# **POLOMOLOK WATER DISTRICT**

# **BIDDING DOCUMENTS**

for the

# EXPLORATORY/PRODUCTION WELL DRILLING AT CANNERY – LAMCALIAF (ANTIPORTA'S LOT)

**MARCH 2021** 

# Preface

These Philippine Bidding Documents (PBDs) for the procurement of Infrastructure Projects (hereinafter referred to also as the "Works") through Competitive Bidding have been prepared by the Government of the Philippines for use by all branches, agencies, departments, bureaus, offices, or instrumentalities of the government, including government-owned and/or -controlled corporations, government financial institutions, state universities and colleges, local government units, and autonomous regional government. The procedures and practices presented in this document have been developed through broad experience, and are for mandatory use in projects that are financed in whole or in part by the Government of the Philippines or any foreign government/foreign or international financing institution in accordance with the provisions of the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

The PBDs are intended as a model for admeasurements (unit prices or unit rates in a bill of quantities) types of contract, which are the most common in Works contracting.

The Bidding Documents shall clearly and adequately define, among others: (i) the objectives, scope, and expected outputs and/or results of the proposed contract; (ii) the eligibility requirements of Bidders; (iii) the expected contract duration; and (iv) the obligations, duties, and/or functions of the winning Bidder.

Care should be taken to check the relevance of the provisions of the PBDs against the requirements of the specific Works to be procured. If duplication of a subject is inevitable in other sections of the document prepared by the Procuring Entity, care must be exercised to avoid contradictions between clauses dealing with the same matter.

Moreover, each section is prepared with notes intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They shall not be included in the final documents. The following general directions should be observed when using the documents:

- a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.
- b. Specific details, such as the "*name of the Procuring Entity*" and "*address for bid submission*," should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.
- c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.
- d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

- e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.
- f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

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# Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

**Bid** – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender*. (2016 revised IRR, Section 5[c])

**Bidder** – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

**Bidding Documents** – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

**BIR** – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

**Consulting Services** – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

**Contract** – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

**Contractor** – is a natural or juridical entity whose proposal was accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded. Contractor as used in these Bidding Documents may likewise refer to a supplier, distributor, manufacturer, or consultant.

**CPI** – Consumer Price Index.

**DOLE** – Department of Labor and Employment.

**DTI** – Department of Trade and Industry.

**Foreign-funded Procurement or Foreign-Assisted Project** – Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

**GFI** – Government Financial Institution.

GOCC – Government-owned and/or –controlled corporation.

**Goods** – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term "related" or "analogous services" shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

GOP – Government of the Philippines.

**Infrastructure Projects** – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

**LGUs** – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

**Procurement Project** – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

**PSA** – Philippine Statistics Authority.

**SEC** – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

# Section I. Invitation to Bid

## Notes on the Invitation to Bid

The Invitation to Bid (IB) provides information that enables potential Bidders to decide whether to participate in the procurement at hand. The IB shall be posted in accordance with Section 21.2 of the 2016 revised IRR of RA No. 9184.

Apart from the essential items listed in the Bidding Documents, the IB should also indicate the following:

- a. The date of availability of the Bidding Documents, which shall be from the time the IB is first advertised/posted until the deadline for the submission and receipt of bids;
- b. The place where the Bidding Documents may be acquired or the website where it may be downloaded;
- c. The deadline for the submission and receipt of bids; and
- d. Any important bid evaluation criteria.

The IB should be incorporated into the Bidding Documents. The information contained in the IB must conform to the Bidding Documents and in particular to the relevant information in the Bid Data Sheet.



National Highway, Polomolok, South Cotabato

Tel Nos. (083) 500-926/ 500-9314/500-9340 / Telefax No. (083) 500-8008

# INVITATION TO BID FOR Exploratory/Production Well Drilling at Cannery - Lamcaliaf (Antiporta's Lot)

- 1. The Polomolok Water District with the Approved Budget for 2021 intends to apply the sum of Pesos: Three Million Twenty Thousand Pesos Only (PHP 3,020,000.00), inclusive of VAT and all other applicable government taxes, fees and other charges, being the Approved Budget for the Contract (ABC) to payments under the contract Exploratory/Production Well Drilling at Cannery Lamcaliaf (Antiporta's Lot). Bids received in excess of the ABC shall be automatically rejected on bid opening.
- 2. The Polomolok Water District now invites Bids from MANUFACTURERS/SUPPLIERS & ELIGIBLE BIDDERS for the Exploratory/Production Well Drilling at Cannery Lamcaliaf (Antiporta's Lot). Delivery of the Goods is required within 120 calendar days from receipt of Notice to Proceed or Purchase Order. Bidders should have completed contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instructions to Bidders.
- 3. Bidding will be conducted through open competitive bidding procedures using a nondiscretionary "pass/fail" criterion as specified in the 2016 Revised Implementing Rules and Regulations (IRR) of Republic Act (RA) 9184, otherwise known as the "Government Procurement Reform Act".

Bidding is limited to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA 5183.

4. Interested bidders may obtain further information from Polomolok Water District and inspect the Bidding Documents at the address given below during business hours from 8:00 AM to 4:00 PM and/or at the Polomolok Water District website (polwaterdistrict.gov.ph).

- 5. A complete set of Bidding Documents may be acquired by interested Bidders from the address below starting **04 March 2021** from 8:00 AM to 4:00 PM except Saturdays, Sundays and Holidays, upon payment of a non-refundable fee of **Five Thousand Pesos** (**PHP 5,000.00**). It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of Polomolok Water District website (polwaterdistrict.gov.ph), provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.
- 6. Polomolok Water District through its Bids and Awards Committee will hold a Pre-Bid Conference (online coverage) on 12 March 2021, 10:00 AM at the Conference Room, 2<sup>nd</sup> Floor Admin. Bldg. Polomolok Water District and via video conferencing thru Zoom which shall be open to prospective bidders. To be able to join the online pre-bid conference, a scanned written request shall be made/emailed to the BAC Secretariat.
- 7. Bids must be duly received by the BAC Secretariat at the address below on or before 30 March 2021 at 10:00 AM. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 18. If a bidder chooses to submit a soft copy of the bids online, the bidder shall send it to a unique share link which will be provided by the BAC Secretariat to a particular bidder. The confidentiality of the submitted bids is protected by the bidder's password.
- 8. Bid opening shall be on **30 March 2021 at 10:00 AM** at the Conference Room, 2<sup>nd</sup> Floor Admin. Bldg. Polomolok Water District. Bids will be opened in the presence of the bidders' representatives who choose to attend the Bid Opening at the address below and at the same time, via video conferencing through Google Meet. An email invitation will be sent to bidders who purchased the bid documents.

