STANDARD BID SOLICITATION DOCUMENT

GOVERNMENT OF GUYANA

TRANSPORTATION, INSTALLATION AND COMMISSIONING OF SOLAR PHOTOVOLTAIC (PV) SYSTEMS AT 14 SITES IN THE HINTERLAND

GUYANA ENERGY AGENCY

January, 2026

GOODS AND RELATED SERVICES

Introduction

Preface

This Standard Bid Solicitation Document (SBSD) has been prepared by the National Procurement and Tender Administration Board (NPTAB) for use by Procuring Entities for the procurement of goods and services. The procedures and methods presented in this document have been developed on the basis of practical experience and are mandatory for use in the procurement carried out in whole or in part from the state funds in accordance with the provisions of Guyana's Public Procurement Legislation.

In order to simplify the preparation of the bid document for each individual procurement proceeding, the SBSD groups the provisions that are not intended to be changed in "the Instructions to Bidders" and in "the General Conditions of Contract". Data and provisions specific to each procurement and contract should be included in the Bid Data Sheet, the Special Conditions of the Contract, Technical specifications, price schedule, schedule of requirements and the Evaluation Criteria. The applicable forms are listed in the table of contents, below.

Request for additional information can be forwarded to:

Guyana Energy Agency
295 Quamina Street, South Cummingsburg, Georgetown
Telephone number: 592-226-0394
E-mail: gea@gea.gov.gy
Website: www.gea.gov.gy

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INVITATION FOR BIDS (IFB)

The Guyana Energy Agency hereinafter referred to as "the Procuring Entity", invites eligible bidders to submit their bids as per the required specifications mentioned in the Bidding Documents. for the **"Transportation, Installation and Commissioning of Solar Photovoltaic (PV) systems at 14 Sites in the Hinterland"**

1. Required period of supply: **Ninety (90) days from the signing of the Contract**.

2. The bidding documents may be purchased by interested bidders for a non-refundable fee in the amount of $1,000 (one thousand dollars) from the Cashier at the *Guyana Energy Agency, 295 Quamina Street, South Cummingsburg, Georgetown*. Alternatively, interested eligible bidders may download a free copy of the Bid document from the GEA website www.gea.gov.gy.

3. All Bidders should submit their bids together with an original bid security of 2% of the tendered amount not later than 09:00 hours on **January 29th, 2026** at the address: **National Procurement & Tender Administration Board, Ministry of Finance, Main & Urquhart Streets, Georgetown.**

   Clarifications must be submitted in writing to the GEA's email address at **gea@gea.gov.gy** no later than one week prior to the deadline for the bid submission.

4. Bids shall be valid for one hundred and twenty (120) days after the date of bid opening.

5. Bids shall be opened by the National Procurement and Tender Administration Board in the presence of Bidders' representatives who wish to attend, at 09:00 hours on **January 29th, 2026** at the address: 49 Main and Urquhart Streets, Georgetown.

6. Bidders are required to complete the Bidders Registration via the following NPTA website: Bidders Registration – The National Tender & Procurement Administration (NPTA) of Guyana

for **Dr. Mahender Sharma**
Chief Executive Officer
Guyana Energy Agency

INSTRUCTIONS TO BIDDERS

A. Introduction

1. Description of the Procurement

The Procuring Entity identified in the *Bid Data Sheet* intends to procure the goods identified in the *Bid Data Sheet* and in the *Schedule of Requirements*.

The project is in keeping with the country's Low Carbon Development Strategy. The benefits of this initiative are detailed below.

Generally, this project will assist in decreasing the reliance on imported fossil fuels, lower electricity consumption from the utility and lead to avoided CO_2 emissions.

The multimodal inverter in this document refers to a grid-connected inverter/charger that is primarily used for purposes of providing backup power to a facility (and in some cases selected/priority loads) via energy stored in batteries.

The battery energy storage system should provide the primary function of allowing the maximum use of energy stored during the periods when solar energy is not available (at nights) or when power failure occurs, thereby minimising the amount of energy used from the standby generator. It should be capable of providing rapid response when the intermittent source cannot meet the energy requirement of the building.

Electricity generated from the PV arrays would be used for internal consumption and recharging the batteries. The project will also seek to demonstrate the applicability of photovoltaic system operation with energy storage and its energy contribution to Guyana. It is expected to contribute towards Guyana's efforts to reduce reliance on imported fossil fuels through the popularization and deployment of Renewable Energy Technologies.

2. Eligibility and Qualifications of Bidders

2.1 In order to be awarded a procurement contract, Bidders should possess the technical and financial capacity needed to perform the contract, should fulfill their tax and social insurance fund liabilities in Guyana, should not currently be subject to a debarment penalty, and must comply with the specific eligibility and qualification requirements referred to in the *Bid Data Sheet* and *Evaluation Criteria*.

2.2 The bidders should not have conflicts of interest, including involvement in more than one bid in this proceeding, should not be associated nor have been associated in the past, directly or indirectly, with any agency or any of its representative(s), affiliate(s), that have been engaged by the Procuring Entity to provide consulting services at the preparation stage of the bidding documents, technical specifications and other documentation that are subject to be used in the procurement of goods which must be purchased in accordance with the Invitation for Bids. In cases when the indicated facts are discovered, the Bidder's bid shall be rejected.

B. Bidding Documents

3. Clarification and Amendment of Bidding Documents

3.1 The Procuring Entity, in not more than three (3) working days, will respond in writing or electronic mail to any request for clarification of the bidding documents to be received (in writing or electronic mail) not later than seven (7) days before the expiry of a deadline for submission of bids. At the same time, the Procuring Entity's response shall without identifying its source of the request, be distributed to all bidders who have received the bidding documents from the Procuring Entity.

3.2 At any time before the deadline for submission of bids, the Procuring Entity may amend the bid documents by issuing an Addendum to the bidders.

C. Preparation of Bid

4. Language of Bid

4.1 The bid prepared by the Bidder, as well as all correspondence and documents related to that bid and exchanged by the Bidder and the Procuring Entity shall be written in the language specified in the *Bid Data Sheet*.

5. Documents Included in Bid

5.1 The bid prepared by the Bidder should contain the *Form of Bid*, the *Price Schedules* and the other documents to be submitted in accordance with these *Instructions to Bidders*, *Bid Data Sheet* and *Evaluation Criteria*.

6. Bid Price

6.1. Subject to the choice of INCOTERMS as indicated in the *Bid Data Sheet*, the prices given in the *Price Schedule* shall include all transportation costs to the destination point indicated in the Contract, all taxes, duties, payments collected, in accordance with the laws of Guyana and delivery related and other costs on performing of contractual obligations.

6.2. The prices offered by the Bidders shall remain fixed during the whole period of Contract performance and shall not be modified in any circumstance.

7. Bid and Payment Currency

7.1 The prices shall be indicated in Guyana Dollars, unless otherwise specified in the *Bid Data Sheet.*

8. Bid Security

8.1 Unless otherwise provided in the *Bid Data Sheet*, the Bidder shall furnish, as part of his bid, an original Bid Security, in the form, currency and amount specified in the *Bid Data Sheet* with a validity period for not less than two (2) weeks upon the expiry of the bid validity period and in accordance with the specified form.

8.2 The bid security may be forfeited, if the Bidder:

(a) withdraws their bid after it is opened during the period of validity specified in the bid; or,

(b) having been awarded the contract fails:

(1) to sign the contract on the terms and conditions provided in their bid; or

(2) to furnish the Performance Security, if required to do so.

9. Period of Validity of Bid

9.1 Bids shall remain in force during the period specified in *the Bid Data Sheet* after the date of bid opening.

10. Format, Signing and Submission of Bid

10.1 The Bidder shall prepare one (1) original bid and one (1) hard copy which shall be completed in writing in indelible ink and shall be signed by the Bidder, or by the person (persons) duly authorized to sign the bid in accordance with the power of attorney and 2 (two) exact electronic PDF copies of the bid on Flash Drive, to be submitted with the bid. All pages of the bid where new information, modifications or erasures entered shall be initialed (signed) by the person or persons signing the bid. In the event of discrepancies between them, the original shall prevail.

10.2 The bid shall contain no interlineations, erasures or overwriting, except the cases when the Bidder needs to correct errors which must be initialed by the person or persons signing the bid.

10.3 The Bidder shall seal the original and Electronic PDF copies of the bid in different envelopes, marking them "**ORIGINAL**" and "**COPIES**", as appropriate. The envelopes shall then be sealed in an outer envelope.

10.4 The outer envelope shall:

(a) be addressed to the **Chairman, National Procurement & Tender Administration Board (NPTAB), Main & Urquhart Streets, Georgetown**

(b) **bear the Name of the Project "Transportation, Installation and Commissioning of Solar Photovoltaic (PV) systems at 14 Sites in the Hinterland**" and the words: "**DO NOT OPEN BEFORE**," 09:00 hours on **January 29th, 2026**

11. Deadline for Submission of Bids

11.1 Bids must be received by the Procuring Entity at the address and within the periods specified in the *Bid Data Sheet.* All bids received by the Procuring Entity upon the expiry of a period established for submission of bids as indicated by the Procuring Entity shall be rejected and returned to the Bidder unopened.

12. Modification and Withdrawal of Bids

12.1 The Bidder may modify or withdraw their bid after the bid's submission, provided that the Procuring Entity will receive a written notice of modification, substitution or withdrawal of bid before the deadline for submission of bids.

12.2 The Bidder's modification, substitution or withdrawal notice shall be prepared, sealed, marked, and sent in accordance with the provisions of ITB Clause 10. In that case the outer and inner envelopes will be additionally marked as "**MODIFICATION**" or "**WITHDRAWAL**", as appropriate. A withdrawal notice may also be sent by email with a subsequent written confirmation not later than the deadline for submission of bids.

D. Opening and Evaluation of Bids

13. Opening of Bids

13.1 The Procuring Entity will open all bids in the presence of bidders' representatives who wish to attend, at the time, on the date, and at the address specified in the *Bid Data Sheet*. The bidders' representatives who are present shall sign a register evidencing their attendance.

13.2 The bidders' names, bid prices, including alternatives (if permitted), information on the presence or absence of required bid security, information on the presence (absence) of tax debts and debts of social insurance payments will be announced at the opening. No bid shall be rejected at the opening, exclusive of late bids and unidentified Bids to be returned to the Bidder unopened.

13.3 Bids and modifications sent pursuant to ITB Clause 12.2 that are not opened and read out during the bid opening shall not be accepted for further evaluation, regardless of circumstances.

14. Evaluation of Bids

14.1 During the evaluation of bids, the Procuring Entity may, at its discretion, request the Bidder to provide clarification of their bid. The request for clarification and the response thereto shall be made in writing, and in that case no change in price or substance of the bid shall be sought, offered, or permitted.

14.2 The Procuring Entity shall determine the responsiveness of each bid to requirements of the bidding documents. For the purposes of this Clause a substantially responsive bid is one which satisfies all the indicated provisions without a material deviation or reservation.

14.3 The Procuring Entity may regard a tender as responsive if it contains any minor deviations, that do not materially alter or depart from the characteristics, terms and conditions and other requirements of the bid solicitation documents, or if it contains errors or over sights that are capable of being corrected without touching the substance of the tender. To the extent feasible and appropriate, for the purposes of comparing bids, acceptable deviations shall be quantified in monetary terms, and reflected in adjustments to the bid price (for the purposes only of comparison of bids).

14.4 Arithmetical errors shall be rectified in the following manner. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall

prevail, and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words shall prevail. If the Bidder disagrees with such correction of errors, their bid shall be rejected.

14.5 The Procuring Entity shall evaluate and compare only the bids that are determined to be responsive to the Bid Solicitation Document.

15. Confidentiality and Contacting the Procuring Entity

15.1 No Bidder shall contact the Procuring Entity on any matter related to their bid from the date of bid opening until the date of contract award, except for requests related to clarification of the bid. Information concerning the evaluation of bids is confidential.

15.2 Any effort by the Bidder to influence the Procuring Entity's decision on bid evaluation and comparison, or contract award may result in the rejection of that Bidder's bid and subjected to debarment in accordance with Regulation 3(1)(b) of the Procurement (suspension and debarment) Regulations 2019.

E. Award of Contract

16. Award Criteria

16.1 Subject to ITB Clause 18, the Procuring Entity will award the Contract to the Bidder whose bid is determined to be substantially responsive to the requirements of the bid solicitation document, and who offered **the Lowest Evaluated Bid**, provided that the Bidder has been determined:
(a) to be eligible pursuant to Clause 2;
(b) to comply with qualification requirements, in accordance with Clause 2, and any technical requirements and evaluation criteria disclosed in the bid solicitation documents.

17. Procuring Entity's Right to Vary Quantities at Time of Entering into a Contract

17.1 The Procuring Entity reserves the right, when entering into a contract, to increase or decrease the quantity of goods and related services specified in the Schedule of Requirements, by the percentage indicated in the *Bid Data Sheet*, no change in the unit price or other conditions shall be made (an increase of quantity **not exceeding** ***10 percent variation***)

18. Procuring Entity's Right to Accept Any Bid and to Reject All Bids

18.1 The Procuring Entity reserves the right to accept or reject any bid or all bids, and to cancel the bidding process at any time prior to award of contract, without thereby incurring any liability to Bidders and without being required to inform the Bidder or Bidders of reasons of such actions.

19. Notification of Award

19.1. The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the bid validity period.

19.2. The notice of acceptance shall be given to the successful bidder within fourteen (14) days of the award of contract.

19.3. At the same time that the Procuring Entity notifies the successful Bidder in accordance with sub-clause

(1), the Procuring Entity will notify all other Bidders of the name of successful Bidder, and their bid price.

20. Signing of Contract and Performance Security

20.1 The Procuring Entity will send the successful Bidder the Form of Contract contained in the bid solicitation document. The successful Bidder shall sign and date the Contract and return it to the Procuring Entity within seven (7) days of receipt of notice of award.

20.2 Together with the signed Contract, the Bidder shall, if required to do so by the *Bid Data Sheet*, furnish the Procuring Entity with a Performance Security in the amount and form specified in the *Bid Data Sheet*.

20.3 If the successful Bidder fails to furnish the performance security, if required to do so, or within 7 (seven) days fails to return the Contract signed by them, then it shall be a sufficient ground to refuse the award of Contract, and to forfeit the bid security, In that case the Procuring Entity shall award the Contract to the next lowest evaluated Bidder, subject to the right of the Procuring Entity to reject all bids.

21. Settlement of Disputes

21.1 To settle the disputes which may arise during the execution of Contract, the parties shall follow the procedure referred to in the *Bid Data Sheet*.

22. Corrupt and Fraudulent Practices

22.1 The Procuring Entity requires that Bidders observe the highest standards of ethics during the bidding process and execution of such contracts. In pursuance of this policy, the Procuring Entity:

(a) will reject the bid if it establishes that the Bidder recommended for award has engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract in question.

(b) refer the matter to the Public Procurement Commission (PPC) in accordance with the provisions of Procurement (Suspension and Debarment) Regulations 2019.

