

PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

Construction of Procurement Service Hub

Government of the Republic of the Philippines

**Fifth Edition
August 2016**

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Section I. Invitation to Bid



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF BUDGET AND MANAGEMENT
REGIONAL OFFICE III

Invitation to Bid for the *Construction of Procurement Service Hub*

1. The *Procurement Service (PS) Depot III*, through the *FY 2018 Procurement Service Fund* intends to apply the sum of *P2,320,726.93* being the Approved Budget for the Contract (ABC) to payments under the contract for *Construction of Procurement Service Hub*. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The *PS Depot III through the Department of Budget and Management Regional Office III (DBM RO III) Bids and Awards Committee* now invites bids for the *Construction of Procurement Service Hub at the Procurement Service Depot III, Regional Government Center, Maimpis, City of San Fernando, Pampanga*. Completion of the Works is required *within 75 calendar days*. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in
3. Rosalie C. **Abesamis**

BAC Chairperson

4. Section II. Instructions to Bidders.

5. Bidding will be conducted through open competitive bidding procedures using non-discretionary “pass/fail” criterion as specified in the 2016 Revised Implementing Rules and Regulations (IRR) of Republic Act 9184 (RA 9184), otherwise known as the “Government Procurement Reform Act.”

Bidding is restricted to Filipino citizens/sole proprietorships, cooperatives, and partnerships or organizations with at least seventy five percent (75%) interest or outstanding capital stock belonging to citizens of the Philippines.

4. Interested bidders may obtain further information from *DBM ROIII* and inspect the Bidding Documents at the address given below from 8:00 AM to 5:00 PM.
5. A complete set of Bidding Documents may be acquired by interested bidders from *May 30, 2018 to June 19, 2018* at the address below *and upon payment of P5,000.00 as the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB.*

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

6. The *PS Depot III through the DBM ROIII BAC* will hold a Pre-Bid Conference on *June 7, 2018, 2:00 PM* at the *DBM Conference Room, Regional Government Center, Brgy. Maimpis, City of San Fernando (P)*, which shall be opened to prospective bidders.
7. Bids must be duly received by the BAC Secretariat at the address below on or before *June 19, 2018 at 2:00 PM*. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 18.

Bid opening shall be on *June 19, 2018 at 2:01 PM* at *DBM Conference Room, Gov’t. Center, Brgy. Maimpis, City of San Fernando (P)*. Bids will be opened in the presence of the bidders’ representatives who choose to attend. Late bids shall not be accepted.

8. The *Procurement Service Depot III* reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Section 41 of RA 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.
9. For further information, please refer to:

Reymon L. Romero

Department of Budget and Management-Regional Office III

Gov't. Center, Brgy. Maimpis, City of San Fernando (P)
Telefax Nos.: (045) 455-2486; 455-2672
Email Address: rromero@dbm.gov.ph

Rosalie C. Abesamis

BAC Chairperson

Section II. Instructions to Bidders

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A. General

1. Scope of Bid

- 1.1. The Procuring Entity named in the **BDS**, invites bids for the construction of Works, as described in Section VI. Specifications.
- 1.2. The name, identification, and number of lots specific to this bidding are provided in the **BDS**. The contracting strategy and basis of evaluation of lots is described in **ITB** Clause 27.
- 1.3. The successful Bidder will be expected to complete the Works by the intended completion date specified in **SCC** Clause 1.17.

2. Source of Funds

The Procuring Entity has a budget or received funds from the Funding Source named in the **BDS**, and in the amount indicated in the **BDS**. It intends to apply part of the funds received for the Project, as defined in the **BDS**, to cover eligible payments under the Contract for the Works.

3. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices

- 3.1. Unless otherwise specified in the **BDS**, the Procuring Entity, as well as bidders and contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. In pursuance of this policy, the Funding Source:
 - (a) defines, for purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves, others, or induce others to do so, by misusing the position in which they are placed, and includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; entering, on behalf of the Procuring Entity, into any contract or transaction manifestly and grossly disadvantageous to the same, whether or not the public officer profited or will profit thereby, and similar acts as provided in Republic Act 3019;
 - (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Entity, and includes collusive practices among Bidders (prior to or after Bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition;

- (iii) “collusive practices” means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Procuring Entity, designed to establish bid prices at artificial, non-competitive levels; and
 - (iv) “coercive practices” means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;
 - (v) “obstructive practice” is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to an administrative proceedings or investigation or making false statements to investigators in order to materially impede an administrative proceedings or investigation of the Procuring Entity or any foreign government/foreign or international financing institution into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the administrative proceedings or investigation or from pursuing such proceedings or investigation; or
 - (bb) acts intended to materially impede the exercise of the inspection and audit rights of the Procuring Entity or any foreign government/foreign or international financing institution herein.
 - (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the Contract; and
 - (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded Contract funded by the Funding Source if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing or, or in executing, a Contract funded by the Funding Source.
- 3.2. Further, the Procuring Entity will seek to impose the maximum civil, administrative, and/or criminal penalties available under the applicable laws on individuals and organizations deemed to be involved in any of the practices mentioned in **ITB** Clause 3.1(a).
- 3.3. Furthermore, the Funding Source and the Procuring Entity reserve the right to inspect and audit records and accounts of a contractor in the bidding for and performance of a contract themselves or through independent auditors as reflected in the **GCC** Clause 34.

4. Conflict of Interest

4.1. All Bidders found to have conflicting interests shall be disqualified to participate in the procurement at hand, without prejudice to the imposition of appropriate administrative, civil, and criminal sanctions. A Bidder may be considered to have conflicting interests with another Bidder in any of the events described in paragraphs (a) through (c) and a general conflict of interest in any of the circumstances set out in paragraphs (d) through (g) below:

- (a) A Bidder has controlling shareholders in common with another Bidder;
- (b) A Bidder receives or has received any direct or indirect subsidy from any other Bidder;
- (c) A Bidder has the same legal representative as that of another Bidder for purposes of this Bid;
- (d) A Bidder has a relationship, directly or through third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder or influence the decisions of the Procuring Entity regarding this bidding process;
- (e) A Bidder submits more than one bid in this bidding process. However, this does not limit the participation of subcontractors in more than one bid;
- (f) A Bidder who participated as a consultant in the preparation of the design or technical specifications of the goods and related services that are the subject of the bid; or
- (g) A Bidder who lends, or temporarily seconds, its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project, if the personnel would be involved in any capacity on the same project.

4.2. In accordance with Section 47 of the IRR of RA 9184, all Bidding Documents shall be accompanied by a sworn affidavit of the Bidder that it is not related to the Head of the Procuring Entity (HoPE), members of the Bids and Awards Committee (BAC), members of the Technical Working Group (TWG), members of the BAC Secretariat, the head of the Project Management Office (PMO) or the end-user unit, and the project consultants, by consanguinity or affinity up to the third civil degree. On the part of the Bidder, this Clause shall apply to the following persons:

- (a) If the Bidder is an individual or a sole proprietorship, to the Bidder himself;
- (b) If the Bidder is a partnership, to all its officers and members;

- (c) If the Bidder is a corporation, to all its officers, directors, and controlling stockholders;
- (d) If the Bidder is a cooperative, to all its officers, directors, and controlling shareholders or members; and
- (e) If the Bidder is a joint venture (JV), the provisions of items (a), (b), (c) or (d) of this Clause shall correspondingly apply to each of the members of the said JV, as may be appropriate.

Relationship of the nature described above or failure to comply with this Clause will result in the automatic disqualification of a Bidder.

5. Eligible Bidders

5.1. Unless otherwise indicated in the **BDS**, the following persons shall be eligible to participate in this Bidding:

- (a) Duly licensed Filipino citizens/sole proprietorships;
- (b) Partnerships duly organized under the laws of the Philippines and of which at least seventy five percent (75%) of the interest belongs to citizens of the Philippines;
- (c) Corporations duly organized under the laws of the Philippines, and of which at least seventy five percent (75%) of the outstanding capital stock belongs to citizens of the Philippines;
- (d) Cooperatives duly organized under the laws of the Philippines.
- (e) Persons/entities forming themselves into a JV, i.e., a group of two (2) or more persons/entities that intend to be jointly and severally responsible or liable for a particular contract: Provided, however, that, in accordance with Letter of Instructions No. 630, Filipino ownership or interest of the joint venture concerned shall be at least seventy five percent (75%): Provided, further, that joint ventures in which Filipino ownership or interest is less than seventy five percent (75%) may be eligible where the structures to be built require the application of techniques and/or technologies which are not adequately possessed by a person/entity meeting the seventy five percent (75%) Filipino ownership requirement: Provided, finally, that in the latter case, Filipino ownership or interest shall not be less than twenty five percent (25%). For this purpose, Filipino ownership or interest shall be based on the contributions of each of the members of the joint venture as specified in their JVA.

5.2. The Procuring Entity may also invite foreign bidders when provided for under any Treaty or International or Executive Agreement as specified in the **BDS**.

5.3. Government owned or controlled corporations (GOCCs) may be eligible to participate only if they can establish that they (a) are legally and financially

autonomous, (b) operate under commercial law, and (c) are not attached agencies of the Procuring Entity.

- 5.4. (a) The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the Philippine Statistics Authority (PSA) consumer price index. However, contractors under Small A and Small B categories without similar experience on the contract to be bid may be allowed to bid if the cost of such contract is not more than the Allowable Range of Contract Cost (ARCC) of their registration based on the guidelines as prescribed by the PCAB.

(b) For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the **BDS**.

For this purpose, contracts similar to the Project shall be those described in the **BDS**.

- 5.5. The Bidder must submit a computation of its Net Financial Contracting Capacity (NFCC), which must be at least equal to the ABC to be bid, calculated as follows:

NFCC = [(Current assets minus current liabilities) (15)] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract for this Project.

The values of the domestic bidder's current assets and current liabilities shall be based on the latest Audited Financial Statements (AFS) submitted to the BIR.

For purposes of computing the foreign bidders' NFCC, the value of the current assets and current liabilities shall be based on their audited financial statements prepared in accordance with international financial reporting standards.

6. Bidder's Responsibilities

- 6.1. The Bidder or its duly authorized representative shall submit a sworn statement in the form prescribed in Section IX. Bidding Forms as required in **ITB** Clause 12.1(b)(iii).

- 6.2. The Bidder is responsible for the following:

- (a) Having taken steps to carefully examine all of the Bidding Documents;
- (b) Having acknowledged all conditions, local or otherwise, affecting the implementation of the contract;

- (c) Having made an estimate of the facilities available and needed for the contract to be bid, if any;
- (d) Having complied with its responsibility to inquire or secure Supplemental/Bid Bulletin/s as provided under **ITB** Clause 10.4.
- (e) Ensuring that it is not “blacklisted” or barred from bidding by the GoP or any of its agencies, offices, corporations, or LGUs, including foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the GPPB;
- (f) Ensuring that each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- (g) Authorizing the HoPE or its duly authorized representative/s to verify all the documents submitted;
- (h) Ensuring that the signatory is the duly authorized representative of the Bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary’s Certificate, whichever is applicable;
- (i) Complying with the disclosure provision under Section 47 of RA 9184 and its IRR in relation to other provisions of RA 3019;
- (j) Complying with existing labor laws and standards, in the case of procurement of services. Moreover, bidder undertakes to:
 - (i) Ensure the entitlement of workers to wages, hours of work, safety and health and other prevailing conditions of work as established by national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable.

In case there is a finding by the Procuring Entity or the DOLE of underpayment or non-payment of workers’ wage and wage-related benefits, bidder agrees that the performance security or portion of the contract amount shall be withheld in favor of the complaining workers pursuant to appropriate provisions of Republic Act No. 9184 without prejudice to the institution of appropriate actions under the Labor Code, as amended, and other social legislations.

- (ii) Comply with occupational safety and health standards and to correct deficiencies, if any.

In case of imminent danger, injury or death of the worker, bidder undertakes to suspend contract implementation pending clearance to proceed from the DOLE Regional Office and to comply with Work Stoppage Order; and

- (iii) Inform the workers of their conditions of work, labor clauses under the contract specifying wages, hours of work and other benefits under prevailing national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable, through posting in two (2) conspicuous places in the establishment's premises; and
- (k) Ensuring that it did not give or pay, directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the;

Failure to observe any of the above responsibilities shall be at the risk of the Bidder concerned.

- 6.3. The Bidder, by the act of submitting its bid, shall be deemed to have inspected the site, determined the general characteristics of the contract works and the conditions for this Project and examine all instructions, forms, terms, and project requirements in the Bidding Documents.
- 6.4. It shall be the sole responsibility of the prospective bidder to determine and to satisfy itself by such means as it considers necessary or desirable as to all matters pertaining to this Project, including: (a) the location and the nature of the contract, project, or work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work.
- 6.5. The Procuring Entity shall not assume any responsibility regarding erroneous interpretations or conclusions by the prospective or eligible bidder out of the data furnished by the procuring entity. However, the Procuring Entity shall ensure that all information in the Bidding Documents, including supplemental/bid bulletins issued are correct and consistent.
- 6.6. Before submitting their bids, the Bidders are deemed to have become familiar with all existing laws, decrees, ordinances, acts and regulations of the Philippines which may affect the contract in any way.
- 6.7. The Bidder shall bear all costs associated with the preparation and submission of his bid, and the Procuring Entity will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 6.8. The Bidder should note that the Procuring Entity will accept bids only from those that have paid the applicable fee for the Bidding Documents at the office indicated in the Invitation to Bid.

7. Origin of Goods and Services

There is no restriction on the origin of Goods, or Contracting of Works or Services other than those prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.

8. Subcontracts

- 8.1. Unless otherwise specified in the **BDS**, the Bidder may subcontract portions of the Works to an extent as may be approved by the Procuring Entity and stated in the **BDS**. However, subcontracting of any portion shall not relieve the Bidder from any liability or obligation that may arise from the contract for this Project.
- 8.2. Subcontractors must submit the documentary requirements under **ITB** Clause 12 and comply with the eligibility criteria specified in the **BDS**. In the event that any subcontractor is found by the Procuring Entity to be ineligible, the subcontracting of such portion of the Works shall be disallowed.
- 8.3. The Bidder may identify the subcontractor to whom a portion of the Works will be subcontracted at any stage of the bidding process or during contract implementation. If the Bidder opts to disclose the name of the subcontractor during bid submission, the Bidder shall include the required documents as part of the technical component of its bid.

B. Contents of Bidding Documents

9. Pre-Bid Conference

- 9.1. (a) If so specified in the **BDS**, a pre-bid conference shall be held at the venue and on the date indicated therein, to clarify and address the Bidders' questions on the technical and financial components of this Project.

(b) The pre-bid conference shall be held at least twelve (12) calendar days before the deadline for the submission of and receipt of bids, but not earlier than seven (7) calendar days from the posting of the Invitation to Bid/Bidding Documents in the PhilGEPS website. If the Procuring Entity determines that, by reason of the method, nature, or complexity of the contract to be bid, or when international participation will be more advantageous to the GoP, a longer period for the preparation of bids is necessary, the pre-bid conference shall be held at least thirty (30) calendar days before the deadline for the submission and receipt of bids, as specified in the **BDS**.
- 9.2. Bidders are encouraged to attend the pre-bid conference to ensure that they fully understand the Procuring Entity's requirements. Non-attendance of the Bidder will in no way prejudice its bid; however, the Bidder is expected to know the changes and/or amendments to the Bidding Documents as recorded in the minutes of the pre-bid conference and the Supplemental/Bid Bulletin. The minutes of the pre-bid conference shall be recorded and prepared not later than five (5) calendar days after the pre-bid conference. The minutes shall be

made available to prospective bidders not later than five (5) days upon written request.

- 9.3. Decisions of the BAC amending any provision of the bidding documents shall be issued in writing through a Supplemental/Bid Bulletin at least seven (7) calendar days before the deadline for the submission and receipt of bids.

10. Clarification and Amendment of Bidding Documents

- 10.1. Prospective bidders may request for clarification(s) on and/or interpretation of any part of the Bidding Documents. Such a request must be in writing and submitted to the Procuring Entity at the address indicated in the **BDS** at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.
- 10.2. The BAC shall respond to the said request by issuing a Supplemental/Bid Bulletin, to be made available to all those who have properly secured the Bidding Documents, at least seven (7) calendar days before the deadline for the submission and receipt of Bids.
- 10.3. Supplemental/Bid Bulletins may also be issued upon the Procuring Entity's initiative for purposes of clarifying or modifying any provision of the Bidding Documents not later than seven (7) calendar days before the deadline for the submission and receipt of Bids. Any modification to the Bidding Documents shall be identified as an amendment.
- 10.4. Any Supplemental/Bid Bulletin issued by the BAC shall also be posted in the PhilGEPS and the website of the Procuring Entity concerned, if available, and at any conspicuous place in the premises of the Procuring Entity concerned. It shall be the responsibility of all Bidders who have properly secured the Bidding Documents to inquire and secure Supplemental/Bid Bulletins that may be issued by the BAC. However, Bidders who have submitted bids before the issuance of the Supplemental/Bid Bulletin must be informed and allowed to modify or withdraw their bids in accordance with **ITB** Clause 23.

C. Preparation of Bids

11. Language of Bids

The eligibility requirements or statements, the bids, and all other documents to be submitted to the BAC must be in English. If the eligibility requirements or statements, the bids, and all other documents submitted to the BAC are in foreign language other than English, it must be accompanied by a translation of the documents in English. The documents shall be translated by the relevant foreign government agency, the foreign government agency authorized to translate documents, or a registered translator in the foreign bidder's country; and shall be authenticated by the appropriate Philippine foreign service establishment/post or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. The English translation shall govern, for purposes of interpretation of the bid.

12. Documents Comprising the Bid: Eligibility and Technical Components

12.1. Unless otherwise indicated in the **BDS**, the first envelope shall contain the following eligibility and technical documents:

(a) Eligibility Documents –

Class “A” Documents

- (i) PhilGEPS Certificate of Registration and Membership in accordance with Section 8.5.2 of the IRR, except for foreign bidders participating in the procurement by a Philippine Foreign Service Office or Post, which shall submit their eligibility documents under Section 23.1 of the IRR, provided, that the winning bidder shall register with the PhilGEPS in accordance with Section 37.1.4 of the IRR;
- (ii) Statement of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; and

Statement of the Bidder’s SLCC similar to the contract to be bid, in accordance with ITB Clause 5.4.

The two statements required shall indicate for each contract the following:

- (ii.1) name of the contract;
- (ii.2) date of the contract;
- (ii.3) contract duration;
- (ii.4) owner’s name and address;
- (ii.5) nature of work;
- (ii.6) contractor’s role (whether sole contractor, subcontractor, or partner in a JV) and percentage of participation;
- (ii.7) total contract value at award;
- (ii.8) date of completion or estimated completion time;
- (ii.9) total contract value at completion, if applicable;
- (ii.10) percentages of planned and actual accomplishments, if applicable; and

(ii.11) value of outstanding works, if applicable.

The statement of the Bidder's SLCC shall be supported by the Notice of Award and/or Notice to Proceed, Project Owner's Certificate of Final Acceptance issued by the Owner other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory. In case of contracts with the private sector, an equivalent document shall be submitted;

- (iii) Unless otherwise provided in the **BDS**, a valid special PCAB License in case of joint ventures, and registration for the type and cost of the contract for this Project; and
- (iv) NFCC computation in accordance with ITB Clause 5.5.

Class "B" Documents

(v) If applicable, Joint Venture Agreement (JVA) in accordance with RA 4566.

(b) Technical Documents –

- (i) Bid security in accordance with **ITB** Clause 18. If the Bidder opts to submit the bid security in the form of:
 - (i.1) a bank draft/guarantee or an irrevocable letter of credit issued by a foreign bank, it shall be accompanied by a confirmation from a Universal or Commercial Bank; or
 - (i.2) a surety bond accompanied by a certification coming from the Insurance Commission that the surety or insurance company is authorized to issue such instruments.
- (ii) Project Requirements, which shall include the following:
 - (ii.1) Organizational chart for the contract to be bid;
 - (ii.2) List of contractor's personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data. These personnel must meet the required minimum years of experience set in the **BDS**; and
 - (ii.3) List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case

may be, which must meet the minimum requirements for the contract set in the **BDS**; and

- (iii) Sworn statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in Section IX. Bidding Forms.

13. Documents Comprising the Bid: Financial Component

13.1. Unless otherwise stated in the **BDS**, the financial component of the bid shall contain the following:

- (a) Financial Bid Form, which includes bid prices and the bill of quantities, in accordance with **ITB** Clauses 15.1 and 15.3; and
- (b) Any other document related to the financial component of the bid as stated in the **BDS**.

13.2. (a) Unless otherwise stated in the **BDS**, all Bids that exceed the ABC shall not be accepted.

- (b) Unless otherwise indicated in the **BDS**, for foreign-funded procurement, a ceiling may be applied to bid prices provided the following conditions are met:

- (i) Bidding Documents are obtainable free of charge on a freely accessible website. If payment of Bidding Documents is required by the procuring entity, payment could be made upon the submission of bids.
- (ii) The procuring entity has procedures in place to ensure that the ABC is based on recent estimates made by the engineer or the responsible unit of the procuring entity and that the estimates are based on adequate detailed engineering (in the case of infrastructure projects) and reflect the quality, supervision and risk and inflationary factors, as well as prevailing market prices, associated with the types of works or goods to be procured.
- (iii) The procuring entity has trained cost estimators on estimating prices and analyzing bid variances. In the case of infrastructure projects, the procuring entity must also have trained quantity surveyors.
- (iv) The procuring entity has established a system to monitor and report bid prices relative to ABC and engineer's/procuring entity's estimate.
- (v) The procuring entity has established a monitoring and evaluation system for contract implementation to provide a feedback on actual total costs of goods and works.

14. Alternative Bids

- 14.1. Alternative Bids shall be rejected. For this purpose, alternative bid is an offer made by a Bidder in addition or as a substitute to its original bid which may be included as part of its original bid or submitted separately therewith for purposes of bidding. A bid with options is considered an alternative bid regardless of whether said bid proposal is contained in a single envelope or submitted in two (2) or more separate bid envelopes.
- 14.2. Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative bids shall not be accepted.
- 14.3. Each Bidder shall submit only one Bid, either individually or as a partner in a JV. A Bidder who submits or participates in more than one bid (other than as a subcontractor if a subcontractor is permitted to participate in more than one bid) will cause all the proposals with the Bidder's participation to be disqualified. This shall be without prejudice to any applicable criminal, civil and administrative penalties that may be imposed upon the persons and entities concerned.

15. Bid Prices

- 15.1. The contract shall be for the whole Works, as described in **ITB** Clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.
- 15.2. The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Bids not addressing or providing all of the required items in the Bidding Documents including, where applicable, Bill of Quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Government, except those required by law or regulations to be provided for.
- 15.3. All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, prior to the deadline for submission of bids, shall be included in the rates, prices, and total bid price submitted by the Bidder.
- 15.4. All bid prices for the given scope of work in the contract as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as specified in GCC Clause 48. Upon the recommendation of the Procuring Entity, price escalation may be allowed in extraordinary circumstances as may be determined by the National Economic and Development Authority in accordance with the Civil Code of the Philippines, and upon approval by the GPPB. Furthermore, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of

the GoP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

16. Bid Currencies

- 16.1. All bid prices shall be quoted in Philippine Pesos unless otherwise provided in the **BDS**. However, for purposes of bid evaluation, bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate prevailing on the day of the Bid Opening.
- 16.2. If so allowed in accordance with **ITB** Clause 16.1, the Procuring Entity for purposes of bid evaluation and comparing the bid prices will convert the amounts in various currencies in which the bid price is expressed to Philippine Pesos at the exchange rate as published in the *Bangko Sentral ng Pilipinas* (BSP) reference rate bulletin on the day of the bid opening.
- 16.3. Unless otherwise specified in the **BDS**, payment of the contract price shall be made in Philippine Pesos.

17. Bid Validity

- 17.1. Bids shall remain valid for the period specified in the **BDS** which shall not exceed one hundred twenty (120) calendar days from the date of the opening of bids.
- 17.2. In exceptional circumstances, prior to the expiration of the bid validity period, the Procuring Entity may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. The bid security described in **ITB** Clause 18 should also be extended corresponding to the extension of the bid validity period at the least. A Bidder may refuse the request without forfeiting its bid security, but his bid shall no longer be considered for further evaluation and award. A Bidder granting the request shall not be required or permitted to modify its bid.

18. Bid Security

- 18.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in an amount stated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the following schedule:

| Form of Bid Security | Amount of Bid Security (Not less than the Percentage of the ABC) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| (a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank. <i>For biddings conducted by LGUs, the cashier's/manager's check may be issued by other</i> | Two percent (2%) |

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <i>banks certified by the BSP as authorized to issue such financial instrument.</i> | |
| <p>(b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.</p> <p><i>For biddings conducted by LGUs, the Bank Draft/Guarantee, or irrevocable letter of credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i></p> | |
| <p>(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security; and/or</p> | Five percent (5%) |

The Bid Securing Declaration mentioned above is an undertaking which states, among others, that the Bidder shall enter into contract with the procuring entity and furnish the performance security required under ITB Clause 32.2, within ten (10) calendar days from receipt of the Notice of Award, and commits to pay the corresponding amount as fine, and be suspended for a period of time from being qualified to participate in any government procurement activity in the event it violates any of the conditions stated therein as provided in the guidelines issued by the GPPB.

- 18.2. The bid security should be valid for the period specified in the **BDS**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.
- 18.3. No bid securities shall be returned to Bidders after the opening of bids and before contract signing, except to those that failed or declared as post-disqualified, upon submission of a written waiver of their right to file a request for reconsideration and/or protest, or lapse of the reglementary period without having filed a request for reconsideration or protest. Without prejudice on its forfeiture, Bid Securities shall be returned only after the Bidder with the Lowest Calculated Responsive Bid (LCRB) has signed the contract and furnished the Performance Security, but in no case later than the expiration of the Bid Security validity period indicated in **ITB** Clause 18.2.

18.4. Upon signing and execution of the contract, pursuant to **ITB** Clause 31, and the posting of the performance security, pursuant to **ITB** Clause 32, the successful Bidder's Bid Security will be discharged, but in no case later than the Bid Security validity period as indicated in **ITB** Clause 18.2.

18.5. The bid security may be forfeited:

(a) if a Bidder:

- (i) withdraws its bid during the period of bid validity specified in **ITB** Clause 17;
- (ii) does not accept the correction of errors pursuant to **ITB** Clause 27.3(b);
- (iii) has a finding against the veracity of the required documents submitted in accordance with **ITB** Clause 28.2;
- (iv) submission of eligibility requirements containing false information or falsified documents;
- (v) submission of bids that contain false information or falsified documents, or the concealment of such information in the bids in order to influence the outcome of eligibility screening or any other stage of the public bidding;
- (vi) allowing the use of one's name, or using the name of another for purposes of public bidding;
- (vii) withdrawal of a bid, or refusal to accept an award, or enter into contract with the Government without justifiable cause, after the Bidder had been adjudged as having submitted the LCRB;
- (viii) refusal or failure to post the required performance security within the prescribed time;
- (ix) refusal to clarify or validate in writing its bid during post-qualification within a period of seven (7) calendar days from receipt of the request for clarification;
- (x) any documented attempt by a Bidder to unduly influence the outcome of the bidding in his favor;
- (xi) failure of the potential joint venture partners to enter into the joint venture after the bid is declared successful; or
- (xii) all other acts that tend to defeat the purpose of the competitive bidding, such as habitually withdrawing from bidding, submitting late Bids or patently insufficient bid, for at least three (3) times within a year, except for valid reasons.

(b) if the successful Bidder:

- (i) fails to sign the contract in accordance with **ITB** Clause 31;
- (ii) fails to furnish performance security in accordance with **ITB** Clause 32.

19. Format and Signing of Bids

- 19.1 Bidders shall submit their bids through their duly authorized representative using the appropriate forms provided in Section IX. Bidding Forms on or before the deadline specified in the **ITB** Clause 21 in two (2) separate sealed bid envelopes, and which shall be submitted simultaneously. The first shall contain the technical component of the bid, including the eligibility requirements under **ITB** Clause 12.1, and the second shall contain the financial component of the bid. This shall also be observed for each lot in the case of lot procurement.
- 19.2 Forms as mentioned in **ITB** Clause 19.1 must be completed without any alterations to their format, and no substitute form shall be accepted. All blank spaces shall be filled in with the information requested.
- 19.3 The Bidder shall prepare and submit an original of the first and second envelopes as described in **ITB** Clauses 12 and 13. In addition, the Bidder shall submit copies of the first and second envelopes. In the event of any discrepancy between the original and the copies, the original shall prevail.
- 19.4 Each and every page of the Bid Form, including the Bill of Quantities, under Section IX hereof, shall be signed by the duly authorized representative/s of the Bidder. Failure to do so shall be a ground for the rejection of the bid.
- 19.5 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the duly authorized representative/s of the Bidder.