For the online submission of bids, the bidders must submit a PDF copy of the notarized Bid Securing Declaration or a scanned copy of any acceptable form of Bid Security, together with the eligibility requirements, technical and financial proposals, as specified in the Bidding documents. The date and time appearing in the e-mail of BAC for the bids submitted online must be on or before **30 March 2021 at 10:00 AM** to be on time.

The BAC shall open the online submitted bids with the bidder's password, which is only known to the bidder, during the opening of bids. This is to maintain the integrity of the government bidding process.

Late bids shall not be accepted.

9. The *Polomolok Water District* 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.

10. For further information, please refer to:

BAC – Secretariat Polomolok Water District Tel. No. : (083) 500-9400 TeleFax No. : (083) 500-8008 E-mail add : bacpolwd@gmail.com

> **ENGR. CECIL D. MIRASOL** BAC Chairman

# Notes on the Instructions to Bidders

This Section on the Instruction to Bidders (ITB) provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring Entity. It also provides information on bid submission, eligibility check, opening and evaluation of bids, post-qualification, and on the award of contract.

### 1. Scope of Bid

The Procuring Entity, *POLOMOLOK WATER DISTRICT* invites Bids for the **Exploratory/Production Well Drilling at Cannery Lamcaliaf (Antiporta's Lot)**, with Project Identification Number *PB 21-08*.

The Procurement Project (referred to herein as "Project") is for the construction of Works, as described in Section VI (Specifications).

### 2. Funding Information

- 2.1. The GOP through the source of funding as indicated below for *FY 2021* in the amount of **Three Million Twenty Thousand Pesos Only (PHP 3,020,000.00)**.
- 2.2. The source of funding is:
  - *a.* GOCC and GFIs, the Corporate Operating Budget.

### **3. Bidding Requirements**

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manual and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or invitation to bid by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have inspected the site, determined the general characteristics of the contracted Works and the conditions for this Project, such as the location and the nature of the 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 and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

### 4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

### 5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. 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 PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

A contract is considered to be "similar" to the contract to be bid if it has the major categories of work stated in the **BDS**.

- 5.3. 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 Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

#### 6. Origin of Associated Goods

There is no restriction on the origin of Goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN.

#### 7. Subcontracts

7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than fifty percent (50%) of the Project.

The Procuring Entity has prescribed that:

#### a. Subcontracting is not allowed.

#### 8. **Pre-Bid Conference**

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address and/or through videoconferencing/webcasting as indicated in paragraph 6 of the **IB**.

#### 9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

## 10. Documents Comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in Section IX. Checklist of Technical and Financial Documents.
- 10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which 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. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.5. A 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, must meet the minimum requirements for the contract set in the **BDS**.

### 11. Documents Comprising the Bid: Financial Component

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in Section IX. Checklist of Technical and Financial Documents.
- 11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

### **12.** Alternative Bids

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.

#### 13. Bid Prices

All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.

#### 14. Bid and Payment Currencies

- 14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.
- 14.2. Payment of the contract price shall be made in Philippine Pesos.

#### 15. Bid Security

- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 15.2. The Bid and bid security shall be valid until *one hundred twenty days from the date of the opening of bids*. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

#### 16. Sealing and Marking of Bids

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

### 17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB**.

## 18. Opening and Preliminary Examination of Bids

18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

18.2. The preliminary examination of Bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

## **19.** Detailed Evaluation and Comparison of Bids

- 19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.
- 19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** 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 Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.
- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

## 20. Post Qualification

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**.

## 21. Signing of the Contract

The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

## Notes on the Bid Data Sheet (BDS)

The Bid Data Sheet (BDS) consists of provisions that supplement, amend, or specify in detail, information, or requirements included in the ITB found in Section II, which are specific to each procurement.

This Section is intended to assist the Procuring Entity in providing the specific information in relation to corresponding clauses in the ITB and has to be prepared for each specific procurement.

The Procuring Entity should specify in the BDS information and requirements specific to the circumstances of the Procuring Entity, the processing of the procurement, and the bid evaluation criteria that will apply to the Bids. In preparing the BDS, the following aspects should be checked:

- a. Information that specifies and complements provisions of the ITB must be incorporated.
- b. Amendments and/or supplements, if any, to provisions of the ITB as necessitated by the circumstances of the specific procurement, must also be incorporated.

ITB Clause			
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be:		
	well drilling/exploratory well		
7.1	Not Applicable		
10.3	PCAB License – Small B Category C & D with Specializ	ed Well Drilling	
10.4	The key personnel must meet the required minimum years of experience set below:		
	Key Personnel General Experience	Relevant Experience	
	Project Coordinator at least 5 years in well drilling	3-5 years of relevant experience	
	Site Supervisor at least 5 years in well drilling	3-5 years of relevant experience	
	Drilling Rig Operator at least 5 years in well drilling	3-5 years of relevant Experience	
	Welder at least 5 years in well drilling (minimum of 2 personnel)	3-5 years of relevant experience	
	Helper (2 personnel) at least 5 years in well drilling	3-5 years of relevant experience	
10.5	No further instructions		
12	Not allowed		
15.1	The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:		
	a. The amount of not less than <b>PHP 60,400.00</b> , if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or		
	b. The amount of not less than <b>PHP 151,000.00</b> if b Bond.	id security is in Surety	
16	Each Bidder shall submit 1 original of the first and second components of its bid or two (2) password-protected Bidding Documents in compressed archive folders, in case of electronic bid submission, and which shall be submitted simultaneously. The first shall contain the technical component of the bid, including the eligibility requirements under Section 23.1 of this IRR		

