. Prices for painting on galvanized metal are to include for mordant solution as necessary.
### Proposed Erection and Completion of 1 No. Block of 12 No. Two Bedroom 48 No. Bedsitter Units at Malkagufi Police Post - Wajir County for the Kenya Police Service

<table>
<thead>
<tr>
<th>ITEM</th>
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<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
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</thead>
<tbody>
<tr>
<td><strong>ELEMENT NO.1</strong></td>
<td><strong>SUBSTRUCTURES (All provisional)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Excavations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Clear site of all shrubs and undergrowth including grubbing up of roots and dispose off as directed.</td>
<td>640</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Excavate oversite average 150mm deep and cart away as directed</td>
<td>640</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Bulk excavation to reduce levels starting from stripped level not exceeding 1.5 meters deep</td>
<td>960</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Ditto exceeding 1.5m but not exceeding 3.0m deep</td>
<td>864</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Excavate trenches for strip foundation not exceeding 1.5 metres from reduced level</td>
<td>427</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Ditto for column bases ditto</td>
<td>216</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Filling and carting away</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Return, fill and ram with selected and approved excavated material around excavations</td>
<td>81</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Load and cart away excavated materials from site</td>
<td>2,482</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Hardcore filling in making up levels, exceeding 300mm thick in layers of 150mm maximum thickness.</td>
<td>1,824</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>50 mm selected fine material to hardcore surfaces, well rolled and leveled to receive concrete</td>
<td>562</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Apply &quot;Termidor&quot; or any other similar and approved anti termite chemical treatment on blinded surfaces.</td>
<td>562</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>500 gauge polythene sheeting with sides and end laps as described laid on blinded surfaces</td>
<td>562</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Carried to Collection</strong></td>
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PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFi POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE

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</thead>
<tbody>
<tr>
<td>A</td>
<td>50mm Thick blinding to strip foundation</td>
<td>184</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Ditto to raft base</td>
<td>562</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vibrated reinforced concrete grade 25/20 (1:2:4) in:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Raft base</td>
<td>534</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Ground beam</td>
<td>28</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Columns</td>
<td>12</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>150mm Thick ground bed</td>
<td>562</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sawn formwork to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Sides of raft base</td>
<td>62</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Ditto to ground beam</td>
<td>154</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Ditto columns</td>
<td>156</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Edges of floor bed 75 - 150mm high</td>
<td>98</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel reinforcement as described including cutting to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>20mm diameter bars</td>
<td>44,347</td>
<td>KG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>12 mm diameter bars</td>
<td>20,956</td>
<td>KG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>8mm diameter bars</td>
<td>6,360</td>
<td>KG</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel fabric mesh reinforcement to B.S. 4483</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>No. A 142 fabric weighing 2.22Kg/sm fixed in bed</td>
<td>562</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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## PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE

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</tr>
</thead>
<tbody>
<tr>
<td>SUBSTRUCTURES-(CONTINUED)</td>
<td>Natural stone walling in cement and sand (1:3) mortar and including reinforcing with 20 x 3mm thick hoop iron in every alternate course.</td>
<td>924</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>200mm Thick walling</td>
<td>924</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plinths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>12mm thick cement and sand (1:3) render to plinths</td>
<td>16</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Prepare and apply three coats bituminous paint to rendered plinths</td>
<td>16</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Allow for keeping the whole of the excavations free from all water; include for draining or otherwise keeping all works free from water as necessary over the entire contract period</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Allow for maintaining and upholding sides of excavations and keeping excavations clear of all fallen materials, rubbish etc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paving Slabs around building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>600 x 600 x 50mm thick precast concrete paving slabs bedded and jointed in cement and sand (1:4) mortar laid on and including 50mm thick sand bed</td>
<td>276</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TOTAL FOR ELEMENT NO. 1 CARRIED TO (SUBSTRUCTURES) SUMMARY |

**KSHS**

**COLLECTION**

- Brought forward page MPP/1
- Brought forward page MPP/2
- Brought forward above

**JOB NO. 10209N**

**MPP/3**
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST - WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELEMENT NO. 2</strong></td>
<td><strong>FRAME/WALLING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appropriate Building Material Technology (ABMT) from any of the prequalified suppliers provided on</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>(NOTE: The contractor to indicate their methodology under this element stating clearly the ABMT supplier to use as opposed to what is indicated here below)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supply, assemble and fix the following Industrial Building System (IBS) complete with all necessary fixing accessories, installed in accordance to manufacturer's instructions as per appendix 'A'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bidders to indicate the technology in use from the list provided in Appendix A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Methodology to be indicated: What is indicated in this element is for guidance only and bidder is to provide their own methodology according to the technology chosen.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>External walling; ready to receive plaster (m/s)</td>
<td>1,931</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Internal walling; ditto</td>
<td>1,840</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vibrated reinforced concrete grade 25/20 (1:2:4) in:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Beams</td>
<td>115</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Columns</td>
<td>48</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Staircases</td>
<td>13</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>150mm thick suspended slab;</td>
<td>1,506</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>150mm Landings</td>
<td>32</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>150mm thick suspended roof tank slab;</td>
<td>41</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sawn formwork to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Sides and soffites of beams</td>
<td>1,052</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Sides of columns</td>
<td>692</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Soffites of suspended slab</td>
<td>1,506</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Soffites of suspended roof tank slab</td>
<td>41</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Soffites of landings</td>
<td>32</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>Sloping soffites of staircases</td>
<td>57</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q</td>
<td>Edges of suspended slab 75-150mm high</td>
<td>460</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Ditto risers 75-150mm high</td>
<td>171</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carried to Collection

JOB NO. 10209N

MPP/4
**REINFORCED CONCRETE SUPERSTRUCTURE-**
*(CONTINUED)*

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
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<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Raking string edge to staircases 300mm high (extreme) cut and fitted to profile of treads and risers</td>
<td>38</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel reinforcement as described including cutting to length, bending, hoisting and fixing including all necessary tying wires and spacing blocks (all provisional)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Mild Steel Reinforcement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>20mm ditto</td>
<td>8,054</td>
<td>KG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>16mm ditto</td>
<td>8,054</td>
<td>KG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>12mm Ditto</td>
<td>16,012</td>
<td>KG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>10mm Ditto</td>
<td>10,314</td>
<td>KG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>8mm Ditto</td>
<td>6,169</td>
<td>KG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Pair of permanent ventilation size 225 x 225 x 25mm thick fixed with and including mosquito wire gauze</td>
<td>60</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Leave or form hole in 150mm thick wall size 225 x</td>
<td>60</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Eave filling to 150mm thick wall extreme height 300mm</td>
<td>153</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Carried to Collection Below**

**COLLECTION**

Brought forward page MPP/4

Brought forward above

**TOTAL FOR ELEMENT NO. 2 CARRIED TO (REINFORCED CONCRETE) SUMMARY**
## PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>ELEMENT NO.3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ROOF CONSTRUCTION.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Galvanized corrugated iron (G.C.I) sheets profile; 28 gauge; prepaainted</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Roof covering; 150mm laps on one end and one and a half corrugation side lap; fixed to angle section purlins with and including self-tapping screws and neoprene washers.</td>
<td>592</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accessories, fixing as necessary to roof sheets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>150mm dia. Half round ridge cap</td>
<td>99</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Light Gauge Structural Steel Work</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unframed; bolted</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>75 x 50 x 2mm purlins</td>
<td>646</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>75 x 50 x 4mm ridge board</td>
<td>99</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Framed; bolted all to be Aluminium Zinc coated trusses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Roof trusses; hoisting 12metres above ground; Rate to include base plates and bolts, angle cleats, gusset plates and all neccessary accessories all to structural Engineer,s details and specifications</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>70 x 50 x 4mm wall plate</td>
<td>110</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>70 x 50 x 4mm ceiling joist</td>
<td>374</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Ditto; rafters</td>
<td>490</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Ditto; struts and ties</td>
<td>415</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Ditto; king post</td>
<td>62</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Ditto; gusset plates</td>
<td>46</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Eaves</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>50 x 50mm second grade cedured and well seasoned cypress timber brandering</td>
<td>307</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Ditto but plugged</td>
<td>153</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>25 x 25mm Prime grade cypress timber slats at 75mm centres nailed to tie beams (m/s)</td>
<td>92</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>Coffee tray tacked to timber at eaves</td>
<td>92</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carried to Collection
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ROOFING - (CONTINUED)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fascia Board</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>225 x 25 mm thick wrot cypress fascia /barge boards fixed to end of rafters (m/s)</td>
<td>137</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Ditto barge boards ditto</td>
<td>15</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rain water goods</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gutters</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>150 x 100mm galvanized iron gutter gauge 24 fixed to fascia boards (m/s) with and including approved steel brackets at 1000mm centres</td>
<td>137</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Extra over gutter for stopped ends</td>
<td>24</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Ditto but for 100 mm diameter outlet</td>
<td>12</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Downpipe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>100 mm diameter galvanised iron downpipe gauge 24 fixed to wall with and including holder butts at 1000mm</td>
<td>138</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Extra over downpipe for swanneck 1200mm long</td>
<td>12</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Extra over horse shoe 300 mm long</td>
<td>12</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Decoration and painting</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Knot, stain prepare and apply three coats oil gloss paint to:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>General surfaces of timber</td>
<td>28</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Surfaces of timber 200-300mm girth</td>
<td>137</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Prepare and apply three coats gloss oil paint to:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>General surfaces of metal gutters</td>
<td>164</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Surfaces of large pipes</td>
<td>44</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carried to Collection Below</td>
<td></td>
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<tr>
<td><strong>COLLECTION</strong></td>
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<tr>
<td>Brought forward page MPP/6</td>
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<tr>
<td>Brought forward above</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL FOR ELEMENT NO.3 CARRIED TO (ROOFING) SUMMARY</strong></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFU POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
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<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
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<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELEMENT NO.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOORS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pannelled Door</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

45mm thick wrot hardwood solid panel door overall size 900 x 2100 mm high comprising of 150 x 150 mm framing all round infilled with 300 x 400 x 45mm thick panels.

A 900 x 2100 mm high 60 NO

Flush Doors

45mm thick semi solid core flash doors overall size 820 x 2060 mm high faced both sides with internal quality "Mahogany" Veneer and hardwood lipped all edges to approval.

B Door overall size 900 x 2100 mm high 84 NO

Wrot Cypress or other equal and approved :-

D 100mm x 50mm Frame with two labours plugged 452 LM

E 45 x 38mm architrave 904 LM

F 25mm diameter quadrant 904 LM

Wrot Cypress or other equal and approved :-

G 100mm x 50mm Frame once rebated 324 LM

H 45 x 38mm architrave 648 LM

J 25mm diameter quadrant 648 LM

Carried to collection
### Table: Proposed Erection and Completion of 1 No. Block of 12 No. Two Bedroom 48 No. Bedsitter Units at Malkagufi Police Post - Wajir County for the Kenya Police Service

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOORS - (CONTINUED)</strong></td>
<td>Supply and fix the following ironmongery with screws to match.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>A</strong></td>
<td>3 Lever mortice lock and set furniture Ref. Union 2295.</td>
<td><strong>60</strong></td>
<td>NO.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>2 Lever mortice lock and set furniture Ref. Union 2295.</td>
<td><strong>84</strong></td>
<td>NO.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>100mm Brass butts hinges</td>
<td><strong>216</strong></td>
<td>PRS</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>40mm Diameter rubber door stops</td>
<td><strong>145</strong></td>
<td>NO.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>Knot, prime, prepare and apply three coats gloss oil paint to: General surfaces of timber</td>
<td><strong>344</strong></td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>Surfaces between 200mm to 300mm girth</td>
<td><strong>452</strong></td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>Ditto between 100mm to 200mm girth</td>
<td><strong>452</strong></td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>Ditto not exceeding 100mm girth</td>
<td><strong>452</strong></td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>J</strong></td>
<td>Prepare and apply three coats polyurethane varnish to: General surfaces of timber</td>
<td><strong>246</strong></td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>K</strong></td>
<td>Surfaces between 200mm to 300mm girth</td>
<td><strong>324</strong></td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>L</strong></td>
<td>Ditto not exceeding 100mm girth</td>
<td><strong>324</strong></td>
<td>LM</td>
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<td></td>
</tr>
</tbody>
</table>

**Carried to Collection**

---

**JOB NO. 10209N**

**MPP/9**
## PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COLLECTION</td>
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<td>Brought forward page MPP/8</td>
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<td>Brought forward page MPP/9</td>
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### TOTAL FOR ELEMENT NO. 4 CARRIED TO (DOORS) SUMMARY

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JOB NO. 10209N  
MPP/10
<table>
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<td><strong>ELEMENT NO.5</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>WINDOWS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>250 x 25mm Precast concrete window cill bedded and jointed with cement and sand (1:3) mortar supplied, assembled and fixed the following purpose-made mild steel casement windows; standard metal section from approved manufacturer complete with frames, transomes, mullions and with and including permanent ventilators comprising &quot;T&quot; bar, gauze and 16 gauge sheet metal hood 50mm high x 50mm projection to full width of window, coupling mullions, approved ironmongery and one coat manufacturer's primer; all welding ground to smooth finish. Steel; for glazing with putty, lugs to two jambs, cutting and pinning to concrete or blockwork, fixing to head and sill with screws; plugging.</td>
<td>224</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Window overall size 1000 x 1500mm high</td>
<td>80</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Window overall size 600 x 600mm high</td>
<td>132</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Aluminium curtain rail</td>
<td>216</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Burglar proofing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Overall size 1000 x 1500mm high comprising of 25 x 6mm mild steel flat framing and 12mm diameter horizontal and vertical round bars at 125mm centres</td>
<td>80</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Ditto size 600 x 600mm high</td>
<td>132</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Carried to Collection</strong></td>
<td></td>
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</tbody>
</table>
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST - WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WINDOWS - (CONTINUED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4mm Thick clear glass and glazing fixed with and including putty to steel windows</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Panes 0.1 - 0.5 square metres</td>
<td>96</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Panes 0.1 - 0.5 square metres</td>
<td>48</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4mm Thick obscure glass and glazing fixed with and including putty to steel windows</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare and apply three coats gloss oil paint to surfaces</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Glazed surfaces; both sides (measured gross)</td>
<td>144</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Ditto grilled surfaces; both sides (measured gross)</td>
<td>144</td>
<td>SM</td>
<td></td>
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</tr>
</tbody>
</table>

Carried to Collection Below

COLLECTION

Brought forward page MPP/11

Brought forward above

TOTAL FOR ELEMENT NO. 5 CARRIED TO (WINDOWS)
# Proposed Erection and Completion of 1 No. Block of 12 No. Two Bedroom 48 No. Bed sitting Units at Malkagufi Police Post - Wajir County for the Kenya Police Service

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
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<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELEMENT NO. 6</strong></td>
<td><strong>EXTERNAL FINISHINGS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td>A Extra over walling for rendering on external walling</td>
<td>1,768</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare and apply three coats of premium quality silk vinyl paint as &quot;Basco Paints - Duracoat&quot; or &quot;Crown Paints&quot; or equal and approved to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B Rendered surfaces</td>
<td>1,768</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## TOTAL FOR ELEMENT NO. 6 CARRIED TO (EXTERNAL FINISHES) SUMMARY

<table>
<thead>
<tr>
<th>JOB NO. 10209N</th>
<th>MPP/13</th>
</tr>
</thead>
</table>
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT Malkagufi Police Post - Wajir County FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>ELEMENT NO. 7</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>INTERNAL FINISHES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>FLOORS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cement and sand (1:4) screeding smooth trowelled</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>32mm thick screed prepared to receive Non-slip ceramic</td>
<td>224</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>32mm thick screed prepared to receive ceramic tiles</td>
<td>1,098</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ceramic floor tiles as 'Saj Ceramics' or other equal and approved jointed and pointed with matching cement sand (1:4) mortar: colour quality and pattern to the Project Manager's scheme in:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>300 x 300 x 8mm thick ceramic floor tiles fixed with an approved adhesive on prepared screed(m/s)</td>
<td>1,098</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Ditto 100mm high x 10mm thick skirting</td>
<td>1,854</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non slip - Ceramic floor tiles as 'Saj Ceramics' or other equal and approved jointed and pointed with matching cement sand (1:4) mortar: colour quality and pattern to the Project Manager's scheme in:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>300 x 300 x 8mm thick non slip-ceramic floor tiles fixed with an approved adhesive on prepared screed(m/s)</td>
<td>246</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Ceiling</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>12mm Thick cement and sand (1:3) plaster to concrete soffites</td>
<td>1,506</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare and apply three coats of premium quality silk vinyl paint as &quot;Basco Paints - Duracoat&quot; or &quot;Crown Paints&quot; or equal and approved to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Plastered concrete soffites</td>
<td>1,506</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>50 x 50mm cedured cypress timber brandering</td>
<td>1,286</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Ditto but plugged</td>
<td>464</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Carried to collections</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

JOB NO. 10209N MPP/14
## Internal Finishes - (continued)

### Ceiling (ctd)

<table>
<thead>
<tr>
<th>Item</th>
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<th>Unit</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10mm thick Celotex board ceiling nailed to timber brandering (m/s)</td>
<td>494</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>100 x 25mm Thick wrot softwood moulded cornice</td>
<td>464</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare and apply three coats first grade plastic emulsion paint to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Celotex ceiling surfaces</td>
<td>494</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Timber surfaces not exceeding 100mm girth</td>
<td>1,750</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Extra over celotex ceiling for trap door size 600 x 450 mm wide comprising and including 50x50mm timber</td>
<td>2</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Walls