23. Compliances

23.1 Bidder must submit valid certificates of compliances from Guyana Revenue Authority (GRA), National Insurance Scheme (NIS), and VAT registration (*where applicable).*

24. Defects Liability:

24.1 The "Defects Liability Period" for the goods/services and related services is six (6) months from the date of taking over possession or such other period as may be specified in the Bid Data Sheet. During this period, the supplier will be responsible for rectifying any defects or replacement of goods free of cost to the Procuring Entity.

BID DATA SHEET (BDS)

The following specific data to clauses of the provisions of *Instructions to Bidders* which supplement or amend the provisions of the *Instructions to Bidders* (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

Item No.	
ITB 1.1	Guyana Energy Agency, 295 Quamina Street, South Cummingsburg, Georgetown, tel:226-0394, gea@gea.gov.gy. The subject of the procurement is: **Transportation, Installation and Commissioning of Solar Photovoltaic (PV) systems at 14 Sites in the Hinterland**
ITB 2.1	To qualify for award of the Contract, the bidders shall meet the qualification requirements set out in the evaluation criteria (page 63-64)
ITB 4.1	Language of Bid shall be English Language. All submission must be in **English** .
ITB 6.1	The price quoted by bidders shall be on the basis of CIF to port Georgetown for services delivered to Guyana including cost for transport to the destination.
ITB 7.1	Currency of Bid shall be in Guyana Dollars
ITB 8.1	A bid security of two percent (2%) of the tendered sum is required in the form of a Bank guarantee or a bond from an Insurance company licensed by the Bank of Guyana.
ITB 9.1	The period of validity of bid is one hundred and twenty (120) days
ITB 11.1	Deadline and place for submission of bids at 09:00 hours on the January 29th, 2026 *at the address:* ***The National Procurement & Tender Administration Board, Ministry of Finance, Main & Urquhart Streets, Georgetown, Guyana***
ITB 13.1	Time and place for opening of bid: 09:00 hours on January 29th, 2026 at ***The National Procurement & Tender Administration Board, Ministry of Finance, Main & Urquhart Streets, Georgetown, Guyana.***
ITB 17.1	Increase or decrease in the quantity of goods and services not exceeding 10%.
ITB 20.2	The Performance security amount will be Ten (10%) of the contract price. Performance Security must be in the form of a Bank Guarantee or a bond from an Insurance company licensed by the Bank of Guyana. This shall be valid for the duration of the contract period.
ITB 21.1	Disputes that may arise in the performance of the contract shall be settled in accordance with the applicable Laws of Guyana.
ITB 24.1	The duration of the defect's liability period is six (6) months following provisional acceptance.

GENERAL CONDITIONS OF CONTRACT (GCC)

The General Conditions are the Standard General Conditions of Contract. No alteration shall be made on the pages of these Conditions. The Procuring Entity, when amending or supplementing the General Conditions of Contract should do so only in the *Special Conditions of Contract*. Any amendment or addenda of the General Conditions of Contract shall conform to the legislation of Guyana.

1. Definitions and Application

1.1 This Contract lists below the terms that have the following interpretation:

(a) **"Contract"** means the agreement entered into between the Procuring Entity and the Supplier, as recorded in the Form of Contract signed by the parties, including all attachments and appendices thereto and all the documents referenced therein.

(b) **"Contract Price"** means the price payable to the Supplier under the Contract for complete and proper performance of his contractual obligations.

(c) **"Goods"** means the item (s) referred to in the Schedule of Requirements contained in the Bid Solicitation Document.

(d) **"GCC"** - means the General Conditions of Contract contained in this Section.

(e) **"SCC"** means the Special Conditions of Contract.

(f) **"Procuring Entity"** means the Procuring entity carrying out the procurement of Goods, specified in the SCC.

(g) **"Supplier"** means an individual or legal entity, or a combination of any abovementioned forms which operate under the existing agreement as a joint venture and supply the Goods and Services under the Contract.

(h) **"Day"** means calendar day.

1.2 The *General Conditions of Contract* shall apply in the procurement of goods; the specific amendment, addition and alteration shall be indicated in the *Special Conditions of Contract*.

1.3 Warranty requirements are as specified in the *Special Conditions of Contract*.

2. Contract Documents

2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The contract shall be read as a whole.

3. Performance Security

3.1 If required by the SCC, within seven (7) days of receipt of notification of award, the successful Bidder shall furnish the Procuring Entity with the performance security the amount and form of which are indicated in the SCC.

4. Packing

4.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to final destination specified in the Contract, and as may be required by the *Special Conditions of Contract*.

5. Delivery, Transportation, Mobilization Advance

5.1 The Supplier must deliver the Goods within the periods and to the Destination point indicated in the *Schedule of Requirements* and shall provide the documentation indicated in the SCC. Subject to the SCC, transportation of the Goods to the place specified by the Procuring Entity shall be carried out and paid by the Supplier and related costs shall be included in the Contract Price.

6. Payment

6.1 The payment to the Supplier for the Goods delivered shall be made in accordance with the Contract in the form and within the periods specified in the SCC.

6.2 If the Procuring Entity does not pay the Supplier the sum due within the periods specified in the Contract, in that case the Procuring Entity shall pay the Supplier [interest at the rate specified or determined pursuant to the *Special Conditions of Contract*.

7. Prices

7.1 Prices established by the Supplier in the Contract for goods delivered shall not vary from the prices quoted by the Supplier in his bid.

8. Assignment

8.1 The Supplier shall not assign, in whole or in part, his obligations under the Contract to a third party for the execution without the Procuring Entity's prior written consent.

9. Delays in the Supplier's Performance and Liquidated Damages

9.1 Delivery of the Goods shall be carried out by the Supplier, in accordance with the schedule indicated by the Procuring Entity in the *Schedule of Requirements*.

9.2 Except for provided under GCC Clause 13, the delay in the Supplier's performance of their delivery obligations shall render the Supplier liable for payment of liquidated damages in the amount specified in the SCC, unless an extension of time is agreed upon by the parties without application of liquidated damages. Once the maximum deduction specified in the SCC is reached, the Procuring Entity may consider termination of the Contract, in accordance with Clause 10 of the *General Conditions of Contract*.

10. Termination

10.1 The Procuring Entity, without detriment to any other sanctions of infringement of the provisions of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part:

(a) if the Supplier fails to deliver a portion or all of the Goods within the periods provided for in the

Contract, or within an extension period of that Contract, or to perform any of his obligations under the Contract.

(b) if bankruptcy procedures are applied to the Supplier, or it is declared insolvent.

(c) if the Supplier, in the Procuring Entity's opinion, has engaged in corrupt, fraudulent, collusive or coercive practices when entering into or executing the Contract.

(d) If the Procuring Entity deems that continued implementation of the contract would no longer be expedient from the standpoint of the public interest.

10.2 The notice of termination shall specify the reason of termination, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

10.3 Notwithstanding clauses 9 and 10.1(d), the Supplier shall not forfeit their performance security, and shall not be liable for payment of liquidated damages, or termination for default, if delay in executing the Contract or failure to perform obligations under the Contract is the result of an event of force majeure. When force majeure arises, the Supplier shall promptly notify the Procuring Entity in writing of such circumstance and its causes.

10.4 When the contract is terminated in accordance with clause 10.1(d), the Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Procuring Entity at the Contract terms and prices. For the remaining Goods, the Procuring Entity may elect:

(a) to have any portion completed and delivered at the Contract terms and prices; and/or

(b) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

11. Settlement of Disputes

11.1 If any dispute or disagreement arises between the Procuring Entity and the Supplier for the Contract or in connection with it, the parties shall make every effort to resolve the dispute or disagreement amicably by mutual consultation.

11.2 If during twenty one (21) days, the parties failed to resolve their dispute or disagreement by mutual consultation; either the Procuring Entity or the Supplier may send the other party the notice of intent to commence arbitration, if an arbitration is incorporated in the Contract in the *Special Conditions of Contract* or otherwise agreed by the parties, or in the Court of General Jurisdiction if no arbitration is envisaged, and no arbitration or litigation in respect of that matter may be commenced unless such notice is given.

Any dispute or disagreement in respect of which the notice of intent is sent to commence trial shall be heard by the [Court of General Jurisdiction].

11.3 Notwithstanding any reference to dispute settlement herein, the parties shall continue to perform their obligations under the Contract, unless they agree otherwise.

12. Applicable Law

12.1 The Contract shall be interpreted in accordance with the Laws of Guyana.

13. Formal Communication between the Procuring Entity and the Supplier

13.1 Any notice given by one party to the other pursuant to the Contract shall be in force if it is done in writing and sent at the address of other party in the SCC.

13.2 A notice shall be effective when delivered or on the specified date, whichever is later.

14. Taxes and Duties

14.1 The Supplier shall be fully responsible for all taxes, duties, license taxes, etc., levied in accordance with the legislation of Guyana, and subject to the application of INCOTERMS in accordance with the SCC.

15. Retention

15.1 No retention shall be applied on consumables, but warranties, guarantees and expiry dates to apply.

15.2 Retention on fixed assets shall be determined by the procuring entity on a case-by-case basis.

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract shall supplement the *General Conditions of Contract*. Whenever there is a conflict, the provisions herein shall prevail over those in the *General Conditions of Contract*.

GCC Clause No.	Special Conditions of Contract
1.1	**Definitions** The Procuring Entity is the Guyana Energy Agency, 295 Quamina Street, South Cummingsburg, Georgetown, tel:226-0394, Fax:226-5227, gea@gea.gov.gy. The Supplier is_____ *(indicate full name, legal address, phone, fax and e-mail of Supplier)* The Subject of procurement is the **Transportation, Installation and Commissioning of Solar Photovoltaic (PV) systems at 14 Sites in the Hinterland**
3.1	**Performance Security** The amount and form of Performance Security is 10% of the contract price. The performance bond shall be issued from a local commercial bank within 14 days of signing of the contract. The bond shall be valid for the entirety of the contract period.
4.1	**Packing:** The Supplier shall provide such packing of the Goods as is required to prevent damage or deterioration during transit to the final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit.
6.1	**Payment schedule:** (a) Ten percent (10%) of the contract price within 14 days of signing the contract and the submission of the performance bond. (b) Thirty percent (30%) of the contract price upon completion of transportation of the solar system materials to the sites. (c) Eighty percent (50%) of the contract price upon the completion of the installation/s and physical verification by the GEA that the system complies with the technical specifications/requirements. (d) Ten percent (10)% of the contract price upon expiry of the defects liability period barring the correction of defects.
9.2	**Liquidated Damages** Applicable rate: 0.05% per week for untimely execution of order. Maximum deduction: 10% of the delayed works/delivery
11.2	**Settlement of Disputes** Disputes arising out of or in connection with the Contract shall be settled in accordance with the Laws of Guyana.
14.1	**Taxes and Duties** The version edition of INCOTERMS shall be: 2010
16.1	**Defects Liability** The duration of the defect's liability period is 6 months following provisional acceptance. During this period, the contractor will be responsible for rectifying any defects free of cost to the Procuring Entity.

SCHEDULE OF REQUIREMENTS/DELIVERY SCHEDULE

The delivery schedule expressed as days specifies hereafter the date of delivery to destination point. In column "the delivery schedule", the Procuring Entity shall indicate the date from which schedule starts. It should be either the date of award, or the date of signing of Contract, or the date of opening of letter of credit, or the date of confirming the letter of credit (subject to circumstances). The Form of Bid shall specify only reference to that schedule.

Site No.	Brief Description of services	Physical Unit	Place of Delivery	Procuring Entity's Completion Schedule (----days as of signing of the contract	Bidder's Offered Completion Schedule	
					Earliest Delivery	Latest Delivery
	Transportation, Installation and Commissioning of Solar Photovoltaic (PV) systems at 14 Sites in the Hinterland					
1	Upper Bonasika Health Post	each	Upper Bonasika Creek, East Bank Essequibo, Region 3	90 days		
2	Lower Bonisika Health Post and Living Quarters	each	Lower Bonasika Creek, East Bank Essequibo, Region 3	90 days		
3	Sand Hill Nursery/Primary School	each	Sand Hills, West Bank Demerara, Region 3	90 days		
4	Long Creek Community Centre and Multipurpose Building	each	Long Creek, Linden-Soesdyke Highway, Region 4	90 days		
5	Moblissa Health Post and Living Quarters	each	Moblissa, Linden-Soesdyke Highway, Region 4	90 days		
6	Moblissa Community Centre	each	Moblissa, Linden-Soesdyke Highway, Region 4	90 days		
7	Long Creek Primary	each	Long Creek, Linden-Soesdyke Highway, Region 4	90 days		
8	Low Wood Health Post	each	Low Wood, East Bank Demerara, Region 4	90 days		
9	Itabali Health Centre	each	Itabali Landing, Lower Mazaruni River, Region 7	90 days		
10	Issano Teachers' Quarters	each	Issano Landing, Middle Mazaruni River, Region 7	90 days		
11	Issano Primary School	each	Issano Landing, Middle Mazaruni River, Region 7	90 days		
12	Issano Police Station	each	Issano Landing, Middle Mazaruni River, Region 7	90 days		

13	Abbau Village Office	each	Abbau Village, Region 7	90 days		
14	Kako Women and Youth Centre	each	Kako, Region 7	90 days		

Duly authorized to sign for and on behalf of

_____

(name of Bidder)

_____ _____ _____

(Full name *(Title)* *(Signature and seal)*

TECHNICAL SPECIFICATIONS

1. Background and Justification

Under Guyana's Low Carbon Development Strategy, the Government of Guyana is advancing several renewable energy initiatives, including the installation of solar photovoltaic (PV) technology and associated Battery Energy Storage Systems (BESS) in various regions of Guyana.

The Solar PV System arrays are to be installed on the roof of existing public buildings and the inverter/s, battery energy storage system, and balance of system (BoS) equipment within a battery/inverter hut built by the installer. The solar PV system is expected to provide electricity to the building (and other public buildings nearby where applicable). All of the solar PV materials required for this project will be provided by the GEA with the exception of tools and auxiliary devices. Materials and tools required to build the battery/inverter hut will be provided by the installer.

In this regard therefore, the Guyana Energy Agency is looking for the following:

Transporting, installing and commissioning the Solar PV systems - The bidder is required to install the solar PVs on the roof of these buildings. Bidders are required to identify in their bid submission suitable certified and qualified **solar PV system installer(s)/ technician** to offer services, in accordance with these Scope of Services outlined in (3) below: CVs and relevant qualification must be provided. (see Qualification and Experience below for details).

2. Objective

The objective of the Solar PV System Installer(s) is/are to transport, install and commission the solar PV systems required by the Guyana Energy Agency within the requirements of the NEC code, the Government Electrical Inspectorate (GEI) and the Guyana Energy Agency (GEA).

3. Scope of service for the Installation of solar PV systems

1. A detailed quantitative list of materials and equipment for the solar PV system/s to be installed will be provided to the solar PV system installer by the GEA.
2. Tools and auxiliary devices required to install the solar PV systems will be the sole responsibility of the installer.
3. If additional materials are required, this must be communicated to the GEA for approval before acquisition.
4. Official receipts for all items/materials with reasonable market rates must be provided to the GEA for review and subsequent reimbursement of the funds.
5. Transportation of the solar PV system/s equipment and materials from the GEA's main office to the installation site will be the sole responsibility of the solar PV system installer.
6. Damage to equipment during transportation will be covered/replaced/compensated for by the solar PV system installer.