# **Bid Data Sheet**

	<ul> <li>The First Envelope and Second Envelope should be properly marked and sealed as "ORIGINAL COPY -ELIGIBILITY AND TECHNICAL COMPONENT" and ORIGINAL COPY-FINANCIAL COMPONENT", respectively, to avoid confusion and BOTH envelopes shall be placed inside one big SEALED envelope.</li> <li>For authentication purposes, all pages of the bidding documents for submission must be certified by the authorized signatory of the participating Bidder/Company. The bidders are also reminded to PUT PROPER TAB ON EACH BIDDING DOCUMENTS.</li> </ul>
	Unsealed or unmarked bid envelopes, or in case of electronic bid submission, Bidding Documents not in compressed archive folders and are not password protected, shall be rejected. However, bid envelopes that are not properly sealed and marked shall be accepted, provided that the bidder or its duly authorized representative shall acknowledge such condition of the bid as submitted. The BAC shall assume no responsibility for the misplacement of the contents of the improperly sealed bid envelopes or improperly compressed or password- protected folder, or for its premature opening.
19.2	Partial bids are not allowed.
20	Permit to Drill
21	<ul> <li>The winning bidder shall submit the following additional documents relevant to the Project ten (10) calendar days from the receipt of the Notice of Award:</li> <li>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.</li> <li>Statement of Compliance with the Construction Guidelines for Project Implementation during the period of Public Health Emergency and Certification and Undertaking pursuant to the Revised Construction Safety Guidelines for the Implementation of Infrastructure Projects during the COVID – 19 Public Health Crisis, repealing Department Order No. 35, series of 2020.</li> <li>Contractor's All Risk Insurance (for Bid Bulletin)</li> </ul>
	<ul> <li>Note during the Implementation of the Project the winning bidder shall comply to the following:</li> <li>Written request prior to the commencement of any activity for approval</li> <li>Activity must strictly follow the activity sequence as listed above</li> <li>Strata samples collected every meter shall be properly marked and submitted to PolWD</li> <li>Pump test results (i.e. step – drawdown and constant discharge result) shall be submitted to PolWD</li> </ul>

## Notes on the General Conditions of Contract

The General Conditions of Contract (GCC) in this Section, read in conjunction with the Special Conditions of Contract in Section V and other documents listed therein, should be a complete document expressing all the rights and obligations of the parties.

Matters governing performance of the Contractor, payments under the contract, or matters affecting the risks, rights, and obligations of the parties under the contract are included in the GCC and Special Conditions of Contract.

Any complementary information, which may be needed, shall be introduced only through the Special Conditions of Contract.

### **1.** Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

### 2. Sectional Completion of Works

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

### **3. Possession of Site**

- 3.1 The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the SCC, which corresponds to 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.
- 3.2 If possession of a portion is not given by the above date, 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 may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

### 4. The Contractor's Obligations

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.3 and specified in the **BDS**, 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.

## 5. **Performance Security**

- 5.1. 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 successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.
- 5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 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.

### 6. 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.

### 7. Warranty

- 7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, 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.
- 7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the **SCC**.

### 8. 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.

If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

### 9. Termination for Other Causes

Contract termination shall be initiated 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 corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in **ITB** Clause 4.

### 10. Dayworks

Subject to the guidelines on Variation Order in Annex "E" of the 2016 revised IRR of RA No. 9184, 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.

### 11. Program of Work

- 11.1. The Contractor shall submit to the Procuring Entity's Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC**.
- 11.2. 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.

### 12. Instructions, Inspections and Audits

The Contractor shall permit the GOP or the Procuring Entity to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors of the GOP or the Procuring Entity, as may be required.

### 13. Advance Payment

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**, subject to the requirements in Annex "E" of the 2016 revised IRR of RA No. 9184.

### 14. Progress Payments

The Contractor may submit a request for payment for Work accomplished. Such requests 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.

### 15. Operating and Maintenance Manuals

- 15.1. If required, the Contractor will provide "as built" Drawings and/or operating and maintenance manuals as specified in the **SCC**.
- 15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

# Section V. Special Conditions of Contract

## Notes on the Special Conditions of Contract

Similar to the BDS, the clauses in this Section are intended to assist the Procuring Entity in providing contract-specific information in relation to corresponding clauses in the GCC found in Section IV.

The Special Conditions of Contract (SCC) complement the GCC, specifying contractual requirements linked to the special circumstances of the Procuring Entity, the Procuring Entity's country, the sector, and the Works procured. In preparing this Section, the following aspects should be checked:

- a. Information that complements provisions of the GCC must be incorporated.
- b. Amendments and/or supplements to provisions of the GCC as necessitated by the circumstances of the specific purchase, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of the GCC should be incorporated herein.

# **Special Conditions of Contract**

GCC Clause		
2	No sectional completion of Works	
4.1	The schedule of delivery of the possession of the site to the Contractor,	
	shall be in full to carry out the projects on its intended completion of date	
	which is one hundred twenty (120) calendar days.	
6	No further instructions.	
7.2	Fifteen (15) years.	
10	10 Dayworks are applicable at the rate shown in the Contractor's orig	
	Bid.	
11.1	The Contractor shall submit the Program of Work to the Procuring	
	Entity's Representative within ten (10) calendar days of delivery of the	
	Notice of Award.	
11.2	The amount to be withheld for late submission of an updated Program of	
	Work is <b>5% of the contract amount</b> .	
13	The amount of the advance payment shall not exceed 15% of the total	
	contract price and schedule of payment.	
14	Materials and equipment delivered on the site but not completely put in	
	place shall not be included for payment.	
15.1	The date by which operating and maintenance manuals are required: Not	
	applicable.	
	The date by which "as built" drawings are required is <i>fifteen (15)</i>	
15.0	calendar days after project completion.	
15.2	The amount to be withheld for failing to produce "as built" drawings	
	and/or operating and maintenance manuals by the date required is 5% of	
	the contract amount.	

# Section VI. Specifications

# Notes on Specifications

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Procuring Entity without qualifying or conditioning their Bids. In the context of international competitive bidding, the specifications must be drafted to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of economy, efficiency, and fairness in procurement be realized, responsiveness of Bids be ensured, and the subsequent task of bid evaluation facilitated. The specifications should require that all goods and materials to be incorporated in the Works be new, unused, of the most recent or current models, and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

Samples of specifications from previous similar projects are useful in this respect. The use of metric units is mandatory. Most specifications are normally written specially by the Procuring Entity or its representative to suit the Works at hand. There is no standard set of Specifications for universal application in all sectors in all regions, but there are established principles and practices, which are reflected in these PBDs.

There are considerable advantages in standardizing General Specifications for repetitive Works in recognized public sectors, such as highways, ports, railways, urban housing, irrigation, and water supply, in the same country or region where similar conditions prevail. The General Specifications should cover all classes of workmanship, materials, and equipment commonly involved in construction, although not necessarily to be used in a particular Works Contract. Deletions or addenda should then adapt the General Specifications to the particular Works.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for goods, materials, and workmanship, recognized international standards should be used as much as possible. Where other particular standards are used, whether national standards or other standards, the specifications should state that goods, materials, and workmanship that meet other authoritative standards, and which ensure substantially equal or higher quality than the standards mentioned, will also be acceptable. The following clause may be inserted in the SCC.

#### Sample Clause: Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted

subject to the Procuring Entity's Representative's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Procuring Entity's Representative at least twenty-eight (28) days prior to the date when the Contractor desires the Procuring Entity's Representative's consent. In the event the Procuring Entity's Representative determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

These notes are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final Bidding Documents.