- Cement and sand (1:4) backing
- 15 mm thick to receive coloured glazed wall tiles
- White glazed ceramic tiles bedding and jointing in
- 150 x 150 x 6mm Thick tiles
- Cement and sand (1:3) plaster
- 12mm Thick to wall surfaces
- Prepare and apply three coats of premium quality silk vinyl paint as "Basco Paints - Duracoat" or "Crown Paints" or equal and approved to:
- Plastered walls
- Staircases
- Cement and sand (1:3) plaster to:
- Soffites of landings
- 150 x 25mm thick to risers

### Carried to Collection
<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
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</tr>
<tr>
<td></td>
<td>Cement and sand (1:3) plaster to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>306 x 25mm Thick to treads</td>
<td>171</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>100 x 20mm Thick skirting to the profile of risers and treads</td>
<td>169</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Insitu polished terrazo paving on screeded floor surfaces:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>40mm Thick paving to landings .</td>
<td>32</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>150 x 25mm thick to risers</td>
<td>171</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>306 x 25mm Thick to treads</td>
<td>169</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>100 x 20mm Thick skirting to the profile of risers and treads</td>
<td>169</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Cement and sand (1:3) plaster to:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Sloping soffites of staircases</td>
<td>57</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Soffites of landings</td>
<td>32</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare and apply three coats of premium quality silk vinyl paint as &quot;Basco Paints - Duracoat&quot; or &quot;Crown Paints&quot; or equal and approved to:-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Plastered sloping concrete soffites of staircases</td>
<td>57</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Ditto landings</td>
<td>32</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Carried to Collection Below</td>
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</tr>
<tr>
<td></td>
<td><strong>COLLECTION</strong></td>
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<tr>
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<td>Brought forward above</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>TOTAL FOR ELEMENT NO. 7 CARRIED TO (INTERNAL FINISHES) SUMMARY</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ITEM</td>
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<td>UNIT</td>
<td>RATE</td>
<td>AMOUNT</td>
</tr>
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<td>-----</td>
<td>------</td>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td><strong>ELEMENT NO. 8</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Balustrading and railings</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Staircase railing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>40 x 40 x 3mm Thick RHS balusters bedded to concrete with cement and sand (1:3) mortar</td>
<td>64</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>40 x 40 x 3mm RHS top rail</td>
<td>30</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>25 x 25 x 2mm Ditto intermediate vertical rails</td>
<td>78</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>25 x 25 x 2mm Ditto intermediate horizontal rails</td>
<td>30</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Prepare and apply three coats gloss oil paint to metal surfaces not exceeding 100mm girth</td>
<td>108</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Ditto 100- 200mm girth</td>
<td>94</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sundries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Make holes in concrete slab size 50 x 50 x 50mm deep</td>
<td>60</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Welded ends of 25 x 25 x 2mm rails to 40 x 40 x 3mm balusters</td>
<td>288</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Balcony railing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>40 x 40 x 3mm Thick RHS balusters bedded to concrete with cement and sand (1:3) mortar</td>
<td>209</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>40 x 40 x 3mm RHS top rail</td>
<td>96</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>25 x 25 x 2mm Ditto intermediate vertical rails</td>
<td>255</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>25 x 25 x 2mm Ditto intermediate horizontal rails</td>
<td>96</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Prepare and apply three coats gloss oil paint to metal surfaces not exceeding 100mm girth</td>
<td>351</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Ditto 100- 200mm girth</td>
<td>305</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sundries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>Make holes in concrete slab size 50 x 50 x 50mm deep</td>
<td>190</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q</td>
<td>Welded ends of 25 x 25 x 2mm rails to 40 x 40 x 3mm balusters</td>
<td>1,145</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL FOR ELEMENT NO. 8 CARRIED TO (BALUSTRADING &amp; RAILING) SUMMARY</strong></td>
<td></td>
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</tbody>
</table>
**PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFU POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELEMENT No.9</strong></td>
<td><strong>FITTINGS AND FIXTURES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The following in 60 No. kitchen low level cabinets overall size 2050 x 600 x 900mm high</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>100mm thick concrete (1:3:6) benching</td>
<td>72</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>75mm Thick reinforced concrete (1:2:4) worktop</td>
<td>72</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Steel fabric mesh reinforcement No. A98 weighing 1.54Kg/sm including side and end laps</td>
<td>72</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>100mm thick support walling bedded and jointed in cement and sand (1:3) mortar Sawn formwork</td>
<td>32</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Soffites of worktop</td>
<td>72</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Edges of benching 75 - 150mm high</td>
<td>118</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Ditto worktop not exceeding 75mm girth Wrot cypress as described</td>
<td>118</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>75 x 50mm frame</td>
<td>437</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>12mm diameter beading</td>
<td>424</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>50 x 50mm bearers plugged</td>
<td>282</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Ditto not plugged</td>
<td>142</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Blockboard to B.S. 3444</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>25mm thick shelving</td>
<td>124</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>600 x 800mm doors hardwood lipped all round</td>
<td>92</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Carried to Collection**

**JOB NO. 10209N**

**MPP/18**
## JOB NO. 10209N

### PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST-WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>JOINERY FITTINGS - (CONTINUED)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low Level Cabinets (Ctd)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Drawer size 500 x 600 x 150mm deep with 70 x 20mm sides and back, 90 x 20mm front and 6mm plywood bottom tongued all round</td>
<td>340</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>19 x 19mm lipping tongued in and glued to edges of block board</td>
<td>571</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supply and fix the following ironmongery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Malpha hinges</td>
<td>340</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Brass door knobs</td>
<td>170</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Finishes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>20mm Thick cement screeding smooth trowelled to benching of kitchen cabinet</td>
<td>92</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>25mm Thick granito tile finish to worktop</td>
<td>92</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Ditto edges of worktop size 75 x 25mm thick</td>
<td>152</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>12mm Thick cement and sand (1:4) plaster to soffites of worktop</td>
<td>92</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Ditto sides of walling</td>
<td>3</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Prepare and apply three coats first grade silk vinyl emulsion paint to plastered soffites of worktop</td>
<td>92</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Prepare and apply three coats oil paint to woodwork</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>To kitchen cabinet shelving</td>
<td>124</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>To kitchen cabinet divisions</td>
<td>42</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Ditto doors</td>
<td>92</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Surfaces of lipping not exceeding 100mm girth</td>
<td>734</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Carried to Collection** | | | | |
### JOINERY FITTINGS - (CONTINUED)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>75 x 50mm frame</td>
<td>504</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>12mm diameter beading</td>
<td>251</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>50 x 50mm bearers plugged</td>
<td>251</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Ditto not plugged</td>
<td>251</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>25mm thick shelving</td>
<td>150</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Ditto divisions</td>
<td>66</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>600 x 800mm doors hardwood lipped all round</td>
<td>65</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>19 x 19mm lipping tongued in and glued to edges of block board</td>
<td>334</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Aluminium D-Handles</td>
<td>120</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Malpha hinges</td>
<td>180</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Blockboard to B.S. 3444**

Supply and fix the following ironmongery

| I    | Aluminium D-Handles                                                          | 120 | NO   |      |        |
| J    | Malpha hinges                                                                | 180 | NO   |      |        |

Prepare and apply three coats oil paint to woodwork

| A    | To kitchen cabinet shelving                                                 | 150 | SM   |      |        |
| B    | To kitchen cabinet divisions                                                | 66  | SM   |      |        |
| C    | Ditto doors                                                                  | 66  | SM   |      |        |

Carried to Collection
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100mm thick concrete (1:3:6) benching</td>
<td>78</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sawn formwork</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Edges of benching 75 - 150mm high</td>
<td>130</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wrot camphor as described</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>75 x 50mm frames with one labour plugged</td>
<td>1,513</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>12mm diameter beading</td>
<td>648</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>50 x 50mm bearers</td>
<td>390</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Ditto but plugged</td>
<td>334</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 x 20mm strips in shoe rack</td>
<td>324</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Blockboard to B.S. 3444</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>25mm thick shelving</td>
<td>362</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Ditto divisions</td>
<td>272</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>600 x 2000mm doors hardwood lipped all round</td>
<td>272</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>600 x 600mm doors hardwood lipped all round</td>
<td>78</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Drawer size 850 x 600 x 150mm deep with 70 x 20mm sides and back, 90 x 20mm front and 6mm plywood bottom tongued all round</td>
<td>144</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Ditto size 850 x 600 x 300mm deep ditto</td>
<td>72</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Labour in rebated meeting stiles on 25mm doors (both stiles measured)</td>
<td>972</td>
<td>LM</td>
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</tbody>
</table>

Carried to Collection
## JOINERY FITTINGS - (CONTINUED)

<table>
<thead>
<tr>
<th>ITEM</th>
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<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>19 x 19mm lipping tongued in and glued to edges of block board</td>
<td>648</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mild steel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>20mm Diameter chrome plated wardrobe rail</td>
<td>138</td>
<td>LM</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Supply and fix the following ironmongery</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Malpha hinges</td>
<td>576</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Brass piano hinges</td>
<td>304</td>
<td>LM</td>
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<td>E</td>
<td>Brass door lock</td>
<td>288</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Brass ball catches</td>
<td>216</td>
<td>NO</td>
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<td></td>
</tr>
<tr>
<td>G</td>
<td>Brass flush bolts</td>
<td>72</td>
<td>NO</td>
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<tr>
<td>H</td>
<td>Brass door knobs</td>
<td>360</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>20mm thick cement screeding smooth trowelled to benching of wardrobes</td>
<td>100</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare and apply three coats oil paint to woodwork</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>To wardrobe shelving</td>
<td>466</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Ditto doors</td>
<td>351</td>
<td>SM</td>
<td></td>
<td></td>
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<tr>
<td>M</td>
<td>Ditto divisions</td>
<td>350</td>
<td>SM</td>
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<td></td>
</tr>
<tr>
<td>N</td>
<td>Surfaces of lipping not exceeding 100mm girth</td>
<td>833</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carried to Collection
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFU POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
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<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
</table>

**COLLECTION**

- Brought forward page MPP/18
- Brought forward page MPP/19
- Brought forward page MPP/20
- Brought forward page MPP/21
- Brought forward page MPP/22

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**TOTAL FOR ELEMENT NO. 9 CARRIED TO FITTINGS SUMMARY**
### PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST - WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELEMENT NO. 10</strong></td>
<td><strong>BUILDER'S WORK IN CONNECTION WITH SPECIALIST SERVICES (provisional)</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Builder's work in connection with Plumbing and drainage installations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td><strong>Labour and Materials</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Form or leave hole in 150mm thick IBS wall for large pipe and later make good</td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Ditto for small pipe and ditto</td>
<td>120</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Form or leave hole in 200mm thick IBS floor for small pipe and later make good</td>
<td>120</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Ditto for large pipes</td>
<td>60</td>
<td>lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Labour and material</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Building in ends of 100mm diameter pipes to manholes</td>
<td>20</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Ditto, 150mm diameter ditto</td>
<td>25</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Builder's work in connection with electrical installations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cut away for and make good after Electrician installing a concealed conduit system to the following points including cutting or leaving all holes, mortices, sinkings in the structure and its finishes and for all making good therewith:--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Lighting point with associated switch point</td>
<td>156</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>External security light fittings with ditto</td>
<td>16</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Single socket outlet point.</td>
<td>84</td>
<td>No.</td>
<td></td>
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</tr>
<tr>
<td><strong>TOTAL FOR BUILDER'S WORKS IN CONNECTION TO SPECIALIST SERVICES CARRIED TO SUMMARY</strong></td>
<td></td>
<td></td>
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</tbody>
</table>
## Proposed Erection and Completion of 1 No. Block of 12 No. Two Bedroom 48 No. Bedsitter Units at Malkagufi Police Post - Wajir County for the Kenya Police Service

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
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<tbody>
<tr>
<td>A</td>
<td>Substructures</td>
<td></td>
<td>MPP/3</td>
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</tr>
<tr>
<td>B</td>
<td>Reinforced Concrete Superstructure</td>
<td></td>
<td>MPP/5</td>
<td></td>
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<tr>
<td>D</td>
<td>Roofing</td>
<td></td>
<td>MPP/7</td>
<td></td>
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</tr>
<tr>
<td>E</td>
<td>Doors</td>
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<td>MPP/10</td>
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<td>F</td>
<td>Windows</td>
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<td>MPP/12</td>
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<td>G</td>
<td>External Finishes</td>
<td></td>
<td>MPP/13</td>
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<tr>
<td>H</td>
<td>Internal Finishes</td>
<td></td>
<td>MPP/16</td>
<td></td>
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<tr>
<td>J</td>
<td>Balustrading and Railing</td>
<td></td>
<td>MPP/17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Fittings</td>
<td></td>
<td>MPP/23</td>
<td></td>
<td></td>
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<tr>
<td>L</td>
<td>Builder’s Works in Connection to Specialist Services</td>
<td></td>
<td>MPP/24</td>
<td></td>
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<tr>
<td>M</td>
<td>Garbage Enclosures</td>
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<td>GE/6</td>
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| TOTAL FOR BUILDER’S WORK CARRIED TO GRAND SUMMARY | |

**Job No. 10209N**

MPP/25
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST - WAJIR COUNTY FOR THE KENYA POLICE SERVICE

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<thead>
<tr>
<th>ITEM</th>
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<th>RATE</th>
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<tr>
<td></td>
<td>ELEMENT NO.</td>
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<td>GARBAGE ENCLOSURES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The following in 1 No. GARBAGE ENCLOSURES</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>SUBSTRUCTURES</td>
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<td></td>
<td>Excavations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Excavate oversite average 150mm deep to remove soil and spread and level on site</td>
<td>102</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Excavate for foundation trenches not exceeding 1.50m deep starting from reduced levels</td>
<td>37</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Extra Over for excavating in rock as described</td>
<td>10</td>
<td>CM</td>
<td></td>
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<tr>
<td>D</td>
<td>Allow for maintaining and supporting sides of excavations and for keeping the bottom free from fallen materials</td>
<td>ITEM</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>E</td>
<td>Allow for keeping the whole of the excavations free from water and pumping, baling and otherwise</td>
<td>ITEM</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Disposal</td>
<td></td>
<td></td>
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<tr>
<td>F</td>
<td>Return, fill and ram selected excavated materials around foundation</td>
<td>21</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Load surplus excavated materials and cart away from site</td>
<td>17</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hard core filling as described</td>
<td></td>
<td></td>
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<tr>
<td>H</td>
<td>Return, fill and ram selected excavated material around</td>
<td>20</td>
<td>CM</td>
<td></td>
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</tr>
<tr>
<td>J</td>
<td>Level, compact and blind surfaces of hardcore to receive surface bed</td>
<td>39</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anti-termite treatment</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>K</td>
<td>Chemical anti termite treatment executed completed by an approved specialist under 10 year guarantee to surfaces of hardcore</td>
<td>47</td>
<td>SM</td>
<td></td>
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Total to collection of Garbage Enclosures
<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>KSHS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Garbage Enclosure (cont'd)</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td><strong>Plain Concrete class 10/40 as described in:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>50mm blinding under foundations</td>
<td>25</td>
<td>SM</td>
<td></td>
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<tr>
<td></td>
<td><strong>Reinforced concrete class 20/20 as described in:</strong></td>
<td></td>
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</tr>
<tr>
<td>B</td>
<td>Foundations</td>
<td>5</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>150mm surface bed, laid in bays with and including construction joints</td>
<td>47</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>150 mm ditto sloping over 15 from horizontal joints</td>
<td>2</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Labour and material in forming 300 x 210 mm deep channel in surface bed including forming sinking in hardcore and handpacking and blinding vertical surfaces of hardcore</td>
<td>2</td>
<td>CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Mesh reinforcement to B.S 4483 laid in concrete with 300mm side and end laps (measured net-allow for laps</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>F</td>
<td>BRC Fabric mesh reinforcement Ref. A142, weighing 2.22kg/m2 in surface bed and ducts</td>
<td>48</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Sawn formwork, as described</td>
<td>11</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Sloping top surface bed over 15 from horizontal</td>
<td>2</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Edge of slab, over 75 mm but not exceeding 150mm high</td>
<td>40</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Concrete work sundries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Finish surface of concrete with tamped edge board pattern</td>
<td>2</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total to collection of Garbage Enclosures</strong></td>
<td></td>
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</tr>
<tr>
<td>ITEM</td>
<td>DESCRIPTION</td>
<td>QTY</td>
<td>UNIT</td>
<td>RATE</td>
<td>KSHS</td>
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<td>-----</td>
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<td>------</td>
</tr>
<tr>
<td></td>
<td><strong>Garbage Enclosure (Cont'd)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Solid concrete block walling bedded and jointed in cement and sand (1:3) mortar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>200mm thick walling</td>
<td>64</td>
<td>SM</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>EXTERNAL WALLING</strong></td>
<td></td>
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<tr>
<td></td>
<td>Solid concrete block walling in cement sand (1:3) mortar, as described in:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>150mm thick walling, reinforced as described</td>
<td>45</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved clay vent block walling bedded, jointed and pointed in cement sand (1:3) mortar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>150mm thick walling</td>
<td>16</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Precast concrete class 20/12 including formwork fair on all exposed surfaces and hoisting and placing in position bedded, jointed and pointed in cement and sand (1:3) mortar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>300 x 100mm coping, twice weathered and throated</td>
<td>40</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Angle</td>
<td>7</td>
<td>NO</td>
<td></td>
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<tr>
<td></td>
<td><strong>BAGWASH comprising single application of cement and sand (1:1) slurry, well rubbed in to produce an even textured surface</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>F</td>
<td>Fair faced concrete block walls</td>
<td>90</td>
<td>SM</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>FLOOR FINISHES</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cement and sand (1:4) beds, screeds and backings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>50mm paving, trowelled hard and smooth with steel trowel</td>
<td>39</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>20mm finish to base and sides of channel, trowelled hard and smooth with steel trowel to falls</td>
<td>40</td>
<td>SM</td>
<td></td>
<td></td>
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</table>