20. Sealing and Marking of Bids

- 20.1. Bidders shall enclose their original eligibility and technical documents described in **ITB** Clause 12, in one sealed envelope marked “ORIGINAL - TECHNICAL COMPONENT,” and the original of their financial component in another sealed envelope marked “ORIGINAL - FINANCIAL COMPONENT,” sealing them all in an outer envelope marked “ORIGINAL BID.”
- 20.2. Each copy of the first and second envelopes shall be similarly sealed duly marking the inner envelopes as “COPY NO. ____ - TECHNICAL COMPONENT” and “COPY NO. ____ – FINANCIAL COMPONENT” and the outer envelope as “COPY NO. ____,” respectively. These envelopes containing the original and the copies shall then be enclosed in one single envelope.
- 20.3. The original and the number of copies of the bid as indicated in the **BDS** shall be typed or written in ink and shall be signed by the Bidder or its duly authorized representative/s.

20.4. All envelopes shall:

- (a) contain the name of the contract to be bid in capital letters;
- (b) bear the name and address of the Bidder in capital letters;
- (c) be addressed to the Procuring Entity's BAC in accordance with **ITB** Clause 20.1;
- (d) bear the specific identification of this bidding process indicated in the **ITB** Clause 1.2; and
- (e) bear a warning "DO NOT OPEN BEFORE..." the date and time for the opening of bids, in accordance with **ITB** Clause 21.

20.5. Bid envelopes that are not properly sealed and marked, as required in the bidding documents, shall not be rejected, but the Bidder or its duly authorized representative shall acknowledge such condition of the bid as submitted. The BAC or the Procuring Entity shall assume no responsibility for the misplacement of the contents of the improperly sealed or marked bid, or for its premature opening.

D. Submission and Opening of Bids

21. Deadline for Submission of Bids

Bids must be received by the Procuring Entity's BAC at the address and on or before the date and time indicated in the **BDS**.

22. Late Bids

Any bid submitted after the deadline for submission and receipt of bids prescribed by the Procuring Entity, pursuant to **ITB** Clause 21, shall be declared "Late" and shall not be accepted by the Procuring Entity. The BAC shall record in the minutes of Bid Submission and Opening, the Bidder's name, its representative and the time the late bid was submitted.

23. Modification and Withdrawal of Bids

23.1. The Bidder may modify its bid after it has been submitted; provided that the modification is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Bidder shall not be allowed to retrieve its original bid, but shall be allowed to submit another bid equally sealed and properly identified in accordance with Clause 20, linked to its original bid marked as "TECHNICAL MODIFICATION" or "FINANCIAL MODIFICATION" and stamped "received" by the BAC. Bid modifications received after the applicable deadline shall not be considered and shall be returned to the Bidder unopened.

23.2. A Bidder may, through a Letter of Withdrawal, withdraw its bid after it has been submitted, for valid and justifiable reason; provided that the Letter of

Withdrawal is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Letter of Withdrawal must be executed by the authorized representative of the Bidder identified in the Omnibus Sworn Statement, a copy of which should be attached to the letter.

- 23.3. Bids requested to be withdrawn in accordance with **ITB** Clause 23.1 shall be returned unopened to the Bidders. A Bidder, who has acquired the bidding documents may also express its intention not to participate in the bidding through a letter which should reach and be stamped by the BAC before the deadline for submission and receipt of bids. A Bidder that withdraws its bid shall not be permitted to submit another bid, directly or indirectly, for the same contract.
- 23.4. No bid may be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Financial Bid Form. Withdrawal of a bid during this interval shall result in the forfeiture of the Bidder's bid security, pursuant to **ITB** Clause 18.5, and the imposition of administrative, civil, and criminal sanctions as prescribed by RA 9184 and its IRR.

24. Opening and Preliminary Examination of Bids

- 24.1. The BAC shall open the Bids in public, immediately after the deadline for the submission and receipt of bids in public, as specified in the **BDS**. In case the Bids cannot be opened as scheduled due to justifiable reasons, the BAC shall take custody of the Bids submitted and reschedule the opening of Bids on the next working day or at the soonest possible time through the issuance of a Notice of Postponement to be posted in the PhilGEPS website and the website of the Procuring Entity concerned.
- 24.2. Unless otherwise specified in the BDS, the BAC shall open the first bid envelopes and determine each Bidder's compliance with the documents prescribed in ITB Clause 12, using a non-discretionary "pass/fail" criterion. If a Bidder submits the required document, it shall be rated "passed" for that particular requirement. In this regard, bids that fail to include any requirement or are incomplete or patently insufficient shall be considered as "failed". Otherwise, the BAC shall rate the said first bid envelope as "passed".
- 24.3. Unless otherwise specified in the **BDS**, immediately after determining compliance with the requirements in the first envelope, the BAC shall forthwith open the second bid envelope of each remaining eligible Bidder whose first bid envelope was rated "passed." The second envelope of each complying Bidder shall be opened within the same day. In case one or more of the requirements in the second envelope of a particular bid is missing, incomplete or patently insufficient, and/or if the submitted total bid price exceeds the ABC unless otherwise provided in **ITB** Clause 13.2, the BAC shall rate the bid concerned as "failed." Only bids that are determined to contain all the bid requirements for both components shall be rated "passed" and shall immediately be considered for evaluation and comparison.

- 24.4. Letters of Withdrawal shall be read out and recorded during bid opening, and the envelope containing the corresponding withdrawn bid shall be returned to the Bidder unopened.
- 24.5. All members of the BAC who are present during bid opening shall initial every page of the original copies of all bids received and opened.
- 24.6. In the case of an eligible foreign bidder as described in **ITB** Clause 5, the following Class “A” Documents may be substituted with the appropriate equivalent documents, if any, issued by the country of the foreign bidder concerned, which shall likewise be uploaded and maintained in the PhilGEPS in accordance with Section 8.5.2 of the IRR.:
- a) Registration certificate from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or CDA for cooperatives;
 - b) Mayor’s/Business permit issued by the local government where the principal place of business of the Bidder is located; and
 - c) Audited Financial Statements showing, among others, the prospective Bidder’s total and current assets and liabilities stamped “received” by the Bureau of Internal Revenue or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two years from the date of bid submission.
- 24.7. Each partner of a joint venture agreement shall likewise submit the document required in **ITB** Clause 12.1(a)(i). Submission of documents required under **ITB** Clauses 12.1(a)(ii) to 12.1(a)(iv) by any of the joint venture partners constitutes compliance.
- 24.8. The Procuring Entity shall prepare the minutes of the proceedings of the bid opening that shall include, as a minimum: (a) names of Bidders, their bid price (per lot, if applicable, and/or including discount, if any), bid security, findings of preliminary examination, and whether there is a withdrawal or modification; and (b) attendance sheet. The BAC members shall sign the abstract of bids as read.
- 24.8. The Bidders or their duly authorized representatives may attend the opening of bids. The BAC shall ensure the integrity, security, and confidentiality of all submitted bids. The Abstract of Bids as read and the minutes of the Bid Opening shall be made available to the public upon written request and payment of a specified fee to recover cost of materials.
- 24.9 To ensure transparency and accurate representation of the bid submission, the BAC Secretariat shall notify in writing all Bidders whose bids it has received through its PhilGEPS-registered physical address or official e-mail address. The notice shall be issued within seven (7) calendar days from the date of the bid opening.

E. Evaluation and Comparison of Bids

25. Process to be Confidential

- 25.1. Members of the BAC, including its staff and personnel, as well as its Secretariat and TWG, are prohibited from making or accepting any kind of communication with any Bidder regarding the evaluation of their bids until the issuance of the Notice of Award, unless otherwise allowed in the case of **ITB** Clause 26.
- 25.2. Any effort by a Bidder to influence the Procuring Entity in the Procuring Entity's decision in respect of bid evaluation, bid comparison or contract award will result in the rejection of the Bidder's bid.

26. Clarification of Bids

To assist in the evaluation, comparison and post-qualification of the bids, the Procuring Entity may ask in writing any Bidder for a clarification of its bid. All responses to requests for clarification shall be in writing. Any clarification submitted by a Bidder in respect to its bid and that is not in response to a request by the Procuring Entity shall not be considered

27. Detailed Evaluation and Comparison of Bids

- 27.1. The Procuring Entity will undertake the detailed evaluation and comparison of Bids which have passed the opening and preliminary examination of Bids, pursuant to **ITB** Clause 24, in order to determine the Lowest Calculated Bid.
- 27.2. The Lowest Calculated Bid shall be determined in two steps:
 - (a) The detailed evaluation of the financial component of the bids, to establish the correct calculated prices of the bids; and
 - (b) The ranking of the total bid prices as so calculated from the lowest to highest. The bid with the lowest price shall be identified as the Lowest Calculated Bid.
- 27.3. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all bids rated "passed," using non-discretionary "pass/fail" criterion. The BAC shall consider the following in the evaluation of bids:
 - (a) Completeness of the bid. Unless the **BDS** allows partial bids, bids not addressing or providing all of the required items in the Schedule of Requirements including, where applicable, bill of quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Procuring Entity, except those required by law or regulations to be provided for; and

- (b) Arithmetical corrections. Consider computational errors and omissions to enable proper comparison of all eligible bids. It may also consider bid modifications. Any adjustment shall be calculated in monetary terms to determine the calculated prices.
- 27.4. Based on the detailed evaluation of bids, those that comply with the above-mentioned requirements shall be ranked in the ascending order of their total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, to identify the Lowest Calculated Bid. Total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, which exceed the ABC shall not be considered, unless otherwise indicated in the **BDS**.
- 27.5. The Procuring Entity's evaluation of bids shall be based on the bid price quoted in the Bid Form, which includes the Bill of Quantities.
- 27.6. Bids shall be evaluated on an equal footing to ensure fair competition. For this purpose, all Bidders shall be required to include in their bids the cost of all taxes, such as, but not limited to, value added tax (VAT), income tax, local taxes, and other fiscal levies and duties which shall be itemized in the bid form and reflected in the detailed estimates. Such bids, including said taxes, shall be the basis for bid evaluation and comparison.
- 27.7. If so indicated pursuant to **ITB** Clause 1.2. Bids are being invited for individual lots or for any combination thereof, provided that all Bids and combinations of Bids shall be received by the same deadline and opened and evaluated simultaneously so as to determine the bid or combination of bids offering the lowest calculated cost to the Procuring Entity. Bid prices quoted shall correspond to all of the requirements specified for each lot. Bid Security as required by **ITB** Clause 18 shall be submitted for each contract (lot) separately. The basis for evaluation of lots is specified in **BDS** Clause 27.3.

28. Post Qualification

- 28.1. The BAC shall determine to its satisfaction whether the Bidder that is evaluated as having submitted the Lowest Calculated Bid complies with and is responsive to all the requirements and conditions specified in **ITB** Clauses 5, 12, and 13.
- 28.2. Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law and stated in the **BDS**.

Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the Bidder for award. Provided in the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the bid security in accordance with Section 69 of the IRR of RA 9184.

- 28.3. The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted pursuant to **ITB** Clauses 12 and 13, as well as other information as the Procuring Entity deems necessary and appropriate, using a non-discretionary "pass/fail" criterion, which shall be completed within a period of twelve (12) calendar days.
- 28.4. If the BAC determines that the Bidder with the Lowest Calculated Bid passes all the criteria for post-qualification, it shall declare the said bid as the LCRB, and recommend to the HoPE the award of contract to the said Bidder at its submitted price or its calculated bid price, whichever is lower, subject to **ITB** Clause 30.3.
- 28.5. A negative determination shall result in rejection of the Bidder's bid, in which event the Procuring Entity shall proceed to the next Lowest Calculated Bid, with a fresh period to make a similar determination of that Bidder's capabilities to perform satisfactorily. If the second Bidder, however, fails the post qualification, the procedure for post qualification shall be repeated for the Bidder with the next Lowest Calculated Bid, and so on until the LCRB is determined for recommendation of contract award.
- 28.6. Within a period not exceeding fifteen (15) calendar days from the determination by the BAC of the LCRB and the recommendation to award the contract, the HoPE or his duly authorized representative shall approve or disapprove the said recommendation.
- 28.7. In the event of disapproval, which shall be based on valid, reasonable, and justifiable grounds as provided for under Section 41 of the IRR of RA 9184, the HoPE shall notify the BAC and the Bidder in writing of such decision and the grounds for it. When applicable, the BAC shall conduct a post-qualification of the Bidder with the next Lowest Calculated Bid. A request for reconsideration may be filed by the Bidder with the HoPE in accordance with Section 37.1.3 of the IRR of RA 9184.

29. Reservation Clause

- 29.1. Notwithstanding the eligibility or post-qualification of a Bidder, the Procuring Entity concerned reserves the right to review its qualifications at any stage of the procurement process if it has reasonable grounds to believe that a misrepresentation has been made by the said Bidder, or that there has been a change in the Bidder's capability to undertake the project from the time it submitted its eligibility requirements. Should such review uncover any misrepresentation made in the eligibility and bidding requirements, statements or documents, or any changes in the situation of the Bidder which will affect its capability to undertake the project so that it fails the preset eligibility or bid evaluation criteria, the Procuring Entity shall consider the said Bidder as ineligible and shall disqualify it from submitting a bid or from obtaining an award or contract.
- 29.2. Based on the following grounds, the Procuring Entity reserves the right to reject any and all Bids, declare a Failure of Bidding at any time prior to the contract award, or not to award the contract, without thereby incurring any

liability, and make no assurance that a contract shall be entered into as a result of the bidding:

- (a) If there is *prima facie* evidence of collusion between appropriate public officers or employees of the Procuring Entity, or between the BAC and any of the Bidders, or if the collusion is between or among the Bidders themselves, or between a Bidder and a third party, including any act which restricts, suppresses or nullifies or tends to restrict, suppress or nullify competition;
- (b) If the Procuring Entity's BAC is found to have failed in following the prescribed bidding procedures; or
- (c) For any justifiable and reasonable ground where the award of the contract will not redound to the benefit of the GOP as follows:
 - (i) If the physical and economic conditions have significantly changed so as to render the project no longer economically, financially or technically feasible as determined by the HoPE;
 - (ii) If the project is no longer necessary as determined by the HoPE; and
 - (iii) If the source of funds for the project has been withheld or reduced through no fault of the Procuring Entity.

29.3. In addition, the Procuring Entity may likewise declare a failure of bidding when:

- (a) No bids are received;
- (b) All prospective Bidders are declared ineligible;
- (c) All bids fail to comply with all the bid requirements, fail post-qualification; or
- (d) The Bidder with the LCRB refuses, without justifiable cause, to accept the award of contract, and no award is made in accordance with Section 40 of the IRR of RA 9184.

F. Award of Contract

30. Contract Award

- 30.1. Subject to **ITB** Clause 28, the HoPE or its duly authorized representative shall award the contract to the Bidder whose bid has been determined to be the LCRB.
- 30.2. Prior to the expiration of the period of bid validity, the Procuring Entity shall notify the successful Bidder in writing that its bid has been accepted, through a Notice of Award duly received by the Bidder or its representative personally or by registered mail or electronically, receipt of which must be confirmed in

writing within two (2) days by the Bidder with the LCRB and submitted personally or sent by registered mail or electronically to the Procuring Entity.

30.3. Notwithstanding the issuance of the Notice of Award, award of contract shall be subject to the following conditions:

- (a) Submission of the following documents within ten (10) calendar days from receipt of the Notice of Award:
 - (i) In the case of procurement by a Philippine Foreign Service Office or Post, the PhilGEPS Registration Number of the winning foreign Bidder; or
 - (ii) Valid PCAB license and registration for the type and cost of the contract to be bid for foreign bidders when the Treaty or International or Executive Agreement expressly allows submission of the PCAB license and registration for the type and cost of the contract to be bid as a pre-condition to the Award;
- (b) Posting of the performance security in accordance with **ITB** Clause 32;
- (c) Signing of the contract as provided in **ITB** Clause 31; and
- (d) Approval by higher authority, if required, as provided in Section 37.3 of the IRR of RA 9184.

31. Signing of the Contract

31.1. At the same time as the Procuring Entity notifies the successful Bidder that its bid has been accepted, the Procuring Entity shall send the Contract Form to the Bidder, which Contract has been provided in the Bidding Documents, incorporating therein all agreements between the parties.

31.2. Within ten (10) calendar days from receipt of the Notice of Award, the successful Bidder shall post the required performance security, sign and date the contract and return it to the Procuring Entity.

31.3. The Procuring Entity shall enter into contract with the successful Bidder within the same ten (10) calendar day period provided that all the documentary requirements are complied with.

31.4. The following documents shall form part of the contract:

- (a) Contract Agreement;
- (b) Bidding Documents;
- (c) Winning Bidder's bid, including the Technical and Financial Proposals, and all other documents/statements submitted (*e.g.*, Bidder's response to request for clarifications on the bid), including

corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

- (d) Performance Security;
- (e) Notice of Award of Contract; and
- (f) Other contract documents that may be required by existing laws and/or specified in the **BDS**.

32. Performance Security

- 32.1. To guarantee the faithful performance by the winning Bidder of its obligations under the contract, it shall post a performance security within a maximum period of ten (10) calendar days from the receipt of the Notice of Award from the Procuring Entity and in no case later than the signing of the contract.
- 32.2. The Performance Security shall be denominated in Philippine Pesos and posted in favor of the Procuring Entity in an amount not less than the percentage of the total contract price in accordance with the following schedule:

| Form of Performance Security | Amount of Performance Security (Not less than the Percentage of the Total Contract Price) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <p>(a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.</p> <p><i>For biddings conducted by the LGUs, the Cashier's/Manager's Check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i></p> | Ten percent (10%) |
| <p>(b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.</p> <p><i>For biddings conducted by the LGUs, Bank Draft/Guarantee, or Irrevocable Letter of Credit may be issued by other banks certified by the BSP as authorized to issue such</i></p> | |

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| <i>financial instrument.</i> | |
| (c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security. | Thirty percent (30%) |

32.3. Failure of the successful Bidder to comply with the above-mentioned requirement shall constitute sufficient ground for the annulment of the award and forfeiture of the bid security, in which event the Procuring Entity shall have a fresh period to initiate and complete the post qualification of the second Lowest Calculated Bid. The procedure shall be repeated until LCRB is identified and selected for recommendation of contract award. However if no Bidder passed post-qualification, the BAC shall declare the bidding a failure and conduct a re-bidding with re-advertisement, if necessary.

33. Notice to Proceed

Within seven (7) calendar days from the date of approval of the Contract by the appropriate government approving authority, the Procuring Entity shall issue the Notice to Proceed (NTP) together with a copy or copies of the approved contract to the successful Bidder. All notices called for by the terms of the contract shall be effective only at the time of receipt thereof by the successful Bidder.

34. Protest Mechanism

Decision of the procuring entity at any stage of the procurement process may be questioned in accordance with Sections 55 of the IRR of RA 9184.

Section III. Bid Data Sheet

Bid Data Sheet

| ITB Clause | |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | <p>The Procuring Entity is <i>Procurement Service Depot III</i>.</p> <p>The name of the Contract is <i>Construction of Procurement Service Hub</i>.</p> |
| 2 | <p>The Funding Source is:</p> <p>The Government of the Philippines (GoP) through <i>FY 2018 Procurement Service Fund</i> in the amount of <i>P2,320,726.93</i>.</p> <p>The name of the Project is <i>Construction of Procurement Service Hub</i>.</p> |
| 3.1 | No further instructions. |
| 5.1 | No further instructions. |
| 5.2 | Bidding is restricted to eligible bidders as defined in ITB Clause 5.1. |
| 5.4(a) | No further instructions. |
| 5.4(b) | For this purpose, similar contracts shall refer to contracts which have the same major categories of work. |
| 8.1 | Subcontracting is not allowed. |
| 8.2 | Not applicable. |
| 9.1 | The Procuring Entity will hold a pre-bid conference for this Project on <i>June 7, 2018, 2:00 PM</i> at <i>DBM Conference Room, Gov't. Center, Brgy. Maimpis, City of San Fernando (P)</i> . |
| 10.1 | <p>The Procuring Entity's address is:</p> <p><i>Department of Budget and Management-Regional Office III</i> <i>Gov't. Center, Brgy. Maimpis, City of San Fernando (P)</i> <i>Telefax Nos.: (045) 455-2486; 455-2672</i> <i>Email Address: rromero@dbm.gov.ph</i></p> |
| 10.4 | No further instructions. |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------|----------------------------|-----------------------|---------|---------|-----------------|---------|---------|-------------------|---------|---------|-----------------------------------|--|---|----------------------|--|---|-----------------|--|---|----------------|--|---|-------------|--|---|----------------------|--|---|--------------|--|---|------------------------------|--|---|-----------------------|--|---|
| 12.1 | No further instructions. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.1(a)(iii) | No further instructions. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.1(b)(ii.2) | <p>The minimum work experience requirements for key personnel are the following:</p> <table><tr><td><u>Key Personnel</u></td><td><u>General Experience</u></td><td><u>Relevant Experience</u></td></tr><tr><td>Foreman</td><td>2 years</td><td>2 years</td></tr><tr><td>Skilled Laborer</td><td>2 years</td><td>2 years</td></tr><tr><td>Unskilled Laborer</td><td>2 years</td><td>2 years</td></tr></table> | <u>Key Personnel</u> | <u>General Experience</u> | <u>Relevant Experience</u> | Foreman | 2 years | 2 years | Skilled Laborer | 2 years | 2 years | Unskilled Laborer | 2 years | 2 years | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>Key Personnel</u> | <u>General Experience</u> | <u>Relevant Experience</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foreman | 2 years | 2 years | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skilled Laborer | 2 years | 2 years | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unskilled Laborer | 2 years | 2 years | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.1(b)(iii.3) | <p>The minimum major equipment requirements are the following:</p> <table><tr><td><u>Equipment</u></td><td><u>Capacity</u></td><td><u>Number of Units/Lot</u></td></tr><tr><td>Bagger Concrete Mixer</td><td></td><td>1</td></tr><tr><td>Bar Cutter</td><td></td><td>1</td></tr><tr><td>Concrete Vibrator</td><td></td><td>1</td></tr><tr><td>Electric Drill, bender and pliers</td><td></td><td>1</td></tr><tr><td>Soil/Plate Compactor</td><td></td><td>1</td></tr><tr><td>Welding Machine</td><td></td><td>1</td></tr><tr><td>Plumbing Tools</td><td></td><td>1</td></tr><tr><td>Minor Tools</td><td></td><td>1</td></tr><tr><td>Electric Jack Hammer</td><td></td><td>1</td></tr><tr><td>Scaffoldings</td><td></td><td>1</td></tr><tr><td>Riviter and Tek screw Driver</td><td></td><td>1</td></tr><tr><td>Thermo Fusion Machine</td><td></td><td>1</td></tr></table> | <u>Equipment</u> | <u>Capacity</u> | <u>Number of Units/Lot</u> | Bagger Concrete Mixer | | 1 | Bar Cutter | | 1 | Concrete Vibrator | | 1 | Electric Drill, bender and pliers | | 1 | Soil/Plate Compactor | | 1 | Welding Machine | | 1 | Plumbing Tools | | 1 | Minor Tools | | 1 | Electric Jack Hammer | | 1 | Scaffoldings | | 1 | Riviter and Tek screw Driver | | 1 | Thermo Fusion Machine | | 1 |
| <u>Equipment</u> | <u>Capacity</u> | <u>Number of Units/Lot</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bagger Concrete Mixer | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bar Cutter | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Concrete Vibrator | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Electric Drill, bender and pliers | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Soil/Plate Compactor | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Welding Machine | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Plumbing Tools | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Minor Tools | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Electric Jack Hammer | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Scaffoldings | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Riviter and Tek screw Driver | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thermo Fusion Machine | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13.1 | No additional Requirements | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13.1(b) | <p>This shall include all of the following documents:</p> <p>1) Bid prices in the Bill of Quantities;</p> <p>2) Detailed estimates, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; and</p> <p>3) Cash flow by quarter or payment schedule.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13.2 | The ABC is P2,320,726.93. Any bid with a financial component exceeding this amount shall not be accepted. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14.2 | No further instructions. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15.4 | No further instruction. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16.1 | The bid prices shall be quoted in Philippine Pesos. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| 16.3 | No further instructions. |
| 17.1 | Bids will be valid until <i>August 19, 2018</i> . |
| 18.1 | <p>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:</p> <ol style="list-style-type: none"> 1. The amount of not less than <i>P46,414.54 [Insert 2% of ABC]</i>, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; 2. The amount of not less than <i>P116,036.35 [Insert 5% of ABC]</i> if bid security is in Surety Bond. |
| 18.2 | The bid security shall be valid until <i>August 19, 2018</i> . |
| 20.3 | Each Bidder shall submit <i>one (1)</i> original and <i>two (2)</i> copies of the first and second components of its bid. |
| 21 | <p>The address for submission of bids is <i>DBM Conference Room, Regional Government Center, Brgy. Maimpis, City of San Fernando (P)</i>.</p> <p>The deadline for submission of bids is <i>June 19, 2018 at 2:00 PM</i>.</p> |
| 24.1 | <p>The place of bid opening is <i>DBM Conference Room, Regional Government Center, Brgy. Maimpis, City of San Fernando (P)</i>.</p> <p>The date and time of bid opening is <i>June 19, 2018 at 2:01 PM</i>.</p> |
| 24.2 | No further instructions. |
| 24.3 | No further instructions. |
| 27.3 | Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award. |
| 27.4 | No further instructions. |
| 28.2 | <i>None.</i> |
| 31.4(f) | <i>Construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the Department of Labor and Employment, and PERT/CPM or other acceptable tools of project scheduling.</i> |

Section IV. General Conditions of Contract

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1. Definitions

For purposes of this Clause, boldface type is used to identify defined terms.

- 1.1. The **Arbiter** is the person appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in **GCC** Clause 21.
- 1.2. **Bill of Quantities** refers to a list of the specific items of the Work and their corresponding unit prices, lump sums, and/or provisional sums.
- 1.3. The **Completion Date** is the date of completion of the Works as certified by the Procuring Entity's Representative, in accordance with **GCC** Clause 49.
- 1.4. The **Contract** is the contract between the Procuring Entity and the Contractor to execute, complete, and maintain the Works.
- 1.5. The **Contract Effectivity Date** is the date of signing of the Contract. However, the contractor shall commence execution of the Works on the Start Date as defined in **GCC** Clause 1.28.
- 1.6. The **Contract Price** is the price stated in the Notice of Award and thereafter to be paid by the Procuring Entity to the Contractor for the execution of the Works in accordance with this Contract
- 1.7. **Contract Time Extension** is the allowable period for the Contractor to complete the Works in addition to the original Completion Date stated in this Contract.
- 1.8. The **Contractor** is the juridical entity whose proposal has been accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded.
- 1.9. The **Contractor's Bid** is the signed offer or proposal submitted by the Contractor to the Procuring Entity in response to the Bidding Documents.
- 1.10. **Days** are calendar days; months are calendar months.
- 1.11. **Dayworks** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
- 1.12. A **Defect** is any part of the Works not completed in accordance with the Contract.
- 1.13. The **Defects Liability Certificate** is the certificate issued by Procuring Entity's Representative upon correction of defects by the Contractor.
- 1.14. The **Defects Liability Period** is the one year period between contract completion and final acceptance within which the Contractor assumes the responsibility to undertake the repair of any damage to the Works at his own expense.