#### 1. General

#### 1.1. Technical Definition

The following definition shall apply:

- a. Borehole means any drilled section of boring before completion as defined in well below.
- b. Casing means unslotted or non perforated lining tubes.
- c. Development Equipment means high velocity jetting tool, surge plunger and all other equipment needed to develop the well.
- d. Drilling Rig means nominal diameters unless otherwise stated.
- e. Drilling Rig means equipment and the auxiliary equipment for its operation.
- f. Drilling Unit as defined in Clauses 2.2 under this Section (Equipment).
- g. Final Well Design means the drawing and description prepared by the Engineer upon completion of the drilling of the pilot hole and geophysical Borehole logging specifying the final well construction.
- h. Lining Materials means any casing, screen, slotted lining or perforated lining tube whether permanently or temporarily installed in the Borehole.
- i. Pumping Unit as defined in Clause 8.7 under this Section (Definition of Pumping Unit)
- j. Screens means continuous wirewound stainless or low carbon steel screens, or slotted or perforated lining tube.
- k. Tentative Well Design means the contract drawing showing the estimated quantities of the work.
- 1. Well means any completed hole in which all lining material has been set, all grouting completed and all temporary lining removed.

#### 1.2 Technical Standards

All materials or workmanship shall comply with the specifications. Other standards equal or superior to those enumerated in this specification, shall be acceptable, subject to the approval of the Engineer. The opinion of the Engineer must be obtained prior to utilizing such materials for workmanship on or off the site.

1.3 Water Supply and Illumination

In the absence of adequate quantities of water or illumination required for drilling at the drilling site, the Contractor shall make such arrangement including the provision for mobile tanks or fixed as may be necessary to ensure a supply of water and illumination sufficient for drilling operations.

1.4 Electrical Power Supply

(1) The Contractor will make arrangements as may be necessary for he connection of or supply of power to site.

(2) Payment for the provision of electrical power supplies as specified in sub – clause 1.4 (1) shall be deemed to be included in the rates entered in the Bid form for setting up equipment at the site, drilling rates entered for operation of pumping unit.

#### 1.5 Storage of Inflammables

The Contract shall comply with all local authority regulations applicable to the use and storage of diesel oils, petrol, paraffin and other inflammable fuels used by him on the site, and shall ensure that adequate precautions are taken against fire.

1.6 Boundaries of Work

The Owner shall provide land or rights - of - way for the work specified in this Contract and make suitable provisions for ingress and egress, and the Contractor shall not enter or occupy with men, tools, equipment or materials, any ground outside the property of the Owner without the written consent of the Owner of such property. Other Contractors and employees or agents of the Owner may, for all necessary purposes, enter upon the work premises used by the Contract, and the Contractor shall conduct his work so as not to impede unnecessarily any work being done by others on or djacent to the site..

1.7 Access Roads

Construction or improvement of access roads to the wells shall, unless otherwise agreed, be done by the Contractor at his own cost, which is deemed to be included in the contract sum. The access road shall be kept in proper condition during the entire construction period.

#### 1.8 Protection of Site

(1) Except as otherwise provided herein, the Contractor shall protect all structures, walks, pipelines, trees, shrubberies, lawns, etc., during the progress of his work, shall remove from the site all drill cuttings, debris and unused materials, and shall upon the completion of the work restore the site as nearly as possible to its original condition, including removal of access tracks and replacement, at the Contractor's sole expanses or any facility or landscaping which has been damaged beyond restoration to its original condition all to the satisfaction of the Engineer.

(2) Water pumped from the well shall be to a place approved by the Engineer where it will be possible to dispose the water without damage to property or creation of a nuisance.

1.9 Site to be Kept Tidy

The Contractor shall at all times keep the site and all working areas in a tidy and workmanship condition and free from rubbish and waste materials

1.10. Temporary Buildings for Use by Contractor/Inspectors

(1) The Contractor shall provide at the site of the works such temporary buildings, tanks, workshops, etc. as may be necessary and proper for his general use in connection with the works, and for the use of persons employed by him. The nature of the buildings, tanks, etc. and the positioning of them shall be subject to the prior approval of the Engineer and the relevant authorities.

(2) The Contractor shall provide the Owner's Resident Engineer with a temporary office at the project work site. The said office shall be weatherproof building field office.

#### 1.11 Shop Drawings

(1) The Contractor shall if requested by the Engineer prior to start of each operation, produce for the Engineer's approval shop drawings showing details of technical operations such as test of plumbness and alignment, the method of the slotted casing production, if so required, the methods of placement of formation stabilizer and/or cement grout, the arrangement for well testing, the method for well development and all other drawings pertinent to the well drilling, well construction operations and well development as requested by the Engineer.

(2) Shop drawing shall be completed with respect dimensions, design criteria, materials, methods of construction and the like to enable the Engineer to review the information as required.

#### 1.12 Well Head Protection

(1) At all times during the progress of the work, the Contractor shall protect the well in such manner as to effectively prevent either tampering with the well or the entrance of foreign matter into it, and upon its completion he shall provide and install a well head cap satisfactory to the Engineer.

(2) In the event that the well becomes contaminated or that water having undesirable physical or chemical characteristics has entered the well due to the negligence of the Contractor, he shall at its own expense perform such work or supply casings, seals, sterilizing agents or other materials as may be necessary to eliminate the contamination or to exclude any undesirable water in the well.

#### 1.13 Transport of Personnel and Equipment

(1) The Contractor shall supply and operate all transport required for transporting his employees, materials and equipment.

(2) The cost of movement of personnel, materials and equipment shall be included in the rates given for drilling development and pump operation.

#### 1.14 Site Preparation and Reinstatement

(1) The Contractor shall prepare the site, provide all necessary tanks and pits and make all necessary arrangements for erecting and dismantling the drilling unit and shall reinstate the site on completion of such phase of work to the satisfaction of the Engineer.

(2) Payment shall be deemed to be included in the items entered in the Bid Form for erection and dismantling of drilling rigs.

#### 2. Well Drilling

2.1 Scope

(1) The Contractor shall provide and operate one or more mobile drilling units required completing the works within the contract period.

(2) The Contractor shall provide all auxiliary equipment, lubricants, fuels and spares necessary to keep the drilling rig(s) in continuous operation.

#### 2.2 Equipment

(1) The drilling rig(s) together with all auxiliary equipment and personnel shall be defined as the Drilling Unit(s).

(2) All rigs shall have sufficient capacity to drill the specified Borehole(s) in the diameters specified in the tentative well design(s) to a depth which is min. 25% higher than indicated in the Contract Drawings.

(3) Payment for drilling will be the linear meter of Borehole as measured after removal of drill string. The rates set against drilling items in the Bid Form shall be deemed to include all equipment, personnel, fuels and lubricants and the accessories required for operation of the Drilling Unit.