7. The GEA will provide an electrical schematic of the solar PV system/s to the solar PV system installer as a guide for the solar PV system installations. The installer will review the schematic and raise any concerns with the GEA before the installation works commence.
8. A site visit shall be conducted by the solar PV system installer accompanied by the GEA before the installation of the solar PV system. Logistics, including transportation, accommodation and meals, for this visit will be covered by each party separately.
9. The placement and orientation of the solar PV array, the battery/inverter hut, inverters, battery energy storage system and BoS must be decided on by the solar PV system installer in collaboration with a GEA energy engineer.
10. A battery/inverter concrete hut/structure is required to be **constructed by the installer** according to the specifications provided in **Annex 1**.
11. The walls of the concrete hut/structure must not be within 6 feet of the walls of any adjacent buildings.
12. The maximum duration for each solar PV system installation will be one (1) week commencing from the day the materials are uplifted from GEA's main office to commissioning of the solar PV system. For example, if materials are uplifted for three solar PV systems, the systems should be commissioned within three weeks of uplifting same.
13. Installation of the solar PV systems must be done in accordance with the NEC 2023 requirements, Government Electrical Inspectorate (GEI) requirements, industry standards and considering recommendations from the equipment manufacturers/installation manuals.

14. **COMPLETION OF WORKS:**
    a. Installation works will be considered completed when:
        i. Operational verification of all components has been approved by the GEA.
        ii. PV Array Output, BESS Charge/Discharge and Inverter output are tested and operate within the requirements of the system.
        iii. Power output requirements to the interconnected buildings have been tested and verified working satisfactorily.
        iv. Monitoring of the system via the online/onsite monitoring platform has been established, tested and verified working satisfactorily where applicable.
15. A certificate of inspection (COI) from the GEI must be provided for each system within 1 month of completion of every solar PV system installation.

4. Qualifications and Experience of the Solar PV System Installer

1. The installer(s) must have a valid electrical contractor license issued by GEI or its equivalent.
2. The installer(s) must provide documentary evidence of their experience in installing solar PV systems.

5. Details of the Solar PV Systems to be Installed:

Solar PV System, Location	PV Array capacity (kWp), Battery capacity (kWh)	Remarks
1.Upper Bonasika Health Post	3.3kWp, 19.2kWh	1. The solar PV array is to be installed on the roof of the Health Post. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the Health Post building and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the health post with 70A Triplex overhead service conductors.
2.Lower Bonisika Health Post and Living Quarters	4.95kWp, 28.8kWh	1. The solar PV array is to be installed on the roof of the Health Post. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the Health Post and Living Quarters buildings and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the Health Post and

		Living Quarters with 70A Triplex overhead service conductors.
3.Sand Hill Nursery/Primary School	3.3kWp, 19.2kWh	1. The solar PV array is to be installed on the roof of the Primary School. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the school building and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the school with 70A Triplex overhead service conductors.
4.Long Creek Community Centre and Multipurpose Building	4.95kWp, 28.8kWh	1. The solar PV array is to be installed on the roof of the Community Centre. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the Community Centre and Multipurpose buildings and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the Community Centre and Multipurpose buildings with 70A Triplex overhead service conductors.
5.Mobiissa Health Post and Living	4.95kWp, 28.8kWh	1. The solar PV array is to be installed on the roof of the Health Post.

Quarters		2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the Health Post and Living Quarters buildings and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the Health Post and Living Quarters with 70A Triplex overhead service conductors.
6.Moblissa Community Centre	3.3kWp, 19.2kWh	1. The solar PV array is to be installed on the roof of the Community Centre. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the community Centre building and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the community Centre with 70A Triplex overhead service conductors.
7.Long Creek Primary School	3.3kWp, 19.2kWh	1. The solar PV array is to be installed on the roof of the Primary School. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided.

		3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the school building and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the school with 70A Triplex overhead service conductors.
8.Low Wood Health Post	3.3kWp, 19.2kWh	1. The solar PV array is to be installed on the roof of the Health Post. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the Health Post building and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the health post with 70A Triplex overhead service conductors.
9.Itabali Health Centre	3.3kWp, 19.2kWh	1. The solar PV array is to be installed on the roof of the Health Centre. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the Health Centre building and interconnection of the power supply to the building's load panel.

		5. The electricity from the solar system is to be extended and connected to the health Centre with 70A Triplex overhead service conductors.
10.Issano Teachers Quarters	3.3kWp, 19.2kWh	1. The solar PV array is to be installed on the roof of the Teachers' Quarters. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the teachers' quarters building and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the teachers' quarters with 70A Triplex overhead service conductors.
11.Issano Primary School	3.3kWp, 19.2kWh	1. The solar PV array is to be installed on the roof of the Primary School. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the school building and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the school with 70A Triplex overhead service conductors.
12.Issano Police Station	3.3kWp, 19.2kWh	1. The solar PV array is to be installed on the roof of the Police Station. 2. A concrete hut to house the solar system

		equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the Police Station and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the Police Satation with 70A Triplex overhead service conductors.
13.Abbau Village Office	3.3kWp, 19.2kWh	1. The solar PV array is to be installed on the roof of the Village Office. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut. 4. Installation of electrical service equipment at the Village Office building and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the Village Office with 70A Triplex overhead service conductors.
14.Kako Women and Youth Centre	4.95kWp, 28.8kWh	1. The solar PV array is to be installed on the roof of the Women and Youth Centre. 2. A concrete hut to house the solar system equipment is to be built at the site by the contractor according to the technical specifications provided. 3. The batteries, inverter and electrical panels are to be installed in the battery/inverter concrete hut.

		4. Installation of electrical service equipment at the Women and Youth Centre building and interconnection of the power supply to the building's load panel. 5. The electricity from the solar system is to be extended and connected to the Women and Youth Centre with 70A Triplex overhead service conductors.

6. Preliminary list of materials for the solar PV systems

3.3kWp Solar PV Array with 19.2kWh SLA Battery Bank			
Item	Description	Qty	Unit
1	Amosolar 550W Crystalline Solar PV Module	6	no.
2	MC4 Connector Male	1	no.
3	MC4 Connector Female	1	no.
4	6mm UV resistant PV wire	150	ft.
5	4 String 600VDC Combiner Box with 20A disconnect/protection	1	no.
6	MidNite Surge Protector_SPD_600VDC	1	no.
7	PV module mounting rails (14ft)	4	no.
8	Rail splice with grounding	2	no.
9	L-foot	12	no.
10	Hanger bolt	12	no.
11	Mid-clamp with grounding teeth	10	no.
12	End-clamp with grounding teeth	4	no.
13	Array grounding lug	2	no.
14	PV wire stainless steel clip	24	no.
15	DEYE all-in-one Inverter_SUN-5K-SG01LP1-US	1	no.
16	MidNite Surge Protector_SPD_300VDC/AC	1	no.
17	Amosolar SLA Battery, 12V, 200AH	8	no.
18	MidNite Solar DC Disconnect_MNDC125	1	no.
19	Battery Cable 70mm (2/0 AWG)	36	ft.
20	Lug for 2/0 cable	24	no.
21	2 shelf metal battery rack	1	no.
22	32mm PVC conduit	4	lt.
23	32mm PVC flex conduit	3	m
24	32mm PVC conduit coupler	4	no.
25	32mm PVC conduit bend	6	no.
26	32mm PVC conduit male adaptor	6	no.
27	32mm PVC conduit metal clamp/strap	15	no.
28	20mm PVC conduit	3	lt.
29	20mm PVC flex conduit	5	m
30	20mm PVC conduit coupler	4	no.
31	20mm PVC conduit bend	6	no.
32	20mm PVC conduit male adaptor	6	no.
33	20mm PVC conduit metal clamp/strap	10	no.
34	100mm X 100mm galvanized trunking	1	lt.
35	1 x 10mm2 cable (yellow-green)	1	roll
36	1 x 6mm2 cable (black, red or white)	100	ft.
37	6 ft Earth Rod with Clamp	2	no.
38	3x3 junction box	2	no.
39	2-4 panel, 125A	2	no.
40	4-8 panel, 125A	1	no.
41	15A DP Breaker	3	no.
42	20A DP Breaker	1	no.
43	70A Overhead Triplex Service Conductors	150	ft.

44	Pin Insulator	2	no.
45	Insulated Piercing Connector	6	no.
46	Grounding bar	2	no.
47	Grounding lug, for 10mm conductor	4	no.
48	Solar PV system with BESS lable kit	1	set

4.95kWp Solar PV Array with 28.8kWh SLA Battery Bank			
Item	**Description**	**Qty**	**Unit**
1	Amosolar 550W Crystalline Solar PV Module	9	no.
2	MC4 Connector Male	1	no.
3	MC4 Connector Female	1	no.
4	6mm UV resistant PV wire	160	ft.
5	4 String 600VDC Combiner Box with 20A disconnect/protection	1	no.
6	MidNite Surge Protector_SPD_600VDC	1	no.
7	PV module mounting rails (14ft)	6	no.
8	Rail splice with grounding	4	no.
9	L-foot	14	no.
10	Hanger bolt	14	no.
11	Mid-clamp with grounding teeth	16	no.
12	End-clamp with grounding teeth	4	no.
13	Array grounding lug	2	no.
14	PV wire stainless steel clip	36	no.
15	DEYE all-in-one Inverter_SUN-5K-SG01LP1-US	1	no.
16	MidNite Surge Protector_SPD_300VDC/AC	1	no.
17	Amosolar SLA Battery, 12V, 200AH	12	no.
18	MidNite Solar DC Disconnect_MNDC175	1	no.
19	Battery Cable 70mm (2/0 AWG)	42	ft.
20	Lug for 2/0 cable	36	no.
21	3 shelf metal battery rack	1	no.
22	32mm PVC conduit	4	lt.
23	32mm PVC flex conduit	3	m
24	32mm PVC conduit coupler	4	no.
25	32mm PVC conduit bend	6	no.
26	32mm PVC conduit male adaptor	6	no.
27	32mm PVC conduit metal clamp/strap	15	no.
28	20mm PVC conduit	3	lt.
29	20mm PVC flex conduit	5	m
30	20mm PVC conduit coupler	4	no.
31	20mm PVC conduit bend	6	no.
32	20mm PVC conduit male adaptor	6	no.
33	20mm PVC conduit metal clamp/strap	10	no.
34	100mm X 100mm galvanized trunking	1	lt.
35	1 x 10mm2 cable (yellow-green)	1	roll
36	1 x 6mm2 cable (black, red or white)	100	ft.
37	6 ft Earth Rod with Clamp	2	no.

38	3x3 junction box	2	no.
39	2-4 panel, 125A	2	no.
40	4-8 panel, 125A	1	no.
41	15A DP Breaker	3	no.
42	20A DP Breaker	1	no.
43	70A Overhead Triplex Service Conductors	150	ft.
44	Pin Insulator	2	no.
45	Insulated Piercing Connector	6	no.
46	Grounding bar	2	no.
47	Grounding lug, for 10mm conductor	4	no.
48	Solar PV system with BESS lable kit	1	set