Total to collection of Garbage Enclosures
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST - WAJIR COUNTY FOR THE KENYA POLICE SERVICE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
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<th>UNIT</th>
<th>RATE</th>
<th>KSHS</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>Garbage Enclosure (Cont’d)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mild Steel</td>
<td>40x40x3.2mm Angle frame with 12mm diameter lugs each 100mm long at 300mm centres, welded to frame on one end and other end split and cast into concrete</td>
<td>12</td>
<td>LM</td>
<td></td>
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<tr>
<td>B</td>
<td>Mild Steel</td>
<td>400mm wide channel grating in 600mm average segments comprising 40x5mm flat perimeter framing filled with 19mm diameter cross bars at 38mm centres welded to framing on each end, the grading set loose on angle</td>
<td>11</td>
<td>LM</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Painting and decorating</td>
<td>Prepare, prime and apply two undercoats and one gloss finishing coat enamel paint, externally</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>D</td>
<td>General surfaces of metal grating. Extremely (measured both sides overall)</td>
<td>20</td>
<td>SM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel surfaces not exceeding 100mm girth</td>
<td>26</td>
<td>LM</td>
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Total to collection of Garbage Enclosures
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<th>ITEM</th>
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<tr>
<td></td>
<td>GATE</td>
<td></td>
<td></td>
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<tr>
<td>A</td>
<td>Dauble gate overall size 2400mm wide x 1800mm high, divided into two equal leaves each leaf comprising 50x50x3mm square hollow section framing all around, 50x50x3mm square hollow section as middle, horizontal and vertical rails, 50x50x3mm square hollow sections</td>
<td>1</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>100x100x4mm square hollow section gate post 2000mm long, with one end on and including 300x300x600mm deep plain concrete class 20/20 foundation, other end with approved type sharp pointed capping, including necessary excavation, disposal and formwork.</td>
<td>2</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>200x200x6mm base plate welded to end 100x100x4mm square hollow section</td>
<td>2</td>
<td>NO</td>
<td></td>
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<tr>
<td></td>
<td>25mm galvanised mild steel tube 100mm long set in concrete paving, as gate keep.</td>
<td>2</td>
<td>NO</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Painting and decorations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare and apply two undercoats and one gloss finish coat enamel paint, externally.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Grilled steel gate (Both sides measure flat overall)</td>
<td>3</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Steel surfaces over 200mm not exceeding 300mm girth.</td>
<td>2</td>
<td>NO</td>
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<tr>
<td></td>
<td>Total collection of Garbage Exclosures</td>
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**PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFU POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE**

<table>
<thead>
<tr>
<th>ITEM</th>
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<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>KSHS</th>
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<tbody>
<tr>
<td><strong>CLOTHE LINES</strong></td>
<td></td>
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</tr>
<tr>
<td>A</td>
<td>75 x 75 x 33mm x 2500m SHS steel posts bottom set in and including plain concrete 1:3:6 (40) base size 600x600x900mm including excavation 950mm deep</td>
<td>36</td>
<td>NO.</td>
<td></td>
<td></td>
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<tr>
<td>B</td>
<td>75 x 75 x 4mm x 2000m angle line welded to top of steel posts (m/s)</td>
<td>36</td>
<td>NO.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>12 gauge galvanized steel line-wires threaded through the angle line</td>
<td>384</td>
<td>lm</td>
<td></td>
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</tr>
<tr>
<td>D</td>
<td>Provide for splash area overall size 2000 x 2000mm splash area comprising 100mm thick class 15/20 concrete on 150mm thick hardcore and BRC A 142 mesh including excavation 300mm deep complete with garden tap, floor trap, connecting to water supply and drainage to Architect's detail</td>
<td></td>
<td>sum</td>
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Carried to collection

**GARBAGE ENCLOSURES**

**COLLECTION**

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<td>From</td>
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<td>From</td>
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<td>No GE/4</td>
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<td>From</td>
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**GARBAGE ENCLOSURE TOTAL CARRIED TO SUMMARY**
## PROJECT: PROPOSED NATIONAL POLICE AND KENYA PRISONS SERVICE HOUSING
### AT MALKAGUFI POLICE POST - WAJIR COUNTY
### BILL NO1: ACCESS ROAD

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<tr>
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<td><strong>EXTERNAL WORKS (PROVISIONAL)</strong></td>
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<tr>
<td></td>
<td><strong>SITE CLEARANCE (PROVISIONAL)</strong></td>
<td></td>
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</tr>
<tr>
<td>A</td>
<td>Clear site of grass, bushes, shrubs and hedges; grub up roots and remove from site</td>
<td>SM</td>
<td>2500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Fell tress, grub up roots and remove from site. trunk exceeding 600mm but not exceeding 900mm girth, fill up resulting hole with murram or equal and approved material.</td>
<td>NO</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ROADWORKS)</strong></td>
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<tr>
<td></td>
<td><strong>Earthworks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Excavate oversite to remove top soil average 150mm deep, dispose as directed by the Project Manager.</td>
<td>SM</td>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Excavate to formation level, depth n.e 1.0m average depth 0.7m.</td>
<td>CM</td>
<td>1365</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Load and deposit on site surplus excavated material as directed by the PM.</td>
<td>CM</td>
<td>965</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Spread, level and compact in layers not exceeding 150mm thick the deposited material as directed by the PM.</td>
<td>CM</td>
<td>965</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Provide, lay and compact approved murram filling in layers not exceeding 150mm thick upto formation level.</td>
<td>CM</td>
<td>540</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Trim and compact formation to correct crossfalls.</td>
<td>SM</td>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Treat the surface with approved herbicide.</td>
<td>SM</td>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Construction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Provide, lay and compact 150mm thick approved murram for sub-base to 98% M.D.D. specifications.</td>
<td>SM</td>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Provide, lay and compact 150mm thick approved murram wearing course to 98% M.D.D specifications.</td>
<td>SM</td>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Allow for a provisional sum of Kshs. 800,000.00 for any additional road works to be used at the disretion of the Engineer.</td>
<td>SUM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL CARRIED TO SUMMARY PAGE**

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JOB NO. 10209N CIV/32
PROJECT: PROPOSED NATIONAL POLICE AND KENYA PRISONS SERVICE HOUSING
AT MALKAGUFI POLICE POST - WAJIR COUNTY

BILL NO 2: FOOTPATHS AND PAVED AREAS

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Unit</th>
<th>Qty</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>FOOTPATHS.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Remove vegetable soil average depth 150mm and dispose as directed by project manager</td>
<td>SM</td>
<td>250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Excavate to formation level, depth n.e 1.0m average depth 0.7m.</td>
<td>CM</td>
<td>175</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Provide, lay and compact approved hardcore filling in layers not exceeding 150mm thick.</td>
<td>CM</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Provide, lay and compact 100mm thick approved murram base.</td>
<td>SM</td>
<td>250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Provide and apply persistent herbicide.</td>
<td>SM</td>
<td>250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Provide, lay and joint in cement mortar 600x600x50mm precast concrete paving slabs including 50mm thick sand bed.</td>
<td>SM</td>
<td>250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Provide, lay and joint 125x100mm precast concrete channel including 100mm thick concrete bed and haunch, mix 1:3:6, any necessary excavation, formwork and disposal of surplus material.</td>
<td>LM</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PAVING SLABS AROUND THE BUILDING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Clear area around the building and trim surfaces above to achieve reduced levels and cart away excavated material to tips as directed. Depth n.e 0.2m.</td>
<td>CM</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Treat surface of formation with approved persistent herbicide.</td>
<td>SM</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Provide, lay and compact 100mm hardcore filling.</td>
<td>SM</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Provide, lay and compact 100mm thick approved murram base.</td>
<td>SM</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Provide, lay and joint in cement sand mortar (mix 1:4) 600 X 600 X 50mm precast concrete paving slabs.Drg. (50) 5353.</td>
<td>SM</td>
<td>150</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL CARRIED TO SUMMARY PAGE**
PROJECT: PROPOSED NATIONAL POLICE AND KENYA PRISONS SERVICE HOUSING
AT MALKAGUFI POLICE POST - WAJIR COUNTY
BILL NO 3: STORM WATER DRAINAGE

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Unit</th>
<th>Qty</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excavate trench for 450x225mm external dimension Pcc IBD not exceeding 0.7m (average depth 0.45m)</td>
<td>CM</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>including trimming sides to slope and disposal of surplus material to detail (50) 5329 ‘B’.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Ditto but average depth 1.0m ditto.</td>
<td>CM</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Ditto but average depth 1.5m ditto.</td>
<td>CM</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Extra over for excavation in rock class I.</td>
<td>CM</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Provide, lay and compact 100mm thick approved murram bed and on sloping sides of the IBD to detail (50) 5329'B'.</td>
<td>SM</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Provide, lay and joint 450x225x600mm external dimensions Pcc IBD to detail (50) 5326.</td>
<td>LM</td>
<td>120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Extra over Item F for one side slab on each side to detail (50) 5329'B'.</td>
<td>LM</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Extra over Item F for two sides slabs on each side to detail (50) 5329 ‘B’.</td>
<td>LM</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Extra over Item F for three sides slabs on each side to detail (50) 5329 ‘B’.</td>
<td>LM</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Storm water drainage around the buildings.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Provide, lay and joint 800x500x175mm precast concrete Storm Water Channel including 50mm thick concrete bed, mix 1:3:6, any necessary excavation, formwork and disposal of surplus material to detail (50) 5353.</td>
<td>LM</td>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Allow for a provisional sum of Kshs. 300,000.00 for any additional storm water drainage works to be used at the discretion of the Engineer.</td>
<td>SUM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CARRIED TO COLLECTION PAGE
**PROJECT: PROPOSED NATIONAL POLICE AND KENYA PRISONS SERVICE HOUSING**  
**AT MALKAGUFI POLICE POST - WAJIR COUNTY**

**BILL NO3: STORM WATER DRAINAGE**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Culverts</strong></td>
<td></td>
</tr>
</tbody>
</table>
| A | Excavate in trench for 450mm diameter precast concrete pipes, backfill and compact after laying of pipes and cart away surplus material.  
Average depth 1.0m. | CM | 20 |
| B | Provide, lay and joint 450mm diameter precast concrete pipes including 75mm thick concrete bedding and surround (mix 1:3:6). Include for all necessary formwork. Detail (50) 5310 ‘C’ | LM | 14 |
| **Headwalls** | |
| C | Provide all materials and construct head walls to detail (50) 5318 including excavations, 150mm concrete base backfilling along the sides and dispose excess material. | No. | 4 |
| **Stone pitching** | |
| D | Provide all materials and stone pitch the edge of the storm drain and other sloping surfaces as directed by the Engineer. | SM | 200 |

**EARTH DRAIN**

**Excavate part backfill and remove surplus spoil from site plank and strut sides of excavations free from all water**

| E | channel 1200mm wide at top x 650mm wide at bottom x 1000mm average deep cut and trim sides to 45° slope grade and compact to falls sides of edges of channel. | LM | 160 |

TOTAL CARRIED TO COLLECTION PAGE

**COLLECTION**

From page CIV/3

From ABOVE

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PROJECT: PROPOSED NATIONAL POLICE AND KENYA PRISONS SERVICE HOUSING  
AT MALKAGUFI POLICE POST - WAJIR COUNTY

BILL NO 4: FOUL WATER DRAINAGE

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Unit</th>
<th>Qty</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Excavations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Excavate trench for 160mm diameter pipe and bed under, not exceeding 1.50m deep from ground level average depth 1.0m</td>
<td>CM</td>
<td>220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Ditto, but depth exceeding 1.5m, but n.e 3.0m average depth 2.5m</td>
<td>CM</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Provide, lay and joint 160mm diameter UPVC pipe (Class 41 Golden brown) including 100mm approved material bedding and 150mm surround to detail (50) 5310 ‘F’.</td>
<td>LM</td>
<td>450</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Ditto; Item G above, but including 150mm concrete bedding and surround to detail (50) 5310 ‘C’</td>
<td>LM</td>
<td>34</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PIPE WORK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Provide, lay and joint 160mm diameter UPVC pipe (Class 41 Golden brown) including 100mm approved material bedding and 150mm surround to detail (50) 5310 ‘F’.</td>
<td>LM</td>
<td>450</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Ditto; Item G above, but including 150mm concrete bedding and surround to detail (50) 5310 ‘C’</td>
<td>LM</td>
<td>34</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>MANHOLES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The following in Manholes complete with:-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Construct rectangular manholes with concrete (1:3:6) to base and bedding,(1:2:4) to cover slabs including screeding, 190mm thick solid concrete block walling plastered to the inside with water proofing cement, medium duty CI manhole covers and frames, malleable step irons; including excavations of pits, parts return fill and ram and part cart away, All necessary formwork.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Manhole size 600 x 450 x 1000mm deep from invert level.</td>
<td>NO</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Ditto 1000 x 800 x 1.5m deep</td>
<td>NO</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Ditto 1200 x 1500 x 2.5m deep</td>
<td>NO</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Allow for testing the whole foul drainage system during installation and again at completion of the works to leave in sound working order to the satisfaction of the Engineer.</td>
<td>ITEM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CARRIED TO COLLECTION PAGE
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Unit</th>
<th>Qty</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>45,000L CAPACITY SEPTIC TANK</td>
<td>Earth works</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Excavate for pit commencing from arising ground level not exceeding 1.5m deep.</td>
<td>CM</td>
<td>110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Ditto 1.50 to 3.00m ditto.</td>
<td>CM</td>
<td>110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Provide, lay and compact approved hardcore filling, in layers not exceeding 150mm thick to the bed as directed by the Engineer</td>
<td>CM</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Return fill and ram selected excavated materials.</td>
<td>CM</td>
<td>95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Load and Cart away surplus excavated materials.</td>
<td>CM</td>
<td>125</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plain concrete (1:4:8) in:-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>50mm blinding under base slab.</td>
<td>SM</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vibrated reinforced concrete (1:2:4) class 20/20 in:-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>200mm Thick slab.</td>
<td>SM</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>150mm Thick suspended slab.</td>
<td>SM</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>150mm Thick scum buffer beams.</td>
<td>CM</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>R.C 200mm thick dividing wall.</td>
<td>CM</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>250mm Thick walls.</td>
<td>CM</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>200mm Thick ditto.</td>
<td>CM</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reinforcement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>8mm Diameter mild steel bars reinforcement to B.S. 4449.</td>
<td>KG</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q</td>
<td>10mm Diameter high tensile square twisted reinforcement bars to B.S. 4461.</td>
<td>KG</td>
<td>1400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>12mm ditto.</td>
<td>KG</td>
<td>1050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>BRC Ref. 66 fabric mesh reinforcement.</td>
<td>SM</td>
<td>25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CARRIED TO COLLECTION

JOB NO. 10209N

CIV/37
## PROJECT: PROPOSED NATIONAL POLICE AND KENYA PRISONS SERVICE HOUSING
### AT MALKAGUFI POLICE POST - WAJIR COUNTY
#### BILL NO 5: SEPTIC TANK AND SOAKAGE AREA

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Unit</th>
<th>Qty</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Sawn form work to:-</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Vertical sides of walls.</td>
<td>SM</td>
<td>235</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Soffites of suspended slab.</td>
<td>SM</td>
<td>38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Edge of ground slab 150-225mm high.</td>
<td>LM</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Ditto suspended slab 150-225mm ditto.</td>
<td>SM</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Soffites of baffle walls 75-150mm girth.</td>
<td>LM</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Boxing size 600x450mm to form opening for manhole cover.</td>
<td>NO.</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>12mm Thick sulphate-resisting water proof render to concrete work.</td>
<td>SM</td>
<td>320</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sundries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Form or leave slot size 300x200mm in 200mm thick concrete wall.</td>
<td>NO.</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Ditto in 250mm thick concrete wall for large pipe.</td>
<td>NO.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Ditto in 200mm thick wall.</td>
<td>NO.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Supply and fix 200mm diameter UPVC sleeve in 250mm thick concrete wall.</td>
<td>NO.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Ditto in 200mm thick concrete wall.</td>
<td>NO.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Medium duty cast iron manhole cover size 600x450mm complete with frame including bedding frame in cement sand (1:4) mortar and cover in grease.</td>
<td>NO</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL CARRIED TO COLLECTION**
**PROJECT: PROPOSED NATIONAL POLICE AND KENYA PRISONS SERVICE HOUSING**
**AT MALKAGUFI POLICE POST - WAJIR COUNTY**