(4) When the Drilling Unit is being used for a purpose other than drilling, then the rates for that purpose entered in the Bid Form shall be deemed to include the running costs of the Drilling Unit.

#### 2.3 Drilling Method

(1) All drilling shall, unless otherwise specified in the Special Provisions, be performed with the rotary drilling method.

(2) The Contractor shall drill the hole to such depth and with such a diameter, which shall enable an easy installation of casing and screen and placement of gravel envelope with a uniform thickness as specified, if required. During drilling of the hole, the Contractor shall ensure that the natural permeability of the yielding strata near the well bore is not irreversibly reduced due to the drilling method employed.

#### 2.4 Strata Sampling/Materials Testing

(1) Strata samples shall be taken at one – meter intervals or more frequent if the formation penetrated changes. Samples shall be place in plastic or other appropriate bags on which or in which the sampling depth and the date of sampling is written in such manner that s permanently readable.

(2) The sampling procedure must provide that all the fraction of the penetrated strata is present in the sample.

(3) Each sample shall be placed in wooden box with space for storage of one sample and the sampling depth shall be written on the box.

(4) A record of samples taken with the details described above shall be submitted to the Engineer everyday.

(5) Payment for sampling shall be deemed to be included in the rates entered for drilling in the Bid Form.

(6) The failure on the part of the Contractor to obtain, preserve and deliver samples or records, satisfactory to the Engineer, shall be considered s actual damage to the Owner. Such a failure shall authorize the Engineer to retain from money due or to become due the Contractor the sum of FIVE HUNDRED PESOS (P500.00) as liquidate damages for each sample that the Contractor shall fail to obtain, preserve or deliver, or for each length of pipe not properly measured and recorded in the order in which it was placed in the well. In the event that, in the opinion of the Engineer, the failure of the Contractor to take and preserve the samples may affect the proper design of the well, the Contractor may be required to perform such work as the Engineer deems necessary to remedy such failure at no cost to the Owner. It is understood that the liquidated damages herein provided are fixed, agreed and not by way of penalty; and that the Owner shall not be required to prove that he has incurred actual damages.

(7) All samples taken shall be field or laboratory tested in accordance to ASTM standard on the following:

1. Grain – size distribution analysis at least 8 standard sieves.

2. Determination of uniformity coefficient.

(8) Strata samples shall be put in transparent tube or container.

#### 2.5 Drilling Mud

(1)Bentonite, if used, shall be of premium quality in accordance with API Standard 13A with 150 kg/cum of make – up water yielding a mud with a viscosity of between 35 and 40 seconds using a Marsh funnel abd a mud weight of less than 1.10 kg/l (9.2lbs/US gal.).

(2) Make – up water shall be treated with caustic soda (soda ash) to maintain the pH between 8.0 and 9.0 prior to mixing mud.

(3) During drilling with mud, the Contractor shall perform hourly measurements of the following mud characteristics:

pH value	filtration loss
funnel viscosity	filter cake thickness
specific gravity	mud viscosity
sand content	

The drilling contractor shall maintain a drilling fluid Log showing the date, time, depth, Marsh Funnel viscosity, drilling fluid weight and pH, and shall record any drilling fluid additives used, including time introduction as well as other pertinent comments.

The recorded mud characteristics shall not exceed the following values, without prior approval of the Engineer:

Specific gravity	:	9.5lb/gal
Sand content	:	4%
Filtration loss	:	10 ml
Filter cake	:	1.5mm

(4) It is the contractor's responsibility to assure that equipment for measuring fluid properties shall at the drilling site.

#### 2.6 Working Hours

All work from start of drilling of the Borehole until completion of well development shall be on the round the clock basis (24 hours per day).

3. Geophysical Logging

3.1 Scope

The Contractor shall perform geophysical logging as specified in the Special Provisions.

3.2 Equipment

(1) The geophysical logs may be recorded either by automatic recording on a chart strip or by manual reading of recorded values. In case the logs are recorded by the manual method, readings shall be taken per min. 0.33 m of Borehole length.

(2) The recorded logs shall be submitted to the Engineer immediately upon completion of logging as plots of recorded characteristics versus depth for his approval. In case of disapproval by the Engineer, the logs shall be repeated immediately.

3.3. Logs

Geophysical logging shall comprise the following logs:

Resistivity log (16" and 64")

Self – potential log (SP)

### 4. Well Casing

4.1 Scope

The Contractor shall provide and install the well casing specified in the Contract Drawings and any temporary casing required during the work.

4.2 Casing Material

(1) The Contractor shall provide and install the well casing specified in the Contract Drawings and any temporary casing required during the work.

a. Type of material

b. Internal and external diameters

c. Wall thickness

d. Method of jointing

(2) All permanent casing material shall be seamless and of new stock unless otherwise specified in these documents.

(3) The Contractor shall assume responsibility for any casing failure and shall correct, as approved by the Engineer, any casing failure at no cost to the Owner. In the event that the Contractor cannot correct a casing a failure, the Contractor shall replace the casing with material complying with the specifications, or if necessary, better casing as approved by the Engineer at no extra cost to the Owner.

4.3 Temporary Casing

The Contractor shall provide such temporary casing as may be necessary to prevent the collapse of any formation during the drilling operation to allow the well to be sunk to the specified depth and to allow the insertion of permanent lining material as required. The Contractor shall remove the temporary casing before completing the well, unless otherwise specified in these documents.

4.4 Lining Installation

(1) Lining materials shall be assembled and located in the well at the required depth in a continuous operation. The lining material shall be set concentric within the Borehole by centralizing bars unless otherwise agreed with the Engineer.

(2) If the lining jams or is lost before it is set to the specified depth, the Contractor shall endeavor to remove the lining material from the well or, if unable to effect removal, shall re- drill the well and replace he lining material at his own expense.

# 4.5 Lining Material Accessories

(1) The Contractor shall provide as necessary the following accessories to set the lining materials to the required depth:

a. Centralizers to be affixed to the lining material at intervals of 20 meters to locate the lining material in the center of the drill hole;

b. Supporting clamps, equipment and tools;

c. Reducing cones and connecting pieces;

- d. Casing hangers;
- e. All other necessary equipment.

(2) Except when expressly provided, all accessories shall be deemed to be included in the Bid Form for the provision and insertion of lining material.

4.6 Testing for Plumbness and Alignment

(1)All Boreholes shall be constructed, plumb and true to line as defined herein. TO demonstrate the compliance of his work with this requirement, the Contractor shall furnish all labor, tools and equipment and shall provide the detailed drawings and the description of the tests to the satisfaction of the Engineer.