- 1.15 **Drawings** are graphical presentations of the Works. They include all supplementary details, shop drawings, calculations, and other information provided or approved for the execution of this Contract.
- 1.16 **Equipment** refers to all facilities, supplies, appliances, materials or things required for the execution and completion of the Work provided by the Contractor and which shall not form or are not intended to form part of the Permanent Works.
- 1.17 The **Intended Completion Date** refers to the date specified in the SCC when the Contractor is expected to have completed the Works. The Intended Completion Date may be revised only by the Procuring Entity's Representative by issuing an extension of time or an acceleration order.
- 1.18 **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- 1.19 The **Notice to Proceed** is a written notice issued by the Procuring Entity or the Procuring Entity's Representative to the Contractor requiring the latter to begin the commencement of the work not later than a specified or determinable date.
- 1.20 **Permanent Works** are all permanent structures and all other project features and facilities required to be constructed and completed in accordance with this Contract which shall be delivered to the Procuring Entity and which shall remain at the Site after the removal of all Temporary Works.
- 1.21 **Plant** refers to the machinery, apparatus, and the like intended to form an integral part of the Permanent Works.
- 1.22 The **Procuring Entity** is the party who employs the Contractor to carry out the Works stated in the SCC.
- 1.23 The **Procuring Entity's Representative** refers to the Head of the Procuring Entity or his duly authorized representative, identified in the SCC, who shall be responsible for supervising the execution of the Works and administering this Contract.
- 1.24 The **Site** is the place provided by the Procuring Entity where the Works shall be executed and any other place or places which may be designated in the SCC, or notified to the Contractor by the Procuring Entity's Representative as forming part of the Site.
- 1.25 **Site Investigation Reports** are those that were included in the Bidding Documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- 1.26 **Slippage** is a delay in work execution occurring when actual accomplishment falls below the target as measured by the difference between the scheduled and actual accomplishment of the Work by the Contractor as established from the work schedule. This is actually described as a percentage of the whole Works.

- 1.27 **Specifications** means the description of Works to be done and the qualities of materials to be used, the equipment to be installed and the mode of construction.
- 1.28 The **Start Date**, as specified in the **SCC**, is the date when the Contractor is obliged to commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- 1.29 A **Subcontractor** is any person or organization to whom a part of the Works has been subcontracted by the Contractor, as allowed by the Procuring Entity, but not any assignee of such person.
- 1.30 **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Permanent Works.
- 1.31 **Work(s)** refer to the Permanent Works and Temporary Works to be executed by the Contractor in accordance with this Contract, including (i) the furnishing of all labor, materials, equipment and others incidental, necessary or convenient to the complete execution of the Works; (ii) the passing of any tests before acceptance by the Procuring Entity's Representative; (iii) and the carrying out of all duties and obligations of the Contractor imposed by this Contract as described in the **SCC**.

2. Interpretation

- 2.1. In interpreting the Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of this Contract unless specifically defined. The Procuring Entity's Representative will provide instructions clarifying queries about the Conditions of Contract.
- 2.2. If sectional completion is specified in the **SCC**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3. The documents forming this Contract shall be interpreted in the following order of priority:
- a) Contract Agreement;
 - b) Bid Data Sheet;
 - c) Instructions to Bidders;
 - d) Addenda to the Bidding Documents;
 - e) Special Conditions of Contract;
 - f) General Conditions of Contract;

- g) Specifications;
- h) Bill of Quantities; and
- i) Drawings.

3. Governing Language and Law

- 3.1. This Contract has been executed in the English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. All correspondence and other documents pertaining to this Contract which are exchanged by the parties shall be written in English.
- 3.2. This Contract shall be interpreted in accordance with the laws of the Republic of the Philippines.

4. Communications

Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is received by the concerned party.

5. Possession of Site

- 5.1. On the date specified in the **SCC**, the Procuring Entity shall grant the Contractor possession of so much of the Site as may be required to enable it to proceed with the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.
- 5.2. If possession of a portion is not given by the date stated in the SCC Clause 5.1, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay shall be in accordance with **GCC** Clause 47.
- 5.3. The Contractor shall bear all costs and charges for special or temporary right-of-way required by it in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by it for purposes of the Works.
- 5.4. The Contractor shall allow the Procuring Entity's Representative and any person authorized by the Procuring Entity's Representative access to the Site and to any place where work in connection with this Contract is being carried out or is intended to be carried out.

6. The Contractor's Obligations

- 6.1. The Contractor shall carry out the Works properly and in accordance with this Contract. The Contractor shall provide all supervision, labor, Materials, Plant and Contractor's Equipment, which may be required. All Materials and Plant on Site shall be deemed to be the property of the Procuring Entity.
- 6.2. The Contractor shall commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program of Work submitted by the Contractor, as updated with the approval of the Procuring Entity's Representative, and complete them by the Intended Completion Date.
- 6.3. The Contractor shall be responsible for the safety of all activities on the Site.
- 6.4. The Contractor shall carry out all instructions of the Procuring Entity's Representative that comply with the applicable laws where the Site is located.
- 6.5. The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the SCC, to carry out the supervision of the Works. The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.
- 6.6. If the Procuring Entity's Representative asks the Contractor to remove a member of the Contractor's staff or work force, for justifiable cause, the Contractor shall ensure that the person leaves the Site within seven (7) days and has no further connection with the Work in this Contract.
- 6.7. During Contract implementation, the Contractor and his subcontractors shall abide at all times by all labor laws, including child labor related enactments, and other relevant rules.
- 6.8. The Contractor shall submit to the Procuring Entity for consent the name and particulars of the person authorized to receive instructions on behalf of the Contractor.
- 6.9. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Procuring Entity between the dates given in the schedule of other contractors particularly when they shall require access to the Site. The Contractor shall also provide facilities and services for them during this period. The Procuring Entity may modify the schedule of other contractors, and shall notify the Contractor of any such modification thereto.
- 6.10. Should anything of historical or other interest or of significant value be unexpectedly discovered on the Site, it shall be the property of the Procuring Entity. The Contractor shall notify the Procuring Entity's Representative of such discoveries and carry out the Procuring Entity's Representative's instructions in dealing with them.

7. Performance Security

- 7.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both

parties, the Contractor shall furnish the performance security in any of the forms prescribed in **ITB** Clause 32.2.

- 7.2. The performance security posted in favor of the Procuring Entity shall be forfeited in the event it is established that the Contractor is in default in any of its obligations under the Contract.
- 7.3. The performance security shall remain valid until issuance by the Procuring Entity of the Certificate of Final Acceptance.
- 7.4. The performance security may be released by the Procuring Entity and returned to the Contractor after the issuance of the Certificate of Final Acceptance subject to the following conditions:
 - (a) There are no pending claims against the Contractor or the surety company filed by the Procuring Entity;
 - (b) The Contractor has no pending claims for labor and materials filed against it; and
 - (c) Other terms specified in the **SCC**.
- 7.5. The Contractor shall post an additional performance security following the amount and form specified in **ITB** Clause 32.2 to cover any cumulative increase of more than ten percent (10%) over the original value of the contract as a result of amendments to order or change orders, extra work orders and supplemental agreements, as the case may be. The Contractor shall cause the extension of the validity of the performance security to cover approved contract time extensions.
- 7.6. In case of a reduction in the contract value or for partially completed Works under the contract which are usable and accepted by the Procuring Entity the use of which, in the judgment of the implementing agency or the Procuring Entity, will not affect the structural integrity of the entire project, the Procuring Entity shall allow a proportional reduction in the original performance security, provided that any such reduction is more than ten percent (10%) and that the aggregate of such reductions is not more than fifty percent (50%) of the original performance security.
- 7.7. Unless otherwise indicated in the **SCC**, the Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to Act 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

8. Subcontracting

- 8.1. Unless otherwise indicated in the **SCC**, the Contractor cannot subcontract Works more than the percentage specified in **BDS** Clause 8.1.

- 8.2. Subcontracting of any portion of the Works does not relieve the Contractor of any liability or obligation under this Contract. The Contractor will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants or workmen as fully as if these were the Contractor's own acts, defaults, or negligence, or those of its agents, servants or workmen.
- 8.3. If subcontracting is allowed. The contractor may identify its subcontractor during contract implementation stage. Subcontractors disclosed and identified during the bidding may be changed during the implementation of this Contract. In either case, subcontractors must submit the documentary requirements under ITB Clause 12 and comply with the eligibility criteria specified in the **BDS**. In the event that any subcontractor is found by any Procuring Entity to be eligible, the subcontracting of such portion of the Works shall be disallowed.

9. Liquidated Damages

- 9.1. The Contractor shall pay liquidated damages to the Procuring Entity for each day that the Completion Date is later than the Intended Completion Date. The applicable liquidated damages is at least one-tenth (1/10) of a percent of the cost of the unperformed portion for every day of delay. The total amount of liquidated damages shall not exceed ten percent (10%) of the amount of the contract. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of this Contract, the Procuring Entity may rescind or terminate this Contract, without prejudice to other courses of action and remedies available under the circumstances.
- 9.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer of the Procuring Entity shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

10. Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the **SCC** supplemented by any information obtained by the Contractor.

11. The Procuring Entity, Licenses and Permits

The Procuring Entity shall, if requested by the Contractor, assist him in applying for permits, licenses or approvals, which are required for the Works.

12. Contractor's Risk and Warranty Security

- 12.1. The Contractor shall assume full responsibility for the Works from the time project construction commenced up to final acceptance by the Procuring Entity and shall be held responsible for any damage or destruction of the Works except those occasioned by *force majeure*. The Contractor shall be fully responsible for the safety, protection, security, and convenience of his

personnel, third parties, and the public at large, as well as the Works, Equipment, installation, and the like to be affected by his construction work.

- 12.2. The defects liability period for infrastructure projects shall be one year from contract completion up to final acceptance by the Procuring Entity. During this period, the Contractor shall undertake the repair works, at his own expense, of any damage to the Works on account of the use of materials of inferior quality within ninety (90) days from the time the HoPE has issued an order to undertake repair. In case of failure or refusal to comply with this mandate, the Procuring Entity shall undertake such repair works and shall be entitled to full reimbursement of expenses incurred therein upon demand.
- 12.3. Unless otherwise indicated in the **SCC**, in case the Contractor fails to comply with the preceding paragraph, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GoP in his favor shall be offset to recover the costs.
- 12.4. After final acceptance of the Works by the Procuring Entity, the Contractor shall be held responsible for “Structural Defects,” *i.e.*, major faults/flaws/deficiencies in one or more key structural elements of the project which may lead to structural failure of the completed elements or structure, or “Structural Failures,” *i.e.*, where one or more key structural elements in an infrastructure facility fails or collapses, thereby rendering the facility or part thereof incapable of withstanding the design loads, and/or endangering the safety of the users or the general public:
 - (a) Contractor – Where Structural Defects/Failures arise due to faults attributable to improper construction, use of inferior quality/substandard materials, and any violation of the contract plans and specifications, the contractor shall be held liable;
 - (b) Consultants – Where Structural Defects/Failures arise due to faulty and/or inadequate design and specifications as well as construction supervision, then the consultant who prepared the design or undertook construction supervision for the project shall be held liable;
 - (c) Procuring Entity’s Representatives/Project Manager/Construction Managers and Supervisors – The project owner’s representative(s), project manager, construction manager, and supervisor(s) shall be held liable in cases where the Structural Defects/Failures are due to his/their willful intervention in altering the designs and other specifications; negligence or omission in not approving or acting on proposed changes to noted defects or deficiencies in the design and/or specifications; and the use of substandard construction materials in the project;
 - (d) Third Parties - Third Parties shall be held liable in cases where Structural Defects/Failures are caused by work undertaken by them such as leaking pipes, diggings or excavations, underground cables and electrical wires, underground tunnel, mining shaft and the like, in

which case the applicable warranty to such structure should be levied to third parties for their construction or restoration works.

- (e) Users - In cases where Structural Defects/Failures are due to abuse/misuse by the end user of the constructed facility and/or non-compliance by a user with the technical design limits and/or intended purpose of the same, then the user concerned shall be held liable.

12.5. The warranty against Structural Defects/Failures, except those occasioned on force majeure, shall cover the period specified in the **SCC** reckoned from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity.

12.6. The Contractor shall be required to put up a warranty security in the form of cash, bank guarantee, letter of credit, GSIS or surety bond callable on demand, in accordance with the following schedule:

| Form of Warranty | Amount of Warranty Security Not less than the Percentage (%) of Total Contract Price |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| (a) Cash or letter of credit issued by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank | Five Percent (5%) |
| (b) Bank guarantee confirmed by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank | Ten Percent (10%) |
| (c) Surety bond callable upon demand issued by GSIS or any surety or insurance company duly certified by the Insurance Commission | Thirty Percent (30%) |

12.7. The warranty security shall be stated in Philippine Pesos and shall remain effective for one year from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity, and returned only after the lapse of said one year period.

12.8. In case of structural defects/failure occurring during the applicable warranty period provided in **GCC** Clause 12.5, the Procuring Entity shall undertake the necessary restoration or reconstruction works and shall be entitled to full reimbursement by the parties found to be liable for expenses incurred therein upon demand, without prejudice to the filing of appropriate administrative, civil, and/or criminal charges against the responsible persons as well as the forfeiture of the warranty security posted in favor of the Procuring Entity.

13. Liability of the Contractor

Subject to additional provisions, if any, set forth in the SCC, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

14. Procuring Entity's Risk

14.1. From the Start Date until the Certificate of Final Acceptance has been issued, the following are risks of the Procuring Entity:

- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to:
 - (i) any type of use or occupation of the Site authorized by the Procuring Entity after the official acceptance of the works; or
 - (ii) negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed by or contracted to him except the Contractor.
- (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

15. Insurance

15.1. The Contractor shall, under his name and at his own expense, obtain and maintain, for the duration of this Contract, the following insurance coverage:

- (a) Contractor's All Risk Insurance;
- (b) Transportation to the project Site of Equipment, Machinery, and Supplies owned by the Contractor;
- (c) Personal injury or death of Contractor's employees; and
- (d) Comprehensive insurance for third party liability to Contractor's direct or indirect act or omission causing damage to third persons.

15.2. The Contractor shall provide evidence to the Procuring Entity's Representative that the insurances required under this Contract have been effected and shall, within a reasonable time, provide copies of the insurance policies to the Procuring Entity's Representative. Such evidence and such policies shall be provided to the Procuring Entity's through the Procuring Entity's Representative.

15.3. The Contractor shall notify the insurers of changes in the nature, extent, or program for the execution of the Works and ensure the adequacy of the insurances at all times in accordance with the terms of this Contract and shall

produce to the Procuring Entity's Representative the insurance policies in force including the receipts for payment of the current premiums.

The above insurance policies shall be obtained from any reputable insurance company approved by the Procuring Entity's Representative.

- 15.4. If the Contractor fails to obtain and keep in force the insurances referred to herein or any other insurance which he may be required to obtain under the terms of this Contract, the Procuring Entity may obtain and keep in force any such insurances and pay such premiums as may be necessary for the purpose. From time to time, the Procuring Entity may deduct the amount it shall pay for said premiums including twenty five percent (25%) therein from any monies due, or which may become due, to the Contractor, without prejudice to the Procuring Entity exercising its right to impose other sanctions against the Contractor pursuant to the provisions of this Contract.
- 15.5. In the event the Contractor fails to observe the above safeguards, the Procuring Entity may, at the Contractor's expense, take whatever measure is deemed necessary for its protection and that of the Contractor's personnel and third parties, and/or order the interruption of dangerous Works. In addition, the Procuring Entity may refuse to make the payments under GCC Clause 40 until the Contractor complies with this Clause.
- 15.6. The Contractor shall immediately replace the insurance policy obtained as required in this Contract, without need of the Procuring Entity's demand, with a new policy issued by a new insurance company acceptable to the Procuring Entity for any of the following grounds:
 - (a) The issuer of the insurance policy to be replaced has:
 - (i) become bankrupt;
 - (ii) been placed under receivership or under a management committee;
 - (iii) been sued for suspension of payment; or
 - (iv) been suspended by the Insurance Commission and its license to engage in business or its authority to issue insurance policies cancelled; or
 - (v) Where reasonable grounds exist that the insurer may not be able, fully and promptly, to fulfill its obligation under the insurance policy.

16. Termination for Default of Contractor

- 16.1. The Procuring Entity shall terminate this Contract for default when any of the following conditions attend its implementation:
 - (i) Due to the Contractor's fault and while the project is on-going, it has incurred negative slippage of fifteen percent (15%) or more in

accordance with Presidential Decree 1870, regardless of whether or not previous warnings and notices have been issued for the Contractor to improve his performance;

- (ii) Due to its own fault and after this Contract time has expired, the Contractor incurs delay in the completion of the Work after this Contract has expired; or
- (iii) The Contractor:
 - (i) abandons the contract Works, refuses or fails to comply with a valid instruction of the Procuring Entity or fails to proceed expeditiously and without delay despite a written notice by the Procuring Entity;
 - (ii) does not actually have on the project Site the minimum essential equipment listed on the bid necessary to prosecute the Works in accordance with the approved Program of Work and equipment deployment schedule as required for the project;
 - (iii) does not execute the Works in accordance with this Contract or persistently or flagrantly neglects to carry out its obligations under this Contract;
 - (iv) neglects or refuses to remove materials or to perform a new Work that has been rejected as defective or unsuitable; or
 - (v) sub-lets any part of this Contract without approval by the Procuring Entity.

16.2. All materials on the Site, Plant, Works, including Equipment purchased and funded under the Contract shall be deemed to be the property of the Procuring Entity if this Contract is rescinded because of the Contractor's default.

17. Termination for Default of Procuring Entity

The Contractor may terminate this Contract with the Procuring Entity if the works are completely stopped for a continuous period of at least sixty (60) calendar days through no fault of its own, due to any of the following reasons:

- (a) Failure of the Procuring Entity to deliver, within a reasonable time, supplies, materials, right-of-way, or other items it is obligated to furnish under the terms of this Contract; or
- (b) The prosecution of the Work is disrupted by the adverse peace and order situation, as certified by the Armed Forces of the Philippines Provincial Commander and approved by the Secretary of National Defense.

18. Termination for Other Causes

18.1. The Procuring Entity may terminate this Contract, in whole or in part, at any time for its convenience. The HoPE may terminate this Contract for the

convenience of the Procuring Entity if he has determined the existence of conditions that make Project Implementation economically, financially or technically impractical and/or unnecessary, such as, but not limited to, fortuitous event(s) or changes in law and National Government policies.

18.2. The Procuring Entity or the Contractor may terminate this Contract if the other party causes a fundamental breach of this Contract.

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

- (a) The Contractor stops work for twenty eight (28) days when no stoppage of work is shown on the current Program of Work and the stoppage has not been authorized by the Procuring Entity's Representative;
- (b) The Procuring Entity's Representative instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within twenty eight (28) days;
- (c) The Procuring Entity shall terminate this Contract if the Contractor is declared bankrupt or insolvent as determined with finality by a court of competent jurisdiction. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring Entity and/or the Contractor. In the case of the Contractor's insolvency, any Contractor's Equipment which the Procuring Entity instructs in the notice is to be used until the completion of the Works;
- (d) A payment certified by the Procuring Entity's Representative is not paid by the Procuring Entity to the Contractor within eighty four (84) days from the date of the Procuring Entity's Representative's certificate;
- (e) The Procuring Entity's Representative gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Procuring Entity's Representative;
- (f) The Contractor does not maintain a Security, which is required;
- (g) The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the **GCC** Clause 9; and
- (h) In case it is determined prima facie by the Procuring Entity that the Contractor has engaged, before or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to, the following:

- (i) corrupt, fraudulent, collusive, coercive, and obstructive practices as defined in **ITB** Clause 3.1(a), unless otherwise specified in the SCC;
 - (ii) drawing up or using forged documents;
 - (iii) using adulterated materials, means or methods, or engaging in production contrary to rules of science or the trade; and
 - (iv) any other act analogous to the foregoing.
- 18.4. The Funding Source or the Procuring Entity, as appropriate, will seek to impose the maximum civil, administrative and/or criminal penalties available under the applicable law on individuals and organizations deemed to be involved with corrupt, fraudulent, or coercive practices.
- 18.5. When persons from either party to this Contract gives notice of a fundamental breach to the Procuring Entity's Representative in order to terminate the existing contract for a cause other than those listed under **GCC** Clause 18.3, the Procuring Entity's Representative shall decide whether the breach is fundamental or not.
- 18.6. If this Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

19. Procedures for Termination of Contracts

- 19.1. The following provisions shall govern the procedures for the termination of this Contract:
- (a) Upon receipt of a written report of acts or causes which may constitute ground(s) for termination as aforementioned, or upon its own initiative, the Procuring Entity shall, within a period of seven (7) calendar days, verify the existence of such ground(s) and cause the execution of a Verified Report, with all relevant evidence attached;
 - (b) Upon recommendation by the Procuring Entity, the HoPE shall terminate this Contract only by a written notice to the Contractor conveying the termination of this Contract. The notice shall state:
 - (i) that this Contract is being terminated for any of the ground(s) afore-mentioned, and a statement of the acts that constitute the ground(s) constituting the same;
 - (ii) the extent of termination, whether in whole or in part;
 - (iii) an instruction to the Contractor to show cause as to why this Contract should not be terminated; and
 - (iv) special instructions of the Procuring Entity, if any.

The Notice to Terminate shall be accompanied by a copy of the Verified Report;

- (c) Within a period of seven (7) calendar days from receipt of the Notice of Termination, the Contractor shall submit to the HoPE a verified position paper stating why the contract should not be terminated. If the Contractor fails to show cause after the lapse of the seven (7) day period, either by inaction or by default, the HoPE shall issue an order terminating the contract;
- (d) The Procuring Entity may, at anytime before receipt of the Contractor's verified position paper described in item (c) above withdraw the Notice to Terminate if it is determined that certain items or works subject of the notice had been completed, delivered, or performed before the Contractor's receipt of the notice;
- (e) Within a non-extendible period of ten (10) calendar days from receipt of the verified position paper, the HoPE shall decide whether or not to terminate this Contract. It shall serve a written notice to the Contractor of its decision and, unless otherwise provided in the said notice, this Contract is deemed terminated from receipt of the Contractor of the notice of decision. The termination shall only be based on the ground(s) stated in the Notice to Terminate; and
- (f) The HoPE may create a Contract Termination Review Committee (CTRC) to assist him in the discharge of this function. All decisions recommended by the CTRC shall be subject to the approval of the HoPE.

19.2. Pursuant to Section 69(f) of RA 9184 and without prejudice to the imposition of additional administrative sanctions as the internal rules of the agency may provide and/or further criminal prosecution as provided by applicable laws, the procuring entity shall impose on contractors after the termination of the contract the penalty of suspension for one (1) year for the first offense, suspension for two (2) years for the second offense from participating in the public bidding process, for violations committed during the contract implementation stage, which include but not limited to the following:

- (a) Failure of the contractor, due solely to his fault or negligence, to mobilize and start work or performance within the specified period in the Notice to Proceed ("NTP");
- (b) Failure by the contractor to fully and faithfully comply with its contractual obligations without valid cause, or failure by the contractor to comply with any written lawful instruction of the procuring entity or its representative(s) pursuant to the implementation of the contract. For the procurement of infrastructure projects or consultancy contracts, lawful instructions include but are not limited to the following:
 - (i) Employment of competent technical personnel, competent engineers and/or work supervisors;

- (ii) Provision of warning signs and barricades in accordance with approved plans and specifications and contract provisions;
 - (iii) Stockpiling in proper places of all materials and removal from the project site of waste and excess materials, including broken pavement and excavated debris in accordance with approved plans and specifications and contract provisions;
 - (iv) Deployment of committed equipment, facilities, support staff and manpower; and
 - (v) Renewal of the effectivity dates of the performance security after its expiration during the course of contract implementation.
- (c) Assignment and subcontracting of the contract or any part thereof or substitution of key personnel named in the proposal without prior written approval by the procuring entity.
- (d) Poor performance by the contractor or unsatisfactory quality and/or progress of work arising from his fault or negligence as reflected in the Constructor's Performance Evaluation System ("CPES") rating sheet. In the absence of the CPES rating sheet, the existing performance monitoring system of the procuring entity shall be applied. Any of the following acts by the Contractor shall be construed as poor performance:
- (i) Negative slippage of 15% and above within the critical path of the project due entirely to the fault or negligence of the contractor; and
 - (ii) Quality of materials and workmanship not complying with the approved specifications arising from the contractor's fault or negligence.
- (e) Willful or deliberate abandonment or non-performance of the project or contract by the contractor resulting to substantial breach thereof without lawful and/or just cause.

In addition to the penalty of suspension, the performance security posted by the contractor shall also be forfeited.

20. Force Majeure, Release From Performance

- 20.1. For purposes of this Contract the terms "*force majeure*" and "fortuitous event" may be used interchangeably. In this regard, a fortuitous event or *force majeure* shall be interpreted to mean an event which the Contractor could not have foreseen, or which though foreseen, was inevitable. It shall not include ordinary unfavorable weather conditions; and any other cause the effects of which could have been avoided with the exercise of reasonable diligence by the Contractor.

- 20.2. If this Contract is discontinued by an outbreak of war or by any other event entirely outside the control of either the Procuring Entity or the Contractor, the Procuring Entity's Representative shall certify that this Contract has been discontinued. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all works carried out before receiving it and for any Work carried out afterwards to which a commitment was made.
- 20.3. If the event continues for a period of eighty four (84) days, either party may then give notice of termination, which shall take effect twenty eight (28) days after the giving of the notice.
- 20.4. After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the materials and Plant reasonably delivered to the Site, adjusted by the following:
- (a) any sum to which the Contractor is entitled under **GCC** Clause 28;
 - (b) the cost of his suspension and demobilization;
 - (c) any sum to which the Procuring Entity is entitled.
- 20.5. The net balance due shall be paid or repaid within a reasonable time period from the time of the notice of termination.

21. Resolution of Disputes

- 21.1. If any dispute or difference of any kind whatsoever shall arise between the parties in connection with the implementation of the contract covered by the Act and this IRR, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 21.2. If the Contractor believes that a decision taken by the Procuring Entity's Representative was either outside the authority given to the Procuring Entity's Representative by this Contract or that the decision was wrongly taken, the decision shall be referred to the Arbiter indicated in the **SCC** within fourteen (14) days of the notification of the Procuring Entity's Representative's decision.
- 21.3. Any and all disputes arising from the implementation of this Contract covered by the R.A. 9184 and its IRR shall be submitted to arbitration in the Philippines according to the provisions of Republic Act No. 876, otherwise known as the "Arbitration Law" and Republic Act 9285, otherwise known as the "Alternative Dispute Resolution Act of 2004": *Provided, however*, That, disputes that are within the competence of the Construction Industry Arbitration Commission to resolve shall be referred thereto. The process of arbitration shall be incorporated as a provision in this Contract that will be executed pursuant to the provisions of the Act and its IRR: *Provided, further*, That, by mutual agreement, the parties may agree in writing to resort to other alternative modes of dispute resolution.

22. Suspension of Loan, Credit, Grant, or Appropriation

In the event that the Funding Source suspends the Loan, Credit, Grant, or Appropriation to the Procuring Entity, from which part of the payments to the Contractor are being made:

- (a) The Procuring Entity is obligated to notify the Contractor of such suspension within seven (7) days of having received the suspension notice.
- (b) If the Contractor has not received sums due it for work already done within forty five (45) days from the time the Contractor's claim for payment has been certified by the Procuring Entity's Representative, the Contractor may immediately issue a suspension of work notice in accordance with **GCC** Clause 45.2.

23. Procuring Entity's Representative's Decisions

- 23.1. Except where otherwise specifically stated, the Procuring Entity's Representative will decide contractual matters between the Procuring Entity and the Contractor in the role representing the Procuring Entity.
- 23.2. The Procuring Entity's Representative may delegate any of his duties and responsibilities to other people, except to the Arbiter, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

24. Approval of Drawings and Temporary Works by the Procuring Entity's Representative

- 24.1. All Drawings prepared by the Contractor for the execution of the Temporary Works, are subject to prior approval by the Procuring Entity's Representative before its use.
- 24.2. The Contractor shall be responsible for design of Temporary Works.
- 24.3. The Procuring Entity's Representative's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 24.4. The Contractor shall obtain approval of third parties to the design of the Temporary Works, when required by the Procuring Entity.

25. Acceleration and Delays Ordered by the Procuring Entity's Representative

- 25.1. When the Procuring Entity wants the Contractor to finish before the Intended Completion Date, the Procuring Entity's Representative will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Procuring Entity accepts these proposals, the Intended Completion Date will be adjusted accordingly and confirmed by both the Procuring Entity and the Contractor.

- 25.2. If the Contractor's Financial Proposals for an acceleration are accepted by the Procuring Entity, they are incorporated in the Contract Price and treated as a Variation.