**BILL NO 5: SEPTIC TANK AND SOAKAGE AREA**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Unit</th>
<th>Qty</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOAKPITS</td>
<td>A Excavate for soakpits exceeding 1.5m deep but not exceeding 4.0m deep starting from ground level and back filling after construction of 100mm masonry wall to detail (50)5345.</td>
<td>CM</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B Provide material and construct soak pits to detail (50)5345 and then backfilling with excavated material and disposal of surplus material.</td>
<td>NO</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C Provide material and fill in the soakpits with blocks of stones as hardcore average thickness 150 to 200mm to detail (50)5345.</td>
<td>CM</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOAKAGE AREA</td>
<td>DISTRIBUTION MANHOLES(4No.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D Excavate pit for rectangular distribution manholes as per detailed drawing no. (50) 5351 depth n.e 1.5m.</td>
<td>CM</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E Extra over for excavation in rock class 1.</td>
<td>CM</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concrete class 15 (mix 1:4:8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F Mix and place 50mm thick blinding to manholes.</td>
<td>CM</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vibrated concrete class 20/20(mix 1:2:4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>G Mix and place 150mm thick concrete class 20 as base slab.</td>
<td>CM</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>H Ditto, in 150mm thick reinforced concrete cover slab.</td>
<td>CM</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Walling.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>J 150mm thick dressed natural stone.</td>
<td>SM</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>K 12mm thick water proof cement rendering to vertical walls and base slab.</td>
<td>SM</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mild steel reinforcement bars to B.S 4449</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>L 12mm diameter round bars.</td>
<td>KG</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M Supply and fix medium duty, cast iron manhole cover size 600x450mm complete with frame including greasing before fixing.</td>
<td>NO</td>
<td>3</td>
<td></td>
<td></td>
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**TOTAL CARRIED TO COLLECTION**
# BILL NO 5: SEPTIC TANK AND SOAKAGE AREA

<table>
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<tr>
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<tr>
<td></td>
<td><strong>FRENCH DRAINS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Excavate trench, provide all materials and construct for 110mm diameter</td>
<td>LM</td>
<td>65</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>agricultural pipes as french drains to detail (50)5344 exceeding 1.0m deep</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>starting from ground level include for backfilling, compaction and disposal of surplus material average depth 2.0m.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Soakage Area</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>provide spread and rake 150mm thick red soil or humus soakable soil on the</td>
<td>LM</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>soakage area and plant grass including preparation of ground before spreading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>the soil and watering until well established.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Allow for a provisional sum of Kshs. 3,500,000.00 for any additional foul</td>
<td>SUM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>water drainage works to be used at the discretion of the Engineer.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL CARRIED TO COLLECTION**

**COLLECTION**

- From page CIV/6
- From page CIV/7
- From page CIV/8
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**TOTAL CARRIED TO COLLECTION**
## PROJECT: PROPOSED NATIONAL POLICE AND KENYA PRISONS SERVICE HOUSING
### AT MALKAGUFU POLICE POST - WAJIR COUNTY

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</tr>
</thead>
<tbody>
<tr>
<td><strong>CHAIN LINK FENCE</strong></td>
<td><strong>THE FOLLOWING IN 2400MM HIGH CHAINLINK FENCE 185M LONG COMPRISING 100X125MM CRANKED PRECAST CONCRETE POSTS, 100X100MM CONCRETE STRUTS, SOFT GALVANIZED WIRE AND 2100 M HIGH CHAINLINK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perimeter fencing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>2400mm High Cranked precast concrete posts at 3000mm centre to centre, 300mm below ground level mortised in mass concrete (1:3:6) Sorround including all necessary excavations and backfilling, 300mm cranked.</td>
<td>94</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>100mm x 100mm precast concrete truts 1600mm long mortised in mass concrete (1:3:6) base including all necessary excavations and backfilling.</td>
<td>94</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>12.5 Gauge galvanized barbed wire fixed to cranked precast concrete posts(m/s)</td>
<td>840</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>2100mm High (7ft) 14 Gauge chainlink fixed to precast concrete posts(m/s) and tied to galvanized wire(m/s)</td>
<td>588</td>
<td>Sm</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GATE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Dauble gate overall size 6000mm wide x 2400mm high, divided into two equal leaves each leaf comprising 50x50x3mm square hollow section framing all around, 50x50x3mm square hollow section as middle, horizontal and vertical rails, 50x50x3mm square hollow sections including all hanging and closing mechanisms.</td>
<td>1</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Pedestrian gate overall size 1500mm wide x 2100mm high, comprising 50x50x3mm square hollow section framing all around, 50x50x3mm square hollow section as middle, horizontal and vertical rails, 50x50x3mm square hollow sections including all hanging and closing mechanisms.</td>
<td>1</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>100x100x4mm square hollow section gate post 2000mm long, with one end on and including 300x300x600mm deep plain concrete class 20/20 foundation, other end with approved type sharp pointed capping, including necessary excavation, disposal and formwork.</td>
<td>4</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>200x200x6mm base plate welded to end 100x100x4mm square hollow section</td>
<td>4</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>25mm galvanised mild steel tube 100mm long set in concrete paving, as gate keep.</td>
<td>3</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Grilled steel gate (Both sides measure flat overall)</td>
<td>35</td>
<td>Sm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Steel surfaces not exceeding 200mm girth.</td>
<td>10</td>
<td>Sm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carried to collection

JOB NO. 10209N

CIV/41
# PROJECT: PROPOSED NATIONAL POLICE AND KENYA PRISONS SERVICE HOUSING AT MALKAGUFI POLICE POST - WAJIR COUNTY

## SUMMARY

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<td>STORM WATER DRAINAGE</td>
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<td>4</td>
<td>FOUL WATER DRAINAGE</td>
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<td>5</td>
<td>SEPTIC TANK AND SOAKAGE AREA</td>
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<td>CHAIN LINK FENCE</td>
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TOTAL CARRIED TO GRAND SUMMARY (Inclusive of VAT)
MECHANICAL WORKS
**SECTION A**

**GENERAL MECHANICAL SPECIFICATION**

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<td>QUALITY OF MATERIALS</td>
<td>A-1</td>
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<td>2.03</td>
<td>REGULATIONS AND STANDARDS</td>
<td>A-1</td>
</tr>
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<td>2.04</td>
<td>ELECTRICAL REQUIREMENTS</td>
<td>A-2</td>
</tr>
<tr>
<td>2.05</td>
<td>TRANSPORT AND STORAGE</td>
<td>A-2</td>
</tr>
<tr>
<td>2.06</td>
<td>SITE SUPERVISION</td>
<td>A-3</td>
</tr>
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<td>2.07</td>
<td>INSTALLATION</td>
<td>A-3</td>
</tr>
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<td>2.08</td>
<td>TESTING</td>
<td>A-3</td>
</tr>
<tr>
<td>2.09</td>
<td>COLOUR CODING</td>
<td>A-4</td>
</tr>
<tr>
<td>2.10</td>
<td>WELDING</td>
<td>A-5</td>
</tr>
</tbody>
</table>
2.01 **General**

This section specifies the general requirement for plant, equipment and materials forming part of the Sub-contract Works and shall apply except where specifically stated elsewhere in the Specification or on the Contract Drawings.

2.02 **Quality of Materials**

All plant, equipment and materials supplied as part of the Sub-contract Works shall be new and of first class commercial quality, shall be free from defects and imperfections and where indicated shall be of grades and classifications designated herein.

All products or materials not manufactured by the Sub-contractor shall be products of reputable manufacturers and so far as the provisions of the Specification is concerned shall be as if the Sub-contractor had manufactured them.

The Sub-contractor shall supply materials and apparatus required for the complete installation as called for by the Specification and Contract Drawings unless mention is made otherwise.

Materials and apparatus supplied by others for installation and connection by the Sub-contractor shall be carefully examined on receipt. Should any defects be noted, the Sub-contractor shall immediately notify the Engineer.

Defective equipment or that damaged in the course of installation or tests shall be replaced as required to the approval of the Engineer.

2.03 **Regulations and Standards**

The Sub-contract Works shall comply with the current editions of the following:

a) The Kenya Government Regulations.

b) The United Kingdom Institution of Electrical Engineers (IEE) Regulations for the Electrical Equipment of Buildings.

c) The United Kingdom Chartered Institute of Building Services Engineers (CIBSE) Guides.

d) British Standard and Codes of Practice as published by the British Standards Institution (BSI)

e) The Local Council By-laws.

f) The Electricity Supply Authority By-laws.

g) Local Authority By-laws.


i) The Kenya Bureau of Standards

2.04 **Electrical Requirements**
Plant and equipment supplied under this Sub-contract shall be complete with all necessary motor starters, control boards, and other control apparatus. Where control panels incorporating several starters are supplied they shall be complete with a main isolator.

The supply power up to and including local isolators shall be provided and installed by the Electrical Sub-contractor. All other wiring and connections to equipment shall form part of this Sub-contract and be the responsibility of the Sub-contractor.

The Sub-contractor shall supply three copies of all schematic, cabling and wiring diagrams for the Engineer’s approval.

The starting current of all electric motors and equipment shall not exceed the maximum permissible starting currents described in the Kenya Power and Lighting Company (KPLC) By-laws.

All electrical plant and equipment supplied by the Sub-contractor shall be rated for the supply voltage and frequency obtained in Kenya, that is 415 Volts, 50Hz, 3-Phase or 240Volts, 50Hz, 1-phase.

The Engineer shall reject any equipment that is not rated for the above voltages and frequencies.

2.05 **Transport and Storage**

All plant and equipment shall, during transportation be suitably packed, crated and protected to minimize the possibility of damage and to prevent corrosion or other deterioration.

On arrival at site all plant and equipment shall be examined and any damage to parts and protective priming coats made good before storage or installation.

Adequate measures shall be taken by the Sub-contractor to ensure that plant and equipment do not suffer any deterioration during storage.

Prior to installation all piping and equipment shall be thoroughly cleaned.

If, in the opinion of the Engineer any equipment has deteriorated or been damaged to such an extent that it is not suitable for installation, the Sub-contractor shall replace this equipment at his own cost.

2.06 **Site Supervision**

A-2

The Sub-contractor shall ensure that there is an English-speaking supervisor on the site at all times during normal working hours.

2.07 **Installation**

Installation of all special plant and equipment shall be carried out by the Sub-contractor under adequate supervision from skilled staff provided by the plant and equipment manufacturer or his appointed agent in accordance with the best standards of modern practice and to the relevant regulations and standards described under Clause 2.03 of this Section.

2.08 **Testing**

2.08.1 **General**

The Sub-contractor’s attention is drawn to Part ‘C’ Clause 1.38 of the “Preliminaries and General Conditions”.
2.08.2 Material Tests

All material for plant and equipment to be installed under this Sub-contract shall be tested, unless otherwise directed, in accordance with the relevant B.S Specification concerned. For materials where no B.S. Specification exists, tests are to be made in accordance with the best modern commercial methods to the approval of the Engineer, having regard to the particular type of the materials concerned. The Sub-contractor shall prepare specimens and performance tests and analyses to demonstrate conformance of the various materials with the applicable standards.

If stock material, which has not been specially manufactured for the plant and equipment specified is used, then the Sub-contractor shall submit satisfactory evidence to the Engineer that such materials conform to the requirements stated herein in which case tests of material may be partially or completely waived. Certified mill test reports of plates, piping and other materials shall be deemed acceptable.

2.08.3 Manufactured Plant and Equipment – Work Tests

The rights of the Engineer relating to the inspection, examination and testing of plant and equipment during manufacture shall be applicable to the Insurance Companies or Inspection Authorities so nominated by the Engineer.

The Sub-contractor shall give two week’s notice to the Engineer of the manufacturer’s intention to carry out such tests and inspections.

The Engineer or his representative shall be entitled to witness such tests and inspections. The cost of such tests and inspections shall be borne by the Sub-contractor.

Six copies of all test and inspection certificates and performance graphs shall be submitted to the Engineer for his approval as soon as possible after the completion of such tests and inspections.

Plant and equipment which is shipped before the relevant test certificate has been approved by the Engineer shall be shipped at the Sub-contractor’s own risk and should the test and inspection certificates not be approved, new tests may be ordered by the Engineer at the Sub-contractor’s expense.

2.08.4 Pressure Testing

All pipework installations shall be pressure tested in accordance with the requirements of the various sections of this Specification. The installations may be tested in sections to suit the progress of the works but all tests must be carried out before the work is buried or concealed behind building finishes. All tests must be witnessed by the Engineer or his representative and the Sub-contractor shall give 48 hours notice to the Engineer of his intention to carry out such tests.

Any pipework that is buried or concealed before witnessed pressure tests have been carried out shall be exposed at the expense of the Sub-contractor and the specified tests shall then be applied.

The Sub-contractor shall prepare test certificates for signature by the Engineer and shall keep a progressive and up-to-date record of the section of the work that has been tested.

2.09 Colour Coding

Unless stated otherwise in the Particular Specification all pipework shall be colour coded in accordance with the latest edition of B.S 1710 and to the approval of the Engineer or Architect.
2.10 **Welding**

2.10.1 **Preparation**

Joints to be made by welding shall be accurately cut to size with edges sheared, flame cut or machined to suit the required type of joint. The prepared surface shall be free from all visible defects such as lamination, surface imperfection due to shearing or flame cutting operation, etc., and shall be free from rust scale, grease and other foreign matter.

2.10.2 **Method**

All welding shall be carried out by the electric arc processing using covered electrodes in accordance with B.S. 639.

Gas welding may be employed in certain circumstances provided that prior approval is obtained from the Engineer.

2.10.3 **Welding Code and Construction**

All welded joints shall be carried out in accordance with the following Specifications:

A-4

a) **Pipe Welding**

All pipe welds shall be carried out in accordance with the requirements of B.S.806.

b) **General Welding**

All welding of mild steel components other than pipework shall comply with the general requirements of B.S. 1856.

2.10.4 **Welders Qualifications**

Any welder employed on this Sub-contractor shall have passed the trade tests as laid down by the Government of Kenya.

The Engineer may require to see the appropriate certificate obtained by any welder and should it be proved that the welder does not have the necessary qualifications, the Engineer may instruct the Sub-contractor to replace him by a qualified welder.
SECTION B

PARTICULAR PLUMBING AND DRAINAGE SPECIFICATIONS
## SECTION B

PARTICULAR PLUMBING AND DRAINAGE SPECIFICATIONS

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<td>Sterilization of Hot and Cold Water System</td>
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</table>
3.1 **GENERAL**

This section specifies the general requirements for plant, equipment and materials forming part of the plumbing and drainage installations.

3.2 **MATERIALS AND STANDARDS**

3.2.1 **Pipework and Fittings**

Pipework materials are to be used as follows:

a) **Galvanized Steel Pipework**

Galvanized steel pipe work up to 65mm nominal bore shall be manufactured in accordance with B.S. 1387 Medium Grade, with tapered pipe threads in accordance with B.S. 21. All fittings shall be malleable iron and manufactured in accordance with B.S. 143.

Pipe joints shall be screwed and socketed and sufficient coupling unions shall be allowed so that fittings can be disconnected without cutting the pipe. Running nipples and long screws shall not be permitted unless exceptionally approved by the Engineer.

Galvanized steel pipe work, 80mm nominal bore up to 150mm nominal bore shall be manufactured to comply in all respects with the specification for 65mm pipe, except that screwed and bolted flanges shall replace unions and couplings for the jointing of pipes to valves and other items of plant. All flanges shall comply with the requirements of B.S. 10 to the relevant classifications contained hereinafter under Section ‘C’ of the Specification.

Galvanizing shall be carried out in accordance with the requirements of B.S. 1387 and B.S. 143 respectively.

b) **Copper Tubing**

All copper tubing shall be manufactured in accordance with B.S. 2871 from C.160 ‘Phosphorous De-oxidized Non-Arsenical Copper’ in accordance with B.S. 1172.

Pipe joints shall be made with soldered capillary fittings and connections to equipment shall be with compression fittings manufactured in accordance with B.S. 864.

Short copper connection tubes between galvanized pipe work and sanitary fitments shall not be used because of the risk of galvanic action.

If, as may occur in certain circumstances, it is not possible to make the connection in any way than the use of copper tubing, then a brass straight connector shall be positioned between the galvanized pipe and the copper tube in order to prevent direct contact.
c) **P.V.C. (Hard) Pressure Pipes and Fittings**

All P.V.C. pipes and fittings shall be manufactured in accordance with B.S. 3505: 1968.

**Jointing**

The method of jointing to be employed shall be that of solvent welding, using the pipe and manufacturer’s approved cement. Seal ring joint shall be introduced where it is necessary to accommodate thermal expansion.

**Testing**

Pipelines shall be tested in sections under an internal water pressure normally one and a half times the maximum allowable working pressure of the class of pipe used. Testing shall be carried out as soon as practical after laying and when the pipeline is adequately anchored. Precautions shall be taken to eliminate all air from the test section and to fill the pipe slowly to avoid risk of damage due to surge.

d) **A.B.S. Waste System**

Where indicated on the Drawings and Schedules, the Sub-contractor shall supply and fix A.B.S. waste pipes and fittings.

The pipes, traps and fittings shall be in accordance with the relevant British Standards, including B.S. 3943, and fixed generally in accordance with manufacturer’s instructions and B.S. 5572: 1978.

Jointing of pipes shall be carried out by means of solvent welding, the manufacturer’s instructions and B.S. 5572: 1978.

Jointing of pipes shall be carried out by means of solvent welding. The manufacturer’s recommended method of joint preparation and fixing shall be followed.

Standard brackets, as supplied for use with this system, shall be used wherever possible. Where the building structure renders this impracticable the Sub-contractor shall provide purpose made supports, centers of which shall not exceed one meter.