(2) Tests for plumbness and alignment must be made after the complete construction of the well and before its acceptance. The Contractor, however, may make additional tests, during the performance of the wok, No specific payments shall be made for making these tests.

(3) Should the results of the test for plumbness and alignment show that the plumb bob of dummy fails to move freely throughout the length of the lining or Borehole to a depth of the lowest anticipated pump setting and should the well vary from the vertical I excess of two thirds of the smallest inside diameter of that part of the well being tested or beyond the limitations of this test, the plumbness and alignment of the well shall be corrected by the Contractor at his own expense. Should the Contractor fail to correct such faulty alignment or plumbness, the Engineer may refuse to accept the well and the Contractor shall drill a new well without charge to the Owner.

5. Well Screens

5.1 Scope

The Contractor shall provide and install the well screens specified in the Contract Drawings unless otherwise specified in the Special Provisions.

# 5.2 Type of Screens

(1) The type of screens shall be as specified in the tentative well design and the Special Provisions.

(2) Slotted screens, if specified for installation, shall be so fabricated as to ensure the maximum yield of the well and to prevent clogging and encrustation and shall be free from jagged edges and irregularities that may accelerate clogging or corrosion.

# 5.3 Responsibility for Malfunction

(1) The Contractor shall assume full responsibility for any malfunction of the screen caused by inadequate installation procedure and shall undertake any correction as approved by the Engineer at no extra cost for the Owner.

(2) The screen must have no change of alignment at any of its joints after installation. If requested by the Engineer, the Contractor shall submit for approval by the Engineer the design and method of construction and installation of the screen.

(3) In the event that the Contractor cannot correct a screen failure, the Contractor shall replace the screen with material complying with the specifications of this Contract at no extra cost for the Owner.

5.4 Screen Strength

The screen shall have adequate strength to resist the external forces that may be applied during and after installation.

## 5.5 Screen Accessories

All fittings, packers, coupling, joint, plugs and seals used during installation of well screen together with the installation procedure, shall be to the approval of the Engineer.

## 6.0 Formation Stabilizer/Gravel Pack

61. Scope

The Contractor shall provide and install formation stabilizer, or gravel pack if specified in the Contract Drawings and the Specified Provisions.

6.2. Materials

(1) The formation stabilizer/gravel pack material shall consist of well – rounded, water, worn siliceous grains. Angular chippings or road stone must under no circumstances be used as formation stabilizer/gravel pack material.

(2) The Contractor shall, during the mobilization period, submit it to the Engineer for his approval, samples of the formation stabilizer he proposes to use, stating the source of the formation stabilizer, quantities available, rate of delivery and any other information requested by the Engineer.

The physical characteristics of the filter pack shall conform to AWWA A-10084 Section 6.3.1 to 6.3.6 or latest edition. The grading of the filter shall be determined from sieve analysis of the aquifer materials. The 85-90 percent retained size of the aquifer sample having the finest grain size distribution as approved by the Engineer.

The uniformity coefficient of the filter packed shall not exceed 2.50.

6.3 Method of Installation

(1) The method of placing the formation stabilizer/gravel pack in the annulus shall be such that separation of the gravel and bridging is avoided.

(2) The formation/stabilizer/gravel pack shall immediately upon completion of lining installation, be placed in the annulus between the Borehole and the lining, in the screened section(s) of the lining, as specified in the final well design.

(3) Since the Borehole shall be drilled by the rotary method, installation of formation stabilizer/gravel pack shall be done by the circulation of the drilling mud.

## 7. Well Development

7.1 Scope

(1) The Contractor shall furnish compressors, surge plungers, jetting tools, electric generators, chemicals and any other equipment required for satisfactory well development and shall undertake the development as directed by the Engineer.

(2) Development shall, since the rotary drilling method is applied, comprise deflocculation, high velocity jetting in continuous slot screens, surging with plunger in slotter screens, unless otherwise, specified in the Special Provisions.

7.2 Expected Yield

The Contractor shall develop the well to its maximum expected yield, as specified in the Special Provisions.

# 7.3 Surging with Plunger

(1) Upon completion of installation of lining or formation stabilizer/gravel pack, the Contractor shall develop the well by mechanical surging with a valve – type surge plunger approved by the Engineer.

(2) Before start of surging and with one-hour intervals during the surging operation, the depth to the well bottom and to top of gravel shall be recorded.

(3) Surging shall be continued until accumulation of sediments in the sump pipe, during a one hour period surging operation, is neglible.

# 7.4 Deflocculation

(1) Upon completion of installation of lining or formation stabilizer/gravel pack, the drilling mud shall immediately be displaced from the well by pumping clean water into the sump pipe.

(2) Mud displacement shall immediately be followed by injection and/or jetting through the screened sections with polyphosphate solution to deflocculate the mud cake on the Borehole wall. The concentration of the polyphosphate solution shall be 3.0 percent by weight of the quantity of water in the Borehole. The well shall then be left for 12-24 hours before developing is continued, to allow the polyphosphate to react; However, if the drilling mud viscosity during drilling had been or had exceeded 40, the percentage of the polyphosphate solution shall be increased proportionately with the increase of viscoscity.

7.5 High Velocity Jetting

(1) After the deflocculation material has been allowed to work for 12 - 24 hours, all sections screened with continuous slot screens shall be developed by high velocity jetting.

(2) The jetting toll shall be equipped with two or four nozzles. The nozzle design shall be such that it produces a concentrated jetting action. The tool shall be presented to the Engineer for approval before start of drilling operation.

(3) The jetting tool shall be supplied with water through a high – pressure pump capable of producing a nozzle velocity of 500 m per second. The pump shall be equipped with suitable pressure gauge on the discharge side to facilitate monitoring of nozzle velocity.

(4) The development shall be carried out by slowly rotating the jetting tool and gradually lowering it in order to cover the entire surface of the screen.

(5) At the same time as the high velocity jetting is performed, the well shall be discharge with a discharge rate slightly higher than the discharge rate from the jetting tool.

(6) Each section of the screen shall be jetted until the return water is free from drilling mud, but no section shall be jetted less than 15 minutes per meter of screen.

7.6 Well Cleaning

Upon completion of the development operations, the Contractor shall demonstrate to the satisfaction of the Engineer that the bottom of the well is clear of all sand, mud and other foreign materials.

7.7 Freedom from Sand

(1) The Contractor shall develop the well by the methods specified until the water pumped from the well is substantially free from sand and until the turbidity is less than

5 on the Silica Scale described in the Standard Methods of Water Analysis (latest edition as published by AWWA, APHA and WPCT).

(2) The water pumped from the well shall not contain an amount f the fine material in excess of 1.0 mg per liter when the well is pumped at its maximum expected yield. The Contractor shall furnish the equipment for measurement of the sand content.