26. Extension of the Intended Completion Date

- 26.1. The Procuring Entity's Representative shall extend the Intended Completion Date if a Variation is issued which makes it impossible for the Intended Completion Date to be achieved by the Contractor without taking steps to accelerate the remaining work, which would cause the Contractor to incur additional costs. No payment shall be made for any event which may warrant the extension of the Intended Completion Date.
- 26.2. The Procuring Entity's Representative shall decide whether and by how much to extend the Intended Completion Date within twenty one (21) days of the Contractor asking the Procuring Entity's Representative for a decision thereto after fully submitting all supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

27. Right to Vary

- 27.1. The Procuring Entity's Representative with the prior approval of the Procuring Entity may instruct Variations, up to a maximum cumulative amount of ten percent (10%) of the original contract cost.
- 27.2. Variations shall be valued as follows:
- (a) At a lump sum price agreed between the parties;
 - (b) where appropriate, at rates in this Contract;
 - (c) in the absence of appropriate rates, the rates in this Contract shall be used as the basis for valuation; or failing which
 - (d) at appropriate new rates, equal to or lower than current industry rates and to be agreed upon by both parties and approved by the HoPE.

28. Contractor's Right to Claim

If the Contractor incurs cost as a result of any of the events under **GCC** Clause 13, the Contractor shall be entitled to the amount of such cost. If as a result of any of the said events, it is necessary to change the Works, this shall be dealt with as a Variation.

29. Dayworks

- 29.1. Subject to **GCC** Clause 43 on Variation Order, and if applicable as indicated in the **SCC**, the Dayworks rates in the Contractor's bid shall be used for small additional amounts of work only when the Procuring Entity's Representative

has given written instructions in advance for additional work to be paid for in that way.

- 29.2. All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Procuring Entity's Representative. Each completed form shall be verified and signed by the Procuring Entity's Representative within two days of the work being done.
- 29.3. The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

30. Early Warning

- 30.1. The Contractor shall warn the Procuring Entity's Representative at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Procuring Entity's Representative may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
- 30.2. The Contractor shall cooperate with the Procuring Entity's Representative in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Procuring Entity's Representative.

31. Program of Work

- 31.1. Within the time stated in the **SCC**, the Contractor shall submit to the Procuring Entity's Representative for approval a Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works.
- 31.2. An update of the Program of Work shall show the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 31.3. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC**. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.
- 31.4. The Procuring Entity's Representative's approval of the Program of Work shall not alter the Contractor's obligations. The Contractor may revise the Program of Work and submit it to the Procuring Entity's Representative again at any time. A revised Program of Work shall show the effect of any approved Variations.

- 31.5. When the Program of Work is updated, the Contractor shall provide the Procuring Entity's Representative with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.
- 31.6. All Variations shall be included in updated Program of Work produced by the Contractor.

32. Management Conferences

- 32.1. Either the Procuring Entity's Representative or the Contractor may require the other to attend a Management Conference. The Management Conference shall review the plans for remaining work and deal with matters raised in accordance with the early warning procedure.
- 32.2. The Procuring Entity's Representative shall record the business of Management Conferences and provide copies of the record to those attending the Conference and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the Procuring Entity's Representative either at the Management Conference or after the Management Conference and stated in writing to all who attended the Conference.

33. Bill of Quantities

- 33.1. The Bill of Quantities shall contain items of work for the construction, installation, testing, and commissioning of work to be done by the Contractor.
- 33.2. The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.
- 33.3. If the final quantity of any work done differs from the quantity in the Bill of Quantities for the particular item and is not more than twenty five percent (25%) of the original quantity, provided the aggregate changes for all items do not exceed ten percent (10%) of the Contract price, the Procuring Entity's Representative shall make the necessary adjustments to allow for the changes subject to applicable laws, rules, and regulations.
- 33.4. If requested by the Procuring Entity's Representative, the Contractor shall provide the Procuring Entity's Representative with a detailed cost breakdown of any rate in the Bill of Quantities.

34. Instructions, Inspections and Audits

- 34.1. The Procuring Entity's personnel shall at all reasonable times during construction of the Work be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of the construction.
- 34.2. If the Procuring Entity's Representative instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a defect

and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no defect, the test shall be a Compensation Event.

- 34.3. The Contractor shall permit the Funding Source named in the **SCC** to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Funding Source, if so required by the Funding Source.

35. Identifying Defects

The Procuring Entity's Representative shall check the Contractor's work and notify the Contractor of any defects that are found. Such checking shall not affect the Contractor's responsibilities. The Procuring Entity's Representative may instruct the Contractor to search uncover defects and test any work that the Procuring Entity's Representative considers below standards and defective.

36. Cost of Repairs

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

37. Correction of Defects

- 37.1. The Procuring Entity's Representative shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which is One (1) year from project completion up to final acceptance by the Procuring Entity's Representative.
- 37.2. Every time notice of a defect is given, the Contractor shall correct the notified defect within the length of time specified in the Procuring Entity's Representative's notice.
- 37.3. The Contractor shall correct the defects which he notices himself before the end of the Defects Liability Period.
- 37.4. The Procuring Entity shall certify that all defects have been corrected. If the Procuring Entity considers that correction of a defect is not essential, he can request the Contractor to submit a quotation for the corresponding reduction in the Contract Price. If the Procuring Entity accepts the quotation, the corresponding change in the SCC is a Variation.

38. Uncorrected Defects

- 38.1. The Procuring Entity shall give the Contractor at least fourteen (14) days notice of his intention to use a third party to correct a Defect. If the Contractor does not correct the Defect himself within the period, the Procuring Entity may have the Defect corrected by the third party. The cost of the correction will be deducted from the Contract Price.

- 38.2. The use of a third party to correct defects that are uncorrected by the Contractor will in no way relieve the Contractor of its liabilities and warranties under the Contract.

39. Advance Payment

- 39.1. The Procuring Entity shall, upon a written request of the contractor which shall be submitted as a contract document, make an advance payment to the contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum or, at the most two, installments according to a schedule specified in the **SCC**.
- 39.2. The advance payment shall be made only upon the submission to and acceptance by the Procuring Entity of an irrevocable standby letter of credit of equivalent value from a commercial bank, a bank guarantee or a surety bond callable upon demand, issued by a surety or insurance company duly licensed by the Insurance Commission and confirmed by the Procuring Entity.
- 39.3. The advance payment shall be repaid by the Contractor by an amount equal to the percentage of the total contract price used for the advance payment.
- 39.4. The contractor may reduce his standby letter of credit or guarantee instrument by the amounts refunded by the Monthly Certificates in the advance payment.
- 39.5. The Procuring Entity will provide an Advance Payment on the Contract Price as stipulated in the Conditions of Contract, subject to the maximum amount stated in **SCC** Clause 39.1.

40. Progress Payments

- 40.1. The Contractor may submit a request for payment for Work accomplished. Such request for payment shall be verified and certified by the Procuring Entity's Representative/Project Engineer. Except as otherwise stipulated in the **SCC**, materials and equipment delivered on the site but not completely put in place shall not be included for payment.
- 40.2. The Procuring Entity shall deduct the following from the certified gross amounts to be paid to the contractor as progress payment:
- (a) Cumulative value of the work previously certified and paid for.
 - (b) Portion of the advance payment to be recouped for the month.
 - (c) Retention money in accordance with the condition of contract.
 - (d) Amount to cover third party liabilities.
 - (e) Amount to cover uncorrected discovered defects in the works.
- 40.3. Payments shall be adjusted by deducting therefrom the amounts for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Procuring Entity's Representative within twenty eight

(28) days from the date each certificate was issued. No payment of interest for delayed payments and adjustments shall be made by the Procuring Entity.

- 40.4. The first progress payment may be paid by the Procuring Entity to the Contractor provided that at least twenty percent (20%) of the work has been accomplished as certified by the Procuring Entity's Representative.
- 40.5. Items of the Works for which a price of "0" (zero) has been entered will not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

41. Payment Certificates

- 41.1. The Contractor shall submit to the Procuring Entity's Representative monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 41.2. The Procuring Entity's Representative shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 41.3. The value of Work executed shall:
 - (a) be determined by the Procuring Entity's Representative;
 - (b) comprise the value of the quantities of the items in the Bill of Quantities completed; and
 - (c) include the valuations of approved variations.
- 41.4. The Procuring Entity's Representative may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

42. Retention

- 42.1. The Procuring Entity shall retain from each payment due to the Contractor an amount equal to a percentage thereof using the rate as specified in GCC Sub-Clause 42.2.
- 42.2. Progress payments are subject to retention of ten percent (10%), referred to as the "retention money." Such retention shall be based on the total amount due to the Contractor prior to any deduction and shall be retained from every progress payment until fifty percent (50%) of the value of Works, as determined by the Procuring Entity, are completed. If, after fifty percent (50%) completion, the Work is satisfactorily done and on schedule, no additional retention shall be made; otherwise, the ten percent (10%) retention shall again be imposed using the rate specified therefor.
- 42.3. The total "retention money" shall be due for release upon final acceptance of the Works. The Contractor may, however, request the substitution of the retention money for each progress billing with irrevocable standby letters of credit from a commercial bank, bank guarantees or surety bonds callable on

demand, of amounts equivalent to the retention money substituted for and acceptable to the Procuring Entity, provided that the project is on schedule and is satisfactorily undertaken. Otherwise, the ten (10%) percent retention shall be made. Said irrevocable standby letters of credit, bank guarantees and/or surety bonds, to be posted in favor of the Government shall be valid for a duration to be determined by the concerned implementing office/agency or Procuring Entity and will answer for the purpose for which the ten (10%) percent retention is intended, *i.e.*, to cover uncorrected discovered defects and third party liabilities.

- 42.4. On completion of the whole Works, the Contractor may substitute retention money with an “on demand” Bank guarantee in a form acceptable to the Procuring Entity.

43. Variation Orders

- 43.1. Variation Orders may be issued by the Procuring Entity to cover any increase/decrease in quantities, including the introduction of new work items that are not included in the original contract or reclassification of work items that are either due to change of plans, design or alignment to suit actual field conditions resulting in disparity between the preconstruction plans used for purposes of bidding and the “as staked plans” or construction drawings prepared after a joint survey by the Contractor and the Procuring Entity after award of the contract, provided that the cumulative amount of the Variation Order does not exceed ten percent (10%) of the original project cost. The addition/deletion of Works should be within the general scope of the project as bid and awarded. The scope of works shall not be reduced so as to accommodate a positive Variation Order. A Variation Order may either be in the form of a Change Order or Extra Work Order.
- 43.2. A Change Order may be issued by the Procuring Entity to cover any increase/decrease in quantities of original Work items in the contract.
- 43.3. An Extra Work Order may be issued by the Procuring Entity to cover the introduction of new work necessary for the completion, improvement or protection of the project which were not included as items of Work in the original contract, such as, where there are subsurface or latent physical conditions at the site differing materially from those indicated in the contract, or where there are duly unknown physical conditions at the site of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the Work or character provided for in the contract.
- 43.4. Any cumulative Variation Order beyond ten percent (10%) shall be subject of another contract to be bid out if the works are separable from the original contract. In exceptional cases where it is urgently necessary to complete the original scope of work, the HoPE may authorize a positive Variation Order go beyond ten percent (10%) but not more than twenty percent (20%) of the original contract price, subject to the guidelines to be determined by the GPPB: *Provided, however*, That appropriate sanctions shall be imposed on the designer, consultant or official responsible for the original detailed

engineering design which failed to consider the Variation Order beyond ten percent (10%).

43.5. In claiming for any Variation Order, the Contractor shall, within seven (7) calendar days after such work has been commenced or after the circumstances leading to such condition(s) leading to the extra cost, and within twenty-eight (28) calendar days deliver a written communication giving full and detailed particulars of any extra cost in order that it may be investigated at that time. Failure to provide either of such notices in the time stipulated shall constitute a waiver by the contractor for any claim. The preparation and submission of Variation Orders are as follows:

- (a) If the Procuring Entity's representative/Project Engineer believes that a Change Order or Extra Work Order should be issued, he shall prepare the proposed Order accompanied with the notices submitted by the Contractor, the plans therefore, his computations as to the quantities of the additional works involved per item indicating the specific stations where such works are needed, the date of his inspections and investigations thereon, and the log book thereof, and a detailed estimate of the unit cost of such items of work, together with his justifications for the need of such Change Order or Extra Work Order, and shall submit the same to the HoPE for approval.
- (b) The HoPE or his duly authorized representative, upon receipt of the proposed Change Order or Extra Work Order shall immediately instruct the appropriate technical staff or office of the Procuring Entity to conduct an on-the-spot investigation to verify the need for the Work to be prosecuted and to review the proposed plan, and prices of the work involved.
- (c) The technical staff or appropriate office of the Procuring Entity shall submit a report of their findings and recommendations, together with the supporting documents, to the Head of Procuring Entity or his duly authorized representative for consideration.
- (d) The HoPE or his duly authorized representative, acting upon the recommendation of the technical staff or appropriate office, shall approve the Change Order or Extra Work Order after being satisfied that the same is justified, necessary, and in order.
- (e) The timeframe for the processing of Variation Orders from the preparation up to the approval by the Procuring Entity concerned shall not exceed thirty (30) calendar days.

44. Contract Completion

Once the project reaches an accomplishment of ninety five (95%) of the total contract amount, the Procuring Entity may create an inspectorate team to make preliminary inspection and submit a punch-list to the Contractor in preparation for the final turnover of the project. Said punch-list will contain, among others, the remaining Works, Work deficiencies for necessary corrections, and the specific duration/time to

fully complete the project considering the approved remaining contract time. This, however, shall not preclude the claim of the Procuring Entity for liquidated damages.

45. Suspension of Work

- 45.1. The Procuring Entity shall have the authority to suspend the work wholly or partly by written order for such period as may be deemed necessary, due to *force majeure* or any fortuitous events or for failure on the part of the Contractor to correct bad conditions which are unsafe for workers or for the general public, to carry out valid orders given by the Procuring Entity or to perform any provisions of the contract, or due to adjustment of plans to suit field conditions as found necessary during construction. The Contractor shall immediately comply with such order to suspend the work wholly or partly.
- 45.2. The Contractor or its duly authorized representative shall have the right to suspend work operation on any or all projects/activities along the critical path of activities after fifteen (15) calendar days from date of receipt of written notice from the Contractor to the district engineer/regional director/consultant or equivalent official, as the case may be, due to the following:
- (a) There exist right-of-way problems which prohibit the Contractor from performing work in accordance with the approved construction schedule.
 - (b) Requisite construction plans which must be owner-furnished are not issued to the contractor precluding any work called for by such plans.
 - (c) Peace and order conditions make it extremely dangerous, if not possible, to work. However, this condition must be certified in writing by the Philippine National Police (PNP) station which has responsibility over the affected area and confirmed by the Department of Interior and Local Government (DILG) Regional Director.
 - (d) There is failure on the part of the Procuring Entity to deliver government-furnished materials and equipment as stipulated in the contract.
 - (e) Delay in the payment of Contractor's claim for progress billing beyond forty-five (45) calendar days from the time the Contractor's claim has been certified to by the procuring entity's authorized representative that the documents are complete unless there are justifiable reasons thereof which shall be communicated in writing to the Contractor.
- 45.3. In case of total suspension, or suspension of activities along the critical path, which is not due to any fault of the Contractor, the elapsed time between the effectivity of the order suspending operation and the order to resume work shall be allowed the Contractor by adjusting the contract time accordingly.

46. Payment on Termination

- 46.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Procuring Entity's Representative shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.
- 46.2. If the Contract is terminated for the Procuring Entity's convenience or because of a fundamental breach of Contract by the Procuring Entity, the Procuring Entity's Representative shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.
- 46.3. The net balance due shall be paid or repaid within twenty eight (28) days from the notice of termination.
- 46.4. If the Contractor has terminated the Contract under **GCC** Clauses 17 or 18, the Procuring Entity shall promptly return the Performance Security to the Contractor.

47. Extension of Contract Time

- 47.1. Should the amount of additional work of any kind or other special circumstances of any kind whatsoever occur such as to fairly entitle the contractor to an extension of contract time, the Procuring Entity shall determine the amount of such extension; provided that the Procuring Entity is not bound to take into account any claim for an extension of time unless the Contractor has, prior to the expiration of the contract time and within thirty (30) calendar days after such work has been commenced or after the circumstances leading to such claim have arisen, delivered to the Procuring Entity notices in order that it could have investigated them at that time. Failure to provide such notice shall constitute a waiver by the Contractor of any claim. Upon receipt of full and detailed particulars, the Procuring Entity shall examine the facts and extent of the delay and shall extend the contract time completing the contract work when, in the Procuring Entity's opinion, the findings of facts justify an extension.
- 47.2. No extension of contract time shall be granted the Contractor due to (a) ordinary unfavorable weather conditions and (b) inexcusable failure or negligence of Contractor to provide the required equipment, supplies or materials.
- 47.3. Extension of contract time may be granted only when the affected activities fall within the critical path of the PERT/CPM network.
- 47.4. No extension of contract time shall be granted when the reason given to support the request for extension was already considered in the determination

of the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection.

- 47.5. Extension of contract time shall be granted for rainy/unworkable days considered unfavorable for the prosecution of the works at the site, based on the actual conditions obtained at the site, in excess of the number of rainy/unworkable days pre-determined by the Procuring Entity in relation to the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection, and/or for equivalent period of delay due to major calamities such as exceptionally destructive typhoons, floods and earthquakes, and epidemics, and for causes such as non-delivery on time of materials, working drawings, or written information to be furnished by the Procuring Entity, non-acquisition of permit to enter private properties or non-execution of deed of sale or donation within the right-of-way resulting in complete paralyzation of construction activities, and other meritorious causes as determined by the Procuring Entity's Representative and approved by the HoPE. Shortage of construction materials, general labor strikes, and peace and order problems that disrupt construction operations through no fault of the Contractor may be considered as additional grounds for extension of contract time provided they are publicly felt and certified by appropriate government agencies such as DTI, DOLE, DILG, and DND, among others. The written consent of bondsmen must be attached to any request of the Contractor for extension of contract time and submitted to the Procuring Entity for consideration and the validity of the Performance Security shall be correspondingly extended.

48. Price Adjustment

Except for extraordinary circumstances as determined by NEDA and approved by the GPPB, no price escalation shall be allowed. Nevertheless, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the GoP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

49. Completion

The Contractor shall request the Procuring Entity's Representative to issue a certificate of Completion of the Works, and the Procuring Entity's Representative will do so upon deciding that the work is completed.

50. Taking Over

The Procuring Entity shall take over the Site and the Works within seven (7) days from the date the Procuring Entity's Representative issues a certificate of Completion.

51. Operating and Maintenance Manuals

- 51.1. If “as built” Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the **SCC**.
- 51.2. If the Contractor does not supply the Drawings and/or manuals by the dates stated in the **SCC**, or they do not receive the Procuring Entity’s Representative’s approval, the Procuring Entity’s Representative shall withhold the amount stated in the **SCC** from payments due to the Contractor.

Section V. Special Conditions of Contract

Special Conditions of Contract

| GCC Clause | |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.17 | The Intended Completion Date is <i>September 7, 2018</i> . |
| 1.22 | The Procuring Entity is <i>Procurement Service Depot III, Regional Government Center, Brgy. Maimpis, City of San Fernando (P)</i> . |
| 1.23 | The Procuring Entity's Representative is <i>Elisa D. Salon, Department of Budget and Management Regional Office III, Regional Government Center, Brgy. Maimpis, City of San Fernando (P)</i> . |
| 1.24 | The Site is located at <i>Gov't Center, Brgy. Maimpis, City of San Fernando (P)</i> and is defined in drawings. |
| 1.28 | The Start Date is <i>June 24, 2018</i> . |
| 1.31 | <p>The Works consist of:</p> <ul style="list-style-type: none"> • <i>Project Billboard / Signboard</i> • <i>Occupational Safety and Health</i> • <i>Structure Excavation</i> • <i>Embankment</i> • <i>Reinforced Concrete</i> • <i>Masonry Works</i> • <i>Cement Plaster Finish</i> • <i>Cement Floor Finish</i> • <i>Roadway and Paved Parking</i> • <i>Metal Structures</i> • <i>Pre- painted Metal Sheets</i> • <i>Carpentry and Joinery Works (Ceiling)</i> • <i>Doors and Gate</i> • <i>Aluminum Glass Windows</i> • <i>Conduits, Boxes and Fittings</i> • <i>Wires and Wiring Devices</i> • <i>Power Load Center, Switchgear and Panelboards</i> • <i>Lighting Fixtures</i> • <i>Plumbing</i> • <i>Painting Works</i> |
| 2.2 | <i>Not applicable.</i> |
| 5.1 | The Procuring Entity shall give possession of all parts of the Site to the Contractor <i>June 24, 2018</i> . |
| 6.5 | <p>The Contractor shall employ the following Key Personnel:</p> <p>Foreman Skilled Laborer Unskilled Laborer</p> |
| 7.4(c) | No further instructions. |
| 7.7 | No further instructions. |

| | |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.1 | No further instructions. |
| 10 | None |
| 12.3 | No further instructions. |
| 12.5 | <p>Permanent Structures: Fifteen (15) years</p> <p>Buildings of types 4 (steel, iron, concrete, or masonry construction with walls, ceilings, and permanent partitions of incombustible fire resistance) and 5 (steel, iron, concrete, or masonry construction), steel and concrete bridges, flyovers, concrete aircraft movement areas, ports, dams, diversion tunnels, causeways, wharves, piers, dikes, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar structures.</p> |
| 13 | “No additional provision.” <i>or, if the Contractor is a joint venture, “All partners to the joint venture shall be jointly and severally liable to the Procuring Entity</i> |
| 18.3(h)(i) | No further instructions. |
| 21.2 | <p>The Arbiter is:</p> <p>Construction Industry Authority of the Philippines 2/F &5/F, Executive Center Bldg. 369 Gil Puyat Ave., cor. Makati Ave., Makati City Tel. Nos.: (+632) 895-4424 / 895-6826 Fax No.: (+632) 897-9336</p> <p>E-Mail: ciapdti@yahoo.com</p> |
| 29.1 | Dayworks are applicable at the rate shown in the Contractor’s original Bid. |
| 31.1 | The Contractor shall submit the Program of Work to the Procuring Entity’s Representative within three (3) days of delivery of the Notice of Award. |
| 31.3 | <p>The period between Program of Work updates is 25 days.</p> <p>The amount to be withheld for late submission of an updated Program of Work is <i>P5,000.00</i>.</p> |
| 34.3 | The Funding Source is the <i>Government of the Philippines</i> . |
| 39.1 | The amount of the advance payment is <i>15% of the contract to be made in lump-sum</i> . |
| 40.1 | No further instructions. |
| 51.1 | <p>The date by which operating and maintenance manuals are required is <i>June 24, 2018</i>.</p> <p>The date by which “as built” drawings are required is <i>June 24, 2018</i>.</p> |
| 51.2 | The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required is <i>P5,000.00</i> . |

Section VI. Specifications

See attached file or annex

Section VII. Drawings

See attached file or annex

Section VIII. Bill of Quantities

See attached file or annex

Section IX. Bidding Forms

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Bid Form

Date: _____

IB¹ N°: _____

To: *[name and address of PROCURING ENTITY]*

Address: *[insert address]*

We, the undersigned, declare that:

- (a) We have examined and have no reservation to the Bidding Documents, including Addenda, for the Contract *[insert name of contract]*;
- (b) We offer to execute the Works for this Contract in accordance with the Bid and Bid Data Sheet, General and Special Conditions of Contract accompanying this Bid;

The total price of our Bid, excluding any discounts offered below is: *[insert information]*;

The discounts offered and the methodology for their application are: *[insert information]*;

- (c) Our Bid shall be valid for a period of *[insert number]* days from the date fixed for the Bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract;
- (e) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from the following eligible countries: *[insert information]*;
- (f) We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- (g) Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the Funding Source;
- (h) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

¹ If ADB, JICA and WB funded projects, use IFB.

- (i) We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.
- (j) **We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the [Name of the Procuring Entity].**
- (k) **We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.**

Name: _____

In the capacity of: _____

Signed: _____

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

Date: _____

Form of Contract Agreement

THIS AGREEMENT, made this *[insert date]* day of *[insert month]*, *[insert year]* between *[name and address of PROCURING ENTITY]* (hereinafter called the “Entity”) and *[name and address of Contractor]* (hereinafter called the “Contractor”).

WHEREAS, the Entity is desirous that the Contractor execute *[name and identification number of contract]* (hereinafter called “the Works”) and the Entity has accepted the Bid for *[insert the amount in specified currency in numbers and words]* by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be attached, deemed to form, and be read and construed as integral part of this Agreement, to wit:
 - (a) General and Special Conditions of Contract;
 - (b) Drawings/Plans;
 - (c) Specifications;
 - (d) Invitation to Bid;
 - (e) Instructions to Bidders;
 - (f) Bid Data Sheet;
 - (g) Addenda and/or Supplemental/Bid Bulletins, if any;
 - (h) Bid form, including all the documents/statements contained in the Bidder’s bidding envelopes, as annexes, and all other documents submitted (e.g., Bidder’s response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity’s bid evaluation;
 - (i) Eligibility requirements, documents and/or statements;
 - (j) Performance Security;
 - (k) Notice of Award of Contract and the Bidder’s conforme thereto;
 - (l) Other contract documents that may be required by existing laws and/or the Entity.
3. In consideration of the payments to be made by the Entity to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Entity to execute and complete the Works and remedy any defects therein in conformity with the provisions of this Contract in all respects.

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

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

Signed, sealed, delivered by _____ the _____ (for the Entity)

Signed, sealed, delivered by _____ the _____ (for the Contractor).

Binding Signature of Procuring Entity

Binding Signature of Contractor

[Addendum showing the corrections, if any, made during the Bid evaluation should be attached with this agreement]

Omnibus Sworn Statement

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, *[Name of Affiant]*, of legal age, *[Civil Status]*, *[Nationality]*, and residing at *[Address of Affiant]*, after having been duly sworn in accordance with law, do hereby depose and state that:

1. *Select one, delete the other:*

If a sole proprietorship: I am the sole proprietor or authorized representative of *[Name of Bidder]* with office address at *[address of Bidder]*;

If a partnership, corporation, cooperative, or joint venture: I am the duly authorized and designated representative of *[Name of Bidder]* with office address at *[address of Bidder]*;

2. *Select one, delete the other:*

If a sole proprietorship: As the owner and sole proprietor or authorized representative of *[Name of Bidder]*, I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for *[Name of the Project]* of the *[Name of the Procuring Entity]* *[insert "as shown in the attached duly notarized Special Power of Attorney" for the authorized representative]*;

If a partnership, corporation, cooperative, or joint venture: I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for *[Name of the Project]* of the *[Name of the Procuring Entity]*, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary's Certificate, whichever is applicable;

3. *[Name of Bidder]* is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board;
4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. *[Name of Bidder]* is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. ***Select one, delete the rest:***

If a sole proprietorship: The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a partnership or cooperative: None of the officers and members of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a corporation or joint venture: None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and
8. *[Name of Bidder]* is aware of and has undertaken the following responsibilities as a Bidder:
- a) Carefully examine all of the Bidding Documents;
 - b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;
 - c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d) Inquire or secure Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.
9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of ____, 20__ at _____, Philippines.

Bidder's Representative/Authorized Signatory

SUBSCRIBED AND SWORN to before me this ____ day of *[month]* *[year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____ and his/her Community Tax Certificate No. _____ issued on ____ at _____.

Witness my hand and seal this ____ day of *[month]* *[year]*.

NAME OF NOTARY PUBLIC

Serial No. of Commission _____

Notary Public for _____ until _____

Roll of Attorneys No. _____

PTR No. _____ *[date issued]*, *[place issued]*

IBP No. _____ *[date issued]*, *[place issued]*

Doc. No. _____

Page No. _____

Book No. _____

Series of _____

* This form will not apply for WB funded projects.

Bid-Securing Declaration

(REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

X-----X

Invitation to Bid *[Insert reference number]*

To: *[Insert name and address of the Procuring Entity]*

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1 (f), of the IRR of RA 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid-Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;
 - c. I am/we are declared as the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of *[month]* *[year]* at *[place of execution]*.

[Insert NAME OF BIDDER'S AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]

Affiant

SUBSCRIBED AND SWORN to before me this ____ day of *[month]* *[year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____.

Witness my hand and seal this ____ day of *[month]* *[year]*.

NAME OF NOTARY PUBLIC

Serial No. of Commission _____
Notary Public for _____ **until** _____
Roll of Attorneys No. _____
PTR No. __, *[date issued]*, *[place issued]*
IBP No. __, *[date issued]*, *[place issued]*
Doc. No. ____
Page No. ____
Book No. ____
Series of ____.