Expansion joints shall be provided as indicated. Supporting brackets and pipe clips shall be fixed on each side of these joints.

e) **PVC Soil System**

The Sub-contractor shall supply and fix PVC soil pipes and fittings as indicated on the Drawings and Schedules.

Pipes and fittings shall be in accordance with relevant British Standards, including B.S. 4514 and fixed to the manufacturer’s instructions and B.S. 5572.

The soil system shall incorporate synthetic rubber gaskets as provided by the manufacturer whose fixing instructions shall be strictly adhere to.

Connections to WC pans shall be effected by the use of a WC connector, gasket and cover, fixed to suit pan outlet.
Suitable supporting brackets and pipe clips shall be provided at maximum of one metre centres.

The Sub-contractor shall be responsible for the joint into the Gully Trap on Drain as indicated on the Drawings.

3.2.2 **Valves**

a) **Draw-off Taps and Stop Valves (Up to 50mm Nominal Bore)**

Draw-off taps and valves up to 50mm nominal bore, unless otherwise stated or specified for attachment or connection to sanitary fitment shall be manufactured in accordance with the requirements of B.S.1010.

b) **Gate Valves**

All gate valves 80mm nominal bore and above, other than those required for fitting to buried water mains shall be of cast iron construction, in accordance with the requirements of B.S. 3464. All gate valves required for fitting to buried water mains shall be of cast iron construction in accordance with the requirements of B.S.1218.

All gate valves up to and including 65mm nominal bore shall be of bronze construction in accordance with the requirements of B.S. 1952.

The pressure classification of all valves shall depend upon the pressure conditions pertaining to the site of works.

c) **Globe Valves**

All globe valves up to and including 65mm nominal bore shall be of bronze construction in accordance with the requirements of B.S.3061.

The pressure classification of all globe valves shall depend upon the pressure conditions pertaining to the site of works.

3.2.3 **Waste Fitment Traps**

a) **Standard and Deep Seal P & S Traps**

Where standard or deep seal traps are specified they shall be manufactured in suitable non-ferrous materials in accordance with the full requirements of B.S. 1184. B-3

In certain circumstances, cast iron traps may be required for cast iron baths and in these instances bath traps shall be provided which are manufactured in accordance with the full requirements of B.S.1291.

b) **Anti-Syphon Traps**

Where anti-syphon traps are specified, these shall be similar or equal to the range of traps manufactured by Greenwood and Hughes Limited, Deacon Works Littleshampton, Sussex, England.

The tradename for traps manufactured by this company is ‘Grevak’.
3.2.4 **Pipe Supports**

a) **General**

This sub-clause deals with pipe supports securing pipes to the structure of buildings for above ground application.

The variety and type of support shall be kept to a minimum and their design shall be such as to facilitate quick and secure fixings to metal, concrete, masonry or wood.

Consideration shall be given, when designing supports, to the maintenance of desired pipe falls and the restraining of pipe movements to a longitudinal axial direction only.

The Sub-contractor shall supply and install all steelwork forming part of the pipe support assemblies and shall be responsible for making good damage to builders work associated with the pipe support installation.

The Sub-contractor shall submit all his proposals for pipe supports to the Engineer for approval before any erection works commence.

b) **Steel and Copper Pipes and Tubes**

Pipe runs shall be secured by clips connected to pipe angers, wall brackets, or trapeze type supports. ‘U’ bolts shall not be used as a substitute for pipe clips without the prior approval of the Engineer.

An approximate guide to the maximum permissible supports spacing in metres for steel and copper pipe and tube is given in the following table for horizontal runs.
<table>
<thead>
<tr>
<th>Size</th>
<th>Copper Tube to B.S. 659</th>
<th>Steel Tube to B.S. 1387</th>
</tr>
</thead>
<tbody>
<tr>
<td>15mm</td>
<td>1.25m</td>
<td>2.0m</td>
</tr>
<tr>
<td>20mm</td>
<td>2.0m</td>
<td>2.5m</td>
</tr>
<tr>
<td>25mm</td>
<td>2.0m</td>
<td>2.5m</td>
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<tr>
<td>32mm</td>
<td>2.5m</td>
<td>3.0m</td>
</tr>
<tr>
<td>40mm</td>
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<td>3.0m</td>
</tr>
<tr>
<td>50mm</td>
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<td>3.0m</td>
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<tr>
<td>65mm</td>
<td>3.0m</td>
<td>3.5m</td>
</tr>
<tr>
<td>80mm</td>
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<td>3.5m</td>
</tr>
<tr>
<td>100mm</td>
<td>3.0m</td>
<td>4.0m</td>
</tr>
<tr>
<td>125mm</td>
<td>3.0m</td>
<td>4.5m</td>
</tr>
<tr>
<td>150mm</td>
<td>3.5m</td>
<td>4.5m</td>
</tr>
</tbody>
</table>

The support spacing for vertical runs shall not exceed one and a half times the distances given for horizontal runs.

  c) **Expansion Joints and Anchors**

Where practicable, cold pipework systems shall be arranged with sufficient bends and changes of direction to absorb pipe expansion providing that the pipe stresses are contained within the working limits prescribed in the relevant B.S. specification.

Where piping anchors are supplied, they shall be fixed to the main structure only. Details of all anchor design proposals shall be submitted to the Engineer for approval before erection commences.

The Sub-contractor when arranging his piping shall ensure that no expansion movements are transmitted directly to connections and flanges on pumps or other items of plant.

The Sub-contractor shall supply flexible joints to prevent vibrations and other movements being transmitted from pumps to piping systems or vice versa.
3.2.5 **Sanitary Appliances**

All sanitary appliances supplied and installed as part of the Sub-contract works shall comply with the general requirements of B.S. Code of Practice 305 and the particular requirements of the latest B.S. Specifications.

3.2.6 **Pipe Sleeves**

Main runs of pipework are to be fitted with sleeves where they pass through walls and floors. Generally the sleeves shall be of P.V.C. except where they pass through the structure, where they shall be mild steel. The sleeves shall have 6mm – 12mm clearance all around the pipe or for insulated pipework all around the installation. The sleeve will then be packed with slag wool or similar.

3.3 **INSTALLATION**

3.3.1 **General**

Installation of all pipework, valves, fittings and equipment shall be carried out under adequate supervision from skilled staff to the relevant codes and standards as specified herein. The Sub-contractor shall be responsible to the Main Contractor for ensuring that all builders work associated with his piping installation is carried out in a satisfactory manner to the approval of the Engineer.

3.3.2 **Above Ground Installation**

a) **Water Services**

Before any joint is made, the pipes shall be hung in their supports and adjusted to ensure that the joining faces are parallel and any falls which shall be required are achieved without springing the pipe.

Where falls are not shown on the Contract Drawings or stated elsewhere in the Specification, pipework shall be installed parallel to the lines of the buildings and as close to the walls, ceilings, columns, etc., as is practicable.

All water systems shall be provided with sufficient drain points and automatic air vents to enable them to function correctly.

Valves and other user equipment shall be installed with adequate access for operation and maintenance. Where valves and other operational equipment are unavoidably installed beyond normal reach or in such position as to be difficult to reach from a small step ladder, extension spindles with floor or wall pedestals shall be provided.

Screwed piping shall be installed with sufficient number of unions to facilitate easy removal of valves and fittings and to enable alterations of pipework to be carried out without the need to cut the pipe.

Full allowances shall be made for the expansion and contraction of pipework, precautions being taken to ensure that any force produced by the pipe movements are not transmitted to valves, equipment or plant. All screwed joints to piping and fittings shall be made with P.T.F.E. tape.

The test pressure shall be maintained by the pump for about one hour and if there is any leakage, it shall be measured by the quantity of water pumped into the main in that time. A general leakage of 4.5 litres
per 25mm of diameter, per 1.6 kilometres per 24 hours per 30 metres head, may be considered reasonable but any visible individual leak shall be repaired.

b) **Sanitary Services**

Soil, waste and vent pipe system shall be installed in accordance with the best standard of modern practice as described in B.S. 5572 to the approval of the Engineer.

The Sub-contractor shall be responsible for ensuring that all ground waste fittings are discharged to a gully trap before passing to the sewer via a manhole.

The Sub-contractor shall provide all necessary rodding and inspection facilities within the draining system in positions where easy accessibility is available.

Where a branch requires rodding facilities in a position to which normal access is unobtainable, then that branch shall be extended so as to provide a suitable purpose made rodding eye in the nearest adjacent wall or floor to which easy access is available.

The vent stacks shall terminate above roof level and where stack passes through roof, a weather skirt shall be provided. The Sub-contractor shall be responsible for sealing the roof after installation of the stacks.

The open end of each stack shall be fitted with a plastic coated or galvanised steel wire guard.

Access for rodding and testing shall be provided at the foot of each stack.

c) **Sanitary Appliances**

All sanitary appliances associated with the Sub-contract works shall be installed in accordance with the best standard of modern practice as described in C.P. 305 to the approval of the Engineer.

3.4 **TESTING AND INSPECTION**

3.4.1 **Site Tests – Pipework Systems**

a) **Above Ground Internal Water Services Installation**

All water service pipe system installed above ground shall be tested hydraulically for a period of one hour to not less than one and half times to design working pressure.

If preferred, the Sub-contractor may test the pipelines in sections. Any such section found to be satisfactory need not be the subject of a further test when system has been completed, unless specifically requested by the Engineer.

During the test, each branch and joint shall be examined carefully for leaks and any defects revealed shall be made good by the Sub-contractor and the section re-tested.

The Sub-contractor shall take all necessary precautions to prevent damage occurring to special valves and fittings during the tests. Any item damaged shall be repaired or replaced at the Sub-contractor’s expenses.
b) **Above Ground Soil Waste and Ventilation System**

All soil, waste and ventilating pipe system forming part of the above ground installation, shall be given appropriate test procedures as described in B.S. 5572, 1972.

Smoke tests on above ground soil, waste and ventilating pipe system shall not be permitted.

Pressure tests shall be carried out before any work which is to be concealed is finally enclosed.

In all respects, tests shall comply with the requirements of B.S. 5572.

3.4.2 **Site Test – Performance**

Following satisfactory pressure test on the pipework system operational tests shall be carried out in accordance with the relevant B. S. Code of practice on the systems as a whole to establish that special valves, gauges, control, fittings, equipment and plant are functioning correctly to the satisfaction of the Engineer.

All hot water pipework shall be installed with pre-formed fibre glass lagging to a thickness of 25mm where the pipe runs above a false ceiling or in areas where the ambient temperature is higher than normal with the result that pipe “sweating”, due to condensation will cause nuisance.

All lagged pipes which run in a visible position after erection shall be given a canvas cover and prepared for painting as follows:

i) Apply a coating of suitable filler until the canvas weave disappears and allow to dry.

ii) Apply two coats of an approved paint and finish in suitable gloss enamel to colors approved by the Engineer.

All lagging for cold and hot water pipes erected in crawlways, ducts and above false ceiling which after erection are not visible from the corridors of rooms, shall be covered with a reinforced aluminium foil finish banded in colours to be approved by the Engineer.

In all respects, unless otherwise stated, the hot and cold water installation shall be carried out in accordance with the best standard of modern practice and described in C.P.342 and C.P.310 respectively to the approval of the Engineer.

The test pressure shall be applied by means of a manually operated test pump or, in the case of long main or mains of large diameter, by a power driven test pump which shall not be left unattended. In either case precautions shall be taken to ensure that the required pressure is not exceeded.

Pressure gauges should be recalibrated before the tests.

The Sub-contractor shall be deemed to have included in his price for all test pumps, and other equipment required under this specification.
The test pressure shall be one and a half times the maximum working pressure except where a pipe is manufactured from a material for which the relevant B.S. specification designates a maximum test pressure.

3.5 **STERILISATION OF COLD WATER SYSTEM**

All water distribution system shall be thoroughly sterilized and flushed out after the completion of all tests and before being fully commissioned for handover.

The sterilization procedures shall be carried out by the Sub-contractor in accordance with the requirements of B.S. Code of Practice 301, Clause 409 and to the approval of the Engineer.

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**B.9**

**SECTION C**

**PARTICULAR SPECIFICATION**

**FOR**

**LOW AND HIGH LEVEL**

**WATER TANKS**
PARTICULAR SPECIFICATION FOR THE DESIGN SUPPLY AND ERECTION OF WATER STORAGE TANKS AND BOOSTER PUMPS

DESCRIPTION OF SITE

The Sub-contractor is deemed to have visited the site and if unable to locate it or its details apply to the permanent secretary for works..

No claims will be allowed for the traveling or other expenses, which may be incurred by the sub-contractor’s works. However, the sub-contractor may allow that he may have to, during contract time, do part of the works and therefore three visits may be catered for.

SCOPE OF CONTRACT

The work to be carried out under, this sub-contract comprises the designs, manufacture, supply, delivery, erection, together with testing and commissioning of steel tanks as here-in specified and shown on the contract drawings.

All work shall be performed in straightforward manner by competent workmen under skilled supervision to the entire satisfaction of the project manager.

COMPLIANCE WITH REGULATIONS.

The sub-contractor shall comply in all respects to the provisional and regulations of the By-laws of the Local Authority, Kenya Building Code, as 449 Part B5 1964. BS 4211, CP2 chapters V part 1 and 2 MOPW Structural steel work specification (1973) code of practice for design and construction of buildings and structures in Relation to Earthquake (1972) wherever applicable to the sub-contract works.

The ministry of Roads and Public Works are responsible for the design of the foundation subject to giving approval of the sub-contractor’s design of the tower and due allowance should be given for this work to be carried out in sub-contractor programmed of works. The main contractor is responsible for the construction of the foundation in accordance to approved designs.

STRUCTURAL DRAWINGS AND CALCULATIONS

2No copies of general arrangement and fabrication drawings properly dimensioned and detailed showing the whole tower and its accessories together with 2No copies of the structural calculations complying with all the relevant BS and CP are to be submitted for approval prior to the commencement of the work.

The calculation are to indicate the maximum downward and upward loads on the foundations for the State Department of Public Works, Structural Department to design the foundation
STEEL WATER TANKS

The tanks shall be pressed steel sectional tanks complying in all respects to BS 1564 Types 1 or 2. The jointing materials shall be non-toxic and non-insulable to water and the tank cover shall be joined throughout the tank top ensuring that the joint is both water proof and dust proof.

Cover framing and members shall be designed to withstand supper imposed loading complying with the requirement complying with the requirements of CP2 Chapter V part 1 and BS 149 Part 2.

All internal stays are to be provided as required by the tank manufacture and the Sub-contractor shall be responsible for ensuring the stays are adequate in number and position and properly tightened.

Access manhole with hinged cover together with a filtered vent outlet shall be installed.

The Sub-contractor is to notify the Project Manager of the type of panel he is proposing to use and the manufacturer who is to be approved.

The inflow and outflow connection shall be as shown on the drawing.

The outflow supply pipe shall be at least 50mm above the tank bottom while the inflow pipe shall be 200mm below the tank rim. The overflow pipe shall be about 1000mm long, away from the tank. The drain pipe shall be at the lowest part of the tank.

(1) **LOW LEVEL TANK**

| Tank Capacity | 60,000 litres |

**PREFERRED DIMENSIONS:**

- 5 metres length
- 4 metres width
- 3 metres height

**PLATE THICKNESS** 6mm

Tank to be supplied completed with:-

1. 80mm diameter inflow connection
2. 100mm diameter outflow connections
3. 100mm diameter washout pipe
4. 100mm diameter overflow pipe
5. Electrode pair fully wired.
6. 2No. water level indicator
7. 1No. cover and manhole
8. 1No. internal ladder
9. 1No. external ladder

The Structural Department will give details of foundations and R.C walls for the low level tank.

The base is to be cast by the Main Contractor unless otherwise instructed by the Project Manager.
(ii) **HIGH LEVEL TANK**

Tank Capacity 30,000 litres

Preferred Dimensions

5 metres length

3 metres width

2 metres height

plate thickness: 6mm

Height from ground level to the underside of the tank will be 21 metres

Tank to be supplied with:

1. 80mm diameter inflow connection
2. 100mm diameter outflow connection
3. 100mm diameter washout pipe
4. 100mm diameter overflow pipe
5. 1No. level regulator
6. 2No. Water level indicator
7. 1No. steel cover and manhole
8. 1No. internal ladder
9. 1No. external ladder to ground level with cage
10. 1No. perimeter walkway and handrail

**PIPEWORK**

The sub-contractor shall supply and fix all pipe work and fitting up to ground level as detailed on the drawing or in this specification. All pipe work shall be adequately supported and secured to the tank structure. The washout pipe will have a bend leading to a reasonable place where the drainage will not interfere with the structure.

The inflow outflow and washout pipes shall be fixed against the tower structure so as to facilitate fixing and good support.

All pipe work shall be medium grade galvanized steel and must conform with BS 1987 1967 class ‘B’
The sub-contractor shall provide high pressure ball valve capable of coping with the maximum area’s local water supply pressure.

**Access Ladder**
Internal ladder shall be supplied for the tank and shall be fixed adjacent at the manhole but easily removable for cleaning the inside of the tank (i.e hooked connection).

The tanks shall be provided with an external ladder leading to the manhole and complying to BS 4211. The stringers shall be parallel, minimum width 15 inches apart and of flat bar of minimum dimensions 1½” by 2/8 inches. The rugs shall be of round bars not less than ¾ inches diameter and the distance between centers shall be 9 – 10 inches. The external ladder shall be fitted with safety hoofs made to conform with BS 4211.