# 7.8 Acceptance of Development

(1) The development by the specified methods shall be repeated and continued until the well is thoroughly developed in accordance with the criteria specified.

(2) If the well yields after the well has been confirmed sand – free is still below the yield, which is considered acceptable for the penetrated aquifer, then the Engineer may instruct the Contractor to perform further development.

8. Well Testing

8.1 Scope

The Contractor shall provide all personnel and labor, instrumentation and water level indicators and operate a Pumping Unit for the following purposes:

- (i) Step-drawdown pumping tests on the completed well in accordance with the standard methods or as directed by the Engineer.
- (ii) Constant discharge pumping test on the completed well in accordance with the standard methods or as directed by the Engineer.

8.2 Equipment Capacity

(1) The Contractor shall provide and operate pumping machinery capable of carrying out the specified pumping and shall provide adequate controls to allow discharge rates to be kept constant at varying pumping water levels and to permit pumping with a variation of not more than 5% of the designated discharge rate during any period of yield aquifer testing.

(2) The Pumping Unit set shall be able to deliver a maximum discharge rate of 60lps at maximum pump setting of 65 meters or as directed by the Engineer.

(3) Suitable pumping machinery will be deemed to be:

a. Submersible electric pump unit together with generator and such accessories needed to run the pump.

b. Line shaft pump and internal combustion prime over together with all accessories needed to run the pump.

8.3 Equipment Operation

(1) The Contractor shall supply and operate all equipment and accessories necessary for installation and removal of pumps.

(2) The Contractor shall maintain on site sufficient fuels, lubricants, spares and other accessories needed to run the Pumping Unit for whatever period may be specified by the Engineer.

(3) The Contractor shall provide sufficient competent personnel including a qualified fitter and electrician, as may be necessary to install and operate the Pumping Unit.

8.4 Control of Discharge Rate

The Contractor shall, during the pumping tests, provide a suitable gate valve on the discharge pipeline to facilitate easy control of the discharge rate.

8.5 Water Level Sounding Piper

(1) The Contractor shall provide and install a temporary tube of at least one (1) inch diameter from the top of the well to 2m above the pump bowl assembly to facilitate easy measurements of water level. The tube shall be opened only at the bottom and top.

(2) Payment for providing, installing and removing the tube shall be deemed to be included in the rates given for the pumping tests.

8.6 Discharge Rte Monitoring

Discharge rate shall be measured and recorded with a water meter. All items are subject to the Engineer's approval before start of drilling.

8.7 Definition of "Pumping Unit"

The equipment specified in Clause 8.2-8.6 is referred to as the Pumping Unit.

8.8. Pumping Procedure

The Engineer will determine the pumping procedure necessary to obtain the objectives of this Contract.

## 8.9 Suspension of Pumping

If the Engineer considers that the absence or condition of any equipment, personnel, fuel, lubricants or accessories will prejudice the quality of data obtained from any pumping test, he may suspend the work in accordance with the provision of the conditions of the Contract.

8.10 Equipment Breakdown during Pumping

(1) The pumping must be continuous and at a constant rate during the pumping tests. The Engineer will instruct the Contractor as to the expected maximum duration of each pumping test before start of each test.

(2) If pumping is interrupted or the discharge rate fluctuates by more than 5% of the designated discharge rate, the test may be repeated after a period of recovery determined by the Engineer.

(3) If any pumping test is interrupted because of equipment breakdown or inadequate supervision or discharge control, no payment will be made for any pumping period before recommencing the test.

8.11 Duration of Tests

(1) The step drawdown pumping test shall be performed on 5 steps with duration of hour each

(2) The constant discharge pumping tests shall be performed for a period of 72 hrs., unless otherwise specified in the Special Provisions or unless otherwise instructed by the Engineer.

8.12 Temporary Pipeline

(1) The Contractor shall provide a temporary pipeline as directed by the Engineer for the discharge from pumping tests and for clearance to a suitable watercourse or drain.

(2) Under certain circumstances when re - infiltration cannot be avoided or it is costly to provide for this condition, the Engineer shall decided to what distance from the well water may be discharged on the ground.

### 9. Cement grouting

9.1. Scope

The Contractor shall, unless otherwise specified in the Special Provisions, provide the cement and mixing equipment required for the mixing of the grouting indicated in the Tentative Well Design and shall place the cement grout as specified.

#### 9.2 Grouting Material

(1) Cement grout shall consist of a mixture of 95% Portland Cement, 5% Bentonite, sand and clean water, mixed in the proportion of 52.5 kg of Portland Cement/Bentonite to maximum 30 liters of water.

(2) All cement shall, unless otherwise specified in the Contract Documents, conform to the Specifications for Portland Cement (ASTM C 150 latest version).

#### 9.3 Method of Placing Grout Material

(1) The method and equipment for placing the grout from the bottom of the casing/hole/annulus to be grouted, to the surface shall be to the approval of the Engineer. Flushing of the annular space with fluid to assure the space is open and to remove loose material will be required by the Contractor before grouting is commenced.

(2) Any grouting operation shall be continuous and before starting, sufficient grout shall be mixed to complete the whole operation. During the grouting operation, the mixed and other equipment as may be necessary to meet these requirements.

## 9.4 Setting Time

No work will be allowed on the well within a period after completion of grouting unless quick setting cement is used. In such case, the idle period may be reduced subject to the Engineer's prior approval.

#### 3. Well Completion

10.1 Scope

The Contractor shall provide and operate all equipment necessary to restore the site as near as possible to its condition before commencement of drilling and shall furnish and install a well head cap as specified in the Contract Drawings.

# 10.2 Site Restoration

The site shall be restored to a condition s nearly possible to that, which existed before the well drilling and testing activities commenced. This work shall include, but not limited to, restoration of fences and structures, removal of drill cuttings, leveling of the disturbed ground surface and replacement of compensation for the destroyed and landscaping.

10.3 Well Head Capping

The well head shall be completed with a well head assembly fully welded to the upper casing as well as a water level sounding tube with screw cap in order to prevent any unauthorized tampering of the well.

## 4. Submittal of Reports and Borehole data

(1) The Contractor shall submit to the Engineer daily records in duplicate containing the following information:

Site

Date

Description of each stratum encountered

Depth below ground of each change of stratum

Depths and details of all disturbed samples

- (2) The Contractor will be required to keep a record of penetration rate, mud losses and mud conditions.
- (3) At the end of the well construction and before final payment is made, the Contractor shall submit to the Engineer a report containing the following information:
  - a. Total depth of the well
  - b. Description of the strata encountered
  - c. The sizes and the lengths/specifications of the casing installed
  - d. The date of the start and the completion of the well construction
  - e. The locations and the description of the casing perforations or the well screen placement

f. The locations of the gravel, the size of gravel, if applicable, and the amount of cement grout installed.

g. Records of discharge rates and drawdown during well development together with description of the methods of development

h. The well yield (expressed as discharge rate and drawdown), the dates and the duration of the test(s)

- i. The methods of measuring the discharge rate and the drawdown.
- (4) The cost of records shall be deemed to be included in the contract rates.