7. Preliminary Schematics for the Solar PV Systems

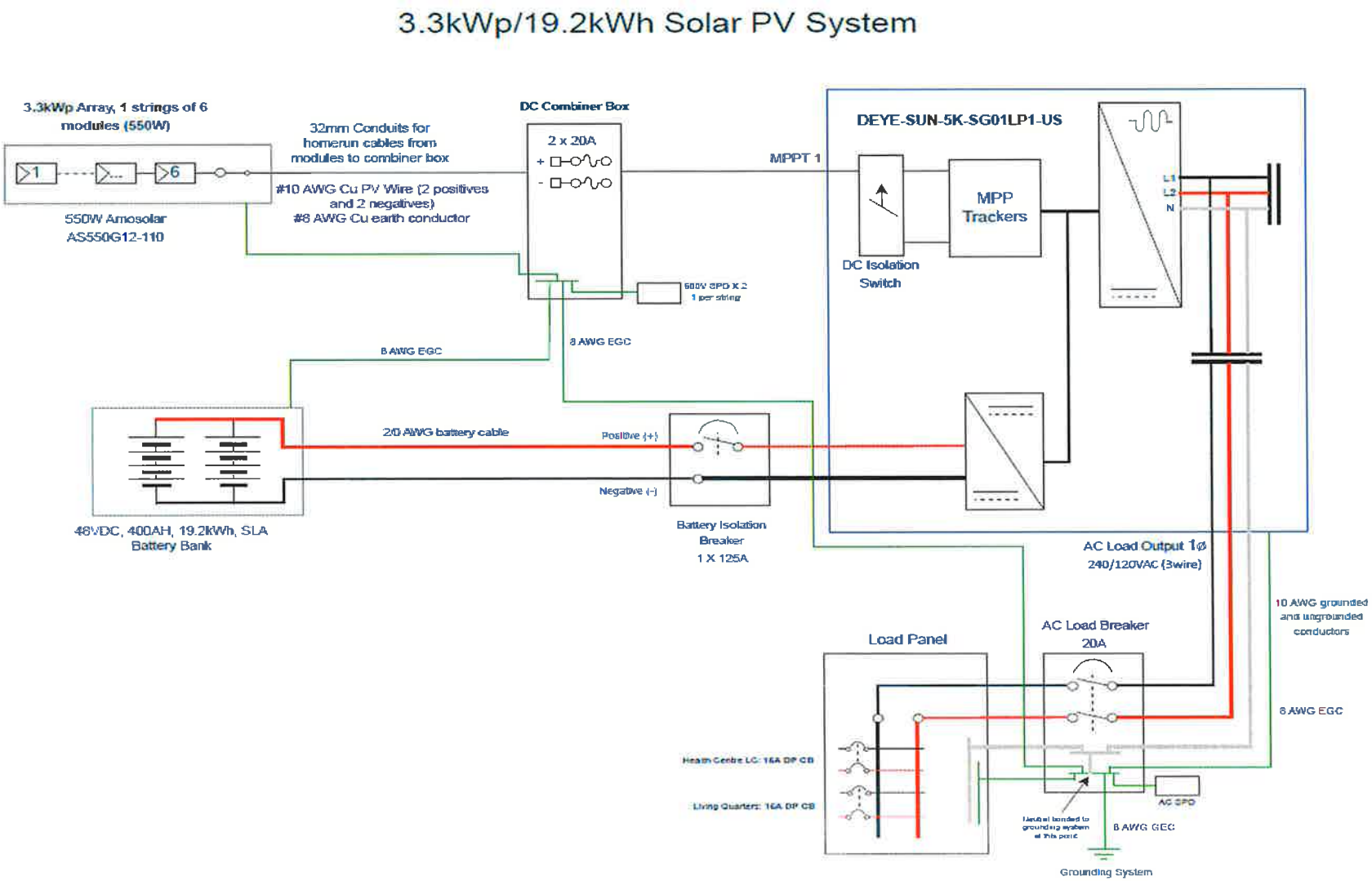

Figure 1: Schematics for 3.3kWp/19.2kWh Solar PV System

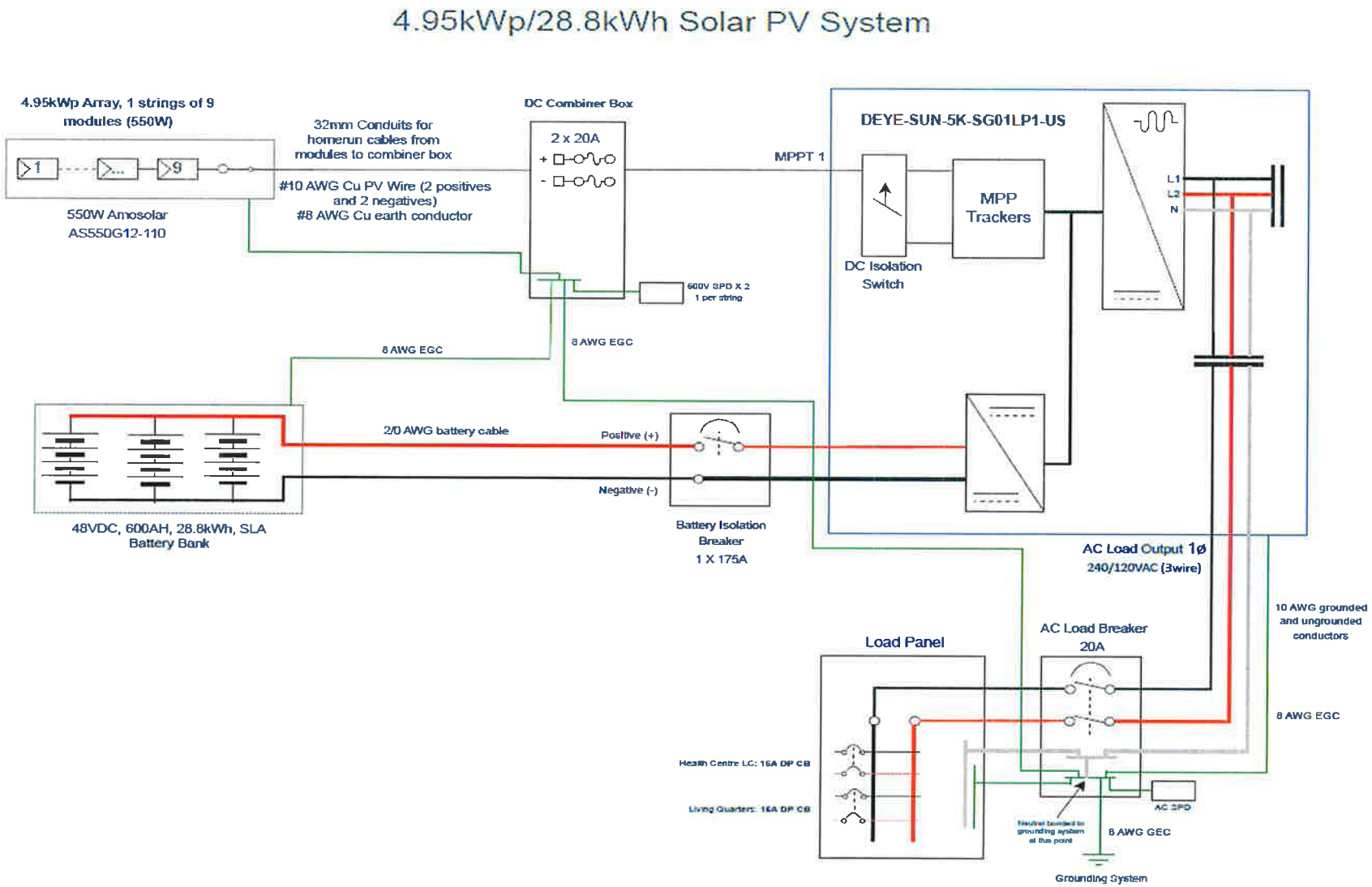

Figure 2: Schematics for 4.95kWp/28.8kWh Solar PV System

8. Coordination

The Solar PV Installer will report to the Chief Executive Officer or any other assigned representative of the Guyana Energy Agency, on all matters relating to the execution of this assignment.

CIVIL WORKS TECHNICAL SPECIFICATIONS

1. General
2. Concrete
3. Earthworks, Excavation and Site Clearance
4. Plaster Work and Rendering
5. Painting Of Building Works
6. Masonry

Specifications - Technical

SECTION 1 - General

1.1 Description of Works

The Works involve the provision of all materials, labour, tools and equipment for the Transportation. Installation and Commissioning of Solar Photovoltaic (PV) systems for the Guyana Energy Agency at three (3) Sites which includes the following works to be done:

General carpentry works, concrete works, steel works, painting, plumbing and electrical works

1.2 National Specifications

Certain specifications issued by widely recognized bodies are referred to in this Specification. Such Specification shall be defined and referred to as National Specifications as hereunder and shall be the latest editions of such National Specifications available twenty-eight (28) days prior to the date set for the submission of Tenders, unless otherwise noted on the plans.

In referring to National Specifications, the following abbreviations are used:

BS	British Standards
BSCP or CP	British Standards Code of Practice
AASHTO	American Association of State Highway and Transportation Officials
ASTM	American Society of Testing and Materials

1.3 Units

In general, the Contract Documents and this Specification have been drafted using Imperial System of units where the various National Standards or Specifications are written using metric (SI) units or where metric units occur in the Specification text, the equivalent Imperial Units or values may be employed subject to approval of the Engineer.

1.4 Abbreviations

The following abbreviations are used in this Specification:

Units	Abbreviation
Millimetre	mm
Inch	in.
Linear Foot	ln.ft. or ln.ft.
Yard	yd.
Square Yard	sq. yd.
Cubic Yard	cu. Yd.
Cubic Foot	cu. Ft.
Pound	lb.
Gallon	gall.
Number	no. nr.
Diameter	dia.
Hours	hrs.
Pounds per Square Inch	p.s.i.
Newtons per Square Millimetre	N/mm
Kip	k (= 1000 lbs.)
Kips per Square Inch	k.s.i.
Short – Ton (2000 lbs.), Unless otherwise noted.	T or Ton

1.5 Language and Spelling

The customary language for this project is English. Spelling maybe in UK – English or US – English appropriate to the subject matter, specification or drawing.

In all cases, the use of one customary spelling implies the other and vice – versa.

1.6 Method of Construction

The Contractor shall submit to the Engineer, no later than seven (7) days from the date of award of the Contract, a general description of his proposed arrangements and methods for the execution of the works, including among other things, temporary offices and other facilities, constructional plant and its intended production output, working shift arrangements, labour strength and supervision arrangements and a supply of materials.

During the execution of the works, the Contractor shall also submit to the Engineer full and detailed particulars of any proposed amendments to the arrangements and methods submitted in accordance with the foregoing.
The Engineer's normal working hours shall be confirmed by the Contractor. Sundays and Public Holidays will normally be set aside for rest. If the Contractor wishes to execute permanent works outside these hours, he shall obtain the written permission of the Engineer at least one full working day in advance to enable the Engineer to make provision for supervision of such work.

1.7 Notice of Operation

No operation shall be carried out without full and complete notice, having been given to the Engineer by the Contractor, at least twenty-four hours in advance of time of the operation, to enable the Engineer to make such

arrangements as he may deem necessary for its inspection and checking. Each stage of the works to be checked shall be agreed with by the Engineer.

The Contractor shall give the Engineer not less than one full working days' notice in writing of his intention to set out or give levels for any part of the works in order that arrangements may be made for checking.

1.8 Transport for Workmen

The Contractor shall include his rates and prices for all transport of staff and workmen to and from various parts of and upon or in connection with the works and all costs incurred in securing, recruiting and transporting labour to and from the Site.

1.9 Temporary Works

After the Contract is placed and before work commences, the Contractor shall submit drawings to the Engineer showing the general arrangement of his Temporary Works with diagrams and description showing how he proposes to execute such Temporary Works and how they fit into his programme for the Permanent Works, all to be subject to adjustment and approval by the Engineer. The whole Temporary Works and the plant and appliances used, will be the liability of the Contractor in regard to their construction, sufficiency, safety maintenance and removal on completion of the Contract and approval by the Engineer shall in no way relieve the Contractor of his liability. Examination by the Engineer of the Contractor's and/or subcontractors' Temporary Works or of the drawings connected therewith shall not absolve the Contractor from any liability upon him by the provisions of the Contract.

1.10 Construction Generally

The following general requirements shall apply: -

When night work is authorized by the Engineer or his Representative, the Contractor shall provide adequate lighting where work is being executed at night and shall provide and install any additional lighting, which the Engineer may require in order to gain access to watch and supervise the works and carry out any testing and examination of materials.

Materials available on the site or materials made available or supplied by the Engineer shall be used solely for the execution of the works.
The Contractor shall minimize the pollution of and disturbance to lands, roads and other places on and around the site. No trees or other vegetation shall be removed except if necessary, for the works.

The Contractor shall ensure that access is provided to all properties adjacent to the site for the duration of the Contract.

The Contractor shall take all reasonable precautions: -

(a) In connection with any rivers, streams, waterways, drains, watercourses, lakes and the like to prevent sitting, flooding, erosion of beds and banks, and pollution of the water so as to affect adversely the quality or appearance thereof or cause injury or death to human, animal or plant life

(b) In connection with underground water resources (including percolating water) prevent any interference with the supply to or abstraction from such sources and to prevent pollution of as to affect adversely the quality thereof.

The Contractor shall be responsible for acquainting himself with observing all current State Ordinances, by – Laws or Regulations including those relating to training levies and similar taxes.

1.11 Health, Safety and Accident

The Contractor shall ensure, so far as is reasonably practicable and to the satisfaction of the Engineer, the health, safety and welfare at work of his employees including those of his subcontractors and of all other persons on site. His responsibilities shall include: -

(a) The provision and maintenance of constructional plant and systems of work that are lighted, safe and without risks to health.

(b) The execution of suitable arrangements for ensuring safety and absence of risks to health in connection with the use, handling, storage, transport and disposal of articles and substances.

(c) The provision of protective clothing and equipment first aid stations with such personnel and equipment is necessary and such information, instruction, training and supervision are necessary to ensure the health and safety at work of all persons employed on the works all in accordance with applicable laws.

(d) Designation as Safety Officer of one of his senior staff who shall have specific knowledge of safety regulations and experience of safety precaution on similar works and who shall advise on all matters affecting the safety of workmen and on measures to be taken to promote safety.

(e) The provision and maintenance of access to all places on the site in a condition that is safe and without risk of injury.

(f) The provision of adequate waterborne sanitation, refuse collection and disposal, complying with all Application Laws and By Laws and to the satisfaction of the Engineer, for all houses, offices, workshops and laboratories erected on site.

(g) The provision of an adequate number of suitable latrines and other sanitary arrangements at sites where work is in progress and the execution of appropriate measures in consultation with the appropriate Public Health Authority to control within the site, mosquitoes, flies and pests including the application of suitable chemicals to breeding areas.

(h) Reporting details of any accident to the Engineer and the police, if appropriate, as soon as possible.

1.12 Protection of Existing Works and Services

(a) The Contractor shall acquaint himself with the position of all existing services such as sewers, surface water drains, and cables for electricity and telephone, telephone and lighting poles, water main and the like before commencing any work likely to affect the existing services.

(b) The Contractor shall be held responsible for injury to existing works or services, and shall indemnify the Employer against any claims in this respect (including consequential damages). The Contractor shall be responsible for the reinstatement of the services so affected.

(c) In all cases where such works or services are exposed, they shall be properly shored, hung up or otherwise protected. Special care must be exercised in filling and compacting the ground under mains, cables, etc., so to leave uncovered exposed water meters, stopcock boxes and similar items.

(d) The Contractor's attention is drawn to BS 162, which gives safe clearance for the various voltages where work is to be carried out in the vicinity of overhead power lines.

(e) Notwithstanding the foregoing requirements, and without reducing the Contractor's responsibility, the Contractor shall inform the Engineer immediately if any existing works or services are exposed, located or damaged.

(f) All costs which may be incurred by the Contractor as a result of programming and coordinating work to enable any alterations to the services to be carried out and the cost of any safety precautions which shall be deemed necessary due to the proximity of the works to the power lines shall be at the Contractor's expense.

SECTION 2 - Concrete

2.1 Cement

The cement used in the Works shall be ordinary Portland cement (OPC) complying with BS 12.
The Contractor shall supply samples of cement, when requested by the Engineer, both from the Contractor's store on Site and from the place of supply.

2.2 Aggregate

Aggregates for concrete shall comply with BS 882 at the time of use. Fine aggregate shall consist of natural sand. The Engineer will permit the addition of suitable crushed rock where in his opinion it is impracticable to obtain the required grading of the combined aggregates otherwise than by such addition. The maximum quantities of clay, silt and fine dust shall, in any event, not exceed 3% by weight as determined by the test given in Clause 7.2.4 of BS 812: Part 1.

Coarse aggregate shall comply with the requirements in Table 1 of BS 882 for graded aggregate to the nominal maximum size specified for the appropriate class of concrete.

The aggregates shall be such that concrete, when made and tested in accordance with Building Research Station Digest 35 (2nd series), shall not show a drying shrinkage greater than 0.065%.

Immediately after commencement of the Works the Contractor shall make tests to the satisfaction of the Engineer before the Engineer will give approval to the source of aggregate proposed by the Contractor. Alternatively, and subject to the approval of the circumstance by the Engineer, the Contractor may submit a certificate from an independent laboratory.

Unless otherwise specified, separate fine aggregate and ¾ in. nominal maximum size coarse aggregate shall be used.

During the performance of the Contract, the Contractor shall supply samples of aggregates when required by the Engineer (the samples shall be taken in accordance with BS 812) at a frequency at least once weekly at each source of each grading approved by the Engineer.

2.3 Water

The water used for making and curing concrete shall be from a source approved by the Engineer and at the time of use shall be free from salinity and polluting matter in any quantity.

2.4 Additives

Concrete shall be made from cement, aggregate and water as specified. No other ingredient shall be mixed with the concrete or mortar without the Engineer's approval.

2.5 Chemicals in Materials

The total sulphate content, whether as gypsum or more soluble salts, of concrete ingredients, shall together not exceed 4% of the weight of cement in the concrete.

The chloride content of concrete ingredients when measured as CI shall together not exceed 0.2% of the weight of cement in the concrete.

2.6 Storage of Materials

The Contractor's arrangements for storing and handling the materials for concrete shall be subject to the approval of the Engineer.

2.7 Formwork

Formwork shall be constructed to obtain the required profiles and surface textures of the structures and be such that it remains rigid during the placing and setting of the concrete.

It shall be fixed in accurate alignment and to the true shape and dimensions of the Permanent Works shown on the Drawings or ordered by the Engineer.

A method of support which would result in holes extending the whole width from face to face of concrete which forms part of the Permanent Works may be permitted at the Engineer's sole discretion. Any such holes shall be made good to the satisfaction of the Engineer and shall be located a minimum of 2 ins. clear of any reinforcement.