**Platform**
The tower is to have a periphery walkway at tank level having minimum width of 600mm clear between the edge of the tank and the inside of the protective safety handrail. The platform is to be provided with a steel chequered place floor of similar approved and to be completely sealed so as not to allow anybody or items such as bolts and spanners to fall on persons on the ground.

All loading for the design of such platform are to be provided in the structural calculations.

**Painting**
The tank shall be painted inside with one coat of bituminous non-toxic paint (or any other equivalent and approved) and on the outside with coat of primer before erection. After erection, the tank inside shall be painted with two coats of aluminium paint. The other structures shall be cleaned and painted one coat lead oxide or red lead before erection and two coats of aluminium paints after erection.

All the painting shall be approved by the Engineer.

**Erection**
The sub-contractor shall erect the tank complete, on foundation prepared and designed by others and with all necessary pipes, ladders, tower etc. as listed herein and shown on the drawing.

The main contractor shall prepare the foundation to the sub-contractor’s and M.T.I.H&UD Structural Department’s details. The main contractor shall also concrete or grout in the HD bolts to the sub-contractor’s requirements.

**Booster pumps**
2 No. electrically operated pumps capable of pumping 5.38 Litres per second (65 gallons per minute) of water against 28 metres static head shall be installed. The pumps to be as GRUNDFOS MODEL CR – 16-30 or equal and approved.

Each pump shall be directly driven by a three phase motor, the pump motor being mounted on a common base.
Pump casing shall be manufactured from good quality cast iron and impellers, shafts and other material in contract with water shall be of corrosion resistant metal. The pumps shall be suitable for pumping filtered water treated for human consumption.

The motor shall be completely protected against possible damage due to entry of water, dust etc. The shall be fitted with glands for the entry of PVC armoured cables with overall PVC sheath. The completed cable connection to the motor terminal box shall be proof against ingress of water or dust.

The pump shall be mounted on concrete plinth which shall be constructed by the main contractor in accordance with specifications form the sub-contractor.

Holes for holding down bolts shall be left in concrete and after the concrete has cured the pumps shall be placed in position and bolts grounded into position. A grout shall be floated under pump motor base to ensure an even surface for the pump to rest upon.

**Electrical works**

It shall be the responsibility of the sub-contractor to provide all electrical wiring between all items of his sub-contract works to ensure the correct functioning of his equipment. The sub-contractors electric works shall start from nearest electrical isolator.

**Control panel**

The sub-contractor shall provide an electric control panel and shall be responsible for its fixing and satisfactory operation. The panel shall be fabricated from minimum thickness 1.2mm steel sheet and finished grey stoved enamel. The panel shall be wall mounted with a removable hinged front access panel. Motor control switch gear shall be of approved type. The panel shall have an integral isolator.

Pump changeover shall be automatic alternating after each duty cycle. A green ‘running’ red ‘trip’ lamp shall be provided for each pump. The control system (float switches etc) shall be energized when a pump is started.

The motor system shall be wired so that they operate only automatically as called for by the switches except that starter push button shall be connected so as to enable the pumps to be started and run and cease to run when the push button is allowed to its normal position.

An emergency stop button shall be located adjacent to each pump.

The level regulator shall be wired and set in such a manner that the duty pumps shall be called to start when the high level tank is full.

The electrode in the low level tank shall override instructions from high level regulator and stop when the water is approximately 600mm high.

Where a three-phase motor is used, a single phasing protector shall be provided if the motor does not have one.

A phase failure relay shall be installed in 3 phase – operated pumps.
Testing

Testing shall be done by filling the tank with water after erection. The water will be from the local supply and the main contractor shall apply from the Authority for connection. Testing shall be witnessed by the Project Manager or his representative.

Guarantee

The sub-contractor shall guarantee the tanks against leaks, and the tower for a period of (12) months from the testing date. Any damage incurred due to bad workmanship shall be made good by the contractor.

SCHEDULES

Introduction

The tenderer shall complete all schedules. The schedules shall be read in conjunction with the specification. The GRAND TOTAL of prices in the main summary of prices schedule shall be deemed to have been included in another part of section.

Note:-

The list of recommended initial spare parts prices are to be submitted separately on tenderer’s own paper. The spares prices are not to be included in the GRAND TOTAL or prices as the spares are an extra item only to be purchased if and when convenient to the Government of Kenya.

All prices shall be in Kenya shillings and shall be inclusive of all taxes and duties current at the time of tendering.
SECTION D

PARTICULAR SPECIFICATIONS

FOR

BOREHOLE DRILLING AND EQUIPPING
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1. **Purpose**
The borehole to be drilled, constructed, test pumped and equipped with a submersible pump under this contract will be to provide water intended for domestic use. The maximum ground water abstraction permitted from the borehole shall be $90m^3/day$ with the maximum abstraction period not exceeding 10 hours per day.

The execution of the works shall be in full compliance with relevant provisions of the Water Act AND NEMA

The proposed drilling site will be at ………..The contractor is deemed to have visited the site at ……….. No claims will be allowed for the traveling or other expenses, which may be incurred by the contractor’s works.

2. **Scope of the Work**
The works included in the contract consist of:-

   (i) The drilling of one borehole of sufficient diameter to provide for a finished cased and screened borehole of 200mm diameter to the provisional depth of about 300metres.
   
   (ii) The provision and installation of steel casings, steel screens, and gravel pack, borehole cap, together with cementation works necessary.
   
   (iii) The collection of formation samples at 2 meter interval of drilling progress to the bottom and also water sample at every aquifer struck and at the beginning and at the end of test pumping operation for both chemical and biological analysis.

   **NOTE:** - These depths and any other works can be varied by the Engineer depending on the actual conditions encountered in the process of executing of the works.

   (iv) The supply and installation of 1No. Submersible borehole pump, complete with the necessary controls.
   
   (v) Connection of the water from the borehole to the water storage tank.

3. **Local Conditions**
The borehole will be drilled, constructed and test pump in both unconsolidated and consolidated formation and the contractor must be prepared to carry out the required work through any type of formation in the project area.

4. **Borehole Data**
   
   (a) Total depth – 320m of 200mm diameter from surface (**Provisional**)
   
   (b) Casings to be 152mm diameter and screened depth to be determined after borehole construction.
   
   (c) Static water level – not known
   
   (d) Dynamic water level – not known
   
   (e) Recommended pumping rate – 8m³/hr (for the purpose of quotation but to be confirmed after testing)
   
   (f) (Pump) setting level – 200m (for the purpose of quotation but to be confirmed after testing)
   
   (g) Total dynamic head to be determined on site D-1

5. **Casings**
   
   (a) Casings to be used as part of the permanent borehole structure shall be black steel pipe conforming to BS 1387 and having nominal diameter of 200mm.
   
   (b) If any casing other than that to be left permanently in the borehole is required temporarily for execution of work, it shall be supplied by the contractor at the borehole free of charge.
6. **Screens**
The screens to be furnished and installed shall be of the pipe size variety having a minimum nominal diameter of 152mm and can be fabricated in three meter lengths. The screens shall be of continuous slot type and constructed entirely of stainless steel. The screen shall have slot size opening of 1.4m.

7. **Grouting**
Grouting shall be done by either cement or bentomite to seal off unwanted upper aquifers under direction of the Engineer.

8. **Construction Method**
The borehole to be constructed shall be drilled by cable-tool percussion method or the combination air/hydraulic rotary method. The method of drilling shall be left to the discretion of the Contractor. After drilling to the final depth the Contractor shall proceed to insert permanent casings and screens as directed by the Engineer.

9. **Gravel Pack**
If filter gravel will be necessary, it will consist of durable, naturally rounded quartzitic particles properly washed and cleaned prior to insertion in the borehole. The gravel shall be introduced in the annular space between the wall of the borehole and the 200mm casing from the bottom to about 2 meters below surface. The final casing and screens must be centralized before gravel back and the Contractor must supply suitable equipment for lowering of gravel pack.

10. **Cementation**
The space above the gravel pack shall be grouted with a mix of one part of cement to two parts of sand and two parts of ballast, in order of 1:2:2 concrete may be used near the surface to form an annular plug around the casing of dimensions 1.0 x 1.0 x 1.0 meters. There shall be 2000mm diameter concrete plinth on top of the borehole and shall be constructed as shall be directed by the Project Engineer and the Structural Engineer.

   Any other cementation works to be done as directed by the Project Engineer.

11. **Development**
The Contractor shall furnish all necessary pumps, compressor, plungers, bailing or other needed equipment and shall develop the borehole by such approved methods as shall be necessary to give the maximum yield of water per increment of drawdown and extract from the formation of maximum practical quality of such sands as may, during the life of the borehole, be drawn through the screens when the borehole is operating under maximum conditions of draw down.

12. **Test Pumping**
After the borehole has been completed, constructed and developed, the subcontractor shall make necessary arrangements for conducting a 24 hour continuous test pumping up to a maximum of 30hr and 12 hour recovery test under the supervision of the Engineer. Where the Engineer or his representative cannot be present on such pumping test, the Contractor may continue without him keeping accurate records of the test in terms of discharge and drawn down but must seek permission from the Project Engineer. Should the Contractor fail to keep such records, the Engineer shall order the test to be repeated at no extra cost.

13. **Sample Formation**
The Contractor shall keep an accurate record of the top and bottom of each stratum penetrated and shall save and deliver to the Engineer a sample of materials taken from each 1m of formation, or at every change of formation and at such other intervals as may be ordered by the Engineer. Those samples shall be placed in approved Contractor supplied containers with labels which indicate the depth at which the sample was obtained.
14. **Water Samples**
Water samples shall be collected at every water struck while drilling and also shall be collected at the start of every test and toward the end of the test in a three litre sterilized plastic container for both chemical and bacteriological analysis and submitted in a competent laboratory for analysis.

15. **Reports**
The contractor shall submit to the Engineer daily progress reports showing:

(i) The depth each day indicating drilling in meters per hour with comments on degree of hardness of materials being penetrated.

(ii) Depth at which each water bearing zone is encountered and the rise and fall of water level in different formations.

(iii) The full details of work carried out in respect of operations which are paid for at hourly rate.

(iv) The full details of the number of hours worked each day.

16. **Cessation of Work**
The Engineer reserves the rights to stop drilling operations if in his opinion:

(a) A sufficient supply of water has been obtained.

(b) The work is not being carried out in a satisfactory manner or

(c) Further drilling is unlikely to be advantageous or for any other reason

In this event, payment shall be made only for the amount of work done up to the date of stoppage.

17. **Retention Time**
Waiting time shall be such time as the whole of the drilling equipment and staff is on site and is available for use, and all the operation connected with the Contact are at a standstill due to the absence of instructions from the Engineer.

The request for the necessary instructions and/or guidance to the Project Manager by the Contractor shall be within 48 hours, provided that the Project Manager does not delay the said instructions/or guidance to the Contractor unnecessarily.
All claims for waiting time shall be made on the basis of a normal 8 hour day, including Sundays and Public holidays.

18. **Supply and Installation of Pump**
   The Contractor shall supply and install:
   
   (a) One electric submersible pump which will conform to the specification stated, for operation on 415 volt, 3-phase.
   
   (b) All necessary electrical equipment for the pump such as control panel with starter, ammeter, single phasing cut-out, low voltage cut-out and all necessary cables for connection.
   
   (c) Suitable diameter Galvanized Steel pipe class ‘C’ to carry water to the surface/to water storage tank
   
   (d) Low level cut-out switch
   
   (e) Airline 20mm galvanized steel pipe for water level measurements
   
   (f) Pressure gauge
   
   (g) The gate valves, non-return valves before the master meter
   
   (h) Master meter for measuring the water from the borehole.

   In addition the Contractor shall carry out 24 hours test run at the completion of the works. This test has to be certified by the Project Manager.

**Note on Pump Installation**

The Contractor shall make the necessary electrical connections and include in his prices all cable, starter-panel, switches etc required to put the pump in operation while tendering for this part of the document and return it will full description literature and performance curves for the proposed equipment together with the tender for drilling works.

The installation of the submersible pump into the borehole shall be done immediately the borehole drilling is completed, test pumped and water analysed for suitability for human consumption.

The final production pump to be installed in the newly drilled borehole shall be determined and installed as per the actual conditions encountered on completion of the drilling works. Hence the specifications given under the section of ‘borehole data’ are only for the purpose of quotation. After establishing the actual conditions of the drilled borehole, only the engineer’s approved submersible pump shall be installed.

19. **Electrical works**

   It shall be the responsibility of the Contractor to provide all electrical wiring between all items of his Contract to ensure the correct function of his equipment. The Contractor’s electrical works shall start from the nearest electrical isolator which will be supplied by others within five metres.
BILLS SECTION

SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT
EXTERNAL WATER RETICULATION AND WATER TANKS

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>Unit</th>
<th>Rate (KShs)</th>
<th>Amount (KShs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td><strong>Water Closet (WC) Suite</strong></td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Close-coupled WC suite (‘S’ or ‘P’-trap) in approved colour complete with</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>horizontal outlet to BS 3402 with 7.5 litre valveless low level ceramic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>cistern and fittings including siphon, 15mm diameter side inlet ball valve,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20mm diameter side overflow, plastic flush bend, dual flush system, inlet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>connection, chrome-plated lever and heavy plastic seat and cover with metal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>top fixed (chrome plated) hinges. All to be as Twyfords “ADVENT” water</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>closet or equal and approved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B</strong></td>
<td><strong>Wash hand basin (WHB)-Pedestal</strong></td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pedestal wash hand basin size 575 x 500mm with one tap hole, 32mm diameter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>chrome plated waste, pedestal, chrome plated non-conculsive time delay,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>press action pillar tap and heavy duty plastic bottle trap (32mm ‘P’ trap)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>with 75mm seal. To be as Twyfords &quot;ADVENT 575&quot; or equal and approved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C</strong></td>
<td><strong>Self-closing pillar tap</strong></td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>as Pegler-Prestex or equal and approved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D</strong></td>
<td><strong>Kitchen Sink</strong></td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single Bowl Single Drainer, (SBSD) stainless steel sink, size 1500x600mm,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>bowl size 430x420mm complete with overflow, waste fittings, plugs, chain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>stays and 40mm diameter plastic bottle trap with 75mm deep seal complete</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>with a chrome plated mixer.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>E</strong></td>
<td><strong>Sink mixer</strong></td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>as Cobra No.266/041/10 wall-type with overarm swivel outlet.</td>
<td></td>
<td></td>
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</tbody>
</table>

**Total Carried Forward to collection Page E- 11**
### SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT

#### EXTERNAL WATER RETICULATION AND WATER TANKS

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Robe Hook</td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Robe hook in Satin Aluminium to be mounted by concealed screws to wall wedges. To be as Twyfords Spectrum 2000 accessories or equal and approved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Toilet Roll Holder</td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fully recessed toilet roll holder in Vitreous China of size 165 x 165mm in approved colour as Twyfords or equal and approved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Towel Rail</td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chrome plated towel rail 600mm long with the rail and brackets as one piece, all as GROHE &quot;Atrio accessories. Tier: G5 prestige model: 40 309&quot; or equal and approved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Toilet Brush and Holder</td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wall mounted toilet brush holder and brush of approved colour as Ideal Standard or approved equivalent.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Shower rose</td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adjustable shower rose as Cobra model P-0681 CAT No. 101.001.78 or approved equivalent.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Toilet bibtap</td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Toilet bibtap as Cobra No. 206-15, CP, heavy duty with star handle</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Soap Dish</td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semi recessed built in soap tray in vitreous china of size: 150 x 150mm in approved colour as Ideal Standard Model Cassara Cat No. 109.000.09 or equal and approved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Mirror</td>
<td>60</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6mm thick polished plate glass silver backed mirror with bevelled edges, size 610 x 610mm, Plugged and screwed to wall with 4No. chrome plated dome capped screws. The mirror shall rest against a layer of 5mm thick foam.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Carried Forward to collection Page E-11**
**BILLS SECTION**

**SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT**

**EXTERNAL WATER RETICULATION AND WATER TANKS**

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<thead>
<tr>
<th>Item</th>
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<th>Rate (Kshs)</th>
<th>Amount (Kshs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>INTERNAL PLUMBING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supply, deliver and install Polypropylene Random (PP-R) 20 pipework to DIN 8077 with joints, couplings, reducers, tees, adaptors, pipe fixing clips etc all to DIN 16962 and DIN 16928. Pipe jointing shall be by polyfusion or use of electric coupling. Where pipework is not chased proper anchoring using approved fixtures shall be done. No pipework shall be left exposed to the sun. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers, couplings, clippings, connectors, joints etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holder bats plugged and screwed for the proper and satisfactory functioning of the system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PPR PIPES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>20mm dia. Pipe cased in walls/floors and in ducts</td>
<td>100</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>25mm Ditto</td>
<td>350</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>32mm Ditto</td>
<td>50</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>40mm Ditto</td>
<td>50</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>50mm Ditto</td>
<td>75</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>65mm ditto</td>
<td>85</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Extra-over 90° Bend</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>20mm diameter bend</td>
<td>216</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>25mm Ditto</td>
<td>50</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>32mm Ditto</td>
<td>50</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>40mm Ditto</td>
<td>50</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>50mm Ditto</td>
<td>30</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>65mm ditto</td>
<td>10</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Equal Tees</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>25mm diameter equal tee</td>
<td>50</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>32mm Ditto</td>
<td>50</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>40mm Ditto</td>
<td>50</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>50mm Ditto</td>
<td>50</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>65mm ditto</td>
<td>50</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q</td>
<td>25x1/2” male threaded tee</td>
<td>54</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT
EXTERNAL WATER RETICULATION AND WATER TANKS