BILL OF QUANTITIES

Project : Construction of Procurement Service Hub

Item No. : B.5

Description: Project Billboard/Signboard

| | | Quantity | | 2 | |
|-------------------------------------------|-----------------------------|----------|-----------|-----------|------|
| | | Unit | | each | |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| M A T E R I A L S | 4' x 8' Tarpaulin | 96 | sq.ft. | | |
| | Assorted Rough Lumber | 70 | bd.ft. | | |
| | 1/4" x 4' x 8' Ord. Plywood | 3 | pcs | | |
| | Assorted CWN | 2 | kgs | | |
| A. | TOTAL | | | | |
| | NAME & CAPACITY | UNIT | No.of hrs | UNIT RATE | COST |
| E Q U I P M E N T | | | | | |
| B. | TOTAL | | | | |
| | DESIGNATION OF PERSONNEL | No. | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 1 | | |
| | Skilled Laborer | 1 | 1 | | |
| | Unskilled Laborer | 2 | 1 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : B.7

Description: Occupational Safety and Health Program

Quantity
Unit 2.5
mos.

| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
|-------------------------------------------|---------------------------|--------|-----------|-----------|------|
| M A T E R I A L S | Safety Shoes | 599 | Man-Day | | |
| | Safety Helmets | 599 | Man-Day | | |
| | Safety Gloves | 599 | Man-Day | | |
| | Safety Kit | 1 | lot | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of hrs | UNIT RATE | COST |
| E Q U I P M E N T | | | | | |
| B. | TOTAL | | | | |
| | DESIGNATION OF PERSONNEL | NUMBER | No.of Day | UNIT RATE | COST |
| L A B O R | First Aider | 1 | 75 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 803 (1)a

Description: Structure Excavation

Quantity
Unit

28
cu.m.

| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
|-------------------------------------------|------------------------------------------|--------|-------------|-----------|------|
| M A T E R I A L S | | | | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of hours | UNIT RATE | COST |
| E Q U I P M E N T | Electric Jack hammer (operated) | 1 | 8 | | |
| | Minor Tools (excavating and barricading) | 1 | lot | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NUMBER | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 2 | | |
| | Unskilled Laborer | 3 | 2 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 804
Description: Embankment

| | | Quantity | | 94 | |
|-------------------------------------------|------------------------------------------|----------|------------|-----------|------|
| | | Unit | | cu.m. | |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| M A T E R I A L S | Common Borrow | 94 | cu.m. | | |
| | Gravel bedding | 8 | cu.m. | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of hrs. | UNIT RATE | COST |
| E Q U I P M E N T | Soil Compactor Roller (operated) | 1 | 4 | | |
| | Minor tools (wheel borrow, shovel, etc.) | 1 | lot | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NUMBER | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 5 | | |
| | Unskilled Laborer | 2 | 5 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 900 (7)

Description: Reinforced Concrete

| | | | | Quantity | 36 |
|----|------------------------------------------------|--------|------------|-----------|-------|
| | | | | Unit | cu.m. |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| M | Cement | 324 | bags | | |
| A | Fine Aggts. | 18 | cu.m. | | |
| T | Course Aggts. | 36 | cu.m. | | |
| E | Rebars | 3457 | kgs | | |
| R | #16 Tie Wire | 66 | kgs | | |
| I | Formworks and scaffoldings lumber | 1351 | bd.ft | | |
| A | Asstd CWN | 70 | kgs | | |
| L | 12.5mm thk plywood | 38 | pcs | | |
| S | | | | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of days | UNIT RATE | COST |
| E | 1 unit Bagger Concrete Mixer rental (operated) | 1 | 7 | | |
| Q | Concrete vibrator | 1 | 3 | | |
| U | Bar cutter | 1 | 5 | | |
| I | | | | | |
| P | | | | | |
| M | | | | | |
| E | | | | | |
| N | | | | | |
| T | | | | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NUMBER | No.of Day | UNIT RATE | COST |
| L | Foreman | 1 | 30 | | |
| A | Skilled Laborer | 2 | 30 | | |
| B | Unskilled Laborer | 3 | 30 | | |
| O | | | | | |
| R | | | | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 1046
Description: Masonry Works

| | | | | Quantity | 151 |
|-------------------------------------------|------------------------------|--------|------------|-----------|------|
| | | | | Unit | sq.m |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| M A T E R I A L S | Cement | 108 | bags | | |
| | Fine Aggts. | 9 | cu.m. | | |
| | 5" x 8" x 16" CHB | 1,888 | pcs | | |
| | Rebars | 480 | kgs | | |
| | #16 tie wire | 9 | kgs | | |
| | Concrete Louver | 13 | sqm | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of days | UNIT RATE | COST |
| E Q U I P M E N T | Scaffoldings and Minor Tools | 1 | lot | | |
| | One Bagger Concrete Mixer | 1 | 3 | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NUMBER | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 8 | | |
| | Skilled Laborer | 2 | 8 | | |
| | Unskilled Laborer | 2 | 8 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 1027 (1)a

Description: Cement Plaster Finish

Quantity 302.00
Unit sq.m

| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
|-------------------------------------------|-----------------------------------|---------|---------------|-----------|------|
| M A T E R I A L S | Cement Fine Aggts. | 58 5 | bags cu.m. | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of days | UNIT RATE | COST |
| E Q U I P M E N T | One Bagger Conc. Mixer (Operated) | 1 | 2 | | - |
| | Scaffolding and other minor tools | 1 | lot | | - |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | No. | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 3 | | |
| | Skilled Laborer | 1 | 3 | | |
| | Unskilled Laborer | 1 | 3 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 1021(1)a
Description: Cement Floor Finish

| | | | | Quantity Unit | 145.00 sq.m |
|-------------------------------------------|-------------------------------------------------|-------------|---------------|------------------|----------------|
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| M A T E R I A L S | Cement Fine Aggts. | 58 6 | bags cu.m. | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of days | UNIT RATE | COST |
| E Q U I P M E N T | One Bagger Conc. Mixer (Operated) | 1 | 2 | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | No. | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman Skilled Laborer Unskilled Laborer | 1 1 1 | 2 2 2 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : SPL I
Description: Roadway and Paved Parking

| | | | | Quantity Unit | 13 cu.m. |
|-------------------------------------------|------------------------------------------------|--------|------------|------------------|-------------|
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| M A T E R I A L S | Cement | 124 | bags | | |
| | Fine Aggts. | 7 | cu.m. | | |
| | Course Aggts. | 14 | cu.m. | | |
| | Gravel Bedding | 5 | cu.m. | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of days | UNIT RATE | COST |
| E Q U I P M E N T | 1 unit Bagger Concrete Mixer rental (operated) | 1 | 2 | | |
| | Minor Tools | 1 | lot | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NUMBER | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 5 | | |
| | Skilled Laborer | 1 | 5 | | |
| | Unskilled Laborer | 3 | 5 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 1047
Description: Metal Structures

| | | Quantity | | Unit | | 1 |
|-------------------------------------------|-----------------------------------------------------------------------------------------|----------|-----------|-----------|------|-----|
| | | | | | | lot |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST | |
| M A T E R I A L S | 75mm dia GI Pipe S20 Bended | 25 | pcs | | | |
| | 50mm dia GI Pipe S20 | 60 | pcs | | | |
| | 50mm x 100mm x 1.5mm Tubular Bar | 51 | pcs | | | |
| | 37.50mm x 37.50mm x 4.5mm thk Angular | 8 | pcs | | | |
| | 10mm dia Plain Round Bar | 11 | pcs | | | |
| | 0.20m x 0.30m x 4mm MS Plate | 10 | pcs | | | |
| | 16mm dia x 0.20m Dyna Bolts | 30 | pcs | | | |
| | 16mm dia x 0.20m Machine Bolts | 30 | pcs | | | |
| | 12mm dia x 0.10m Machine Bolts | 50 | pcs | | | |
| | 50mm x 100mm C-purlins | 112 | pcs | | | |
| | Miscellaneous & Consumables & Contiger (primer paint, welding rod, 2coat QDE, etc..) | 1 | lot | | | |
| A. | TOTAL | | | | | - |
| | NAME & CAPACITY | UNIT | No.of hrs | UNIT RATE | COST | |
| E Q U I P M E N T | Welding machine, (operated) | 1 | 16 | | | |
| | Cuting tools, bender, scaffoldings and minor tools | 1 | lot | | | |
| B. | TOTAL | | | | | - |
| | DESIGNATION OF PERSONNEL | NO. | No.of Day | UNIT RATE | COST | |
| L A B O R | Foreman | 1 | 25 | | | |
| | Skilled Laborer | 2 | 25 | | | |
| | Unskilled Laborer | 2 | 25 | | | |
| C. | TOTAL | | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | | - |
| E. | MARK UPS (% OF D) | | | | | - |
| F. | VAT (5% OF D+E) | | | | | - |
| G. | TOTAL COST (D+E+F) | | | | | - |
| H. | UNIT COST | | | | | - |

Item No. : 1014

Description: Pre-painted Metal Sheets

| | | | | Quantity | 465 |
|-------------------------------------------|------------------------------------------------------------------------|------|-----------|-----------|-------|
| | | | | Unit | sq.m. |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| M A T E R I A L S | Ga 26 Prepainted Roofing (Curved) | 235 | sqm | | |
| | Ga 26 Prepainted Roofing (Longspan) | 230 | sqm | | |
| | Ga 26 Prepainted GI Flashing | 27 | lm | | |
| | Ga 26 Prepainted GI Side flashing | 22 | lm | | |
| | Ga 24 Pre-painted gutter | 48 | lm | | |
| | GI Strap | 89 | pcs | | |
| | 1 3/4" roof screw | 2240 | pcs | | |
| | Water sealant | 6 | tubes | | |
| | G.I. strainer | 10 | pcs | | |
| | Blind rivets | 3 | box | | |
| | #16 Tie wire | 10 | kgs | | |
| | 5.0mm x 1.0m x 50.0m Insulation (Single s | 4 | rolls | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of hrs | UNIT RATE | COST |
| E Q U I P M E N T | Scaffoldings, cutting tools, Electric Drill, Riviter & TekscREW Driver | 1 | lot | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NO. | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 10 | | |
| | Skilled Laborer | 2 | 10 | | |
| | Unskilled Laborer | 3 | 10 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 1003(1)a1

Description: Carpentry and Joinery Works (Ceiling)

Quantity
Unit

36
sq.m.

| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
|-------------------------------------------|------------------------------------------------------------------------|------|-----------|-----------|------|
| M | 19mm x 50mm x 5m Metal furring | 43 | pcs | | |
| A | 12mm x 38mm x 5m Carrying channel | 11 | pcs | | |
| T | 25mm x 25mm x 2.4m Wall angle | 18 | pcs | | |
| E | 4.5mm thk x 1.2m x 2.4m Fiber Cement Board | 15 | pcs | | |
| R | Blind rivets | 2 | box | | |
| I | Wall clip | 145 | pcs | | |
| A | Wooden exhaust | 3 | pcs | | |
| L | Tex Screw | 49 | pcs | | |
| S | Concrete Nail w/tox | 60 | pcs | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of hrs | UNIT RATE | COST |
| E Q U I P M E N T | Scaffoldings, cutting tools, Electric Drill, Riviter & Tekscrew Driver | 1 | lot | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NO. | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 3 | | |
| | Skilled Laborer | 1 | 3 | | |
| | Unskilled Laborer | 2 | 3 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : SPL II
Description: Doors and Gate

| | | | | Quantity | 1 |
|----|----------------------------------------|------|-----------|-----------|------|
| | | | | Unit | lot |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| M | 3.00m) | 4 | sets | | |
| A | 3.00m) | 2 | sets | | |
| T | 3.00m) | 2 | sets | | |
| E | Metal Door (0.90m x 2.10m) | 1 | set | | |
| R | Hinges | 4 | pairs | | |
| I | Door padlock | 16 | pcs | | |
| A | Steel Gate (7.00m x 2.50m)incl.acc'ss. | 1 | lot | | |
| L | | | | | |
| S | | | | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of hrs | UNIT RATE | COST |
| E | Minor Tools, welding machine | 1 | lot | | |
| Q | | | | | |
| U | | | | | |
| I | | | | | |
| P | | | | | |
| M | | | | | |
| E | | | | | |
| N | | | | | |
| T | | | | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NO. | No.of Day | UNIT RATE | COST |
| L | Foreman | 1 | 5 | | |
| A | Skilled Laborer | 1 | 5 | | |
| B | Unskilled Laborer | 3 | 5 | | |
| O | | | | | |
| R | | | | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 1008(1)b/c

Description: Aluminum Glass Windows

| | | Quantity | | 1 | |
|-------------------------------------------|--------------------------------------------------|----------|-----------|-----------|------|
| | | Unit | | lot | |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| M M A T E R I A S | Aluminum Framed Awning Window (2.00m x 0.60m) | 2 | sets | | |
| | Aluminum Framed Awning Window (3.15m x 0.60m) | 1 | set | | |
| | Aluminum Framed Awning Window (1.96m x 0.60m) | 1 | set | | |
| | Silicon Sealant | 2 | tubes | | |
| | | | | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of hrs | UNIT RATE | COST |
| E Q U I P M E N T | Minor Tools | 1 | lot | | |
| | | | | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NO. | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 2 | | |
| | Skilled Laborer | 1 | 2 | | |
| | Unskilled Laborer | 1 | 2 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 1100

Description: Conduits, Boxes and Fittings

| | | Quantity | | 1 | |
|-----------|-----------------------------------------------|----------|-----------|-----------|------|
| | | Unit | | lot | |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| MATERIALS | Utility box | 10 | sets | | |
| | junction box w/ cover | 10 | sets | | |
| | 15mm dia. PVC | 35 | pcs | | |
| | 25mm dia. RSC w/ coupling | 1 | pc | | |
| | 40mm dia. RSC w/ coupling | 3 | pc | | |
| | Ground rod incl. connector | 1 | set | | |
| | Secondary rack | 1 | set | | |
| | Electrical tape | 10 | pcs | | |
| | #16 GI wire | 5 | kgs | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of hrs | UNIT RATE | COST |
| EQUIPMENT | Electric Drill, bender, scaffoldings & pliers | 1 | lot | | |
| | | | | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NO. | No.of Day | UNIT RATE | COST |
| LABOR | Foreman | 1 | 2 | | |
| | Skilled Laborer | 1 | 2 | | |
| | Unskilled Laborer | 2 | 2 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 1101

Description: Wires and Wiring Devices

| | | Quantity | | Unit | | 1 |
|----|-----------------------------------------------|----------|-----------|-----------|------|-----|
| | | | | | | lot |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST | |
| M | Dual convenience outlet | 5 | sets | | | |
| A | 3 gang switch | 3 | sets | | | |
| T | 2 gang switch | 2 | sets | | | |
| E | 2.0 sqmm THHN Cu wire | 1 | boxes | | | |
| R | 3.5 sqmm THHN Cu wire | 2 | boxes | | | |
| I | 5.5 sqmm THHN Cu wire | 1 | boxes | | | |
| A | 14.0 sqmm THHN Cu wire | 40 | lm | | | |
| L | | | | | | |
| S | | | | | | |
| A. | TOTAL | | | | - | |
| | NAME & CAPACITY | UNIT | No.of hrs | UNIT RATE | COST | |
| E | Electric Drill, bender, scaffoldings & pliers | 1 | lot | | | |
| Q | | | | | | |
| U | | | | | | |
| I | | | | | | |
| P | | | | | | |
| M | | | | | | |
| E | | | | | | |
| N | | | | | | |
| T | | | | | | |
| B. | TOTAL | | | | - | |
| | DESIGNATION OF PERSONNEL | NO. | No.of Day | UNIT RATE | COST | |
| L | Foreman | 1 | 4 | | | |
| A | Skilled Laborer | 1 | 4 | | | |
| B | Unskilled Laborer | 1 | 4 | | | |
| O | | | | | | |
| R | | | | | | |
| C. | TOTAL | | | | - | |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - | |
| E. | MARK UPS (% OF D) | | | | - | |
| F. | VAT (5% OF D+E) | | | | - | |
| G. | TOTAL COST (D+E+F) | | | | - | |
| H. | UNIT COST | | | | - | |

Item No. : 1102

Description: Power Load Center, Switchgear and Panelboards

Quantity
Unit 1
lot

| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
|-------------------------------------------|---------------------------------------------------|------|-----------|-----------|------|
| M A T E R I A L S | 6 Branches panelboard incl. main 60 amp (2 phase) | 1 | set | | |
| | 20AT Plug in Circuit breaker | 3 | sets | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of hrs | UNIT RATE | COST |
| E Q U I P M E N T | Electric Drill, bender, scaffoldings & pliers | 1 | lot | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NO. | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 1 | | |
| | Skilled Laborer | 1 | 1 | | |
| | Unskilled Laborer | 1 | 1 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 1103
Description: Lighting Fixtures

| | | | | Quantity | 1 |
|-------------------------------------------|---------------------------|------|-----------|-----------|------|
| | | | | Unit | lot |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| M A T E R I A L S | 1 x 32W LED w/ Luminaires | 5 | sets | | |
| | 9W LED pinlight | 5 | sets | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of hrs | UNIT RATE | COST |
| E Q U I P M E N T | Minor tools, scaffoldings | 1 | lot | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NO. | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 1 | | |
| | Skilled Laborer | 1 | 1 | | |
| | Unskilled Laborer | 1 | 1 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 1002
Description: Plumbing

| | | | | Quantity | 1 |
|-----------|----------------------------------------|--------|------------|-----------|------|
| | | | | Unit | lot |
| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
| MATERIALS | Hose Bibb | 3 | sets | | |
| | 75mm dia std. PVC pipe | 13 | pcs | | |
| | 75mm dia std. elbow | 12 | pcs | | |
| | 450mm dia CDP Pipe | 25 | pcs | | |
| | 25mm dia PPR pipe | 10 | pcs | | |
| | 25mm dia PPR elbow / tee /coupling | 12 | pcs | | |
| | 25mm x 12.50mm reducer | 5 | pcs | | |
| | 25mm Gate valve | 2 | sets | | |
| | 25mm Check valve | 3 | sets | | |
| | PVC cement | 2 | cans | | |
| | 400 cc Solvent | 2 | cans | | |
| | Teflon tape | 2 | pcs | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | No.of days | UNIT RATE | COST |
| EQUIPMENT | Plumbing tools / Thermo fusion machine | 1 | lot | | |
| | | | | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NUMBER | No.of Day | UNIT RATE | COST |
| LABOR | Foreman | 1 | 5 | | |
| | Skilled Laborer | 1 | 5 | | |
| | Unskilled Laborer | 2 | 5 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% OF D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

Item No. : 1032 (1) a/c
Description: Painting Works

Quantity
Unit 1014
sq.m.

| | NAME & SPECIFICATION | QTY | UNIT | UNIT RATE | COST |
|-------------------------------------------|----------------------------------------------------|------|-----------|-----------|------|
| M A T E R I A L S | Concrete paint | 10 | tins | | |
| | Metal Paint | 4 | tins | | |
| | Skim Coat | 2 | bags | | |
| | Glazy Putty | 15 | kgs | | |
| | Concrete Neutralizer | 2 | gals | | |
| | Miscellaneous (paint brush, roller, paint thinner) | 1 | lot | | |
| A. | TOTAL | | | | - |
| | NAME & CAPACITY | UNIT | UNIT | UNIT RATE | COST |
| E Q U I P M E N T | Scaffoldings and Minor tools | 1 | lot | | |
| | | | | | |
| B. | TOTAL | | | | - |
| | DESIGNATION OF PERSONNEL | NO. | No.of Day | UNIT RATE | COST |
| L A B O R | Foreman | 1 | 12 | | |
| | Skilled Laborer | 2 | 12 | | |
| | Unskilled Laborer | 2 | 12 | | |
| C. | TOTAL | | | | - |
| D. | TOTAL DIRECT COST (A+B+C) | | | | - |
| E. | MARK UPS (% of D) | | | | - |
| F. | VAT (5% OF D+E) | | | | - |
| G. | TOTAL COST (D+E+F) | | | | - |
| H. | UNIT COST | | | | - |

S P E C I F I C A T I O N S

Project : Construction of Procurement Service Hub
Location : Sacop, Maimpis, City of San Fernando Pampanga, Region III

Scope of Works:

- *Project Billboard / Signboard*
- *Occupational Safety and Health*
- *Structure Excavation*
- *Embankment*
- *Reinforced Concrete*
- *Masonry Works*
- *Cement Plaster Finish*
- *Cement Floor Finish*
- *Roadway and Paved Parking*
- *Metal Structures*
- *Pre- painted Metal Sheets*
- *Carpentry and Joinery Works (Ceiling)*
- *Doors and Gate*
- *Aluminum Glass Windows*
- *Conduits, Boxes and Fittings*
- *Wires and Wiring Devices*
- *Power Load Center, Switchgear and Panelboards*
- *Lighting Fixtures*
- *Plumbing*
- *Painting Works*

B.5 PROJECT BILLBOARD / SIGNBOARD

1.1 SCOPE

The portion of the work specified by this Section includes Mobilization, Demobilization, erection and maintenance of Temporary Facilities and Billboard.

1.2 REQUIREMENTS

1.2.1 Mobilization

Mobilization shall include transportation to the site of Contractor’s plant materials, equipment, employees and furnishings and Temporary Facilities.

1.2.2 Demobilization

Demobilization shall include dismantlement and removal from the site of Contractor’s plant, materials and equipment and all temporary facilities. Demobilization shall also include clean-up of the site after completion of the Contract work as approved by DBM and transportation from the site of Contractor’s employees.

1.2.3 Temporary Facilities

Temporary Facilities shall include but not limited to the following items:

1. Site/Field office shall be used for the duration of the contract.

2. Workshops, warehouse, stockpile areas and storage areas for materials, equipment, spares, fuel and oil.
3. Construction camp for housing and accommodation of Contractor's employees.
4. Community facilities including potable water supply, electrical power requirements, drainage, sewerage disposal, sanitation, first aid, refuse collection, temporary fences and barricades, and fire protection facilities. The contractor shall obtain and pay for the necessary permits and for all water used.

1.2.4 Billboard

1. The installation of the required standard billboard size (1200 mm x 2400 mm / 4ft. x 8 ft.) marine plywood or tarpaulin for each project shall be installed.
2. The billboard shall bear the following in it: Name of Project and Location, Contractor, Date Started (Effectively of Contract), Contract Completion Date, Contract Cost, and Implementing Office.
3. The installation of the required standard billboard size (2400 mm x 2400 mm / 8ft. x 8 ft.) marine plywood or tarpaulin for each project shall be installed
4. The billboard shall bear the following in it: Name of Project and Location, Contract Cost, Fund Source, Implementing Agency, Development Partner, Brief Description of Project, Project Date (Duration, Started, and Target Date of Completion) and Project Status.
5. The billboards shall be installed in front of the project site.

1.2.5 Technical Publications

Furnish the installation, operation, maintenance manuals and shop drawings for all mechanical and electrical equipment and for other systems and products when such manuals are required by the applicable technical section or as required by the DBM. Provide such manuals in triplicate form.

1.2.6 Measurement and Payment

No separate payment will be made for the Mobilization and Demobilization. The cost of Mobilization shall be pro-rated to all pay item of the project.

B.7 OCCUPATIONAL SAFETY AND HEALTH

2.1 RATIONALE

The implementation of Department of Labor and Employment D.O. No.13 (DOLE D.O. No. 13), Series of 1998 otherwise known as the "Guidelines Governing Occupational Safety and Health in the Construction Industry".

2.2 IMPLEMENTATION

- 2.2.1 The contractor's proposed CSHP shall be in accordance with DOLE D.O. no.13, series of 1998 and its Procedural Guidelines to be submitted as part of the first envelope (Technical Proposal) during the bidding process and later the winning bidder shall submit the same for the approval of authority, subject to concurrence by DOLE-BWC.
- 2.2.2 Composition of the Safety and Health personnel responsible for the implementation of CSHP.
- 2.2.3 Specific safety policies which shall be undertaken in the construction site, including frequency of and persons responsible for conducting toolbox and gang meetings.
- 2.2.4 Penalties and sanctions for violations of the Construction Safety and Health Program.

- 2.2.5 Frequency, content and persons responsible for orienting, instructing and training all workers at the site with regards to the Construction Safety and Health Program which they operate.
- 2.2.6 The manner of disposing waste arising from the construction.
- 2.2.7 In observance to this scope of works, referred to the said guidelines as basis for the CSHP, Construction of Safety and Health Organization; Personal Protective Equipment and Devices (PPE); Signage and Barricades; Facilities and Safety & Health Training.

803 (1)a STRUCTURE EXCAVATION

3.1 SCOPE

- 3.1.1 The work under this project shall include the furnishing of all materials, labor and equipment necessary to complete the project as shown in the working drawings and as specified herein.
- 3.1.2 The contractor shall conduct site investigation and general inspection of the area in order to familiarize himself with the extent, condition and nature of the work involved.
- 3.1.3 Whenever items or class of materials are specified exclusively by trade name, only such items shall be used, unless the approval of the DBM for any substitute is secured.
- 3.1.4 As soon as practicable and before any installation, the Contractor shall submit for approval, samples and brochures of materials specified.
- 3.1.5 Plans and Specifications shall complement each other, what is mentioned or shown in one shall be considered as appearing on both.

3.2 LAWS TO BE OBSERVED

- 3.2.4 All work shall be done in accordance with the provisions of the National Building Code and other applicable codes.
- 3.2.5 All work shall conform to the rules and regulations of the City of San Fernando, Pampanga.

3.3 REQUIREMENTS

- 3.3.1 Topsoil
Materials from excavation, suitable for topsoil, shall be deposited in piles separate from other excavated material and shall be protected and maintained until needed. When used for finished grading, topsoil shall be spread uniformly over the areas in accordance with the plans and specification.
- 3.3.2 All excavation shall be performed by Contractor to the excavation lines, grades, and slopes and profiles shown in the drawings, or as directed by the DBM. All excavation shall be performed in the dry, unless as otherwise approved by DBM. Contractor shall provide dewatering and drainage facilities necessary to maintain all excavation free from water.

1. Excavation for structures and trenches.

Excavation carried out below the depths indicated on the drawings but without the approval of the DBM, shall be refilled to the proper grade with thoroughly compacted suitable fill materials to the satisfaction of the DBM, except that in excavation for footings, concrete shall be replaced to the bottom of the excavations; additional work of this nature shall be at the Contractor’s expense. Where an existing structure lies adjacent to excavation line, adequate shoring and bracing shall be provided to prevent damages to persons and properties. Shoring, bracing, and sheeting shall be removed in a manner to prevent caving-in. The grading in the vicinity of excavated areas shall be done to prevent surface water from running into

excavation and embankments. Water pumped from excavation shall be diverted to suitable disposal points. Trenches for pipelines shall be excavated along straight lines and unless otherwise indicated, shall provide a minimum of 150mm between the outside of the pipe and the sides of the trench or bracing. Additional excavation shall be made for each joint to allow for jointing. Mechanical excavation, other than rock, shall be excavated at least 50mm above final invert grade; the remainder of the excavation shall be shaped manually and graded to provide uniform bearing when the pipe is laid. Unless otherwise indicated, cover over water, sewer, drainage pipes, and electrical conduits shall not be less than 300mm, except under roadways where the minimum cover shall be 600mm.

2. Excavation under pavement and concrete slabs

The entire area of the original ground under pavements and concrete slabs shall be excavated to remove all objectionable matter, sod, muck, rubbish and other unsuitable material to a minimum depth of 300mm.

3.3.3 Fill and backfill material

Fill and backfill material shall consist of suitable materials from excavation or from approved borrow areas, and shall be free from roots, wood scraps, vegetation and other extraneous materials and from large clods of earth or stones greater than 100mm. No fill material shall be placed until the surface to be filled has been approved by DBM.

1. Filling and backfilling for structures and trenches.

Backfill around structures shall be placed as the work of construction progresses, insofar as practicable. Backfilling of trenches shall progress as rapidly as construction and testing will permit. In backfilling pipe trenches, approved backfill shall be compacted in 150mm layers to a depth of 150mm over the pipe; the remainder of the trench shall be backfilled in well-compacted 300mm layers, except that for trenches under roads, pavements and concrete floor slabs, the backfill shall be placed and compacted in 150mm layers to the top of the trench.