No plugs, bolts, wire ties, hold fasts or any other appliance whatsoever, for the purpose of supporting the formwork or reinforcement, shall be fixed permanently into the structure so that they have less cover than the reinforcement or in any way impair the strength or appearance of the work, nor shall they be placed in such a manner that damage to the work would result in the removal of the same at the time of striking the formwork.

Unless otherwise approved, top formwork shall be provided for concrete upper surfaces where the slope exceeds one vertical in three horizontals.

Except where otherwise specified, formwork for concrete faces which will remain exposed in the Permanent Works, shall be "fair finish" formwork, which is to say that it shall be such as will prevent the loss of any ingredients from the concrete and will produce a dense smooth concrete surface without discontinuities of line, texture or appearance.

Except where otherwise specified, formwork for concrete faces which will remain hidden in the Permanent Works, shall be "rough finish" formwork, which is to say that it shall be such as will prevent the loss of any ingredients from the concrete and will produce a dense concrete surface.

Unless otherwise shown on the Drawings, exposed concrete edges shall be formed with a chamfer measuring ¾ in. x ¾ in.

Before each concreting operation is commenced, formwork shall be carefully examined and cleaned.

All formwork in contact with concrete shall be treated with an approved composition before each usage to prevent adhesion of the concrete. Such composition shall be carefully applied in such a manner that there is no contamination of the reinforcement or previously placed concrete by the composition.

Formwork shall only be removed with the permission of the Engineer, and the work of removing it after the receipt of such permission shall be carried out under the personal supervision of a competent foreman. Great care shall be exercised during the removal to avoid shocks to, or reversal of stress in the concrete.

2.8 Reinforcement

Reinforcement shall be deformed mild steel bars and shall comply with BS 4449.

Steel fabric reinforcement shall comply with BS 4483. The reinforcement at the time of incorporation in the Permanent Works shall be clean and free from damage, loose mill scale and loose rust. Bars which have become bent shall not be straightened or re-bent for incorporation in the Works without the Engineer's approval.

2.9 Bending Schedules

Bar bending and fixing shall be according to the Bar Bending Schedule. Alteration to the bending and fixing of bars shall only be made with the approval of the Engineer.

2.10 Fixing Reinforcement

Steel reinforcement shall be cut from straight bars free from links and bends or other damage and bent by experienced competent workmen. Bars of diameter ¾ in. or greater shall be bent in a bending machine designed for that purpose and approved by the Engineer.

The Contractor shall place and fix steel reinforcement accurately in the position shown on the Drawings and shall ensure that it remains rigidly in that position during the placing of concrete. Tack welding, with the prior approval of the Engineer, may be permitted for fixing bars crossing at right angles but no other welding will be allowed. Supports, spacers including PVC spacers and ties shall be subject to the approval of the Engineer. Concrete spacers shall be made of the same quality concrete as that for the work in which they will be embedded. Metallic spacers, fixing clips and tying wire shall be compatible with the material of the reinforcement, and the specified cover shall be maintained. Reinforcement projecting from previously cast concrete and not wholly embedded in concrete shall not be bent and re-bent or reshaped without the prior approval of the Engineer.

The main wires of adjacent sheets of steel fabric reinforcement shall be lapped at least 12 ins. and the transverse wires at least 6 ins.

The Contractor shall not place concrete around reinforcement until the Engineer has inspected and approved it.

2.11 Cover to Reinforcement

Except where otherwise shown on the Drawings or ordered by the Engineer, the concrete cover in the finished Permanent Works to the nearest reinforcement (exclusive of concrete blinding, plasters or decorative finishes) shall be 2 ins. This requirement does not apply to concrete faces in box-outs left for the installation of gates etc.

The distance between any two parallel bars shall not be less than ¼ in. more than the normal maximum size of aggregate in the concrete, except at approved laps.

2.12 Classes of Concrete

The concrete used in the Permanent Works shall be of the class shown on the Drawings or indicated in the Bill of Quantities or ordered by the Engineer. Characteristics of the Classes of concrete which may be used are given in Tables 4.1 and 4.2 herein.

Except where otherwise specified herein, the concrete ingredients, manufacturer, testing and workmanship shall conform to the requirements of BS 8110 and BS 5328.

The water cement ratios referred to in the Specification are the ratios by weight of free water to cement in the mix and are based on the aggregates being in a saturated surface-dry condition.

The Contractor shall not commence concreting in the Permanent Works until a trial mix design for the class of concrete required has been approved by the Engineer pursuant to Clauses 3.13 hereof.

Adjustments to the concrete mix proportions will only be made if, in the opinion of the Engineer such adjustments are necessary.

The Contractor shall not alter the mix proportions or the source of supply of any of the ingredients without having previously obtained the approval of the Engineer.

2.13 Designed Mixed Concrete

Contractor shall determine to the approval of the Engineer the actual proportions of ingredients for each class of concrete. Unless otherwise agreed by the Engineer and except where not consistent with this Specification, such determination shall be in accordance with the recommendations of BS 5328 and BS 8110: Part 1.

The Contractor shall make trial mixes for each class of concrete using the same type of Constructional Plant and the same material as are proposed for the Permanent Works. The Contractor shall give 24 hours' notice of such trials to enable the Engineer's Representative to attend. For each trial mix, three separate batches of concrete shall be made. From each batch of concrete, three 6 ins. concrete cubes shall be made by the Contractor and will be tested by the Engineer at 28 days all in accordance with BS 1881. A trial mix design will be approved by the Engineer.

Note: High workability: slump 65 to 135mm.
Medium workability: slump 50 to 100mm.
Quoted slump values are given as guide only and 2021
be varied to the approval of the Engineer.

2.14 Compliance with Strength Requirements

Of the three cubes made from each sample of fresh concrete in accordance with Clause 14.2 of the Specification, one will be crushed at 7 days and the other two at 28 days. The average of the 28 days strength will be taken as the test result. Compliance with the specified strength requirements shall always be judged on the 28 days tests results. Concrete shall be considered to have failed to comply with the Specification:

(a) if a test result is less than the testing plan minimum specified for that class of concrete, in which case the concrete which it represents shall be broken out and removed by the Contractor when ordered;

(b) if the average of four consecutive test results for that class of concrete shall have failed to exceed the testing and strength as specified in which case no further concrete of that class shall be placed in the Permanent Works until the Contractor shall have discovered the cause of such failure and rectified to the satisfaction of the Engineer.

2.15 Control and Mixing Ingredients

The Contractor shall proportion the ingredients of each batch of concrete accurately by weight. The water shall be added to the aggregates and cement in a mechanical batch mixer; it shall not exceed the amount specified in Table 4.2 hereof and shall otherwise be the minimum amount necessary consistent with complete compaction. The device for measuring water shall show accurately the weight required having regard to the moisture content of the aggregate and shall be so designed that the water supply will be stopped automatically when the correct quantity have been discharged into the mix. The concrete ingredients shall then be mixed thoroughly.

2.16 Truck Mixed Concrete

Truck mixed concrete may be used with the prior approval of the Engineer provided that it complies with the Specification and with BS 5328, and that the water for the mix is added at the sites adjacent to the point of final deposit.

Truck mixers shall comply with BS 4251. The manufacturer's data listed in Appendix B of BS 4251 shall be submitted to the Engineer for approval if requested.

2.17 Transporting, Placing and Compacting Concrete

The concrete shall be handled so that, at the point of deposition, it is of the specified quality and consistency, nothing having been added to it or lost from it since leaving the mixer, and segregation of the concrete ingredients is avoided.

The Contractor shall obtain the approval of the Engineer to these proposed arrangements before commencing concreting. The Contractor shall regard the compaction of the concrete as a work of fundamental important and shall produce a watertight concrete of maximum density compatible with the approved mix. Compaction shall be assisted by the use of mechanical vibrators of the immersion type but shall not involve the vibration of reinforcement or shutters. The number and type of vibrators available for use during each period of concreting shall be to the approval of the Engineer, which will not be given if sufficient stand-by vibrators are not readily available in good working order.

2.18 Surface Finishes Produced Without Formwork

Screeded Finish

The concrete shall be levelled and screeded to produce a uniform plain or ridged surface as required. No further work shall be applied to the surface unless it is a first stage for a Wood Float or Steel Trowel Finish.

Wood Float Finish
The Screeded Finish shall be wood floated under light pressure to eliminate surface irregularities.

Steel Trowel Finish
When the moisture film has disappeared and the concrete has hardened sufficiently to prevent laitance from being worked to the surface, the surface to the Wood Float shall be steel-towelled under firm pressure to produce a dense, smooth, uniform surface free from trowel marks.

Where the type of finish is not given, it shall be Wood Float Finish.

2.19 Surface Finishes Produced with Formwork

Smooth Finish
This finish shall be obtained by use of formwork lined with material approved by the Engineer to provide a smooth finish of uniform texture and appearance. The contractor shall make good any imperfections in the finish as required by the Engineer.

Rough Finish
This finish shall be obtained by the use of molds or properly designed forms of closely-jointed sawn boards. The surface shall be free from substantial voids, honeycombing or other large blemishes.

2.20 Concrete Surfaces to Be Repaired

Except at movement joints, concrete surfaces which are to be covered by further concrete or cement mortar shall be thoroughly cleaned to expose the surface of the aggregate and to remove all laitance by hacking, wire brushing, washing with water or air under pressure or other approve means.

2.21 Concreting in Unfavourable Weather

The Contractor shall not place concrete:

(a) during heavy rain
(b) when the air temperature is more than 43°C.

When the air temperature exceeds 30°C, the Contractor shall not place concrete without the approval of the Engineer and without taking such precautions as may be required to keep the temperature of the concrete during mixing and setting below 30°C, for example, keeping the concrete materials and shutters shaded from the sun and the aggregate and shutters sprayed with water.

Concrete shall not be poured against shutters which are hotter than 86°F (30°C) without approval of the Engineer.

2.22 Curing Concrete

Until it has thoroughly hardened, concrete shall be protected from the harmful effects of wind, sun, temperature and variations of temperature, premature loading or deflection or impact, and aggressive groundwater.

Unless otherwise approved by the Engineer, exposed concrete surface shall be kept continuously moist after casting for not less than 7 days. Such surfaces, immediately upon exposure, shall be covered with thick Hessian or sand or other material as may be approved by the Engineer, which shall be in continuous contact with the concrete and which shall be kept wet to the satisfaction of the Engineer. The use of curing membranes will not be permitted.

2.23 Payment

Item - Blinding Concrete - Sq. yd.
Blinding concrete shall be measured by the plan area below the structure to the thickness shown in the drawings.

Item – Structural Concrete – Cu. yd.
Structural concrete shall be measured to the lines shown on the drawings or to such other lines as ordered by the Engineer.

No deduction in volume shall be made for chamfers, rebates, nosings, bolt holes, joining materials reinforcement.
Concrete used to fill cavities resulting from over excavation shall not be measured for payment.
The rate shall include for the preparation and testing of trial mixes and sampling and testing of approved mixes.

Item – Reinforcement bars - lbs
Steel bar reinforcement shall be measured by mass calculated from the dimensions shown on the drawings. Laps not shown on the drawings or specified on the approved bar bending schedule shall not be paid for.

The rates shall include for cleaning, cutting and bending, binding wire, supports and spaces.

Item - Fabric Reinforcement - Sy. yd.

Fabric reinforcement shall be measured as the area of work covered stating the BS Reference Type. The rate shall include for laps binding wire and supports.

Item – Formwork
– Sy. yd.
Formwork shall be measured by the area of the sides and soffits or the reinforced concrete structural members. The rates shall include for struts, ties and shores that are required

3. Earthworks, Excavation And Site Clearance

3.1 Introduction

This section covers the materials and workmanship for earthworks excavation and site clearance.

3.2 References

Number	Title
BS 1377	Methods of test for soil for Civil Engineering Purposes
BS 6031	Code of Practice for Earthworks
BS 8004	Foundations

3.3 Submittals

The Contractor shall make the following submittals to the Engineer:

(1) Details of material for fill.
- (i) Sulphate content
- (ii) Source
- (iii) Liquid limit and Plasticity index
- (iv) Natural moisture content
- (v) Grading
- (vi) Optimum moisture content and maximum dry density
- (vii) Loss on ignition.

(2) Site plan showing original ground levels.

(3) Details of compaction in fill areas.
- (i) Plant to be used
- (ii) Results of trial (where applicable)
- (iii) Results of in situ density tests.

3.4 Material

3.4.1 Backfill

Unless other wise described, directed or permitted, material for fill shall be naturally occurring and imported only from approved areas. Material intended to provide support to constructional work shall be graded stone,

slag, clinker, gravel or sandy soil containing little or no fines or clay. Fill shall be free from harmful matter. All material for filling shall be approved by the Engineer.

All materials from the excavation shall be removed from the Site by the Contractor, unless other wise directed by the Engineer.

Where the excavation reveals a combination of suitable and unsuitable materials the Contractor shall, unless otherwise agreed by the Engineer, carry out the excavation in such a manner that the suitable materials are excavated separately for use in the Works without contamination by the unsuitable materials.

Any fill material used within 600 mm. of concrete structures or cement bound materials shall have a soluble sulphate content not exceeding 1.4g per litre when tested in accordance with Test 10 BS 1377, unless special precautions to the approval of the Engineer are taken to protect the concrete or cement bound materials.

3.5 Workmanship

3.5.1 Site Clearance

The Contractor shall clear from all areas required for the Works all unwanted materials, debris, etc., but shall take all precautions to prevent damage to existing road construction, existing services, buildings and other facilities in the area which do not need to be demolished.

3.5.2 Grubbing of Trees

Where necessary trees, hedges and roots shall be grubbed up and burnt or otherwise disposed of. Areas to be subsequently landscaped shall have root holes filled, trimmed and levelled.

Where watercourses have to be diverted or filled, the original channels shall be cleared of all vegetable growth and soft deposits and carefully filled in with suitable material deposited and compacted in accordance with the specification.

All surplus material arising from site clearance shall be disposed safely by the Contractor.

The Contractor shall at all times keep the Site free from all surplus materials, rubbish and offensive matter.

3.5.3 Existing Services, Structures, etc.

The Contractor shall, prior to any excavation, ascertain the location and nature of any services structures, underground network, etc. The Contractor is responsible for all damage to services and structures and shall take every precaution to protect them during the period of the Works.

Where services are required to be diverted the Contractor shall make all necessary provision, at his own cost, in liaison with the appropriate authority, to disconnect and re-connect.

The Contractor shall be responsible for protecting existing structures from settlement due to new excavations and shall take any and all preventive or remedial action required.

The Contractor shall provide all strutting and shoring as necessary for the safe execution of the Works.

3.5.4 Excavation

The whole of the excavations shall be carried out to the widths, lengths and depths shown on the Contractor's approved drawings and in accordance with BS 8004 and BS 603. No unlicensed or indiscriminate digging shall be permitted.