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<th>Rate (Kshs)</th>
<th>Amount Kshs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reducers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>25x20mm diameter reducer</td>
<td>54</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>32x25mm Ditto</td>
<td>54</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>40x32mm Ditto</td>
<td>54</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>50x40mm Ditto</td>
<td>54</td>
<td>No.</td>
<td></td>
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</tr>
<tr>
<td>E</td>
<td>20x1/2” male threaded bend</td>
<td>54</td>
<td>No.</td>
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<td></td>
</tr>
<tr>
<td><strong>Sockets</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>F</td>
<td>50mm diameter</td>
<td>10</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>40mm diameter</td>
<td>10</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>32mm diameter</td>
<td>10</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>25mm diameter</td>
<td>50</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>20mm diameter</td>
<td>50</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unions</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>K</td>
<td>50mm diameter</td>
<td>12</td>
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</tr>
<tr>
<td>L</td>
<td>40mm diameter</td>
<td>15</td>
<td>No.</td>
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<td></td>
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<tr>
<td>M</td>
<td>32mm diameter</td>
<td>15</td>
<td>No.</td>
<td></td>
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</tr>
<tr>
<td>N</td>
<td>25mm diameter</td>
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<tr>
<td><strong>Adaptors</strong></td>
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<td>O</td>
<td>50mm diameter</td>
<td>5</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>40mm diameter</td>
<td>5</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q</td>
<td>32mm diameter</td>
<td>5</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>25mm diameter</td>
<td>5</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>15mm diameter x 300mm long Chrome plated flexible connectors for connecting the sanitary fitting to water supply.</td>
<td>120</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Angle Valve</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>15mm angle valve as Cobra or equal and approved</td>
<td>180</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gate valve</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>65mm diameter medium pressure screw down full way non rising stem wedge gate valve with wheel and head joint to steel tubing, as 'Pegler' or approved equivalent.</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>50mm ditto</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>40mm ditto</td>
<td>15</td>
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<tr>
<td>X</td>
<td>32mm ditto</td>
<td>20</td>
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<td></td>
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<tr>
<td>Y</td>
<td>25mm ditto</td>
<td>25</td>
<td></td>
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</tr>
<tr>
<td><strong>Roof storage tank</strong></td>
<td></td>
<td></td>
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<tr>
<td>Z</td>
<td>Cylindrical plastic water storage tank of capacity 5,000 litres, as 'Roto' or approved equivalent</td>
<td>6</td>
<td>No.</td>
<td></td>
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</tr>
</tbody>
</table>

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SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT
EXTERNAL WATER RETICULATION AND WATER TANKS

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<th>Rate (Kshs)</th>
<th>Amount (Kshs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTERNAL DRAINAGE</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Supply, deliver and fix the following UPVC soil and waste systems to BS 4514 and 5225 with fittings fixed in accordance to the manufacturer's printed instructions and BS 5572 and manufactured by 'KEY TERRAIN' as described. Pipe work shall be Medium grade (Class D). All UPVC branches, Tees, reducers etc are to be formed in accordance to the manufacturer's printed instruction. The installation to have the various sizes of connectors, adaptors, sockets, reducers, holdbats, clips etc as required for satisfactory functions. Prices for pipework shall include the cost for couplings, connectors and jointing to fittings appliances etc</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UPVC and muPVC pipe work</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>100mm heavy duty golden brown pipe class D</td>
<td>200</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>100mm heavy duty grey pipe class D</td>
<td>210</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>50mm ditto</td>
<td>150</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>40mm ditto</td>
<td>120</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>32mm ditto</td>
<td>120</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra over UPVC and muPVC pipework</td>
<td></td>
<td></td>
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<tr>
<td><strong>Bends</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>100mm diameter long radius bend</td>
<td>52</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>100mm diameter short radius bend</td>
<td>52</td>
<td>No.</td>
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<tr>
<td>H</td>
<td>50mm diameter sweep bend</td>
<td>30</td>
<td>No.</td>
<td></td>
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<tr>
<td>I</td>
<td>40mm Ditto</td>
<td>30</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>32mm Ditto</td>
<td>30</td>
<td>No.</td>
<td></td>
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<tr>
<td>K</td>
<td>50mm 45° Bend</td>
<td>20</td>
<td>No.</td>
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<tr>
<td>L</td>
<td>40mm 45° Bend</td>
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<td>No.</td>
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<tr>
<td>M</td>
<td>32mm Ditto</td>
<td>20</td>
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<tr>
<td><strong>Reducers</strong></td>
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<td></td>
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<tr>
<td>N</td>
<td>40x32mm diameter reducer</td>
<td>50</td>
<td>No.</td>
<td></td>
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<tr>
<td>O</td>
<td>50x40mm Ditto</td>
<td>40</td>
<td>No.</td>
<td></td>
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<tr>
<td><strong>Single Branch Connector</strong></td>
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<tr>
<td>P</td>
<td>100mm diameter single branch connector</td>
<td>54</td>
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<tr>
<td><strong>Boss Connector</strong></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>Q</td>
<td>100x50mm Boss connector</td>
<td>54</td>
<td>No.</td>
<td></td>
<td></td>
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<tr>
<td>R</td>
<td>100x40mm Ditto</td>
<td>54</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>W.C. connector Bend</td>
<td>54</td>
<td>No.</td>
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Total Carried forward to collection page E-11
BILLS SECTION
SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT
EXTERNAL WATER RETICULATION AND WATER TANKS

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>Unit</th>
<th>Rate (Kshs)</th>
<th>Amount (Kshs)</th>
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<tr>
<td>Tees</td>
<td>A 50mm diameter sweep tees</td>
<td>54 No.</td>
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<td></td>
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<tr>
<td></td>
<td>B 40mm Ditto.</td>
<td>54 No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C 32mm Ditto.</td>
<td>54 No.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Access cap</td>
<td>D 100mm access cap</td>
<td>54 No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E 50mm ditto</td>
<td>54 No.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>F 40mm ditto</td>
<td>54 No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>G 32mm ditto</td>
<td>54 No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weathering Slates and Vent Cowls</td>
<td>H 100mm diameter vent cowl</td>
<td>30 No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I 100mm diameter weathering slate</td>
<td>30 No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gully Trap</td>
<td>J Gully trap chamber size 250x250mm, approximately 400mm deep in 150mm block work with cement mortar joints, on 150mm thick mass concrete slab, plastered inside, 100mm trap and hopper. 40mm thick, 250x250mm p.c.c. cover to gully trap chamber and provided with 40mm ventilating hole</td>
<td>20 No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor Trap</td>
<td>K 100 x 50mm diameter floor trap and grating</td>
<td>180 No.</td>
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Total Carried forward to collection page E-11
**BILLS SECTION**

**SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT**

**EXTERNAL WATER RETICULATION AND WATER TANKS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>Unit</th>
<th>Rate (Kshs)</th>
<th>Amount (Kshs)</th>
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<tbody>
<tr>
<td></td>
<td><strong>FIRE PROTECTION</strong></td>
<td></td>
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</tr>
<tr>
<td></td>
<td><strong>Portable Fire Extinguishers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>9 litres water portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.</td>
<td>8</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>5 Kg carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.</td>
<td>8</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>6kg dry chemical powder portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>9&quot; (225mm) manual operated alarm bell (Gong)</td>
<td>8</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Fire blanket made of cloth woven with pre-asbestos yarn or any other fire proof material and to measure 1800 x 1210 mm. It shall be fitted with special tapes folded so as to offer instantaneous single action to release blanket from storing jacket to BS 1721.</td>
<td>60</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Allow for fire signage and fire instructions as directed by the Project Engineer.</td>
<td>8</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Fire exit signs</td>
<td>8</td>
<td>No</td>
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</tbody>
</table>

Total Carried forward to collection page E-11
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFI POLICE POST -WAJIR COUNTY FOR THE KENYA POLICE SERVICE

BILLS SECTION
SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT
EXTERNAL WATER RETICULATION AND WATER TANKS

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>Unit</th>
<th>Rate (Kshs)</th>
<th>Amount (Kshs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>EXTERNAL WATER RETICULATION</td>
<td>100</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Excavate trench in hard soil/murram 600mm wide and depth not exceeding 1000mm deep and average 750mm deep, prepare bed with red soil/marram of particle size not more than 20 mm to a depth of 750mm. Bed shall be approved by Engineer before laying of pipes. Fill with same material as above and compact in layers of 75 mm. Cart away surplus soil. Supply, deliver and install galvanized mild steel (GMS) medium grade class “B” pipe work and fittings to BS 1387 laid in trench. Tenderers must allow in their prices for adequate supports, unions couplings, etc necessary for the proper functioning of the water reticulation system. Pipe work GMS class B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>50mm Bends</td>
<td>100</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>50mm ditto. Tees</td>
<td>15</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>100x50x100mm diameter tee Reducers</td>
<td>20</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>100x50mm diameter reducer Valves</td>
<td>8</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>.50mm diameter high pressure gate valve Unions</td>
<td>10</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>65mm diameter pipe union PLUGS</td>
<td>10</td>
<td>No.</td>
<td></td>
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<tr>
<td>H</td>
<td>50mm diameter plug Sleeves</td>
<td>2</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>100mm diameter heavy duty PVC (class 41, 2.5mm thick) pipe sleeves for crossing over pathways and driveways. The sleeves will be encased in 150mm concrete surround.</td>
<td>20</td>
<td>Lm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Allow for water connection from the county government water main supply</td>
<td>Sum</td>
<td>Item</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Allow for flushing and sterilization of the external water reticulation system as required to the satisfaction of the Engineer</td>
<td>Sum</td>
<td>Item</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TESTING AND COMMISSIONING
L Allow for setting to work, testing and commissioning of the whole external water reticulation system to the satisfaction of the Engineer

Total Carried Forward to collection Page E-11
### SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT
### EXTERNAL WATER RETICULATION AND WATER TANKS

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>unit</th>
<th>Rate (Kshs)</th>
<th>Amount (Kshs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Supply, deliver and Assemble a High level water tanks, made of pressed steel sectional tank plates 6mm thick plates (type 1 and 4) and of size 1000mm x 1000mm. Capacity of Tank to be 30,000 litres and of preferred dimensions 5000mm x 3000mm x 2000mm. The Tank to come complete with tank cover, mosquito proof inspection vent, internal stays, jointing material, bolts and nuts including applying two coats of non-toxic bituminous paint on the inside and two coats of aluminum paint on the outside.</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Level regulator</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Water level indicator</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Internal ladder</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>External ladder for tank platform</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Galvanized platform with features described in the particular specifications</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Tower ladder and protection cage of 18m high</td>
<td>1</td>
<td>No.</td>
<td></td>
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</tr>
<tr>
<td>H</td>
<td>Steel tower 21m high with features as described in the particular specifications</td>
<td>1</td>
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</table>

**Total Carried Forward to collection Page E-11**
## BILLS SECTION

**SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT**

**EXTERNAL WATER RETICULATION AND WATER TANKS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
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<th>Unit</th>
<th>Rate (Kshs)</th>
<th>Amount (Kshs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td><strong>Booster Pumps</strong>&lt;br&gt;Supply, deliver and install electrically driven twin booster pumps capable of delivering 6.31 litres/sec against a total static head of 30 metres with a 3-phase power source. The pump to be as GRUNDFOS model CR 15-3 or equal and approved equivalent pumps to be installed on an anti-vibration mounted platform.&lt;br&gt;Supply, deliver and install a control panel with removable front access cover, motor control gear, internal buttons with automatic change over “running” and “trip” neon lights control system, overload, protection, power surge protection, button for change from automatic to manual operation plus any other necessary controls</td>
<td>1</td>
<td>Set</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>Sum</td>
<td>Item</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Allow for electrical works wiring and fitting to pumps, control panel and float switches from Isolator provided by others.</td>
<td>Sum</td>
<td>Item</td>
<td></td>
<td></td>
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<tr>
<td><strong>Pipework</strong></td>
<td></td>
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</tr>
<tr>
<td>D</td>
<td>50mm dia. gms pipe</td>
<td>50</td>
<td>Lm</td>
<td></td>
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</tr>
<tr>
<td>E</td>
<td>80mm dia. ditto-</td>
<td>20</td>
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<tr>
<td>F</td>
<td>50mm dia. Bend/Elbows</td>
<td>5</td>
<td>No.</td>
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</tr>
<tr>
<td>G</td>
<td>80mm dia. ditto-</td>
<td>2</td>
<td>No.</td>
<td></td>
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<tr>
<td>H</td>
<td>50mm dia. 100x50mm dia.</td>
<td>5</td>
<td>No.</td>
<td></td>
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<tr>
<td>J</td>
<td>Allow for sterilization including flushing out water and chlorine to the satisfaction of the Engineer</td>
<td>Sum</td>
<td>Item</td>
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<td></td>
</tr>
<tr>
<td>K</td>
<td>Allow for setting to work, testing and commissioning of the whole system to the satisfaction of the Engineer.</td>
<td>Sum</td>
<td>Item</td>
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Total Carried Forward to collection Page E-11
BILLS SECTION
SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT
EXTERNAL WATER RETICULATION AND WATER TANKS

COLLECTION PAGE

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<td>C</td>
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<tr>
<td>D</td>
<td>Total Brought forward from page E-4</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Total Brought forward from page E-5</td>
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<td>F</td>
<td>Total Brought forward from page E-6</td>
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<td>G</td>
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<td>H</td>
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<td>I</td>
<td>Total Brought forward from page E-9</td>
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<td>J</td>
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Total Carried forward to Summary page E-12
**BILLS SECTION**

**SANITARY FITTINGS, PLUMBING AND DRAINAGE, FIRE FIGHTING EQUIPMENT**

**EXTERNAL WATER RETICULATION AND WATER TANKS**

**SUMMARY PAGE**

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</table>

**Total carried to the Main Summary**

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Amount in Words: 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## TECHNICAL SCHEDULE

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<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Manufacturer</th>
<th>Country of origin</th>
<th>Remarks (Catalogue No.)</th>
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<td>Close Coupled water closet</td>
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<td>B</td>
<td>Water closet pan</td>
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<tr>
<td>C</td>
<td>WC flush valve</td>
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</tr>
<tr>
<td>D</td>
<td>Wash hand basin - Counter top</td>
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<tr>
<td>E</td>
<td>Wash hand basin - Pedestal</td>
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<tr>
<td>F</td>
<td>Urinal bowl</td>
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<td>G</td>
<td>Urinal bowl flush valve</td>
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<td>I</td>
<td>Hand Drier</td>
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<td>J</td>
<td>Toilet Roll holder</td>
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<td>K</td>
<td>Soap dish</td>
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<td>L</td>
<td>Kitchen Sink</td>
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<td>M</td>
<td>Under sink water heater</td>
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<td>N</td>
<td>Cleaner sink</td>
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<td>O</td>
<td>PPR pipes and fittings</td>
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<td>P</td>
<td>GMS pipes and fittings</td>
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<td>Gate valves</td>
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<td>Booster pump</td>
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<td>S</td>
<td>Control panel</td>
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</tr>
<tr>
<td>T</td>
<td>Non-return Valves</td>
<td></td>
<td></td>
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<tr>
<td>U</td>
<td>Hosereel Pumpset</td>
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</tr>
<tr>
<td>V</td>
<td>Hosereel</td>
<td></td>
<td></td>
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<tr>
<td>W</td>
<td>Portable fire extinguishers</td>
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Tenders Must attach Brochures/Catalogues as it will form part of evaluation criteria
### SUMMARY PAGE

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<tr>
<th>Item</th>
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<td>Total for Preliminaries</td>
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<td>2</td>
<td>Total carried forward from collection</td>
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**Total Cost for Mechanical works carried forward to the Main Summary Page**

Amount in words: 

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**JOB NO. 10209N**
These works are to be carried by an N.C.A registered sub-contractor with the relevant E.R.C classification. All power cabling should be as those manufactured by East African Cables.