804 EMBANKMENT

4.1 REQUIREMENTS

Before placing fill material, the surface upon which it will be placed shall be scarified to insure good bonding between the existing surface and the fill material. Where embankment are to be constructed on sloping ground with slopes steeper than 1 vertical to 4 horizontal, the new fill shall be cut into or benched as the embankment is brought up in layers in such a manner that the embankment material will bond with the existing surface. The size of each bench shall be subject to approval of DBM and shall depend on the equipment to be used.

4.2 EQUIPMENT

Equipment used in the performance of the work shall be subject to approval of the DBM. The quality of compaction equipment shall be adequate to assure thorough uniform compaction as rapidly as material is placed. In all areas not accessible to rollers or compactors, the fill shall be compacted with mechanical hand tampers.

4.3 COMPACTION

In fill areas, the top 150mm shall be compacted to a density of at least 95 percent of maximum density; except that under ramps, pavements, and concrete floor slabs, compaction shall not be less than 95 percent of maximum density for the entire depth of fill. Unless otherwise indicated, where the existing subgrade in cuts have a density of less than 95, it shall be compacted to a depth of 150mm to the minimum of 95 percent density. Soil moisture during compaction shall be controlled between 80 and 110 percent of optimum moisture content.

4.4 GRADING

The contractor shall perform all grading in the areas so indicated. Existing grades which shall remain and which will be disturbed by the Contractor’s operation shall be graded to original condition or as directed by the DBM. Tolerances in final grading in unpaved areas shall not exceed 30mm above or below the grades indicated. Finish grading shall be accomplished so as to readily drain into the drainage facilities or adjacent natural drainage areas, without the formation of pockets in which water will stand.

4.5 SELECTED FILL MATERIAL

Shall consist of pitrun gravel, disintegrated rock, sand or other similar material. The material shall not contain more than 35 percent passing the No. 200 sieve; and the fraction of the material passing the No. 40 sieve shall have a liquid limit not greater than 35 and plasticity index not greater than 12.

4.6 GRAVEL FILL

Shall consist of hard durable particles or fragments of stone or gravel. It shall be clean and free from vegetable matters, lumps or balls of clay and other deleterious materials. The portion of the material passing the 0.075 mm (No.200) sieve shall not be greater than 5% (two thirds of the fraction passing the 0.425mm (No.40) sieve shall have a liquid limit of not more than 6. Gravel bedding depth as shown on the drawing shall be placed, spread and compacted thru tamping underneath footings, slabs on fill and slabs on grade.

4.7 DISPOSAL OF SURPLUS EXCAVATED MATERIALS

Any surplus material from excavation and grading operations shall be disposed of and spread in spoil areas designated by DBM except for materials classed as rubbish and debris, which shall be disposed of in dumps and in burning areas. Excavated material deposited in the spoil area shall be graded to a reasonably uniform surface.

4.8 QUALITY ASSURANCE PROVISION

All tests shall be performed by the DBM with the assistance of the Contractor.

900 (7) REINFORCED CONCRETE

5.1 GENERAL

5.1.1 Scope

The work includes concrete construction complete in accordance with the plans and standard specifications for concrete and reinforced works.

5.1.2 Reference Standards

The latest edition of following standards shall form part of this specification:

| | |
|-------------|----------------------------------------------------------------------------------------------|
| ACI | American Concrete Institute |
| 211.01-85 | Standard Practice for Selecting Proportions for Normal and Heavyweight Concrete |
| 301-84(R88) | Concrete, Structural for Building |
| 318-86 | Building Code Requirements for Reinforced Concrete |
| AASHTO | American Association of State Highway and Transport Officials |
| M173-84 | Concrete Joint Sealer, Hot-Poured Elastic Type Preformed Expansion Joint Filler for Concrete |
| ASTM | American Society for Testing and Materials |
| C33-86 | Concrete Aggregates |

| | |
|---------|--------------------------------------------------------------------------|
| C31-88 | Standard Practice for Making, Curing Concrete Test Specimen in the Field |
| C39-86 | Compressive Strength of Cylindrical Concrete Specimen |
| C42-87 | Obtaining and Testing Drilled Cores and Saved Beams of Concrete |
| C94-86 | Standard Specification for Ready-Mixed Concrete |
| C143-78 | Standard Test Method for Slump of Portland Cement Concrete |
| C150-86 | Portland Cement, Specifications for |
| C494-86 | Chemical Admixtures |

5.2 REQUIREMENTS

Full coordination shall be given other trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected, and tests for concrete aggregates and other materials shall have been done.

5.3 MATERIALS

5.3.1 General

Concrete shall be composed of Portland cement, fine and coarse aggregates, water and admixture as specified, all thoroughly mixed and brought to the proper consistency, uniformity and temperature for final placement.

5.3.2 Cement

Cement shall be portland cement conforming to ASTM Specification C150.

5.3.3 Water

Water shall be clean and free from injurious amounts of oils, acids, alkalies, salts, organic materials, or other substances that may be deleterious to concrete or steel.

5.3.4 Admixtures

Admixtures shall be subject to prior approval by the DBM. The admixtures shall be capable of maintaining essentially the same composition and performance throughout the work.

1. Plasticizing admixtures shall be free from chlorides and shall conform to ASTM C494. The admixtures shall be used in concrete mixtures in accordance with the manufacturer’s instructions.
2. Calcium chloride shall not be used under any circumstances.

5.3.5 Fine Aggregates

Fine aggregates shall consist of natural sand, manufactured sand, and or combination thereof. If the fine aggregate shall be a combination of separately processed sizes, or if hatching shall result in a combination of natural and manufactured sand, the different components shall be batched separately. Fine aggregates shall consist of hard, tough, durable, uncoated particles. The specified percentages of fines in the sand may be obtained either by the processing of natural sand or by the production of a suitably graded manufactured sand. The shape of the particles shall be generally rounded or cubical and reasonably free from flat or elongated pieces. The use of beach sand shall be prohibited.

Fine aggregates, as delivered to the mixer, shall have a fineness modulus of not less than 2.3 nor more than 3.0 and during normal operations, the grading of the fine aggregate shall be controlled so that the fineness modulus at least nine (9) of ten (10) test samples of the fine aggregate as delivered to the mixer shall not vary more than 0.20 from the preceding 30-day period. The fineness modulus can be determined by dividing by 100 the sum of the cumulative percentages retained on Standard Sieves Nos. 4, 8, 16, 30, 50 and 100. At the option of the Contractor, fine aggregates may be separated into two or more sizes or classification, but the resulting combined sand shall be of uniform grading within the limits specified above. It can be generally assumed that fine blending sand may be required to meet the above grading.

5.3.6 Coarse Aggregate

Coarse aggregate shall consist of gravel, crushed gravel or rock, or a combination thereof. The coarse aggregate, as delivered to the batching plant, shall have uniform and stable moisture content. The approval of deposits shall not be construed as constituting the approval of all materials taken from the deposits, and the Contractor shall be held responsible for the specified quality of all such materials used in the work. Coarse aggregate shall consist of hard, tough, durable, clean and uncoated particles. All materials and dust shall be removed by adequate processing. The particle shape of the smallest size of crushed coarse aggregate shall be generally rounded or cubical, and the coarse aggregate shall be reasonably free from flat and elongated particles. A thin, flat and elongated particle can be defined as a particle having a maximum dimension greater than five times the minimum dimension. The coarse aggregate shall be well graded from fine to coarse. It shall be separated into size groups.

- Use 19mm (3/4") coarse aggregate for slab on grade, columns, beams, suspended slabs and beams
- Use 38mm (1") coarse aggregate for footings

5.4 STORAGE OF MATERIALS

5.4.1 Cement

Cement in bags shall be stored in a suitable weatherproof structure which shall be as airtight as practicable; floors shall be elevated above the ground which shall be sufficient to prevent the absorption of moisture. Bags shall be stocked close together to reduce circulation of air but shall not be stocked against outside walls. The manner of storage shall permit easy access for inspection and identification of each shipment. Cement that has been in storage for so long that there may be doubt of its quality shall be tested by standard mortar tests to determine its suitability for use, and shall not be used without the approval of the DBM.

5.4.2 Aggregates

Aggregates shall be stored in such a manner as to avoid the inclusion of foreign materials. Aggregates of different sizes shall be stored in separate piles. Stock piles of coarse aggregate shall be built in horizontal layers not exceeding 1200mm in depth to avoid segregation. Should the coarse aggregate become segregated, it shall be remixed to conform to the grading requirements given herein before. Sufficient stockpiles shall be maintained at all times to permit continuous placement of concrete at the rate specified.

5.5 PROPORTIONS, MIXING, PLACING, PROTECTION, CURING AND REPAIR TO CONCRETE

5.5.1 Proportions

The proportions of all materials in concrete shall be subject to the approval of the DBM. The following proportions of concrete mixture shall be used for the various parts of the structure:

Class A (3500 psi) : for concrete items such as slabs, beams, tie beams, columns, footings, stairs, lintels and other works not specified.

Class B (2500 psi) : for slabs on fill, and wall footings.

The Contractor shall employ at his own expense an approved testing laboratory which shall design the mix proportions. The adequacy of this test shall be verified by a test on a minimum of 6 cylinders; 3 tested at 7 days, 3 at 28 days.

If at any time during construction, the concrete resulting from the approved mix design proves to be unsatisfactory for any reason such too much water, lack of sufficient plasticity to prevent segregation, honeycomb, etc., or sufficient strength, the contractor shall notify the Testing Laboratory and DBM. The laboratory shall modify the design, subject to the approval of the DBM until a satisfactory concrete is obtained.

5.5.2 Concrete Samples and Testing

The Contractor shall be required to make test on concrete samples taken from actual pouring of concrete on site under the supervision of the DBM. Throughout the period that the concrete is being poured into forms and while spading operation are being done, sets of test samples in cylinder shall be taken fresh from concrete from the forms.

The Contractor shall employ, at his expense, an approved testing laboratory which shall make the following tests and immediately submit copies of test reports to the DBM. The following tests shall be made:

1. Compression Tests:

The Contractor shall furnish six (6) standard 150 x 300mm cylindrical mold and place the fresh concrete inside the cylinder in three (3) separate equal layers rodded separately with 16mm diameter rod 25 strokes, with the tamping end rounded to a hemispherical tip of the same diameter. Level the surface with trowel and label the samples identifying the proportion of concrete, date taken and place taken. These samples are to be cured in the same manner as to the concrete in the construction is cured.

Test one cylinder at the age of seven (7) days, and one cylinder at the age of twenty eight (28) days, in accordance with ASTM C31 and C39. Keep one cylinder in reserve for a fifty six (56) day test, if the twenty eight (28) days test does not meet the requirements.

The contractor shall make additional cylindrical samples as required or as directed by the DBM, to check strength of concrete in the construction.

2. Slump Tests:

To determine the consistency or workable fluidity of fresh-mixed concrete in the field, the Contractor shall keep all times a slump cone at the site. At least two slump tests shall be made and the sample of concrete from which test specimens are made shall be representative of the entire batch and shall conform to the procedures as specified in ASTM C143-78.

Place freshly-mixed concrete in the slump cone 100 mm x 200 mm x 300 mm in equal layers. Rod each layer with 25 strokes of the tamping rod 16mm diameter with the tamping end rounded to a hemispherical tip of the same diameter. Level the mold and lift at once. Measure the slump action immediately by getting the difference in height between the height of the mold and the top of the slumped concrete.

The slump for vibrated concrete shall be 50 mm minimum and 100 mm maximum, provided that the required strength of concrete is obtained.

3. Test Reports:

The testing laboratory shall submit four (4) copies of its test cylinder reports which are to include as far as applicable, the following items: Location of pour in the structure, concrete design mix number, concrete design strength, type and manufacturer of cement, amount of any admixture used, slump tests, date of sampling, cylinder application number, days cured in the field, days cured in the laboratory, age at the time of testing, crushing stress, type of failure, who made the samples, who shipped the samples to the laboratory and whether concrete strength meets the specifications.

4. Additional Tests:

If, in the opinion of the DBM, based on cylinder strengths below specifications requirements or visual defects, concrete of poor quality has been placed, additional tests shall be made as directed by the DBM and at the expense of the Contractor. Test may be compression test on cored cylinder, ASTM C42, and/or load tests as outlined in ACI 318, SEC. 202, or as directed.

5.5.3 Mixing Concrete

1. Site Mixed Concrete

All concrete shall be machine-mixed for at least 1 ½ minutes after all materials including water are in the mixing drum. The time elapse between the introduction of the mixing water to the cement and aggregates and placing of the concrete in final position shall not exceed 45 minutes. Placing of material in mixer shall be done in such a way that the first batch of concrete materials in the mixer shall contain sufficient excess of cement, sand and water to coat the inside of the drum without reducing the cement content of the mix to be discharged. The tampering of concrete, that is, placing additional cement, aggregate or water during mixing period shall not be permitted.

No hand mixing shall be allowed, except in case of emergency such as breakdown during pouring operations subject to the approval of the DBM, and shall stop at the first allowed construction joints.

2. Ready-mixed Concrete

Ready mixed concrete, when used shall be batched, mixed, and delivered from a plant approved by the DBM and shall be in strict accordance with the requirements set forth in ASTM C-94.

The rate of delivery of the mixed shall be such that the interval between placing of successive batches shall not exceed thirty (30) minutes. The elapsed time between the introduction of mixing water to the cement and aggregate, and completion of discharge shall not exceed one (1) hour or not more than 1 ½ hours if retarder is used. It should be kept constantly agitated during the transit period. Delivery tickets shall not exceed one (1) hour and contains the weight of sand, gravel and amount of cement and water added. The Contractor shall keep legible copies available for examination of DBM.

Re-tempering of concrete shall not be permitted. The Contractor shall mix only such quantities that are required for immediate use. Mixture which has developed setting shall not be used. Concrete which has partially hardened shall not be re-tempered.

5.5.4 Concrete Placing

Concrete shall be placed only after all formworks, installation of materials to be embedded, and preparation of surface involved in the placing have been inspected and approved by DBM. The Contractor shall provide equipment and shall employ methods which will minimize separation of aggregates from the concrete mix.

Water shall be removed from excavation before concrete is deposited. Any flow of water shall be diverted through proper side drains to a pump, or be removed by other approved methods to avoid washing over freshly deposited concrete. Hardened concrete debris and foreign materials shall be removed from interior of forms and from inner surfaces of mixing and conveying equipment. Reinforcements shall be secured in position, inspected and approved before pouring concrete. Runaways shall be provided for wheeled concrete-handling equipment's, such equipment's shall not be wheeled over reinforcements nor shall runaways be supported on reinforcements.

Concrete shall be handled from the mixer to the place of final deposit as rapidly as practicable by methods which shall prevent the segregation or loss of the ingredients. It shall be deposited in the forms in approximately uniform horizontal layers and as nearly as practicable in its final position to avoid handling.

Conveying or handling of concrete by the use of long, inclined chutes or pipes of more than three (3) meters shall not be permitted. Dumping of concrete into buggies, buckets or wheelbarrows with a free fall of more than one (1) meter shall not be permitted. When placing operations would involve dropping the concrete more than 1 ½ meters, it shall be deposited through sheet metal or other approved conveyor. As far practicability, the conveyor shall be kept full of concrete during placing and their lower ends shall be kept buried in the newly-placed concrete. After the initial set of concrete, the forms shall not be jarred and no strain shall be placed on the ends of the reinforcing bar which are being projected.

Concrete in columns shall be placed in one continuous operation. Concrete in girders, beam and slabs in superstructures shall be poured in a monolithic and continuous manner.

No construction joint shall be allowed on any part of the structure without the approval of DBM.

Vibration: ACI 301. Consolidate concrete slabs greater than 4 inches in depth with high frequency, internal, mechanical vibrating equipment supplemented by hand spading and tamping. Consolidate concrete slabs 4 inches or less in depth by wood tampers, spading, and settling with a heavy leveling edge. Operate vibrators with vibratory element submerged in the concrete, with a minimum frequency of not less than 6000 impulses per minute when submerged. Insert and withdraw vibrators approximately 18 inches apart. Penetrate the previously placed lift with the vibrator when more than one lift is required. Place concrete in 18-inch maximum vertical lifts.

5.5.5 Protection and Curing

1. General

Concrete surfaces exposed to conditions causing premature drying shall be protected as soon as possible with canvas, straw, burlap, sand or other satisfactory material and kept moist; or if the surfaces are not covered they shall be kept flushing or sprinkling, as directed by the DBM. All concrete shall be moist cured for a period not less than seven (7) consecutive days after placing by an approved method or combination of methods applicable to local conditions.

2. Moist Curing

The surface of the concrete shall be kept continuously wet with water for a period of seven (7) days, by spraying or by covering with burlap or other approved material thoroughly saturated with water and keeping the covering wet by spraying or intermittent hosing. Water for curing shall be generally clean and free from any element which might cause objectionable staining or discoloration of the concrete.

5.5.6 Repair to Concrete

All imperfections on concrete surfaces shall be corrected to produce concrete and concrete surfaces that conform to the requirements of this item. Unless otherwise approved by the DBM, repair of imperfections in formed concrete shall be completed within 24 hours after removal of forms. All imperfections on formed surfaces shall be repaired by patching with cement mortar. Cement mortar for patching shall be the same composition as that used in the concrete, except that for exposed surfaces part of the cement shall be white cement to provide a finish color matching the surrounding concrete. Honeycombed or otherwise defective areas shall be cut out to solid concrete but to a depth of not less than 25mm. The edges of the cut shall be perpendicular to the surface of the concrete. The area to be patched and at least 150mm adjacent thereto shall be saturated with water before placing mortar. The mortar shall be mixed approximately one (1) hour before placing and shall be remixed occasionally during this period with a trowel without adding water. A grout of cement and water, mixed to the consistency of paint, shall then be brushed onto the surface to which the mortar is to be bonded. The mortar shall be compacted into place and screeded slightly higher than the surrounding surface. Patches on exposed surfaces shall be finished to match the adjoining surfaces, after they have set for an hour or more. Patches shall be cured as specified for the concrete. Exposed surfaces shall utilize plywood forms, and after the removal of forms, shall not be plastered, unless otherwise directed by the Engineer. All joint marks of the formwork shall be reworked to a smooth surface to match adjacent areas and to present neat appearance.

5.6 FORMS

5.6.1 General

Forms shall be used wherever necessary to confine the concrete and shape it to the required lines and dimensions, or to protect the concrete from contamination. Forms

shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss of mortar from the concrete. Forms for exposed surfaces shall be lined with form grade plywood. Bolts and rods used for internal ties shall be so arranged that when the forms are removed, they shall not be less than two (2) centimeters from the formed surface.

5.6.2 Cleaning and Oiling of Forms

Before placing the concrete, the contact surfaces of the forms shall be cleaned of encrustations of mortar, grout, or other foreign material, and shall be coated with standard form oil that can effectively prevent sticking and will not stain the concrete surfaces.

5.6.3 Removal of Forms

Forms shall be removed in a manner which shall prevent damage to the concrete. Forms shall not be removed without prior approval of DBM. Any repairs of surface imperfections shall be performed at once and curing shall be started as soon as the surface is sufficiently hard to permit it without further damage. The minimum time period for removal of forms shall govern where it exceeds the minimum specified curing period. Where the formwork for one element supports the formwork for another element, the greater time period shall apply to both elements. Forms shall not be removed before the expiration of the minimum time specified.

5.6.4 Support

Sufficient shoring members to support dead loads plus construction loads on beams and slabs shall be provided for a period of eight (8) days in addition to the seven (7) days specified thereto. The time for removal of forms for structures not included thereto shall be as directed by the DBM. Concrete work shall be protected from damage during construction.

5.7 REINFORCING STEEL

5.7.1 General

Steel reinforcement shall be provided together with all necessary wire ties, chairs, spacers, supports, and other necessary devices.

5.7.2 Material

Reinforcing steel shall conforming to ASTM standards, deformed structural grade 40 for structural members, and grade 33 for non-structural members.

Reinforcing bars indicated for footings, columns, slabs, beams and other concrete members shall strictly conform to number, size and spacing as shown in the plans or schedule of steel reinforcement.

5.7.3 Storage

Reinforcing steel shall be stored in a manner that will prevent excessive rusting or coating with grease, oil, dirt and other objectionable materials.

5.7.4 Cutting and Bending

Reinforcing steel shall be accurately cut and bent in accordance with the approved detailed reinforcement drawings. Reinforcing steel shall not be straightened or re-bent in a manner that will injure the material. Bars with kinks or with bends not shown on the approved detailed reinforcement drawings or with cracks or splits on the bends shall not be used. All bars shall be bent cold. If Contractor elects to have reinforcing steel cut and bent off the Site, he shall provide, maintain and operate a small cutting and bending shop on the site and maintain a representative stock of steel. This provision is to take care of minor revisions and additions in an expeditious manner.

5.7.5 Placing

Reinforcing steel shall be accurately placed in accordance with approved detailed reinforcement drawings and shall be adequately secured against displacement by using specified tie wires or approved clips at all intersections. After it has been installed, reinforcing steel shall be inspected by DBM for compliance with requirements as to size, shape, length, splicing, position and number. Reinforcing steel shall be supported by concrete or metal supports, spacers or metal hangers, except at surfaces exposed to the ground or to the weather, where supports shall be concrete. Wooden supports and wooden spreaders shall not be used. At surfaces where an attractive appearance is paramount, the supports shall be of a type which shall not cause subsequent staining or marring of the surface.

5.8 JOINTS IN CONCRETE

5.8.1 Construction Joints

Construction joints shall be provided where indicated in the drawings or as directed by DBM. Joints not indicated on drawings shall be so made and locate as not to impair the strength of the structures. When a construction joint is to be made, the surface of the hardened concrete shall be thoroughly cleaned and all laitance removed. In addition, the joint shall be thoroughly wetted and slushed with a coat of neat cement grout immediately prior to placing of new concrete.

5.8.2 Expansion and Contraction Joints

Expansion and contraction joints shall be provided where indicated and shall be in accordance with details

5.8.3 Preformed Strips

Preformed strips shall be placed before the adjoining concrete of a joint is poured. The joint sealer shall be applied after concrete on both sides of the joint have been poured and after the joint lines have been trued.

5.8.4 Waterstops

1. General

Waterstops of the types specified shall be placed by the Contractor at the locations shown in the drawings or as directed by DBM. The Contractor shall take suitable precautions to support and protect the waterstops during the progress of the work and shall repair or replace any damage water stops to the satisfaction of DBM.

2. Installation

Waterstops shall be installed in joints as shown on the drawings or as otherwise directed by DBM. The type of material, location, dimensions, and method of installation shall be as shown on the drawings. In order to eliminate faulty installations that may result in joint leakage, particular care shall be taken to correctly position the waterstops during installation. The bottom of each waterstops shall be sealed to other cut-offs systems. All waterstops shall be installed so as to form a continuous watertight diaphragm in each joint. The Contractor shall replace or repair any water stop punctures or otherwise damaged before final acceptance of the work to the satisfaction of the DBM. Maximum density and imperviousness of the concrete shall be insured by through working of the concrete to be used in the vicinity of all joints. Suitable coverings shall be provided to protect exposed projecting edges and ends of partially embedded waterstops from mechanical damage when concrete placement has been discontinued.

3. Material

Rubber shall be either natural, synthetic, reclaimed or a combination of these types, conforming to applicable portions of ASTM Specification D-375, as follows:

| | |
|---------------------------|----------|
| Tensile strength, minimum | 3000 psi |
|---------------------------|----------|

| | |
|-----------------------------------------------------------------------------------------------------------------------|----------|
| Elongation at break, minimum | 450 % |
| Shore durometer (Type A) | 60 to 70 |
| Absorption of water, by weight percent maximum (2 days at 70 deg. C) | 5 |
| Compression set (constant deflection percent of original deflection, max.) | 30% |
| Tensile strength after oxygen bomb aging (48 hrs. 70 deg. C, 300 psi) percent of tensile strength before aging, min.) | 80% |
| Elongation after oxygen pressure test (48 hrs., 70 deg. C, 300 psi) percent of elongation before aging, min. | 80% |

4. Splicing

Both filed and factory splicing shall be done in accordance with recommendation of the manufacturer of the waterstops subject to the approval of the DBM. Rubber waterstops shall be spliced by hot vulcanizing process and shall have a tensile strength of not less than 50 percent of the un-spliced material.

1046 MASONRY WORKS

6.1 GENERAL

6.1.1 Scope

The work includes furnishing labor, equipment and materials, and performing all operations required to complete concrete masonry works as shown and specified on the drawings and specifications.

6.1.2 Applicable Documents

The following specifications and standards shall form part of this specification to the extent required by the references thereto.

| | |
|-----------|---------------------------------------------------------|
| ASTM | American Society for Testing Materials |
| C144-87 | Standard Specification for Aggregate for Masonry Mortar |
| PSA | Product Standards Agency Pub. (Phil) |
| PNS 16-84 | Concrete Hollow Blocks, Specs |

6.1.3 Requirements

Concrete masonry work of the type indicated shall be provided and shall be properly coordinated with the wok of other trades.

6.2 MATERIALS

6.2.1 Concrete Hollow Blocks

Concrete Hollow blocks shall be a standard product of a recognized manufacturer conforming to PNS 16.

6.2.2 Cement, Reinforcing Steel, and Water

Cement, reinforcing steel and water shall be as specified in Item 900 (7) REINFORCED CONCRETE.

6.2.3 Lime

Lime may be either finely pulverized quick lime, slake or hydrated lime (92% hydrated) and shall be a standard product of a recognized manufacturer.

6.2.4 Delivery, Storage and Protection of Materials

Delivery, storage and protection of materials shall be as specified in Item 900 (7) REINFORCED CONCRETE and as specified herein.

1. Lime shall be delivered in original sealed containers plainly marked with name and brand of manufacturer, and kept dry until used. Defective lime or lime showing partial set or caking shall not be used.
2. Concrete masonry units shall be immediately upon delivery to the job site be stacked under covered area or otherwise protected from exposure to the weather and contact with soli. Care shall be exercised in handling the blocks to avoid breakage.

6.3 INSTALLATION

6.3.2 Workmanship

Masonry walls shall be placed level and plumb all around. One section of the walls shall not be placed in advance of the others, unless specifically approved. Unfinished work shall be stepped back for joining with new work; tooting shall not be permitted. Heights of masonry shall be checked with an instrument at sills and heads of openings to maintain the level of the walls. Door and window frames, louvered openings, anchors, pipes, and conduits shall be installed in carefully and neatly as the masonry work progresses. Spaces around metal door frames shall be filled with solid mortar. Drilling, cutting, fitting and patching, to accommodate the work of others, shall be performed by skilled workers. Bolts, anchors, insert, plugs, ties, and miscellaneous metal work specified elsewhere shall place in position as the work progresses. Chases of approved dimensions for pipes and other purposes shall be provided, where indicated or necessary. Tops of exposed walls and partitions, not being worked on, shall be covered with a waterproof membrane, well secured in place. Walls and partitions shall be structurally bonded or anchored to each other and to concrete walls, beams, and columns.

6.3.3 Mortar Mixing

Mortar materials shall be measured in approved containers, which shall insure that the specified proportions of materials can be controlled and accurately maintained during the progress of the work. Unless specified otherwise, mortar shall be mixed in proportions by volume. The aggregates shall be introduced and mixed in such a manner that the materials will be distributed uniformly throughout the mass. A sufficient amount of water shall be added gradually and the mass further mixed, not less than 3 minutes, until a mortar of the plasticity necessary for the purpose intended shall be obtained. The mortar shall be mixed in a manner such that the quantity of water can be controlled accurately and uniformly. Mortar boxes, pans, or mixer drums shall be kept clean and free of debris or dried mortar. The mortar shall be used before the initial setting of the cement has taken place; re-tempering of mortar in which cement has started to set shall not be permitted.

6.3.4 Proportion

Mortar shall be mixed in the volumetric proportions of one part Portland cement, $\frac{1}{4}$ part hydrated lime and 3 parts sand.

6.3.5 Mortar Joints

Mortar joints shall be uniform in thickness, and the average thickness of any three consecutive joints shall be 9.50mm. "Gage rods" shall be made and approved prior, to starting the work and shall be used throughout the work. Changes in coursing or bonding after the work has started shall be not be permitted. Exposed joints shall be tooled slightly concave with a round or approved jointer, when the mortar is thumbprint hard. The jointer shall be slightly larger than the width of the joint, so that complete contact shall be made along edges of the units, compressing and sealing the surface of the joints. Joints in masonry which will not be exposed shall be struck flush. Horizontal joints shall be tooled first. Joints shall be brushed to remove all loose and excess mortar. All horizontal joints shall be level; vertical joints shall be plumb and in alignment from top to bottom of wall within a tolerance of plus or minus 12mm.