Before any excavation has commenced the levels of the original surface shall be agreed with the Engineer and the Contractor and such agreement recorded on drawings which shall be sized by the Engineer and the

Contractor. **The Contractor shall provide all labour and instruments required to obtain and record these levels.**

The Contractor may excavate by any suitable methods and shall allow for the use of types of plant most suited for the material in any location and at any time. The Contractor shall employ only that plant which is suited to' the soils to be handled. He shall not at any time use any plant which damages or reduces the natural strength of the soil either in its in-situ state or during handling and placing or in its final compacted state.

4. Plaster Work and Rendering

4.1 Introduction

This Specification covers the materials and workmanship in connection with rendering.

The Contractor shall provide all labour materials, scaffolding, coverings, equipment, tools, implements and incidentals required to carry out, protect and maintain the works.

4.2 References

Number	Title
BS 12	Specification for ordinary and rapid-hardening Portland cement
BS 405	*Expanded metal (steel)* far *general puposes*
BS 890	Building limes
BS 1199	Building sands
BS 1200	Building sands from natural sources
BS 1369	Metal lathing (steel) for plastering
BS 5262	Code of practice for external rendering finishes
BS 5270	Polyvinyl acetate (pV AC) emulsion bonding agents for internal use with gypsum building plasters

4.3 Submittals

The Contractor shall make the following submittals to the Engineer:

(1) Manufacturer's certificates and test results showing compliance of all materials with the Specification.

4.4 Materials

4.4.1 Cement

Cement shall comply with the requirements of BS 12 or as approved by the Engineer. All cement to be obtained from one source.

4.4.2 Sand

Sand shall comply with the requirements of BS 1199 & 1200.

4.4.3 Lime

Lime shall be hydrated hydrau1ic lime powder to BS 890.

4.4.4 Water

Water shall comply with the specified requirements for, Concrete.

4.4.5 Storage

Cement, lime, and plaster shall all be delivered to site in the manufacturer's sealed bags or containers. They shall be stored in a dry, weatherproof area clear of the ground.

4.4.6 Lathing

Expanded metal lathing shall comply to the requirements of BS 1369 or BS 405.

4.4.7 Bonding Agents

Polyvinyl acetate emulsion type bonding agents shall comply with BS 5270.

4.5 Workmanship

4.5.1 General

Plastering shall be carried out to the requirements of BS 5262.

4.5.2 Mixing

The plaster mix proportions shall be those as directed by the Engineer, selected from trial mixes and panels to be carried out by the Contractor.

All mixing shall be carried out in a clean mechanical mixer or other approved vessel.

All undercoats shall be scored to provide a key for the finish coats.

4.5.3 Curing

Cement rendering shall be kept moist by sprinkling with water at regular intervals for a period of at least three days and until no powdery particles are present, to the satisfaction of the Engineer.

4.5.4 Lathing

Metal lathing shall be fixed with galvanised nails or staples or to the manufacturer's instructions and to the satisfaction of the Engineer.

4.5.5 Bonding Agents

Where requiring or as directed by the Engineer, these shall be applied in strict accordance with the manufacturer's recommendations.

4.6 Inspection

Upon completion of plastering and rendering works the Contractor shall clear away and clean up any splashes, drippings, etc. Any and all defects shall be made good to the satisfaction of the Engineer.

5. Painting Of Building Works

5.1 Introduction

This section describes the painting work for all surfaces except structural steelwork and metalwork.

5.2 References

Number	Title
BS 6150	Code of Practice for Painting of Buildings

5.3 Submittals

The Contractor shall make the following submittals to the Engineer.

(1) Samples of paint finishes and manufacturer's details and recommendations for all paint systems proposed.

(2) Painting schedule for all surfaces to be painted.

5.4 Materials

5.4.1 General

Unless otherwise approved by the Engineer, all the different paints forming part of the system applied to a particular surface shall be supplied by the same manufacturer. Primers used for coating the surfaces of the pre-primed components shall be exempt from this requirement.

The Contractor shall not change the source of supply of any paint, or the formulation without first obtaining the approval of the Engineer.

5.4.2 Ancillary Materials

Abrasive and cleaning materials, fillers, white spirit and other ancillary materials shall be as recommended by the paint manufacturer or to BS 6150.

5.4.3 Primers

As recommended by the manufacturer for the surface and paint system .

5.4.4 Undercoats

As recommended by the manufacturer for the surface and paint system .

5.4.5 Emulsion Paints

These shall be vinyl emulsions to BS 6150, Table 5, ref 5/4.

5.4.6 Oil Paints

These shall be alkyd paints in accordance with BS 6150 Table 5, refs 5/1, 5/2 or 5/3 as required by finish schedule.

5.4.7 Masonry Paint

These shall be heavy to BS 6150, Table 5 Refs 5/8, 519, 5/10 or 5/11 to match existing buildings.

5.4.8 Specialist Coatings

Specialist coatings for concrete floors and walls shall be in accordance with BS 6150 Table Paints shall be suitable for the conditions and where required shall be resistant to chemical and oil attach. Floor paints shall be non-slip.

5.4.9 Bituminous Paints

Where required by the drawings these shall comply with the requirements of BS 1070 or BS 3416 as necessary.

5.5 Workmanship

5.5.1 Storage

Materials shall generally be ordered in quantities and containers sized to suit the extent of work and to prevent deterioration of residual quantities in opened containers.

Materials shall be stored to the manufacturers' recommendations, but generally in cool, dry conditions protected from direct sunlight

5.5.2 Generally

Prepare surfaces and apply coatings in accordance with Section 5 of BS 6150 and to the manufacturers' instructions. A brief summary of procedures is given hereunder and the BS 6150 clause referred to.

5.5.3 Ironmongery and Fittings

Remove ironmongery and other removable fittings and replace when decorating is complete.

5.5.4 Preparation of Surfaces

All surfaces shall be made sound, clean, dry and free from deliterious materials.

5.5.5 Preparation of Paints

Decorating materials shall not be used unless obtained in containers marked with manufacturers name and relevant information such as pot life and mixing instructions. Materials shall be stirred, mixed or otherwise prepared as recommended by the manufacturer or directed by the Engineer.

5.5.6 Conditions of Applications

All coatings may only be applied under conditions of cleanliness, temperature and humidity which meet the manufacturers' requirements and to the satisfaction of the Engineer.

5.5.7 Painting

The method of applying the coatings shall be approved by the Engineer for each material and nature of the work. All primers to wood and metal shall be brush applied.

When spraying, the Contractor shall ensure that overspray mist, rebound or drift does not cause a nuisance to others or permanent damage to the Works.

5.5.8 Re-priming

Any components that have deteriorated or damaged priming that was applied before delivery to site shall be re-primed to the satisfaction of the Engineer.

5.5.9 Undercoats

A different shade of undercoat shall be used for each layer.

5.6 Inspection

In general the Engineer will carry out intermittent inspections of each stage of the operation and subsequent stages will be dependent upon his approval.

The Contractor shall maintain records of his own quality control procedures which shall be available for scrutiny by the Engineer at his request.

All paintwork shall be to the satisfaction of the Engineer and any defective areas shall be made good as recommended in BS 61 50, Table 1.

6. Masonry

6.1 Introduction

This Specification covers the materials and workmanship in connection with concrete blockwork both externally and internally, and the mortars to be used. It includes associated materials and workmanship for wall ties, damp-proof courses, mesh reinforcement, cavity wall insulation and movement joints.

6.2 References

The Works shall be designed and the materials, workmanship and tests conform to the following Standards and to the Standards and Codes of Practice that are referred to within those Standards.

Number	Title
BS 12	Ordinary and Rapid Hardening Portland Cement
BS 743	Materials for damp-proof courses
BS 890	Building limes
BS 1200	Building sands from natural sources
BS 1243	Metal ties for cavity wall construction
BS 3533	Glossary of Thermal Insulation Terms
BS 4027	Sulphate Resisting Cement
BS 4449	Specification for hot rolled steel bars for the reinforcement of concrete
BS 4482	Hard drawn mild steel wire for the reinforcement of concrete
BS 5224	Masonry cement
BS 5628	Use of Masonry
BS 5642	Sills and copings
BS 6073	Pre-cast concrete masonry units

6.3 Submittals

The Contractor shall make the following submittals to the Engineer:

(1) Material Samples - blocks, mortar, dpc, ties, cavity insulation, reinforcement.

(2) Manufacturer's Certificates stating that the materials and goods comply with the Specification.

6.4 Materials

6.4.1 General

The Contractor shall provide all necessary accessories, including cavity wall ties, angle cramps, nails, shot fired fixings and screws for building in and tying in b10ckwork to frames, damp-proof courses and expanded metal or wire mesh reinforcement as specified.

6.4.2 Concrete Blocks

Blocks shall be in accordance with BS 6073 and shall be marked with the following particulars either by delivery note, invoice or suppliers certificate.

(i) Name of Manufacturer

(ii) Dimensions and whether solid, cellular or hollow

(iii) Thermal conductivity value

(iv) Minimum compressive strength

6.4.3 Cements for Mortars

Cements for mortars shall comply with one of the following British Standards:

BS 12 Ordinary and Rapid Hardening Portland Cement

BS 4027 Sulphate Resisting Cement

BS 5224 Masonry Cement

Masonry cements shall be used strictly in accordance with the manufacturer's recommendations.

High alumina cement shall not be used.

6.4.4 Lime for Mortar

Lime for mortar shall by hydrated grey-stone lime in accordance with BS 890 for hydrated calcium limes. Magnesium lime shall not be used in mortar for brickwork below the damp-proof course.

The Contractor shall forward copies of Manufacturer's Certificates to the Engineer, which, in addition to certifying compliance with BS 890, shall give details of the type of lime. If lime is delivered as lime putty, the certificate shall state whether quicklime or hydrated lime was used in its manufacture.

All lime shall be efficiently protected against deterioration during transport and whilst stored on site. Different types or brands of lime shall be stored separately in dry conditions in a manner that allows it to be used in the order of delivery.

When lime putty is to be used, the Contractor shall obtain the approval of the Engineer of his arrangements for transport, handling and storage. Precautions shall be taken to prevent contamination and drying out of lime putty stored on site. Lime putty made from quicklime should mature for at least fourteen days before being used. Where it is made from hydrated lime (powder), lime putty should stand for at least sixteen hours before use.

6.4.5 Water

Water shall be as specified as for concrete.

6.4.6 Sand for Mortars

Sand for mortar shall be naturally occurring material Complying with BS 1200. It shall be stored on clean surfaces in such a manner as to allow adequate drainage and to prevent contamination by other materials.

The Contractor shall obtain certificates of compliance with BS 1200 for the supplier and submit copies to the Engineer. If additional information called for in BS 1200 clause 8. If certificates or control information is not available, the Contractor shall carry out his own regular tests to the satisfaction of the Engineer.

Marine sand shall not be used.

6.4.7 Plasticisers for Mortars

Plasticisers, when added to mortars, shall be used strictly in accordance with the manufacturer's instructions.

6.4.8 Mortar Mixes

The mortar mix proportions for all work covered in this section shall be appropriate to the strength and permeability of the building block used and to the degree of exposure of the finished work.

6.4.9 Wall Ties

Wall ties for cavity walls shall be galvanised steel complying with BS 1243 and at spacings in accordance with BS 5628.

6.4.10 Metal Fixings for Masonry

Cramps, dowels and other metal fixings for masonry_work shall be of galvanised steel or nonferrous metals.

6.4.11 Reinforcement in Brickwork and Blockwork

Where required for structural stability, vertical reinforcement of high yield deformed steel to BS 4449 shall be provided for hollow concrete blocks, the voids being filled with concrete as the work proceeds.

Lap lengths for vertical reinforcement shall be a minimum of 50 diameters.

6.4.12 Lintels

The blockwork over all openings in walls shall be supported on pre-cast concrete lintels or purpose made stainless or galvanised steel lintels.

6.4.13 Sills and Thresholds

External sills and thresholds are to be formed with tiles or pre-cast concrete complying with BS 5642.

Internal skills shall be of softwood in dry areas, or tiles, slates etc., in wet areas.

6.5 Workmanship

6.5.1 General

All work shall be carried out in accordance with the recommendations of BS 5628 Pt 3 for block masonry.

Sample panels shall be prepared for not less than 2 square metres of each class of facing masonry to be *employed in the* mortar, gauge and pointing specified. Work shall not proceed until the sample panels are approved. All facing masonry shall conform with the approved Sample.

6.5.2 Laying of Brickwork and Blockwork

Blocks shall be laid on a full bed of mortar with joints filled solid to a consistent thickness of not more than 12 mm.

Walls shall be carried up uniformly with no part more than 1.7 m higher than any other. Work shall be plumbed and levelled at each course.

Blockwork below ground level shall be laid in 1:3 cement mortar.

Faces of walls shall be kept clean and free from mortar droppings and splashes.

6.5.3 Bonding of Blockwork

All drawings shall define the bond pattern for every leaf shown.

No half blocks or bats shall be used except where necessary for bonding.

6.5.4 Hot Weather Laying

In hot dry weather absorbent blocks shall be wetted before laying.

Blockwork shall be protected from the effects of hot sunlight and drying winds until the mortar has sufficiently matured.

6.5.5 Wet Weather Laying

Freshly laid blockwork shall be protected against the effects of wet weather during interruptions in work and at the end of each day.

6.5.6 Finishing Joints in Blockwork

Joints which are not visible on the finished work shall be struck off as the work proceeds.

Exposed blockwork shall be finished with an approved joint profile.

Where blockwork is to be plastered, joints are to be struck off and left rough to provide a key.

6.5.7 Movement Joints

Movement joints shall be provided at 7.5 m. centres maximum. They shall incorporate a joint filling strip and sealant. Gaps in movement joints shall be left free from debris and shall not be pointed with mortar.

6.5.8 Concrete Abutting Blockwork

Where concrete abutts external blockwork it shall be coated with two coats of bitumen paint.

Blockwork shall be tied to concrete surfaces with stainless steel adjustable ties fixed to slots cast into the concrete.

6.5.9 Building in Frames

Openings in masonry for doors, windows, air conditioning units, ventilators and fans etc., shall be properly marked out and built as the work proceeds. Where frames are to be built in as the masonry work proceeds the frames shall be fitted with approved anchors and propped and strutted as required.

The back surface of steel and galvanised fitting shall be coated with a bituminous paint before fixing. .

6.5.10 Stacking and Storage of Blocks

All blocks shall be stacked by hand on approved hard standings. They are to be stored in orderly stacks so arranged that they are used approximately in the order in which they are delivered. The stacks are to be clear of standing water and the blocks are to be protected from splashing by mud or contamination by other materials.

Blocks shall be stored either on pallets or by other methods to the approval of the Engineer, in order to prevent absorption of moisture from the ground which may contain dissolved sulphates or other soluble salts.

6.5.11 Finished Blockwork

All blockwork shall be true to line and level. On completion, the work shall be cleaned down and mortar droppings and other marks removed.

Stained, chipped or any other defects of materials or workmanship shall be made good at the Contractor's expense.

The Contractor shall take all precautions to prevent efflorescence which could be caused by soluble materials from other sources.

6.5.12 Testing of Concrete Blocks

Concrete blocks shall be tested in accordance with BS 6073 at the rate and for the test given by Table. This information shall form part of the manufacturer's certificate of compliance. Where no such certificate is available, the Contractor shall carry out independent test according to BS 6073 Appendices A, B, C and D.