**BILL NO. 1: 1NO. BEDSITTER & 2 BEDROOM UNIT**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>Unit</th>
<th>Rate</th>
<th>Amount</th>
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<td>1.01</td>
<td>Supply, install, test and commission the following ;-)</td>
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<td></td>
<td><strong>LIGHTING POINTS</strong></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Lighting points wired in 3X1.5 mm² SC CU cables drawn in concealed 20mm diameter HG P.V.C conduits for:-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) one way switching</td>
<td>2</td>
<td>No.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>b) two way switching</td>
<td>1</td>
<td>No.</td>
<td></td>
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<tr>
<td>1.02</td>
<td>10Amps, moulded ivory switch plate as CLIPSAL or approved equivalent</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>a) one gang one way</td>
<td>2</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) one gang two way</td>
<td>1</td>
<td>No.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>c) two gang two way</td>
<td>1</td>
<td>No.</td>
<td></td>
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<tr>
<td>1.03</td>
<td>Lighting fittings complete with energy saving bulbs or tubes as follows:-</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>a) pendant set comprising of ceiling rose, CG lamp holder and at least 300mm flex cable complete with 22W energy saving lamp as Philips or approved equivalent</td>
<td>2</td>
<td>No.</td>
<td></td>
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<tr>
<td></td>
<td>b) 100W Spherical Screwneck fitting as Thorn or approved equivalent</td>
<td>1</td>
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<td></td>
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<tr>
<td>1.04</td>
<td>13 Amps. socket outlet points wired ring comprising of 3x2.5 mm sq, sc PVC Cu cables drawn in concealed 25mm HG PVC conduits.</td>
<td>2</td>
<td>No.</td>
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<td>1.05</td>
<td>13 Amps. switched chrome coated socket outlet with neon indicator as CLIPSAL or approved equivalent</td>
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<td></td>
<td>a) single</td>
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<td></td>
<td>b) twin.</td>
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**SUB TOTAL C/F TO NEXT PAGE**
## 1NO. BEDSITTER UNIT CONT'D

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<tr>
<td><strong>SOCKET OUTLETS AND OTHER POWER POINTS</strong></td>
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<td>1.06</td>
<td>Cooker point comprising of 3x6mm² PVC Copper cables drawn in concealed 32mm dia. HG PVC conduits from the CU.</td>
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<td>Cooker control unit complete with 13 Amps. Switched socket outlet as Crabtree or approved equivalent.</td>
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<td>Instant water heater point comprising wiring in 3x4.0mm² PVC-SC-CU cables in concealed PVC 25mm dia. Conduits.</td>
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<td>1.10</td>
<td>32 Amps double pole switches with neon indicator as CLIPSAL or approved equivalent for item above.</td>
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<td>16 SWG, (300 x 300 x 100) mm³ galvanised steel draw box.</td>
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<td>TV outlet plate as Clipsal or approved equivalent</td>
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## 1NO. BEDSITTER UNIT CONT'D

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<td><strong>DISTRIBUTION BOARDS</strong></td>
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<td>1.14</td>
<td>6 ways SP&amp;N, flush mounted consumer unit complete with 100A integral isolator as Hager or approved equivalent complete with all accessories but excluding MCBs.</td>
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<td>(b)</td>
<td>32A, SP</td>
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<td>(c)</td>
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<td>Blanking plates</td>
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<td>LM</td>
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**BILL NO. 2: 1NO. 2BEDROOM UNIT**

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<th>Amount</th>
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<td>2.01</td>
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<td>Lighting points wired in 3X1.5 mm² SC CU cables drawn in concealed 20mm diameter HG P.V.C conduits for:-</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>a) one way switching</td>
<td>4</td>
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<td></td>
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</tr>
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<td>b) two way switching</td>
<td>1</td>
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<tr>
<td></td>
<td>a) one gang one way</td>
<td>3</td>
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<td></td>
<td>b) one gang two way</td>
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<td></td>
<td>c) two gang two way</td>
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<td></td>
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<td>2.03</td>
<td><strong>LIGHTING FITTINGS</strong></td>
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</tr>
<tr>
<td></td>
<td>Lighting fittings complete with energy saving bulbs or tubes as follows: -</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) pendant set comprising of ceiling rose,CG lamp holder and at least 300mm flex cable complete with 22W energy saving lamp as Philips or approved equivalent</td>
<td>4</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) 100W Spherical Screwneck fitting as Thorn or approved equivalent</td>
<td>1</td>
<td>No.</td>
<td></td>
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<tr>
<td>2.04</td>
<td><strong>SOCKET OUTLETS AND OTHER POWER POINTS</strong></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>13 Amps. socket outlet points wired ring comprising of 3x2.5 mm sq. sc PVC Cu cables drawn in concealed 25mm HG PVC conduits.</td>
<td>5</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.05</td>
<td>13 Amps.switched chrome coated socket outlet with neon indicator as CLIPSAL or approved equivalent</td>
<td>5</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUB TOTAL C/F TO NEXT PAGE**
## CONT'D - 1NO. 2 BEDROOM UNIT

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>Unit</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUB-TOTAL B/F FROM PREVIOUS PAGE</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>SOCKET OUTLETs AND OTHER POWER POINTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.06</td>
<td>Cooker point comprising of 3x6mm² PVC Copper cables drawn in concealed 32mm dia. HG PVC conduits from the CU. Cooker control unit complete with 13 Amps. Switched socket outlet as Crabtree or approved equivalent.</td>
<td>1</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.07</td>
<td>Cooker connection unit Instant water heater point comprising wiring in 3x4.0mm² PVC-SC-CU cables in concealed PVC 25mm dia. conduits 32 Amps double pole switches with neon indicator as CLIPSAL or approved equivalent for item above</td>
<td>1</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.08</td>
<td>16 SWG, (300 x 300 x 100) mm³ galvanised steel draw box</td>
<td>1</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TV WORKS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.09</td>
<td>TV points comprising wiring in CO-AXIAL cable drawn in concealed HG PVC conduit concealed PVC conduits</td>
<td>1</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.10</td>
<td>TV outlet plate as Clipsal or approved equivalent</td>
<td>1</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUB TOTAL C/F TO NEXT PAGE</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
## 1NO. 2 BEDROOM UNIT CONT'D

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>Unit</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.14</td>
<td><strong>DISTRIBUTION BOARDS</strong>&lt;br&gt;6 ways SP&amp;N, flush mounted consumer unit complete with 100A integral isolator as Hager or approved equivalent complete with all accessories but excluding MCBs.</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>SUB-MAIN POWER DISTRIBUTION</strong>&lt;br&gt;5x10 mm² SC PVC copper cables drawn in 38mm dia. Conduit c/w all necessary installation accessories</td>
<td>30</td>
<td>LM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TOTAL FOR 1NO. 2 BEDROOM UNIT

### TOTAL FOR 12NO. 2 BEDROOM UNITS C/F TO COLLECTION PAGE
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>Unit</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.01</td>
<td>Water Booster Pump wired in 6.0mm² 4Core PVC/SWA/PVC cu cables drawn underground c/w with all installation accessories (Approximate Distance 30m)</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.02(a)</td>
<td>Lighting points wired in 3X1.5 mm² SC CU cables drawn in concealed 20mm diameter HG P.V.C conduits for:- 40W outdoor bulkhead with opal Diffuser, grill and Visor as Massive Cleveland or approved equivalent</td>
<td>16</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td>2x36W, 1200mm corrosion-proof florescent bulkhead as Thorn or approved equivalent</td>
<td>10</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c)</td>
<td>2x36W, 1200mm corrosion-proof florescent bulkhead as Thorn or approved equivalent</td>
<td>6</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.03</td>
<td>MATV SYSTEM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Masthead amplifier (booster) unit</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>VHF aerial as Ellies or equivalent</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>UHF aerial as Ellies or equivalent</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>8 Way splitter unit as Ellies or equivalent</td>
<td>4</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e)</td>
<td>Combined unit as Ellies or equivalent</td>
<td>2</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f)</td>
<td>5A high voltage guard as sollatec</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g)</td>
<td>Security lock box made of 16SWG steel sheet with auto lacquer finish for the equipment complete with Yale locks</td>
<td>1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h)</td>
<td>Adjustable antenna mast</td>
<td>1</td>
<td>No.</td>
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<tr>
<td>3.04</td>
<td>16 SWG, (300 x 300 x 100) mm³ galvanised steel draw box</td>
<td>16</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.05</td>
<td>METERBOARD</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Meter board to accommodate 31No. KPLC meters, 1No. Consumer unit, 31No. SPN switch fuses, fabricated from 16 gauge SWG to be semi-recessed in the wall of the stair case, to be painted with one coat of primer paint and two coats of finishing paint of an approved colour and quality, complete with 300A TPN enclosed bus bars and meter viewing window in Perspex to be provided in front of the KWH meters as Schneider or approved equivalent.</td>
<td>2</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>SUB-TOTAL C/F TO NEXT PAGE</strong></td>
<td></td>
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</table>
PROPOSED ERECTION AND COMPLETION OF 1NO. BLOCK OF 12NO. TWO BEDROOM 48NO. BEDSITTER UNITS AT MALKAGUFU POLICE POST -WAJIR COUNTY  FOR THE KENYA POLICE SERVICE

BILL NO. 3: COMMON AREAS CONT'D

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>Unit</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
</table>
| 3.06 | Install inside the meter board, the following:  
a) 4 way SPN consumer unit for stair case and security lighting as SCHNEIDER or approved equivalent  
a) 10A MCB  
b) Blanking plates  
c) 50A SPN KMBG switch fuse as Crabtree or approved equivalent complete with HRC fuse  
d) 250A TPN MCCB main switch as Crabtree or approved equivalent  
e) 100mm diameter HG PVC conduit encased in concrete surround for KPLC service line  
f) 3x10 mm2 SC PVC copper cables drawn in 38mm dia. Conduits  
g) 38mm diameter HG PVC conduit concealed in concrete | 2 | No. | 3.06 | 3.06 |
| 3.07 | EARTHING  
a) 300 x 300 x 300mm earthing chamber complete with removable cover  
b) Pure copper earth rod (1500mm x 16mm)  
c) Driving head for earth rod  
d) Earth rod coupling  
e) 25mm2 single core green PVC insulated copper earth lead | 2 | No. | 3.07 | 3.07 |

SUB-TOTAL C/F TO NEXT PAGE
BILL NO. 4: COMMON AREAS CONT'D

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>Unit</th>
<th>Rate</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>SUB-TOTAL B/F FROM PREVIOUS PAGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LIGHTNING PROTECTION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.08</td>
<td>a) 25x3mm copper tape down conductor supported at intervals of 1M</td>
<td>200</td>
<td>M</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Galvanized steel conduit 32mm diameter at ground floor for item (a) above</td>
<td>4</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) Earthing chamber 300x300mm masonry type complete with removable cover</td>
<td>4</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) 16mm x 1500mm pure copper earth rod complete with clamp and all the necessary accessories</td>
<td>4</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>e) Air termination (600mm long pure copper with spikes) mounted on bracket as FURSE</td>
<td>4</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL FOR COMMON AREAS C/F TO COLLECTION PAGE</strong></td>
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</table>

COLLECTION PAGE FOR 1NO. BLOCK

<table>
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<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>AMOUNT (KSHS)</th>
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<tbody>
<tr>
<td>1.00</td>
<td>Bill No. 1: 48No. Bedsitter Units</td>
<td></td>
</tr>
<tr>
<td>2.00</td>
<td>Bill No. 2: 12No. 2 Bedroom Units</td>
<td></td>
</tr>
<tr>
<td>3.00</td>
<td>Bill No. 3: Common Areas</td>
<td></td>
</tr>
<tr>
<td>4.00</td>
<td>Provisional Sum for Kenya Power Service Line Connection</td>
<td>2,000,000.00</td>
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TOTAL ELECTRICAL WORKS (1NO. BLOCK)
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<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROVISIONAL SUMS</td>
<td>Allow a Provisional sum of Ksh. One Million (Kshs \textbf{1,000,000.00}) only for Landscaping to be spent in whole or in part as directed by the project Manager</td>
<td>1</td>
<td></td>
<td></td>
<td>1,000,000.00</td>
</tr>
<tr>
<td>B</td>
<td>Allow a provisional sum of Ksh. Five Million (Kshs \textbf{5,000,000.00}) only for Contingencies to be spent in whole or in part as directed by the project Manager</td>
<td></td>
<td></td>
<td></td>
<td>5,000,000.00</td>
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</table>

Total Provisional Sums carried to Grand Summary | | | | | \textbf{6,000,000.00} |
# GRAND SUMMARY

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>Page No.</th>
<th>FOR TENDERER USE ONLY</th>
<th>FOR OFFICIAL USE ONLY</th>
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<tbody>
<tr>
<td>A</td>
<td>Particular Preliminaries</td>
<td>From Page PP/10</td>
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<td></td>
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<tr>
<td>B</td>
<td>General Preliminaries</td>
<td>From Page GP/11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Builder's works</td>
<td>From Page MPP/25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Civil works</td>
<td>From Page CIV/11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Mechanical Installation works</td>
<td>From Page MC/12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Electrical Installation works</td>
<td>From Page EL/9</td>
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<tr>
<td>G</td>
<td>Provisional Sums</td>
<td>From Page PS/1</td>
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</table>

**TOTAL CARRIED TO FORM OF TENDER (VAT INCLUSIVE)**

Amount in words. Kenya shillings………………………………………………………………………………………….
………………………………………………………………………………………………………………………Cents………...
Tenderer's signature and stamp……………………………………………………………………………………………………
Address……………………………………………………………………………………………………………………………………
Date …………………………………………………………………………………………………………………………………..
Witness's name :……………………………………………………………………………………………………………………
Signature:………………………………………………………………………………………………………………………………
Address: …………………………………………………………………………………………………………………………………
Date: …………………………………………………………………………………………………………………………………

**JOB NO. 10209N** GS/25
## APPENDIX A

### LIST OF PRE-QUALIFIED ABT SUPPLIERS

<table>
<thead>
<tr>
<th>NO.</th>
<th>TECHNOLOGY PROVIDER</th>
<th>POSTAL ADDRESS</th>
<th>PHYSICAL ADDRESS</th>
<th>TELEPHONE NUMBER</th>
<th>EMAIL ADDRESS</th>
<th>DESCRIPTION OF MATERIALS/ TECHNOLOGIES NO. OF STORIES STANDARDS OF TECHNOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>KOTO HOUSING KENYA</td>
<td>P.O. BOX 52494-00200 NBI</td>
<td>KOTO HOUSE, MOMBASA ROAD, MLOLONGO, MACHAKOS</td>
<td>0770 919142</td>
<td><a href="mailto:info@kotohousingkenya.co.ke">info@kotohousingkenya.co.ke</a></td>
<td>Expanded Polystyrene panels on walls, roof, floor slab &amp; stairs for up to 4 levels. Certification by KEBS.</td>
</tr>
<tr>
<td>2.</td>
<td>NATIONAL HOUSING CORPORATION</td>
<td>P.O. BOX 30257-00100 NBI</td>
<td>AGA KHAN WALK</td>
<td>020-3312147/9</td>
<td><a href="mailto:info@nhckenya.co.ke">info@nhckenya.co.ke</a></td>
<td>Expanded Polystyrene panels on walls, roof, floor slab &amp; stairs for up to 4 levels. Certification by KEBS.</td>
</tr>
<tr>
<td>3.</td>
<td>CEMEX HOLDINGS LIMITED</td>
<td>P.O. BOX 451155-00100 NBI</td>
<td>KE-RE TOWERS OFF RAGATI TOAD NBI</td>
<td>0721 388347</td>
<td><a href="mailto:mburu.karanja@oret.co.ke">mburu.karanja@oret.co.ke</a></td>
<td>Expanded Polystyrene panels on walls, roof, floor slab &amp; stairs for up to 4 levels. Certification by KEBS.</td>
</tr>
<tr>
<td>4.</td>
<td>BOLEYN MAGIC WALL PANEL LIMITED</td>
<td>P.O. BOX 18056-00500 NBI</td>
<td>LIBERTY PLAZA 2ND FLR MSA RD NBI</td>
<td>020-3591088</td>
<td><a href="mailto:info@boleyngroup.com">info@boleyngroup.com</a></td>
<td>Expanded Polystyrene panels on walls, roof, floor slab &amp; stairs for up to 4 levels. Certification by KEBS.</td>
</tr>
<tr>
<td>5.</td>
<td>BUILDMART SOLUTIONS LIMITED</td>
<td>P.O. BOX 5116-01002 THIKA</td>
<td>ZUHURA PLACE 1ST FLOOR, THIKA TOWN</td>
<td>0719 507761</td>
<td><a href="mailto:info@buildmartsolutions.com">info@buildmartsolutions.com</a></td>
<td>Alpha Blok – Hollow concrete interlocking block for walling + concrete hollow pots for suspended slabs.</td>
</tr>
</tbody>
</table>
| 6.  | MINECO HOUSE LIMITED                  | P.O. BOX 75917-00200 NBI | OLYMPIC HOUSE NBI, NBI EAST DISTRICT   | 0734 726860      | mineco@minecohose.com              | Hollow interlocking concrete blocks  
Precast concrete waffle slab  
Precast structural members  
Domestic Bio-digester  
Can do to any levels (any height with structural frame)  
Technology standard - HICB to Euro code 6. |
| 7.  | MICHELANGELO LTD, IN PARTNERSHIP WITH GULF WALL SYSTEM FROM DOHA, QATAR | P.O. BOX 9765-00200 NBI | AIA HOUSE, MIGORI ROAD                 | 0722 206229      | michelangelointeriors@gmail.com    | Insulated Concrete Forms (ICF) i.e. permanent 
Expanded Polystyrene (EPS) formwork for casting in place; concrete walls, beams, stairs. 
Manufactured by Gulf Wall systems Ltd in Doha, Qatar. 
Can go up to 5 storeys. |
| 8.  | BENIR HOULDERS LIMITED                | P.O. BOX 2476-00606 NBI | RUARAKA BUSINESS COMPLEX, OUTERING ROAD, RUARAKA | 0725041526      | info@bhl.co.ke nguresilas@gmail.com | Expanded Polystyrene panels on walls, roof, floor slab & stairs for up to 4 levels. Interlocking 
Stabilised Soil Blocks (ISSB) on walls for up to 3 levels or as infills for a framed structure. Certification by KEBS. |
| 9.  | JUA KALI- STONE QUARRIES              | NEAREST/ CONVENIENT QUARRY TO SITE |                                     |                  |                                        | Approved medium chisel dressed natural stone or machine cut stones with 7.00 N/mm² minimum load bearing capacity. |