6.3.6 Concrete Masonry Unit Work

The first course of concrete masonry unit shall be laid in full bed mortar, for the full width of the unit; the succeeding courses shall be laid with broken joints. Concrete masonry units with the cells vertical shall have bed-joints formed by applying the mortar to the entire tops surfaces of the inner and outer face shells, and the head joints formed by applying the mortar for a width of about 25mm to the ends of the adjoining units laid previously. The mortar for joints shall be smooth, not furrowed, and shall be of such thickness that it will be forced out of joints as the units are being placed in position. Where anchors, bolts, ties and reinforcing bars occur within the cells of the units, such cells shall be solidly filled with mortar or grout as the work progresses. Horizontal tie reinforcement shall be provided where indicated. Reinforcement shall be continuous and provided in the longest available lengths. Reinforcement above and below openings shall extend and be embedded into the columns, unless otherwise shown on the drawings. Splices shall overlap not less than 150mm. Reinforcement shall be embedded in the mortar joints in such manner that all parts shall be protected by mortar. The two top courses of filler block walls shall have their cores filled with grout when placed in position.

Unless otherwise shown on the drawings, the size and spacing of vertical bars shall be as follows:

| | |
|---------------------|------------------------------------------------------------------------------------------------------|
| For 150mm (6") CHB | - 12mm (1/2") dia. At 600mm (24") on centers |
| For 100mm (4") CHB | - 10mm (3/8") dia. At 600mm (24") on centers |
| For horizontal bars | : 12MM (1/2") dia. At 600mm (24") on centers (every third course) for 150mm (6") and 100mm (4") CHBs |

6.4 QUALITY ASSURANCE PROVISIONS

6.4.2 Samples of Materials

Samples of cement, sand, lime, reinforcing bars and concrete hollow blocks shall be submitted for inspection and approval before delivery of these materials to the site.

6.4.3 Tests and Test Reports

The testing requirements stated herein or incorporated in referenced contract documents may be waived provided certified copies of report of tests from approved laboratories performed on previously manufactured materials are submitted and approved. Test reports shall be accompanied by notarized copies from the manufacturer certifying that the previously tested material is of the same type, quality, manufacture, and make as those proposed for this project.

1027 CEMENT PLASTER FINISH

7.1 CEMENT FINISH ON MASONRY WALLS

7.1.1 General

The work consists of furnishing all materials, labor, and performing all operations in connection with the plastering of masonry wall surfaces, complete in every respect in accordance with the drawings, and as specified herein. Plastering work shall be coordinated properly with the work of other trades. The work of other trade shall be protected properly from damage during plastering operations. Scaffolding shall be amply strong, well braced, tied securely and inspected regularly, overloading of scaffolding shall not be permitted.

7.1.2 Materials

- 1. Portland Cement – shall conform to ASTM standard C150, Type I.
- 2. Sand – shall be natural sand and shall be retained between No. 50 and No. 100 sieves

3. Lime – shall be hydrated lime where the free (Un-hydrated) calcium oxide and magnesium oxide in the hydrated product shall not exceed 8 percent by weight.

7.1.3 Storage of Material

Cement and lime shall be stored off the ground under watertight cover, and away from damp walls and surfaces until ready for use. Damage or deteriorated materials shall be removed from the premises immediately.

7.1.4 Mixing of Plaster

Materials shall be accurately measured in approved containers that will insure the specified proportions. Caked and lumped materials shall not be used. Mixing boxes and tools shall be cleaned after mixing each batch and kept free of plaster from previous mixes. Plaster shall be thoroughly mixed with the proper amount of water until uniform in color and consistency. Tempering shall not be permitted and all plaster that has begun to stiffen shall be discarded.

7.1.5 Proportioning Plaster

Portland cement plaster shall be a two-coat application, the base and the finish coat. Each coat shall be proportioned as follows: One part by volume of Portland, to three parts sand. Hydrated lime may be used as directed by DBM.

7.1.6 Construction

1. Workmanship

Surface to receive plaster shall be free from structural defects and shall be thoroughly dampened prior to application of plaster.

Plaster work shall be finished level plumb, square and true, within a tolerance of 3mm in 3 meters without waves, blisters, pits, crazing, discoloration, projections, or other imperfections. Plaster work shall be formed carefully around angles and contours, and well up to screens. Special care shall be taken to prevent consequent dropping of applications. There shall be no visible junction marks where one day work adjoins another. Finished work shall be protected in an approved manner to prevent damage.

2. Portland Cement Plaster

Shall have a total thickness of not less than 12mm thick. The base coat shall be applied, not less than 9mm thick and allowed to dry slowly for 24 hours. Then the finish coat shall be applied to a thickness of not less than 3mm and brushed with 4 applications of fog spray of clean water. The first spray shall be applied 12 hours after the finishing coat has been completed and three subsequent spraying shall be applied at sufficient intervals thereafter as approved by the DBM.

3. Patching and Pointing.

Upon completion of the work and when directed, all loose, cracked, damages or defective plastering shall be cut and re-plastered in a satisfactory and approved manner. All pointing and patching of plastered surfaces and where plastering abuts or adjoins any other finished works shall be done in a neat and workmanship manner ready to receive paint or other finish.

4. Cleaning

After completion of plastering work, all scaffolding surplus materials, debris and plaster daubs and stains on floors, windows, and other surface shall be removed to the satisfaction and approval of the DBM.

7.2 CEMENT FINISH ON CONCRETE SLABS

7.2.1 General

This work includes plain cement finish with and without hardener, plain cement finish with hardener and tool finish and plain cement finish, complete including all labor, materials, equipment and other facility to complete the work in accordance with the plans and the specifications.

7.2.2 Requirements

1. Floors and slabs shall slope uniformly to the drains.
2. In areas where tiles are to be laid, the concrete base slab shall be depressed, when not indicated, to not less than 50mm.
3. Floor and slab finishes, where not indicated, shall receive a single steel trowelling.
4. Dry cement shall not be placed directly upon the new concrete surface to absorb excess moisture.
5. Finishing procedures for floors and slabs, where not indicated on the drawings, shall be as follows:

| Finish | Description | Uses |
|-----------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Screeded | Rough, free from ridges and holes | Slab and concrete surfaces under earth fill |
| Floated | Medium rough and texture finished | Light storage areas, base slabs and heavy machines pad |
| Trowelled | Fine sand texture to flossy, glass finish depending upon numbers of passes of trowelling | All surfaces: <ol style="list-style-type: none"> 1. Under floor-1 pass 2. Normal wearing surface-2 passes 3. Dense wearing surface-3 passes |
| Broomed | Surface scored with fine brush | Decorative or non-slip for walks |

6. Screeded Finish

- Concrete shall be placed, consolidated and immediately struck off to bring the top surface of the slab to proper grade.
- Striking of and bull-floating of the surface shall be completed before water appears on the surface of the freshly-placed concrete.
- Floors shall be leveled with a tolerance of 3mm in 3.0 meters except where drain occurs, in which case the floors shall be pitched to the drains.
- If water is still visible by the time floating on the surface is to start, the excess water shall first be scrubbed off the surface by appropriate means.

7. Floated Finish

- Floating shall begin when the water sheen has disappeared and when the surface has stiffened sufficiently to support a man without indenting the surface.
- Floating shall be performed by hand with a wood float.
- During the floating, the surface shall be checked with 3.0 m straight edge applied at different angles.
- The surface shall be floated to a true plane within 3mm in 3.0 meters.

8. Trowelled Finish

- Upon attaining proper set, the floor shall first be given a floated finish as specified herein above and then hand trowelled.
- The first trowelling shall produce a smooth surface, free of defects.
- The finished surface shall be free of trowelled marks, uniform in texture and true to a plane within 3mm in 3.0 meters.

9. Broomed Finish

- The floor shall first be given a floated finish as specified herein above and a steel trowelled finish.

- The surface shall be broomed with a flexible bristle broom.
- The topping mixture shall be spread evenly over the roughened base before final set has taken place.
- At the time of brooming, the trowelled surface shall have hardened sufficiently to retain the scoring on ridges.
- The brooming shall be in a direction tranverse to that of traffic or at right angles to the slope of floor.

7.3 MATERIALS

7.3.1 Portland Cement – conforming to ASTM Standards C150, Type I.

7.3.2 Sand – shall be natural sand retained between No. 50 and No. 100 sieves.

7.4 MIXING

Cement top finish shall be 1:2 cement sand mortar mix with minimum water content.

7.5 APPLICATION

The concrete slab to receive cement top finish shall be roughened before the concrete has set. Before applying the cement top finish, the concrete surface shall be further roughened with a pick or similar tool to remove laitance, loose particles, plaster and anything that would prevent bond: and then cleaned by an approved method or device. After cleaning, the slab shall be thoroughly wet before finish is applied. The cement top finish shall have a minimum thickness of 19mm and shall be poured continuously until entire section is complete, floated either manually or by machine, struck off with straight edge, steel trowelled to a hard smooth surface, and graded to drain where required. Where the floor is to be hardened, ½ of the pre-mixed floor hardener shall be spread over the freshly poured cement top finish after screening and removing any excess water from the mixture and the floor shall then be floated. The balance of the pre-mixed floor hardener shall be evenly spread over the surface at right angles to the first application. The floor shall then be floated and care taken to embed the floor hardening topping firmly in surface of the concrete floor. The treated cement top finish shall be allowed to set sufficiently so that the surface maybe steel troweled to a hard sealed surface.

7.6 OTHER CEMENT FINISH

7.6.1 All surface defects shall be repaired with cement mortar. Cement mortar shall be of the same composition as that used in the concrete.

1. Part of the cement in the mortar may be white cement for patching exposed areas to match the color of the surrounding concrete.
2. Patching shall begin as soon as the forms are removed.
3. All areas to be patched shall be cleaned thoroughly.
4. Minor defective areas shall be cut out to solid concrete to a depth of not less than 25mm.
5. Edges of cuts shall be perpendicular to the surface of the concrete.
6. Area to be patched including 150mm of the adjacent surrounding areas shall be saturated with water before placing the mortar.
7. Mix the mortar approximately one (1) hour before placing and remixed occasionally during this period without the addition of water.
8. An initial grout of cement and water mixed to the consistency of paint shall be applied into the surface to which the mortar is to be bonded.

7.6.2 Concrete with excessive honey-combing, exposed reinforcing bars and other defects which affect the structural strength of the members shall be removed and repaired by the Contractor to the satisfaction DBM.

7.6.3 Finishes of formed surfaces where not indicated in the drawings shall be as follows:

1. Surface exposed to public view and ceiling surfaces shall be smooth from finished. No plastering work shall be rendered on ceiling surfaces to correct imperfections.
- Form facing materials shall produce a smooth hard, uniform texture on the concrete.
 - Tie holes and defects shall be patched.
 - All fins shall be completely removed.

7.6.4 Surfaces not exposed to public view shall be rough form finished.

1. Surfaces not exposed to public view shall be patched.
2. Fins exceeding 6mm in height shall be chipped off or rubbed off

7.6.5 Finishing of formed surfaces shall be accomplished after removal and repair of surface defects.

7.7 SIDEWALK FINISHES

7.7.1 Surfaces of the concrete shall be screeded by means of a template advanced with a combined longitudinal and transverse motion.

7.7.2 A slight surplus of concrete shall be maintained in front of the template.

7.7.3 After screeding, the concrete shall be floated longitudinally with a plank float.

7.7.4 After floating, the concrete shall be checked with a straight edge, corrected and reflected as necessary.

7.7.5 The final finish shall be obtained by a burlap drag.

1. Before the concrete becomes non-plastic the surface shall be finished by dragging over it.
2. Burlap shall be 0.30 m wide and 0.60 m longer than the sidewalk width.
3. Dragging shall be done in a manner to produce a finish surface having a granular or sandy texture.

7.7.6 Edges and joints shall be rounded with an edger.

The final finish may be obtained by bolting, in lieu of burlap dragging, as approved by the DBM.

7.8 BUSH-HAMMERED FINISH

7.8.1 General

The work includes the performance of all work required in connection with bush hammered finish on concrete and masonry surfaces as shown on the drawings.

7.8.2 Materials

1. Cement shall conform to ASTM Standard, C150, Type I.
2. Adobe Granules shall be of high quality subject to the approval of the DBM.
3. Requirements.

The surface to be finished shall be thoroughly cleaned. Bush-hammered finish shall be composed of one part cement and two parts of adobe granules. The base coat shall be applied with sufficient material and pressure to form a good bond with masonry and then it shall be dressed with a bush hammer to provide a uniformly roughened surface. No abrupt irregularities shall be permitted and the granules shall not exceed in any case one (1) mm, using a straight edge or template for testing irregularities. Corrective work, if any, shall be done by the Contractor to the satisfaction DBM.

1021 (1) CEMENT FLOOR FINISH

8.1 General

This work includes plain cement finish with and without hardener, plain cement finish with hardener and tool finish and plain cement finish as bed for vinyl tiles, complete including all labor, materials, equipment and other facility to complete the work in accordance with the plans and the specifications.

8.2 Requirements

- 1. Floors and slabs shall slope uniformly to the drains.
- 2. In areas where tiles are to be laid, the concrete base slab shall be depressed, when not indicated, to not less than 50mm.
- 3. Floor and slab finishes, where not indicated, shall receive a single steel trowelling.
- 4. Dry cement shall not be placed directly upon the new concrete surface to absorb excess moisture.
- 5. Finishing procedures for floors and slabs, where not indicated on the drawings, shall be as follows:

| Finish | Description | Uses |
|-----------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Screeded | Rough, free from ridges and holes | Slab and concrete surfaces under earth fill |
| Floated | Medium rough and texture finished | Light storage areas, base slabs and heavy machines pad |
| Trowelled | Fine sand texture to flossy, glass finish depending upon numbers of passes of trowelling | All surfaces: 4. Under floor-1 pass 5. Normal wearing surface-2 passes 6. Dense wearing surface-3 passes |
| Broomed | Surface scored with fine brush | Decorative or non-slip for walks |

6. Screeded Finish

- Concrete shall be placed, consolidated and immediately struck off to bring the top surface of the slab to proper grade.
- Striking of and bull-floating of the surface shall be completed before water appears on the surface of the freshly-placed concrete.
- Floors shall be leveled with a tolerance of 3mm in 3.0 meters except where drain occurs, in which case the floors shall be pitched to the drains.
- If water is still visible by the time floating on the surface is to start, the excess water shall first be scrubbed off the surface by appropriate means.

7. Floated Finish

- Floating shall begin when the water sheen has disappeared and when the surface has stiffened sufficiently to support a man without indenting the surface.
- Floating shall be performed by hand with a wood float.
- During the floating, the surface shall be checked with 3.0 m straight edge applied at different angles.
- The surface shall be floated to a true plane within 3mm in 3.0 meters.

8. Trowelled Finish

- Upon attaining proper set, the floor shall first be given a floated finish as specified herein above and then hand trowelled.
- The first trowelling shall produce a smooth surface, free of defects.
- The finished surface shall be free of trowelled marks, uniform in texture and true to a plane within 3mm in 3.0 meters.

9. Broomed Finish

- The floor shall first be given a floated finish as specified herein above and a steel trowelled finish.
- The surface shall be broomed with a flexible bristle broom.
- The topping mixture shall be spread evenly over the roughened base before final set has taken place.
- At the time of brooming, the trowelled surface shall have hardened sufficiently to retain the scoring on ridges.
- The brooming shall be in a direction transverse to that of traffic or at right angles to the slope of floor.

8.3 MATERIALS

8.3.1 Portland Cement – conforming to ASTM Standards C150, Type I.

8.3.2 Sand – shall be natural sand retained between No. 50 and No. 100 sieves.

8.4 MIXING

Cement top finish shall be 1:2 cement sand mortar mix with minimum water content.

8.5 APPLICATION

The concrete slab to receive cement top finish shall be roughened before the concrete has set. Before applying the cement top finish, the concrete surface shall be further roughened with a pick or similar tool to remove laitance, loose particles, plaster and anything that would prevent bond: and then cleaned by an approved method or device. After cleaning, the slab shall be thoroughly wet before finish is applied. The cement top finish shall have a minimum thickness of 19mm and shall be poured continuously until entire section is complete, floated either manually or by machine, struck off with straight edge, steel trowelled to a hard smooth surface, and graded to drain where required. Where the floor is to be hardened, ½ of the pre-mixed floor hardener shall be spread over the freshly poured cement top finish after screening and removing any excess water from the mixture and the floor shall then be floated. The balance of the pre-mixed floor hardener shall be evenly spread over the surface at right angles to the first application. The floor shall then be floated and care taken to embed the floor hardening topping firmly in surface of the concrete floor. The treated cement top finish shall be allowed to set sufficiently so that the surface maybe steel troweled to a hard sealed surface.

SPL I ROADWAY AND PAVED PARKING

9.1 General

This work includes plain cement finish with and without hardener, plain cement finish with hardener and tool finish, plain cement finish and laying-out of concrete drainage pipe from existing source to main sewer line, complete including all labor, materials, equipment and other facility to complete the work in accordance with the plans and the specifications.

9.2 Requirements

1. Concrete Paved Parking shall slope uniformly to the drains.

moisture

- 2. In areas where tiles are to be laid, the concrete base slab shall be depressed, when not indicated, to not less than 50mm.
- 3. Concrete slab finishes, where not indicated, shall receive a single steel trowelling.
- 4. Dry cement shall not be placed directly upon the new concrete surface to absorb excess

5. Broomed Finish

- The slab shall first be given a floated finish as specified herein above and a steel trowelled finish.
- The surface shall be broomed with a flexible bristle broom.
- The topping mixture shall be spread evenly over the roughened base before final set has taken place.
- At the time of brooming, the trowelled surface shall have hardened sufficiently to retain the scoring on ridges.
- The brooming shall be in a direction tranverse to that of traffic or at right angles to the slope of floor.

1047 METAL STRUCTURES

10.1 SCOPE

The work includes the furnishing, fabrication, erection or installation, complete, of all structural steel and miscellaneous metalwork in accordance with this specification unless required otherwise in the drawings.

i. Applicable Documents

The following specifications and standards (latest edition) but referred to hereinafter by basic designation only, shall form part of this specification;

| | |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------|
| ASTM | American Society for Testing and Materials |
| A36/A36M-88 | Structural Steel, Specification for |
| A53-88 | Steel Pipe Zinc Coated Welded and Seamless Black and Hot-Dip |
| A307-87 | Bolts and Studs 60,000 psi Tensile Strength |
| A570-85 | Hot-Rolled Carbon Steel Sheet and Strip, Structural Quality |
| A611-85 | Steel, Cold-Rolled Sheet, Carbon, Structural Quality |
| AWS | American Welding Society |
| D1 1-85 | Structural Welding Code, Steel |
| AISC | American Institute of Steel Construction Specification for the Design, Fabrication and Erection of Structural Steel for Buildings |
| AISI | American Iron and Steel Institute Specification for the Design of Light Gage Cold-Formed Steel Structural Members |

b. REQUIREMENTS

i. General

Fabrication and erection of structural steel shall be in accordance with AISC specification for the design, fabrication and erection of structural steel for buildings, except as specified herein. The Contractor shall submit to the DBM for approval shop drawings showing the proposed fabrication and installation of all metal works. No work shall be started until the shop drawings have been approved, and all work shall conform to the approved shop drawings.

ii. Materials

1. Structural steel shapes, plates and bars, unless otherwise shown or specified on the drawings shall conform to ASTM specification A36/A36M.
2. Bolts, nuts and washers shall conform to specification ASTM A570 or A611, with a minimum yield point of 33,000 psi, unless otherwise shown or specified in the drawings.
3. Screws and expansion bolts shall be of a standard commercial grade, as approved by the DBM, and if the sizes and types indicated.
4. Electrodes for arc welding shall be E60 or E70, AWS D1.1.
5. Pipe columns and railings shall be zinc-coated steel pipe of standard weight conforming to ASTM A53-88.
6. Galvanizing, unless otherwise specified, shall be of standard quality, hot-dipped process of 1.25 ounces per square foot of coating. Galvanized surfaces that are damaged prior to final acceptance shall be repaired using an approved repair compound to the satisfaction of the DBM.
7. Miscellaneous metal items including accessories, incidentals, fastenings and anchorages, not specifically mentioned herein or in other sections but are required to complete work, and for which there are no detail drawings, shall be provided and installed in accordance with standard practice of the trades as approved by DBM.

c. FABRICATION

The work shall be well formed to the shape and size shown and assembled as detailed. Structural members shall be fabricated and assembled in the shop to the greatest extent possible. Shearing and punching shall produce a clean, true lines and surfaces with burrs removed. Nuts shall be drawn up tight. Joints which are to be exposed to the weather shall be watertight. Holes shall be cut, drilled or punched at right angles to the surface of the metal and shall not be made or enlarged by burning. Holes in base or bearing plates shall be drilled.

1. Welding of structural steel shall be in accordance with the standard code of Arc and Gas Welding in Building Construction of the American Welding Society. All welding work shall be performed by qualified welders only.
2. Shop painting unless otherwise specified or indicated in the drawings, all structural steel work (except galvanized surfaces and surfaces that will be painted with epoxy) shall be given a shop coat of red lead or zinc chromate primer.

d. ERECTION

The steel structure shall be erected true to line and grades. Bracings and supports shall be introduced whenever necessary to take care of all the loads to which the structure may be subjected. Such bracings shall be left in place as long as may be required for safety, as erection progresses. The work shall be securely bolted to take care of all the dead loads, wind and erection stresses. No reaming of undersize bolt and holes will be permitted, and erection bolts shall not be used for lining members.

1. Drift pins may be used only to bring together several parts; they shall not be used in such manner as to distort or damage metal.
2. Gas cutting which uses gas cutting torch in the field for correcting fabrication errors shall not be permitted on any major member in the structural framing. Its use may be permitted only when the member is not under stress, and subject to the approval of the DBM.

3. Base plates and bearing plates shall be supported on steel wedges or shims until the supported members have been plumbed, following which the entire bearing area shall be grouted with non-shrink cement grout.
4. Grouting mortar for setting base plates shall be a non-shrinking type of grouting mortar. The mortar, subject to the approval of the DBM, can either be a mixture of Portland cement, well graded fine aggregate, aluminum powder, and water or an approved commercial grouting mortar containing a non-metallic chemical oxidizing agent. If adopted, the approved product shall be delivered to the site of the work in original sealed container bearing the trade name of the manufacturer. Surfaces to receive the mortar shall be clean and shall be moistened thoroughly before placing the mortar. Exposed surfaces of mortar shall be water cured with wet burlap for at least seven (7) days.
5. Setting up steel shall be erected plumb, level and properly guyed. In setting or erecting of structural steel, the individual piece shall be considered plumb or level where the error does not exceed 1 to 500.

e. **PRESERVATIVE TREATMENT**

All truss members, purlins, cleats, ceiling joist and nailers shall be coated with two (2) coats of primer coats or equivalent. All truss surfaces in contact with concrete or masonry shall be coated with one (1) brush coat of asphalt paint.

f. **HARDWARE**

Items of hardware to be installed shall be as directed or as specified in the drawings and shall be fitted carefully and attached securely. Care shall be exercised not to mar or injure the work.

1014 PRE-PAINTED METAL SHEETS

11.1 SCOPE

The work includes furnishing all the materials and performing all operations to provide damp proofing, corrugated metal roofing and siding complete, including miscellaneous sheet metal items as required to provide a waterproof installation.

11.2 MATERIALS

11.2.1 Damp proofing

Damp proofing materials shall be a product of a reputable manufacturer acceptable to the DBM.

11.2.2 Pre-painted Metal Roofing

Metal roofing shall be cold-rolled, pre-coated with zinc-epoxy polyester or acrylic paint, and oven-baked for tougher resistance to chemical and atmospheric corrosion, preventing flaking, fading or rusting.

Roofing sheets shall meet the following technical specifications:

| | | |
|--------------------------------------|---|------------|
| Thickness of G.I. Base | : | 0.40 mm |
| Thickness of zinc epoxy | : | 25 microns |
| Total thickness of pre-painted sheet | : | 0.55 mm |
| Weight/meter | : | 3.94 kg |

11.2.3 Galvanized Steel Sheets for Sheet Metalwork

Galvanized steel sheets for sheet metalwork shall be plain galvanized steel sheets and shall be of the gauge specified.

11.2.4 Fasteners and Accessories

Fasteners and accessories shall be as recommended by the manufacturer acceptable to DBM.

11.3 STORAGE

Corrugated galvanized steel sheets and other moulded materials shall be stacked in level sites using lumber placed at right angles corrugation. Stacks shall be kept covered and protected from the weather and from contact with soil.

11.4 INSTALLATION

11.4.2 Damp proofing

1. General

Damp proofing shall be applied to all areas shown in the drawings or as required by the DBM.

2. Requirements

All areas to be damp proofed shall be inspected and accepted by the DBM prior to damp proofing works.

3. Application

Application of damp proofing materials shall be in accordance with the manufacturer's instructions subject to the approval of DBM.

11.4.3 Roofing

1. General

Except as specified otherwise herein, all materials shall be installed in accordance with the manufacturer's printed erection instructions. Care shall be exercised in storing, handling and installing to prevent any damage to roofing and siding sheets. The sheets shall be of length indicated or the greatest length to suit the purlins spacing. End laps of roofing shall be located over purlins, and end laps in siding shall be located over girts. Extreme care shall be exercised in drilling pilot holes for fastening to keep drills perpendicularly centered in valleys or crowns as applicable. After drilling, all metal filings and burrs shall be removed from holes prior to installing fasteners and washers. Sheets deformed or otherwise damaged by over-torqued fastenings, shall be removed and new sheets applied shall be installed. Size and spacing of fasteners used in erection shall be as recommended by manufacturer subject to the approval of the DBM. All metal shavings shall be swept from roofs on completion to prevent rusting and discoloration.

2. Joint Sealing Material

Shall be provided to seal all joints in and around sealing strips at ridges, eaves and valleys, bolt holes before inserting fasteners, for all flashing and elsewhere as necessary to provide watertight construction.

3. Fastening

Pre-painted roofing sheets shall be fastened to the purlins by means of metal strap Ga. 24, 25mm wide, strapped to steel purlins and riveted to metal roofing.

4. End Lap

Provide a minimum end lap of 250mm.

5. Sheet metal flashing

Shall be secured to roofing with cadmium plated or zinc-coated sheet metal screws in accordance with the manufacturer's recommendations and subject to the approval of the DBM.

6. Flashing

Flashing shall be provided as indicated and where necessary to make the work watertight. Flashing shall not be bent at sharp angles; but shall be worked to as large a radius as possible. Exposed edges of counter-flashings shall be folded 12mm. End laps in counter-flashing shall not be less than 75mm and shall be made watertight with plastic cement.

11.4.4 Roof accessories

1. Drain or Overflow pipe

Shall be adequately provided to all roof gutters or any other concrete works that catches drains or collects rain water. Pipe shall be 25mm G.I. Pipe spaced at shown in the drawings. Roof drain shall be a product of a reputable manufacturer acceptable to the DBM.

2. Weep Holes

Shall be provided by the Contractor to allow free flow of water to drain from one level to lower level or to outer drain as shown in the drawings or as directed by DBM.

3. Downspout

PVC downspout shall not be less than 75mm in diameter and a product of a reputable manufacturer acceptable to the DBM.

4. Gutter

Where shown in the drawings, gutter shall be zinc coated galvanized iron, ga.24 steel sheet. Support gutter on adjustable hangers spaced not more 75cm. on center or as directed by the DBM.

11.5 WATER TESTING

All roof surfaces, sidings, gutter and downspout system shall be tested for water-tightness by flushing or flooding with water as directed by the DBM. Flood water shall be kept on gutters and downspouts for a minimum time of one (1) hour and a minimum of twenty four (24) hours for all waterproof surfaces. If any leak occurs, the work shall be repaired or reconstructed; test shall be repeated until satisfactory result has been attained.

1003(1) a1 CARPENTRY AND JOINERY WORKS (CEILING)

12.1 MATERIALS

12.1.1 Metal furring is used as ceiling joist and shall be installed by an expert installer.

12.2.2 Use Fiber Cement Board ceiling boards laid on a suspended grid system consisting of main runners, cross tees and hangers/rods.