SUPPLIER'S BID

TO: Guyana Energy Agency

Dear Sir / Madam,
Having examined the bidding documents including Annexes and Addenda No _____ *[specify numbers]*, the receipt of which is hereby acknowledged, we offer to execute the **Transportation, Installation and Commissioning of Solar Photovoltaic (PV) systems at 14 Sites in the Hinterland** in accordance with the Contract conditions attached herein for the total amount for the following:The Price of our bid, including VAT (where applicable) is

.....*(in words)*

.....*(in figure)*

We undertake, if our Bid is accepted, to supply the Goods, in accordance with a delivery schedule given in the Schedule of Requirements.

If our Bid is accepted, we undertake to furnish the Performance security in the form of _____ to the amount of _____, comprising _____% of the Contract Price in order to execute the Contract properly and within the time period(s) specified in the Bidding Documents.

We hereby confirm that this bid shall be valid during _____ days starting from the date established for bid opening, and it shall be binding until the expiry of the indicated period.

We understand that you are not bound to accept the lowest or any bid you receive.

Dated the_____ day of _____ 2026.

Duly authorized to sign the Bid for and on behalf of

_____
(name of Supplier)

_____ _____ _____
(Full name) *(Title)* *(Signature and seal)*

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PRICE SCHEDULE

Transportation, Installation and Commissioning of Solar Photovoltaic (PV) systems at 14 Sites in the Hinterland

No.	Brief Description of Goods	Physical Unit	Unit Price (GYD)	Total Cost (GYD)
1	Upper Bonasika Health Post	each		
2	Lower Bonisika Health Post and Living Quarters	each		
3	Sand Hill Nursery/Primary School	each		
4	Long Creek Community Centre and Multipurpose Building	each		
5	Moblissa Health Post and Living Quarters	each		
6	Moblissa Community Centre	each		
7	Long Creek Primary	each		
8	Low Wood Health Post	each		
9	Itabali Health Centre	each		
10	Issano Teachers' Quarters	each		
11	Issano Primary School	each		
12	Issano Police Station	each		
13	Abbau Village Office	each		
14	Kako Women and Youth Centre	each		

Duly authorized to sign for and on behalf of:

_____

(name of Bidder)

_____ _____ _____

(Full name *(Title)* *(Signature and seal)*

SUPPLY CONTRACT FOR GOODS

THIS CONTRACT made the _____ day of _____ 202__ between _____ *[Guyana Energy Agency]* (hereinafter referred to as "the Procuring Entity"), on the one hand, and _____ *[name of Supplier]* from _____ *[city and country of Supplier]* (hereinafter referred to as "the Supplier"), on the other hand have come to an Agreement on the following:

The Procuring Entity has announced bid for procurement of goods and services, namely **Transportation, Installation and Commissioning of Solar Photovoltaic (PV) systems at 14 Sites in the Hinterland** and has accepted the Supplier's bid for the supply of indicated goods and services to the sum of _____ *[Contract Price in words and figures]* (hereinafter referred to as "the Contract Price").

THIS CONTRACT WITNESSES AS FOLLOWS:

(b) In this Contract, the terms and expressions have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall form the Contract and shall be deemed its integral part, viz.:
   (a) Procuring Entity's Notification of Award;
   (b) Bid and Price Schedule submitted by Bidder;
   (c) Schedule of Requirements;
   (d) Technical Specifications;
   (e) General Conditions of Contract;
   (f) Special Conditions of Contract;
   (g) Other documents included in the Contract documents;

(c) This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.

(d) In consideration of the payments to be made by the Procuring Entity to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Procuring Entity to provide the Goods and Services, and remedy defects therein in conformity in all respects with the provisions of the Contract.

(e) The Procuring Entity hereby agrees to pay the Supplier in consideration of the delivery of the Goods and Services 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 of the aforesaid, the parties hereto have caused this Contract to be executed in accordance with the legislation of Guyana the day and year first above written in the beginning of the document.

Signed and Sealed.....*[Full name and title of Procuring Entity's representative]*

Signed and Sealed .....*[Full name and title of Supplier's representative]*

BID SECURITY
(Bank Guarantee or Insurance Bond)

Whereas _____ *[name of Bidder]* (hereinafter referred as "the Bidder") is ready to submit his bid dated _____ *[date of bid submission]* for the **Transportation, Installation and Commissioning of Solar Photovoltaic (PV) systems at 14 Sites in the Hinterland** (hereinafter referred as "the Bid"),

KNOW ALL PEOPLE, that WE _____ *[name of Bank / Surety]* from _____ *[name of country]*, having our registered office at the address _____ *[address of Bank / Surety]*, (hereinafter referred as "the Bank"), are bound to _____ *[name of Procuring Entity]* to the sum of _____, by which payment to the indicated Procuring Entity shall be made in whole and in a timely manner; the Bank is bound on behalf of its name, its successors and authorized persons. This is to confirm that the license issued to the Bank shall provide for activity on issuance of the guarantee, and the person(s) signing that guarantee is entitled to act on behalf of the Bank, and if the approval of Board of Directors, or of General Stockholders Meeting is required, it is already received and there is no other approval required.

THE CONDITIONS of this obligation are as follows:

1. If the Bidder:
   (a) Withdraws their Bid during the period of bid validity specified by the Bidder on the Form of Bid; or
2. If the Bidder having received notice from the Procuring Entity that their bid is accepted within the period of bid's validity:
   (a) fails or rejects to sign the Contract at the request of; or
   (b) fails or rejects to furnish the performance security in accordance with the Instructions to Bidders;

We undertake to pay the Procuring Entity the above sum upon receipt of their first written request, without needing the Procuring Entity to show grounds or reasons of that request, provided that the sum requested by the Procuring Entity is due to him because of the occurrence of one or two or both conditions, specifying the condition or conditions occurred.

This guarantee shall remain in force during _____ days inclusive following the expiry of the bid validity period, and any request in respect thereof should reach the Bank not later than the abovementioned date.

_____ _____ _____

(Full name of Bank / Surety representative) *(Title)* *(Signature and seal)*

Dated on «____» day of _____202__.

Address of the Bank / Surety issuing guarantee:

_____

MANUFACTURER'S AUTHORIZATION (NOT APPLICABLE)

The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its bid, if so indicated in the ***BDS.****]*

Date of Bid Submission*(day/ month/ year):*
IFB No:*[insert number of bidding process]*
Alternative No.:*[insert identification No if this is a Bid for an alternative]*

To: _____ *[insert complete name of Purchaser]*

WHEREAS

We _____ *[insert complete name of Manufacturer],* who are official manufacturers of _____ *[insert type of goods manufactured],* having factories at _____ [insert full address of Manufacturer's factories], do hereby authorize _____ *[insert complete name of Bidder]* to submit a bid the purpose of which is to provide the following Goods, manufactured by us _____ *[insert name and or brief description of the Goods],* and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 1.3 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: _____ *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: _____ *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: _____ *[insert title]*

Duly authorized to sign this Authorization on behalf of: _____ *[insert complete name of Bidder]*

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

PERFORMANCE SECURITY
(Bank Guarantee or Insurance Bond)

TO: _____
[Name of Procuring Entity]

WHEREAS _____ *[name of the Supplier]* (hereinafter called "the Supplier") has undertaken, in accordance with the Contract No. _____ *[Contract number]* dated _____ 202 _ to **Transportation, Installation and Commissioning of Solar Photovoltaic (PV) systems at 14 Sites in the Hinterland** (hereinafter called "the Contract"),

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee or Performance Bond from an Insurance company licensed by the Bank of Guyana, to the sum specified therein as a security for compliance with the Supplier's obligations under the Contract,

AND WHEREAS we have agreed to furnish the Supplier with a security,

THEREFORE WE hereby confirm that we are the Guarantors and are responsible to you on behalf of the Supplier, up to a total of _____ *(amount of security in words and figures)* and, we undertake to pay you, on your first request notifying of the Contractor's default with the Contract, and without cavil or argument, any sum or sums within the above limits, as aforesaid, without your needing to show grounds or reasons of your request or the sum specified therein.

Any modification or addition, or amendment in the terms of Contract which may be made by the Procuring Entity and the Supplier by Additional Agreement shall in no way release us from obligations under the Guarantee, and we waive any notice of modification, addition, or amendment. This guarantee shall be valid until full completion of the Contract Conditions by the Supplier. Also, we confirm that the license issued to the Bank shall provide for activity on issuance of a bank guarantee, and the person signing the guarantee is entitled to act on behalf of the Bank, and if the approval of Board of Directors or of General Stockholders Meeting is required, it is already received, and there is no other approval required

This guarantee shall be valid till the _____day of _____ 202_.

_____ _____ _____
(Full name of Bank / Surety's representative) (Title) (signature and seal)

Dated on _____ day of _____202___.

Address of the Bank issuing guarantee:

_____

LETTER OF ACCEPTANCE

(Letterhead paper of Procuring Entity)

_____ (date)

To: _____

(Name of Supplier)

_____

(address of Supplier)

We hereby notify you that your bid dated the _____ day of _____202__, for the supply of goods _____ (*description of goods*) up to a total of _____

(amount in figures and words)

as amended and modified in accordance with the Instructions to Bidders is hereby accepted by our agency.

Simultaneously, we send you the Form of Contract and request you, pursuant to Clause 20.1 of the Instructions to Bidders, during seven (7) days to sign and date the Form of Contract and return it at our address. Jointly with the signed Contract, we request you to furnish the performance security, in accordance with ITB Clause 20.2.

You hereby entrusted to start supply of the Goods, in accordance with the terms and conditions of a Contract.

Name of Agency _____

Full name and Title _____

Signature of Authorized Representative _____

Annex: The Contract

AFFIDAVIT OF AUTHORIZATION

TO: _____ *[name of Procuring Entity]*

WHEREAS _____ *[name of Supplier]*, who is the Supplier _____ *[name and/or description of goods]*.

Do hereby authorize _____ *[name and address of Supplier's Representative]* to submit the Bid, and sign the Contract based on I*nvitation for Bids* for the abovementioned goods to be supplied by us, and

_____

[Full name, title, signature for and on behalf of Supplier]

Dated on «_____» day of _____202___. (seal)
(date)

Note: *The affidavit of authorization must be drafted on a letterhead of the Supplier and signed by a Commissioner of Oats to Affidavit or Justice of the peace. The Bidder shall include this authorization in their Bid.*

Evaluation and Qualification Criteria

No.	DESCRIPTION	PASS/FAIL
1.	Submission of a **valid** business registration or certificate of incorporation that is clearly legible. **Incorporated companies must submit a list of directors.**	
2.	Submission of a **valid** NIS compliance certificate in the name of the business as per business registration. **Document must be clearly legible.**	
3.	Submission of a **valid** GRA compliance certificate in the name of the business as per business registration. **Document must be clearly legible.**	
4.	Completed **and signed** supplier's bid (*page 55*).	
5.	Completed and signed price schedule must be submitted (*page 56*).	
6.	Completed **and signed** delivery schedule (*page 16*) or **statement of agreement** to supply goods/services **within the period specified by the Procuring Entity in** the **delivery schedule.**	
7.	Provision of documentation detailing the technical specifications for the items listed in the Schedule of Requirement (page 16) or evidence to show that the goods match the Technical Specifications as detailed on page	
8.	Submission of bid security in the amount of 2% of the bid price) in the form of an insurance bond or bank guarantee or manager's cheque.	
9.	Demonstrate experience and technical capacity by providing **documentary** evidence that shows the supply of services in the Requirement Schedule (Page 16). Bidder must provide copies of contracts with previous clients, or copies of valid invoices showing similar services supplied to clients. The bidder must demonstrate the experience of supplying services to a minimum value of G$6,000,000.	
10.	Evidence of Financial Capability in the name of the bidder representing 20% of the Bid Price. Financial Capacity must be evidence in the form of **a bank statement or Line of Credit from a bank or an Insurance Company licensed by the Bank of Guyana** dated within one month of the bid opening date. **The line of Credit must state a figure.** When a photocopy is presented, it must be certified a 'true copy of the original' by the issuing company;	
11.	Bidder must provide a letter of Authorization for the Procuring Entity to seek reference from the bidder's Bank/financial institution **relating to the financial capacity evidence supplied**. The document must be **dated within one month** of the bid opening date and be **clearly legible**.	
12.	Written confirmation of authorizing signatory must be provided. This must be in the form of an **Affidavit of Authorization endorsed by a Commissioner of Oaths or Justice of Peace.**	
13.	Bidder must provide audited financial statements for the past three (3) years for incorporated companies. Financial statements must be audited by a Chartered accountant/accountancy firm and include an auditor's note.	

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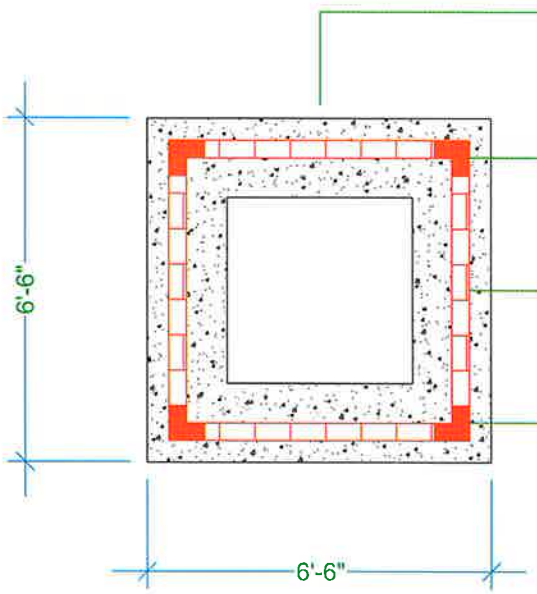
	OR Registered businesses must provide Balance Sheets, Profit and Loss Accounts, and Income and Expenditure Accounts for the past three (3) years .These financial statements must be approved by a Chartered accountant/accountancy firm.	
14.	The Bidder shall provide accurate information on the related bidding form as provided on page 65 about any litigation or arbitration resulting from contracts completed or on-going under its execution over the last five years. **Pending Litigation**: All pending litigation shall in total not represent more *than 50%* of the Bidder's net worth and shall be treated as resolved against the bidder. **If bidder has pending litigation representing more than the stated percentage, the bid will not be considered.** **Litigation History**: Non-performance of a contract did not occur as result of supplier's default since 1st January, *2023.* **If bidder has a history of nonperforming contract the bid will not be considered.**	
15.	Bidder must provide a letter stating any or no terminated or abandonment of projects within the last year. The letter must be dated within one month of the bid opening date.	
16.	Provision of valid manufacturer's authorization, sole distributorship or authorized distributor letter.	