12.1.2 Wall angles shall be installed using screws, stub nails, or dry wall fasteners depending on wall type.

12.2 WORKMANSHIP

12.2.1 Execute all ceiling works in best and substantial manner.

12.2.2 Erect framing true to line, squared, aligned and plumbed.

12.2.3 Do not install ceiling until concrete and masonry has completely cured.

1003(1) DOORS AND GATE

13.1 SCOPE

All fabricated materials type and size shall be in accordance with the specification as indicated in the plans and are subject for approval to DBM prior to installation.

13.2 WORKMANSHIP

The fabricated of materials as specified in the plans shall be of standard practice and acceptable workmanship.

Whenever materials are not specified, use materials of equivalent value as approved by the DBM.

1008 (1)b/c ALUMINUM GLASS WINDOWS

14.1 SCOPE OF WORKS

The Contractor shall furnish all materials, equipment, tools, labor and incidentals necessary for the satisfactory performance of all works for aluminum glass doors and windows as shown in the drawings and as specified herein.

14.2 MATERIALS

1. Materials shall be delivered and stored in a safe location.
2. Label shall be affixed to each pane at the factory and shall remain intact until final cleaning.
3. Quality and thickness of glass be as mentioned in USGM Specification No. 123 insofar as it is established as a requirement. For other qualities and thickness, recognized commercial standards can be referred to subject to the approval of DBM.
4. Putty on wood or steel sash shall be of the approved type as recommended by the manufacturer and acceptable to DBM.

14.3 QUALITY OF GLASS AND GLAZING MATERIALS

1. All glass sheets for windows, unless otherwise specified herein or otherwise indicated in the drawings shall be locally manufactured.
2. All glass sheets used on aluminum and steel doors and windows shall be 5.6mm (7/32") thick or as required by DBM.
3. Samples of all glass and glazing shall be submitted to DBM for approval prior to any installation work.

14.4 WORKMANSHIP

1. All glass shall be accurately cut to fit openings and set with equal bearing on the entire width of the pane. Convex side of glass shall be on the outside.
2. These mirrors shall be manufactured with not less than two (2) coats of silver hermetically sealed with an impervious protective coat of a copper deposited over the silver by electrolysis and then given a coat of hard mirror backing paint over a coat of pure shellac.
3. Submit sample for approval prior to any installation work.

1100 CONDUITS, BOXES AND FITTINGS

15.1 SCOPE

The work contained in this item includes furnishing of all labor, equipment, tools and materials and performing all operations, including cutting, channeling and chasing necessary for the installation of complete wiring and conduit system, electrical equipment and electric service connection in accordance with this specification unless required otherwise in the drawings.

15.2 APPLICABLE DOCUMENTS

The following specifications, standards and codes of the issues listed in this paragraph (latest edition) but referred to hereinafter by basic designation only shall form part of this specification to the extent required by the references thereto.

| | |
|-------|------------------------------------------------|
| NEPA | National Fire Protection Association |
| PEC | Philippine Electrical Code |
| NEA | National Electrification Administration |
| NEMA | National Electrical Manufacturer’s Association |
| NEC | National Electric Code |
| ABI | Molded Case Circuit Breakers |
| ICI | Industrial Control |
| UL | Underwriters Laboratories Inc. |
| UL50 | Cabinet and boxes |
| UL57 | Electric Lighting Fixtures |
| UL67 | Panel boards |
| AWPA | American Wood Preservers Association |
| ANSI | American National Standards Institute |
| ASTM | American Society for Testing materials |
| C80.1 | Rigid Steel Conduit |

15.3 REQUIREMENTS

15.3.1 General

Unless indicated or specified otherwise herein, all materials and workmanship shall conform to the specifications and to the applicable standards, codes, regulations and specifications listed therein. Workmanship shall be of the highest grade. Electrical materials shall be new and approved by the Underwriters Laboratories, Inc. wherever standards have been established by the agency. Defective equipment or equipment damaged in the course of installation shall either be replaced or repaired as directed by the DBM. The contract drawings indicate the extent and general arrangement of the conduit and wiring system. If any departures from the contract drawings are deemed necessary by the Contractor, details of such departures and reason thereto shall be submitted as soon as practicable to the DBM for approval. No departures shall be made without the prior written approval of the DBM.

15.3.2 Scope

1. Furnish and install ____ volts, _____ phase, ____ hz, ____ wire line-to-line or ____ line-to-line ground ____ service entrance conductors, conduits, and metering

as required in the drawings in accordance with the local electric utility company regulations.

2. Furnish and install panel board and accessories as shown in the drawings.
3. Furnish and install feeders, branch circuit conductors, conduits and fittings as shown in the drawings.
4. Furnish and install wiring devices, outlets, wall switches including face plate and covers.
5. Furnish and install lighting fixtures, porcelain receptacles and mounting accessories.
6. Furnish and install grounding system cables, terminals, connectors, clamps and ground rod as shown in the drawings.

15.4 MATERIALS

15.4.1 Standard Products

The material shall be the standard products of manufacturers regularly engaged in the production of such equipment and shall be the manufacturer's latest standard design that complies with the specification requirements.

15.4.2 Approval of Materials

The Contractor shall submit for approval a complete description of all materials to be used in the work. The description shall include catalog numbers, illustrations, diagrams, dimensional data, etc., as required to describe fully the materials.

15.4.3 Conduit and Conduit Fittings

Conduit shall be rigid metal conduit, not dip galvanized, conforming to ANSI Standard C80.1, "American Standard Specifications for Rigid Steel Conduit, Zinc Coated" unless shown otherwise in the drawings. The conduit fittings and covers, shall be galvanized, sherardized, or cadmium plated, grey iron or malleable iron castings. Composite rubber gasket shall be provided on all openings requiring covers. Outlets and pull boxes shall be of sizes and types shown in the drawings

15.5 INSTALLATION

15.5.1 Conduit System

The Contractor shall install and test all embedded and exposed conduit, boxes, and fittings including all necessary hardware required for the electrical power, control, communication all lighting systems as shown on the drawings. Installation of all conduits, boxes, fittings, and accessories shall conform to the requirements of the National Electrical Code (NEC), and the Philippine Electrical Code (PEC) unless otherwise specified. During installation, due precaution shall be taken to protect the conduits and threads from mechanical injury. The ends of conduits shall be sealed in an approved manner during installation, whenever the work is interrupted and upon completion, runs shall be sealed by the use of caps and discs or plugs. The seals shall be maintained, except during inspection and tests, until the conductor by pulled-in. Conduits shall be checked from obstructions by pulling a wooden mandrel of the proper size through the conduit, whenever required or directed by the DBM. All boxes and fittings shall be kept closed and protected from dirt, moisture, and debris.

15.5.2 Installation of Embedded Metal Conduit

- 15.5.3 Each run of conduit between boxes or equipment shall be electrically continuous. Threads shall conform to the American Standard for tapered pipe threads. Conduits shall be cut square, ends reamed and threads cut with approved ties. Running or non-tapered threads shall not be used. Conduits entering slip holes in boxes shall be secured with a locknut on each side of the box wall and terminated with a bushing.

- 15.5.4 All joints between lengths of conduits and threaded connections to boxes, fittings, and equipment enclosures shall be made watertight.

- 15.5.5 Conduits shall be sloped towards drain points. Conduits shall be rigidly supported and braced to avoid shifting during placement of concrete. Conduits extending out of floors, walls, or beams shall be at right angles to the surfaces.
- 15.5.6 Spacing of conduits shall be such as to permit the flow of concrete between them. A minimum spacing of not less than 5cm shall be maintained, except where conduits enter boxes. Where conduits are placed in two or more layers or rows, the conduits in the upper or inner layers shall be placed directly over or behind the lower or outer layers, respectively.
- 15.5.7 Conduits terminating at the face of concrete for initial or future extensions as exposed runs shall be terminated with plugged couplings set flush with the floor, ceilings or wall. Galvanized iron plugs shall be provided for conduits which are to be extended in the future. Where it is not practical to employ flush couplings, the conduit ends shall be suitably boxed or otherwise protected and plugged.
- 15.5.8 Conduit running in floors and terminating at motors or other equipment mounted on concrete bases shall be brought up to the equipment within the concrete base wherever possible.
- 15.5.9 Conduit boxes shall be flush with the finished wall with covers and openings easily accessible. The Contractors shall remove and reset all boxes not properly installed or shifted out of line during concreting to the satisfaction of the DBM.
- 15.5.10 Conduits shall have long sweep field bends wherever possible, but shall in no case have bends of smaller radius than that given in the National Electrical Code (NEC) / Philippine Electrical Code (PEC). Bends shall be made with a bending machine, or other approved devices, which will not reduce the internal diameter of the conduit or injure the protective coatings. The bend shall be free of kinks, indentations, or flattened surfaces. Heat shall not be applied. Factory-made elbows shall be used only where conduits turn out of floor slabs or at conduit termination.
- 15.5.11 Installation of Concealed or Exposed Conduit

Conduit concealed or exposed shall be rigidly supported at intervals of not more than 1800 mm and shall have runs installed parallel or perpendicular to walls, structural members, or intersections of vertical planes and ceiling.

1101 WIRE AND WIRING DEVICES

16.1 Wires and Cables

Conductors in conduits shall be copper, moisture and heat-resistant rubber or thermoplastic insulated. In dry locations, wires and cables shall be type TW for sizes 8.0 sq.mm and smaller and type THW for sizes 14 sq.mm and larger. In damp or wet locations as defined by the National Electrical Code / Philippine Electrical Code, wires and cables shall be type THW. All conductors shall have 600 volts insulation unless otherwise specified in the drawings. Wire shall be stranded copper for 8 sq.mm and larger sizes. Wires for the telephone and signaling systems shall be twisted telephone wires, thermoplastic insulated. The number and sizes shall be as specified in the drawings.

16.2 Outlets

Each outlet in the wiring or raceway system shall be provided with an outlet box to suit the conditions encountered. Boxes for exposed work or in wet locations shall be of the cast metal type having threaded hubs. Boxes for concealed work shall be cadmium-plated or zinc-coated sheet metal type. Each box shall have sufficient volume to accommodate the number of conductors entering the box in accordance with the requirements of the National Electrical Code / Philippine Electric Code. Boxes shall not be less than 40mm deep unless shallower boxes are approved by DBM. Ceiling and bracket outlet boxes shall not be less than 100mm x 54mm x 40mm boxes may be used where only one raceway enters the outlet. Boxes installed in concealed locations shall be set flush with the finished surfaces and shall be provided with the proper extension rings or plaster covers where required. Boxes shall be installed in a rigid and satisfactory manner and shall be supported by bar hangers in frame construction, or shall be fastened directly with wood screws on

wood. Location of outlets shown on the drawings are approximates; the Contractor shall study the building plans in relation to the spaces and equipment surrounding each outlet so that the lighting fixtures are symmetrically located according to the room layout. When necessary, with the approval of DBM, outlets shall be relocated to avoid interference with mechanical equipment or structural features.

16.3 Wiring System

1. Wiring methods

Wiring in rigid steel conduits shall be used or as indicated in the drawings. Wiring for general purpose location shall be in accordance with the provisions of NEC general purpose installation. Branch circuits shall be installed as shown on the plans. No wire smaller than 3.5 sq.mm shall be used for any branch circuit unless otherwise noted on drawings for special system circuit. Larger sizes shall be used when so indicated in the drawings. The conductors terminating at each wired outlet shall be left not less than 300 mm long within the outlet devices or fixtures. Where two or more pairs of conductors or circuits enter an outlet, the several pairs of circuits shall be neatly spliced and made mechanically and electrically secure to one or more single or multiple conductors.

16.3.1 Conductor Installation

All power, lighting, control and alarm conductors shall be continuous from outlet to outlet and no splice shall be made except on outlet boxes. At least 300 mm of free conductor shall be left on each conductor at each outlet to make splices or joints, except where it is intended to loop through outlet without splice or joints. Splices shall be mechanically strong and have conductivity equal to that of the conductors. Each splice shall be properly soldered or clamped. Tape as required to provide insulation equal to that on the conductors shall be used at all conductor splices. Compression type lugs shall be used for stranded wire terminals. All wiring shall be color coded in accordance with the National Electrical Code. Wire and cable shall be pulled in conduit using talc as lubricant.

16.3.2 Grounding System

1. General

The Contractor shall install a complete embedded electrical grounding system as shown on the drawings and described herein which shall permanently and effectively ground conduits and non-current carrying metal parts. The overall resistance to ground of the entire grounding system shall not exceed 25 ohms by measurement. Resistance to ground of over 25 ohms shall be corrected by driving an additional electrode parallel to the original ground rod with no further resistance measurement required.

2. Ground Conductor

Ground conductor shall be THW, stranded copper cables. All joint connections within the grounding system shall be made by means of connector suited for the particular joint. The cable shall be clean of all dirt, grease, and oxidation before connections are made.

16.4 QUALITY ASSURANCE PROVISIONS

After the installation is completed and before final acceptance of the project, the DBM shall conduct the operating test. Equipment shall be demonstrated to operate in accordance with the requirements of this specification. The Contractor shall furnish all instruments, tools and personnel required for the tests. All defects disclosed as a result of such test that are due to the fault of the Contractor shall be remedied by the Contractor to the satisfaction of the DBM.

1102 POWER LOAD CENTER, SWITCHGEAR AND PANELBOARDS

17.1 Panel boards

Panel boards shall be of the dead-front safety type conforming to Underwriters Laboratories, Inc., standard for panel board UL67, and provided with the size and number of circuits as indicated. Panel board shall be the automatic circuit breaker type.

1. Circuit breaker

Shall be molded bolt-in type with frame size and trip settings as shown on the drawings. Molded case circuit breakers shall conform to NEMA standard publication AB1. Tripping mechanism shall be thermal-magnetic with minimum interrupting capacity of _____ amperes.

1103 LIGHTING FIXTURES

18.1 Lamp and Lighting Fixtures

Lamp and lighting fixtures of type and sizes as specified in the drawings shall be furnished and installed complete.

1. Incandescent lamps

Shall be inside frosted lamp, 220 volts, wattage as indicated in the plan.

2. Fluorescent lamps

Shall be the pre-heat type, cool white color characteristics and shall have complete HPF ballast and starter.

3. Wall switches

Shall be of totally enclosed type. Bodies shall be thermosetting plastic compound. Wiring terminals shall be of the screw type. Not more than three switches shall be installed in a single plate position.

4. Fixtures

Shall conform to Underwriters Laboratories, Inc., standard UL57. Fixtures are designated by letters and illustrated on the drawings. Illustration shall be indicative of the general type desired and indicative of the general type desired and indicative of the general type desired and shall not restrict selection to fixtures of any particular manufacturer. Fixtures of similar design and equivalent light distribution and brightness characteristics having equal finish and quality may be acceptable but subject to the approval of the DBM.

1002 PLUMBING

19.1 SCOPE

This section consists of performing essential works in furnishing and installing piping materials and other mechanical devices or fixtures necessary to construct complete the plumbing system, fire extinguishing system, etc. in accordance with this specification unless specified otherwise in the drawings.

19.2 SPECIFICATIONS AND STANDARDS

The specification and standard references in this specification (latest edition) shall govern in all cases where references thereto are made. In case of difference between the referenced specification and its accompanying drawings, this specifications and accompanying drawings shall govern to the extent of such difference, otherwise, the referenced specifications and standards shall apply.

ASTM - American Society for Testing and Materials

| | | |
|------------|---|------------------------------------------------------------------------------------------------------------------------|
| A74-87 | - | Cast Iron Soil Pipe and Fittings |
| A53- 84 | - | Steel Pipe (Galv.) Zinc Coated Welded and Seamless Black and Hot Dip |
| B370- 68 | - | Copper Sheet and Strip for Building Construction |
| D1785-76 | - | Polyvinyl Chloride (PVC) Plastic Pipe, Schedule 40, 80 and 120 |
| D2466- 78 | - | Underground Installation of Thermoplastic Pressure piping |
| D2564-80 | - | Solvent Cements for Polyvinyl Chloride (PVC) Plastic and fittings |
| D2729- 85 | - | Polyvinyl Chloride Pipe and fittings |
| D2774-78 | - | Underground Installation of Thermoplastic Pressure piping |
| ANSI | - | American National Standard Institute |
| A40.8-1955 | - | National Plumbing Code |
| AWWA | - | American Water Works Association |
| C203-62 | - | Coat- tar Enamel Protective Coatings for Steel Water Pipe |
| C601- 81 | - | Disinfecting Water Mains Pipes and Fittings Plumbing Fixtures Valves Fire Extinguishing Equipment Pumps |
| DIN8077 | - | PP-R (Polypropylene Pipes) Dimension |
| DIN8078 | - | PP-R Pipes General Quality Requirements & Testing |

19.3 MATERIALS

19.3.1 Soil, Water, Drain and Vent Pipe and Fittings

- Underground and/or exposed soil, waste, vent and drain piping shall be polyvinyl chloride (PVC) pipe conforming ASTM D2729-85 (Schedule 40) or as shown in the drawings.
- Aboveground and/or exposed soil, waste, vent and drain piping shall be bell-and-spigot cast-iron pipe and coated with one coat of coal tar primer and on coat of coal tar enamel conforming to ASTM A 74-87 or as shown in the drawings.

3. Flashing

Vent pipes shall be flashed and made watertight at the roof with 4- pound sheet lead or 16- ounce sheet copper. Flashing shall extend not less than 200mm from the vent pipes in into the pipes or hubs.

4. Traps

Each fixture and piece of equipment requiring connections to the drainage system shall be equipped with a metal trap. Traps installed on threaded pipe shall be recess drainage pattern.

19.3.2 Water Pipe and Fittings

- PPR Pipe for above ground water lines; shall conform to DIN8078

2. Polyvinyl Chloride (PVC) Plastic piping for below- ground water lines; shall conform to ASTM D1785, Schedule 40. Fittings shall conform to ASTM D2466. Solvent cement for jointing shall conform to ASTM D2774.
3. Valves shall be all brass or bronze with rough bodies and finished trimmings, except that valves on chromium- plated brass pipe shall be finished and chromium – plated.
4. Hose bibs shall be rough brass body with composition disc, hand wheel, 19mm hose end and 12 mm female inlet.

19.4 INSTALLATION

19.4.1 Water Pipes and Fittings

1. Pipes shall be installed as indicated in the drawing. The pipes shall be cut accurately to measurement, established at the building by the Contractor and shall be worked into place without springing or forcing. Care shall be taken not to weaken the structural portion of the building. All piping above grounds shall be run parallel with the lines of the building unless otherwise shown or noted on the drawings. Install plastic pipe and fittings in accordance with the general requirements for installation of pipelines and with the applicable requirement of DIN8077 & DIN8078.

2. Joints. After cutting and before threading, all pipes shall be reamed and shall have burrs removed. All screw joints shall be made graphite and oil or with an approved graphite compound applied to make thread only. Threads shall be full cut and not more than 3 threaded joints to prevent leak shall not be queried for disconnections.

3. Fittings

Branches in piping and changes in pipe sizes shall be provided with necessary fittings as shown in the drawings.

4. Valves

Shall be provided on all supplied fixtures as specified. Where valves are indicated on the drawings in connection with run outs, risers, branches and mains, they shall be in accordance with these specifications.

5. Disinfection

Flush and disinfect new potable waterlines in accordance with AWWA C601.

- Excavation

Trenches for all underground pipes shall be excavated to the required depth and grade as shown in the drawings and in accordance with the Section 2.2.3 Earthwork.

- Backfilling

Pipe lines shall have been tested, inspected and approved by DBM prior to backfilling. Backfill materials and operation shall be in accordance with Section Earthwork.

19.5 QUALITY ASSURANCE PROVISIONS

19.5.1 Tests

The Contractor shall conduct all tests required and shall furnish all equipment, labor and materials necessary. All defects disclosed as the result of the test shall be repaired or remedied and the system retested, until the results are satisfactory to DBM.

1. Water Piping

Shall be subjected to a hydrostatic pressure test of 100 pounds per square inch for two (2) hours before covering.

2. Sanitary Piping

Before the installation of any fixture, the end of the system shall be capped and all lines filled with water to the roof and allowed to stand for at least 30 minutes without leakage. After the fixtures are set, a smoke or equivalent test shall be made using an approved apparatus. Test within building shall be made with piping exposed. Underground piping shall be tested before backfilling.

19.5.2 Sterilization

Potable water piping shall be disinfected by a mixture containing not less than 0.60 lb. of high test hypochlorite, or an equivalent amount of chlorinated lime (about 2 lbs.) to each gallons of water to provide not less than 50 mg/l of available chlorine. The mixture shall be injected into the system and retained for not less than 12 hours. The system shall then be drained and flushed with potable water, and placed in service.

1032 (1)a/c PAINTING WORKS

20.1 SCOPE

The work covered by this section consists of furnishing all labor, equipment, tools and materials in performing all operation in connection with painting and finishing, including protective coating and finished painting of metal surfaces, complete in accordance with the specifications and the applicable drawings.

20.2 MATERIALS

- 20.2.1 All paint materials shall be as manufactured by recognized company acceptable to DBM.
- 20.2.2 All paint materials shall be delivered at the jobsite, in the original containers, with labels intact and seals unbroken. All paints shall be as specified in the schedule of paint materials.
- 20.2.3 All tinting colors must be the same type as the paint specified for the particular area.
- 20.2.4 A place may be designated by DBM for the storage of paint materials and tools. Whenever it may be necessary to change the location of this storage area, the Contractor shall move promptly to the newly designated place. The storage area shall be adequately ventilated and must always be kept clean. Paint shall be protected from damage or contamination at all times and safeguards taken to prevent fire.
- 20.2.5 All paint, except paint for metal surfaces, shall have fungicides added Phenol Mercuric Chloride in the amount of 1.5 percent based on the total weight of paint.

20.3 COLOR AND SAMPLES

- 20.3.1 All colors shall be in accordance with the color schemes as shown in the drawings or as directed by DBM.
- 20.3.2 Sample panels of selected colors, at least one (1) meter square in area shall be prepared for approval by the DBM prior to application.

20.4 WORKMANSHIP

- 20.4.1 All work shall be done by skilled workers in a workmanlike manner. All paints shall be evenly applied so as to be free from sags, runs, crawls and other defects. All coats shall be of proper consistency and well brushed out or rolled on so as to show the minimum of brush or roller marks. All brushes or rollers shall be clean and in good condition.
- 20.4.2 Paint shall be thoroughly stirred so as to keep the pigment evenly in suspension when paint is applied.
- 20.4.3 No painting shall be done under conditions that are unsuitable for the production of good results.
- 20.4.4 All coats shall be thoroughly dry before the succeeding coat is applied. Allow at least twenty four (24) hours or more between applications of coats. For exterior painting during rainy season, allow one (1) week drying time before succeeding coat is applied.
- 20.4.5 Painting coats as specified are intended to cover surfaces perfectly; if surfaces are not fully covered further coats shall be applied to attain the desired evenness of the paint application.

- 20.4.6 All finishes shall be uniform as to sheen, color and texture.
- 20.4.7 Paint may be applied by the spray method, except when, in the opinion of the DBM, spraying in any particular application would produce unsatisfactory results. The Contractor shall provide all drop cloths and other covering requisite to the protection of floors and other work.
- 20.4.8 Each surface shall be inspected carefully before applying any finish; and if not in proper condition, the DBM shall be notified to that effect in writing, otherwise the Contractor shall be held responsible for any defects in the finishes arising therefrom. Should a coat of paint be applied to a certain area and defects, such as large cracks, hollow spots or unevenness in plastering, are discovered, such cracks, hollow spots and unevenness shall be knocked out and re-plastered by the Contractor and repainted to the satisfaction of the DBM.
- 20.4.9 The DBM shall be furnished with every reasonable facilities for ascertaining that the workmanship is in accordance with the requirements and intent of these specifications.

20.5 INSPECTION OF SURFACES

- 20.5.1 The Contractor shall inspect all surfaces to be painted and all defects shall be remedied before starting work.
- 20.5.2 No work shall be started unless the contractor shall have made certain as to the dryness of the surfaces. Tests shall be made, in the presence of the DBM, to verify dryness of surfaces to be painted.

20.6 SURFACE PREPARATION

In addition to the work specified in the different types of finishes, the following work shall be done before painting is started:

- 20.6.1 All spaces shall be broom clean.
- 20.6.2 All dust, dirt, plaster, grease and other extraneous matter which would affect the finish work shall be removed.
- 20.6.3 All wood work shall be sanded lightly with No. 00 sandpaper between coats.

20.7 CONCRETE SURFACES

20.7.1 Surface Preparation

Before applying paint to concrete and cement plaster finishes, these surfaces shall be allowed to dry thoroughly. Clean surfaces, from all dirt, alkali and grease before commencing work. Treat all surfaces with a solution of two (2) kilos of zinc sulphate to four (4) liters of water and sufficient phenolphthalein to act as color warning. Presence of alkali is indicated when phenolphthalein turns red and further treatment is required to neutralize it. Allow surface to dry at least three (3) days and remove all loose crystals from the surface before finishing.

20.7.2 Finishing

For exterior and interior concrete surfaces and all other surfaces with cement plaster finish, use Flat Nalcrete or approved equivalent.

- First Coat - Apply flat Nalcrete thinned with ½ liter water per 4 liters of paint; tint with latex tinting color to closely match color of topcoat or use premixed paint. Dry for 3 to 6 hours.
- Intermediate Coat - Repair all minor surface imperfections with a Nalcrete putty made by mixing Nalcrete with patching compound powder or approved equivalent. Let dry 24 hours, sandpaper, then apply coat.
- Final Coat - Apply flat Nalcrete or approved equivalent, tinted with latex tinting color to the shade specified.

20.8 WOOD SURFACES

20.8.1 Surface Preparations

Plane and sandpaper to remove roughness, loose edges, splinters, then clean to remove dust. All frames in contact with concrete or plaster shall be treated with an anti-termite solution or equal before applying paint. Set nail heads into the wood, fill holes, cracks and defects. Dry for three (3) hours and sandpapered to a smooth finish.

20.8.2 Finishing

For all woodwork, use gloss latex house paint or approved equivalent.

- First Coat - Apply latex paint thinned with ½ liter water per 4 liters of paint.
- Second Coat - Apply latex paint thinned with latex tinting colors to the shade specified. Dry for 4 to 6 hours.

20.9 METAL SURFACES

20.9.1 Galvanized Metal

All soldered joints must be completely scrubbed with a stiff steel brush, washed down with water to remove acidic solder flux, then the new surfaces must wiped off with Tex Thin or approved equivalent to remove grease and oils. All other surface contaminants must be removed before applying paint. Apply 2 to 3 full coats of Portland Cement Paint or approved equivalent directly on clear and bare galvanized metal surfaces. Allow 24 hours drying time between coats.

20.9.2 Uncoated Steel

Other metal surfaces must be complete scrubbed hard with a stiff steel brush and cleaned before applying a coat of red oxide primer or equal. Succeeding coats shall be applied following manufacturer's specifications for various coats on metal surfaces as approves by the DBM.

20.9.3 Finishing

Finishes shall be as specified in the drawings or as approved by the DBM. Stains and varnish shall be allowed to dry at least forty eight (48) hours between coats and shall be sanded lightly between coats with finer sand paper and dusted before succeeding coat is applied by hand-rubbing and polishing, brushing, or spraying.

20.10 OTHER SURFACE FINISH

On all other finishes not indicated in the drawings or described herein, the Contractor shall submit samples of the said finishes to the DBM for approval and selection before commencing work.

20.11 PROTECTION

20.11.1 Furniture and other movable objects, equipment, fittings, fixtures and accessories shall be removed or protected and returned in place upon completion of painting works.

20.11.2 Remove or protect all electric plates, surface hardware, etc., before painting and refit when complete

20.11.3 Any undue damage to any part of the present structure or adjacent building caused by the Contractor during the execution of the work shall be made good by the Contractor to the satisfaction of the DBM.

20.12 CLEANING UP

The Contractor shall, upon completion of work, remove all paint, where it has been spilled, splashed or splattered on surface, remove all surplus materials, scaffolds, etc., so as to leave in perfect condition acceptable to DBM.

20.13 FINAL INSPECTION

Finished surfaces shall be solid, even in color and finished textures, free from cops, runs, lumps, brush, marks, discoloration or other defects. Before final inspection, any work which has become damaged or discolored shall be touched up or refinished in a satisfactory manner.

20.14 MISCELLANEOUS

All other items or work to be painted and not specified herein, but necessary to complete the work shall be painted with the appropriate quality paint suited to the service and nature of the surface and material in accordance with the specifications or as directed by the DBM.