Pending Litigation Format				
☐ No pending litigation in accordance with Evaluation Criteria # *14*				
Year of dispute	**Amount in dispute (currency)**	**Outcome as Percentage of Net Worth**	**Contract Identification**	**Total Contract Amount (current value, currency, exchange rate and USD equivalent)**
[*insert year*]	[*insert amount*]	[*inserpercentage*]	• Contract Identification: [*indicate complete contract name, number, and any other identification*] • Name of Purchaser: [*insert full name*] • Address of Purchaser: [*insert street/ city/ country*] • Matter in dispute: [*indicate main issues in dispute*] • Status of dispute: [*indicate if it is being treated under Arbitration or being dealt with by the Judiciary*]	[*insert amount*]

Litigation History

Litigation History Format		
☐ No court/arbitral award decisions against the Bidder since 1st January 2022, in accordance with Evaluation Criteria 14		
Year of Award	**Contract Identification**	**Total Contract Amount (current value, currency, exchange rate and USD equivalent)**
	•	
[*insert year*]	• Contract Identification: [*indicate complete Contract name, number, and any other identification* • Name of Purchaser: [*insert full name*] • Address of Purchaser: [*insert street/city/country*] • Matter in dispute: [*indicate main issues in dispute*] • Party who initiated the dispute: [*indicate "Purchaser" or "Supplier"*] • Status of dispute: [*indicate if it is being treated by under Arbitration or being dealt with by the Judiciary*]	[*insert amount*]



18" STRIP FOUNDATION (1:2:3 MIX)
WITH 3 NR. 1/2" MAIN BARS
3/8" STIRRUP @ 6" C/C

4" HCB TIED AT CORNER AND CAVITY FILLED
WITH 1 NR. 3/8"" MAIN BAR AS STARTER

4" CAVITY FILLED (1:2 MIX) HCB KURB
SEE CROSS SECTION FOR DETAILS

4" HCB TIED
WITH 1 NR. 3/8"" MAIN BARS AS STARTER

FOUNDATION PLAN

GEA
GUYANA ENERGY AGENCY

Guyana Energy Agency
295 Quamina Street, Georgetown
Energy and Energy Statistic
Division

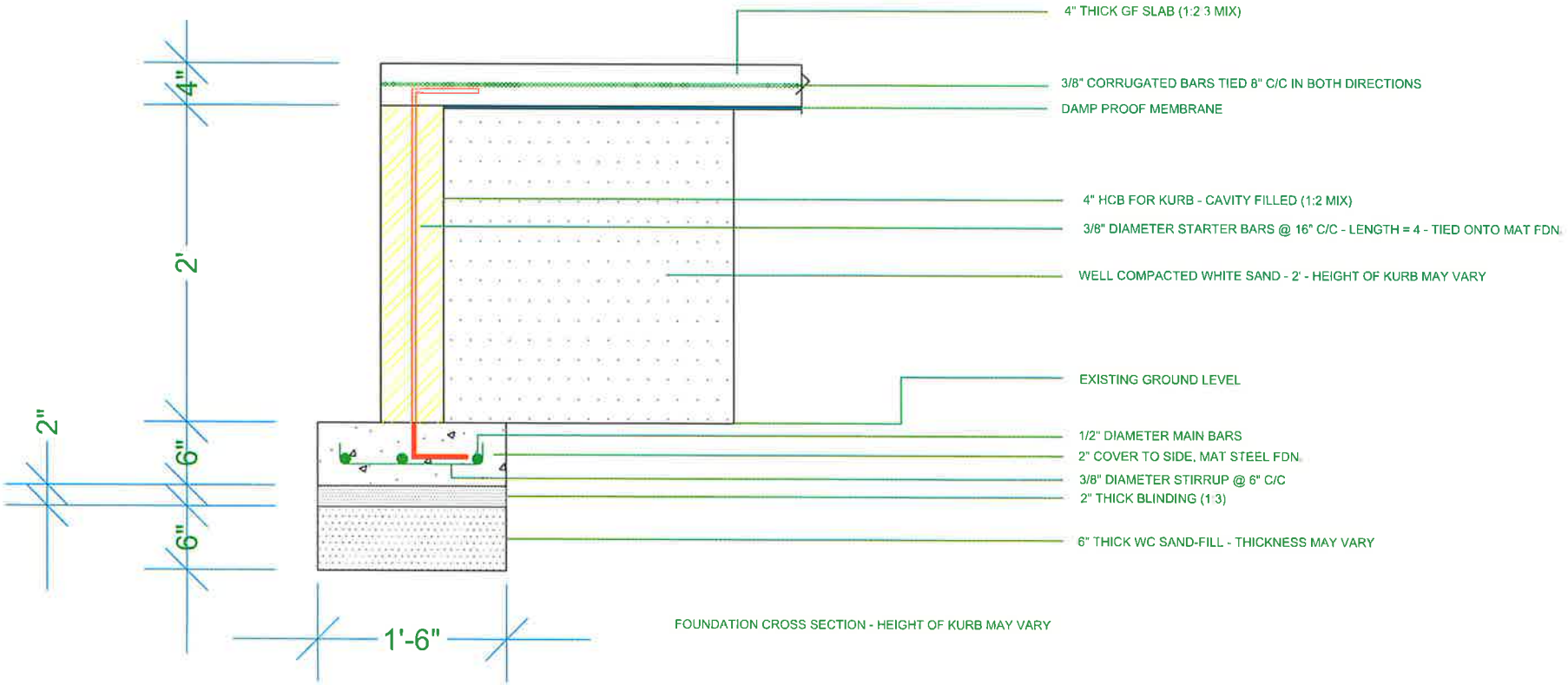
PROJECT:

Battery/ Inverter Facility

TITLE: Foundation Plan

DRAWN BY P Kandhai	SCALE 1/8" = 1'-0"	CADD FILE
SURVEY BY	DATE 2025 05 12	DRAWING NO 1 OF 5
APPROVED BY	REVISED BY	SHEET NO 1 OF 5

NOTES



FOUNDATION CROSS SECTION - HEIGHT OF KURB MAY VARY

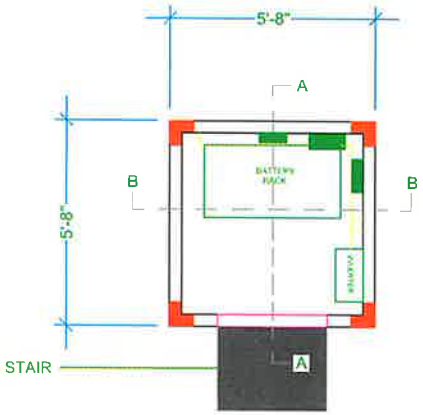
GEA
GUYANA ENERGY AGENCY

Guyana Energy Agency
295 Quamina Street, Georgetown
Energy and Energy Statistic Division

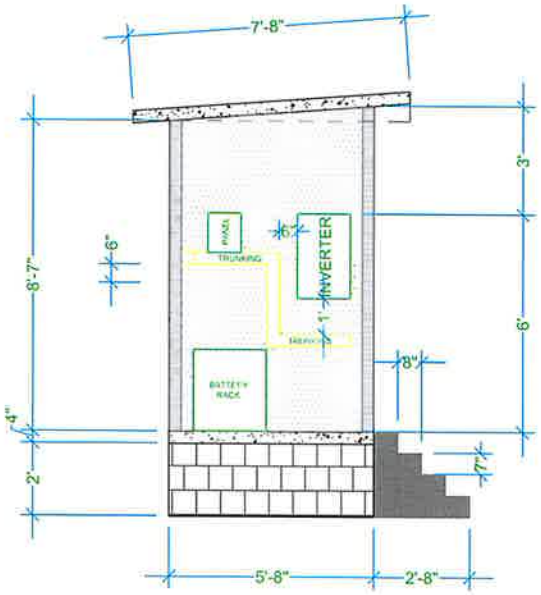
PROJECT:

Battery /Inverter Facility

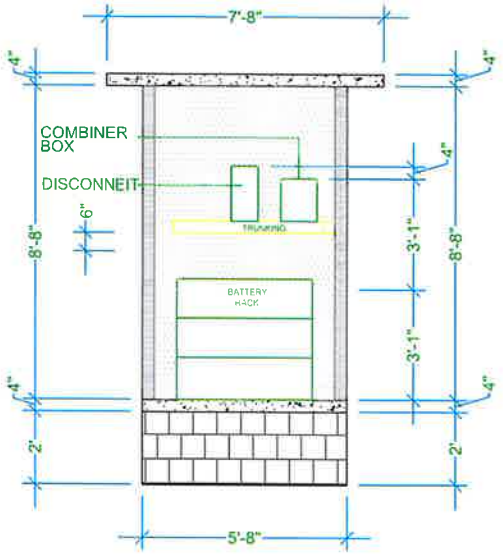
TITLE: Foundation Cross Section		
DRAWN BY P Kandhai	SCALE 1 8 - 1'-0	CADD FILE
SURVEY BY	DATE 2025 05 12	DRAWING NO 2 OF 5
APPROVED BY	REVISED BY	SHEET NO 1 OF 5 REV.
NOTES		



PLAN



SECTION A-A



SECTION B-B

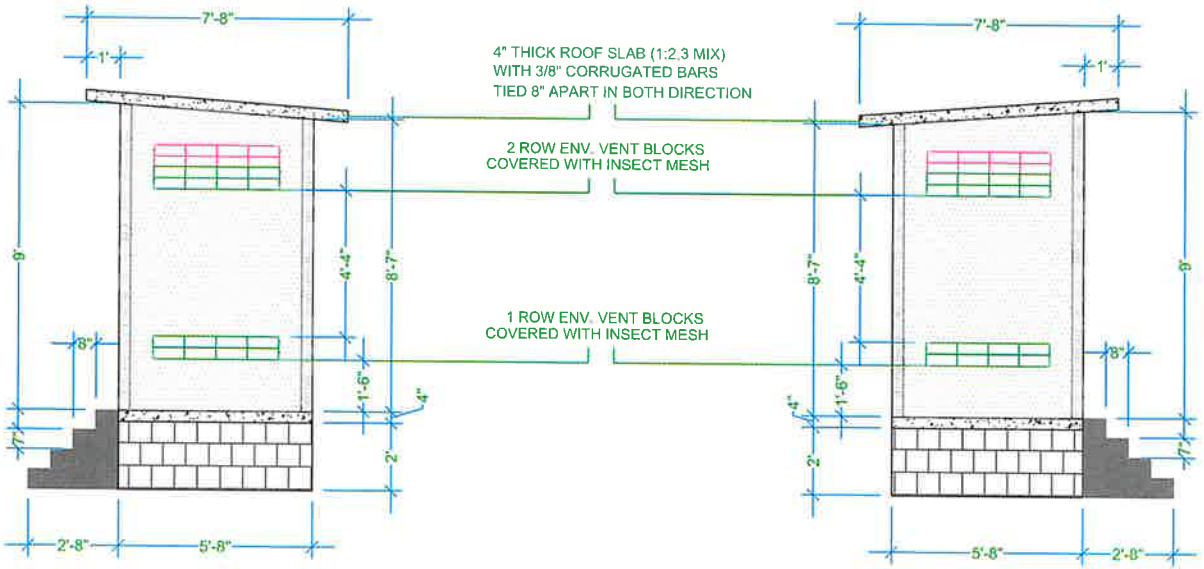
GEA
GUYANA ENERGY AGENCY

Guyana Energy Agency
295 Quamina Street, Georgetown
Energy and Energy Statistic Division

PROJECT:

Battery/ Inverter Facility

TITLE: Building Section		
DRAWN BY P Randhai	SCALE 1 8" = 1 -0"	CADD FILE
SURVEY BY	DATE 2025 05 12	DRAWING NO 3 OF 5
APPROVED BY	REVISED BY	SHEET NO 3 OF 5
NOTES		



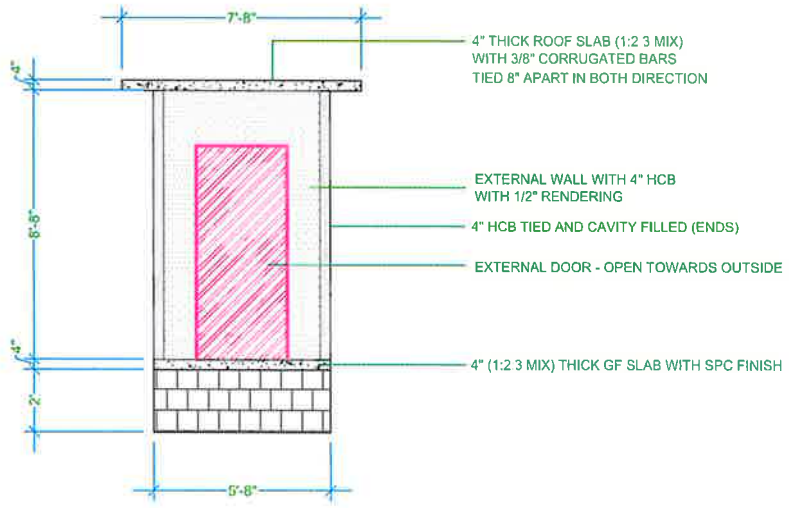
GEA
GUYANA ENERGY AGENCY

Guyana Energy Agency
295 Quamina Street, Georgetown
Energy and Energy Statistic Division

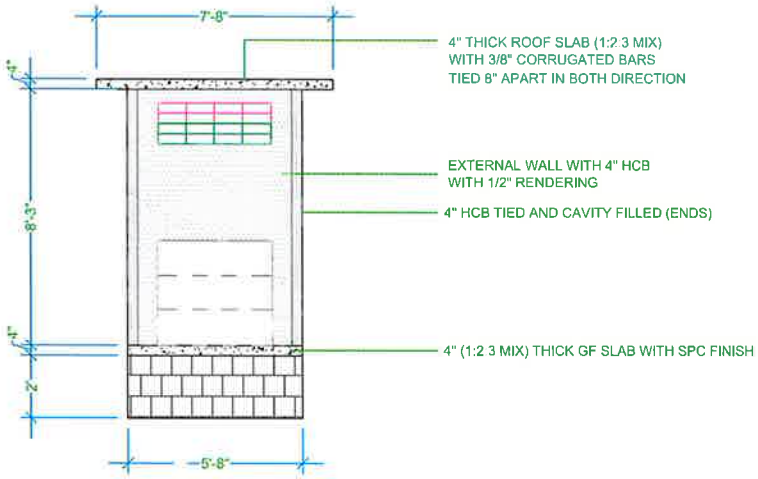
PROJECT:

Battery/Inverter Facility

TITLE	Elevation (Side)	
DRAWN BY P Kandhai	SCALE 1/8" = 1'-0"	CADD FILE
SURVEY BY	DATE 2025 05 12	DRAWING NO 4 OF 5
APPROVED BY	REVISED BY	SHEET NO 4 OF 5
NOTES		



ELEVATION (FRONT)



ELEVATION (BACK)

GEA
GUYANA ENERGY AGENCY

Guyana Energy Agency
295 Quamina Street, Georgetown
Energy and Energy Statistic
Division

PROJECT:

Battery/Inverter Facility

TITLE

Elevation (Front & Back)

DRAWN BY P Kandhai	SCALE 1 8" - 1'-0"	CADD FILE
SURVEY BY	DATE 2024, 04 04	DRAWING NO 5 OF 5
APPROVED BY	REVISED BY	SHEET NO 5 OF 5 REV

NOTES