		STATEMENT OF COMPLIANCE
NO.	Specification	Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of the Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the provisions of ITB Clause 3.1(a)(ii) and/or GCC Clause 2.1(a)(ii).
	A. Exploratory Phase	
1	Mobilization of Rotary Drilling Equipment and Crew	
2	Site Preparation and Setting up all equipment	

3	Drilling of 200 mm <sup>Ø</sup> dia. Pilot hole, including strata sample collection every meter.	
4	Geophysical borehole logging	
5	Rental of Temporary 4" $ otin$ dia Blank and perforated casing	
6	Installation and pull-out of blank casing and perforated casing	
7	Development by water jetting	
8	Continuous constant discharge rate pumping test	
9	Note: PolWD has the discretion not to continue with the production phase in-case the pumping test result yields unacceptable result (not feasible). Charges for Production phase will depend on the results of	
	Exploratory Phase	
	B. Production Phase	
10	Reaming of 200 mm pilot hole to 450 mm dia. Borehole	
11	Furnishing of 300 mm Ø Spiral welded steel casing with min. wall thickness of 6 mm including 1.0 m stick-up pipe	
12	Furnishing of 300 mm Ø Stainless Steel continuous slot wedge wirewound screens, slot size 1.5 mm, 3 m length each section ( slot 60 )	
13	Installation of 300 mm Ø Casings & screens	
14	Furnishing and installation of Gravel Pack Materials (includes furnishing and installation of 1.0 mtr clay seal, 50mm $\emptyset$ 17.0 Lm. Gravel Fill Pipe and 50 mm $\emptyset$ water level and Cement Grouting of Well annulus sounding tube with screw caps.	
15	Deflocculate drilling mud by water jetting	
16	Development by vigorous Airlifting =12.0 hrs	
17	Development by surging including bailing out sediments	

18	Step Drawdown pumping tests with five (5) steps at one (1) hour duration each step (Max Q = 60 lps ).	
19	Constant Discharge Pumping (Maximum Q=60 lps) = 72 hrs	
20	Well Completion including furnishing and installation of well head cap and concreting of pedestal.	
21	Demobilization of Rotary Drilling equipment, crew and site clean-up.	
	Additional requirements 1. Secure Permit to drill prior to drilling and must be presented to PolWD.	
	2. Facilitate Processing of NWRB Conditional Water Permit.	
	3. Strata samples collected every meter shall be properly marked and submitted to PolWD.	
	4. Pump test results (i.e. step-drawdown and constant discharge test) shall be submitted to PolWD.	
	<ul><li>5. Written request must be submitted prior in every each activity for approval.</li><li>Activity must strictly follow the activity sequence as listed above.</li></ul>	
	<ul> <li>6. Water Quality Testing <ul> <li>a. Bacti-Test (MTFT)</li> <li>b. Physical &amp; Chemical Laboratory Testing (14 parameters)</li> <li>c. Pesticide analysis</li> </ul> </li> </ul>	

# Section VII. Drawings

[Insert here a list of Drawings. The actual Drawings, including site plans, should be attached to this section, or annexed in a separate folder.]

- **1.** Intent of Specifications and Drawings
  - a. The intent of the Specifications and Drawings is that the Contractor shall furnish all the required plant, labor, materials, equipment and services, unless otherwise specifically provided.
  - b. The Specifications and Drawings are complementary and what is called for in one shall be as binding as if called for in both.
  - c. Any discrepancies, errors, or omissions found in the Specifications or Drawings shall be reported in writing within ten (10) days from discovery to the Engineer no to take advantage of any such discrepancies, errors, or omissions, but shall comply with any corrective measures regarding the same prescribed by the Engineer.
  - d. In case of conflict between the Specifications and the Drawings, the Specifications shall govern over the Drawings. IN case of conflict between the General Conditions and the Special Provisions and the Technical Specifications of the Specifications, the Special Provisions shall govern over the Technical Specifications. In case of conflict between the Contract Agreement and the General Conditions, the Contact Agreement shall govern over the General Conditions.
- 2. Shop Drawings
  - a. Whenever called for in these Specifications or on the Drawings, or where required by the Engineer, the Contractor shall furnish the Owner for review three (3) prints each shop drawing. The term "shop drawing" as used herein shall be understood to include detail design calculations and installation drawings, lists, graphs, operating instructions, etc. Shop drawings shall be submitted to the Owner for review/approval within fifteen (15) days from receipt of the Notice of Award, unless otherwise extended in writing by the Owner.
  - b. All shop drawings submittals by a transmittal from using the format bound with form, or where all applicable items on the form are not completed will be returned for resubmittal. The Contractor may authorize a materials or equipment supplier to deal directly with the Owner with regard to shop drawings, however ultimate responsibility for the accuracy and completeness of the information contained in the submittal shall remain with the Owner with regard to shop drawings, however, ultimate responsibility for the accuracy and completeness of the information contained in the submittal shall remain with the Owner with regard to shop drawings, however, ultimate responsibility for the accuracy and completeness of the information contained in the submittal shall remain with the Owner with regard to shop drawings, however, ultimate responsibility for the accuracy and completeness of the information contained in the submittal shall remain with the Contractor.
  - c. A separate transmittal form shall be used for each specific item or class of material or equipment for which a submittal is required. Transmittal of shop drawings on various items using a single transmittal form will be permitted only when items taken together constitute a manufacturer's package or are so functionally related that expediency

indicates review of the group or package as a whole. At his option, the Contractor or Supplier may obtain from the Owner quantities of the shop drawing transmittal form at reproduction cost.

- d. Within five (5) calendar days after receipt of said prints of each drawing to the Contractor with his comments noted thereon. Whenever a re-submittal is required, the Contractor shall make a complete and acceptable submittal to the Owner within ten (10) days from receipt of the returned shop drawings. Non compliance hereof will give rise to the Owner right to either (a) cancel the award; or (b) withhold the money due to the Contractor to cover additional costs of the Engineer's review beyond the second submission. Such failure may be considered a factor against the Contractor's competence in the future biddings to be conducted by the Owner.
- e. If three (3) prints of the drawings are returned to the Contractor marked "NO EXCEPTIONS TAKEN", formal revision of said drawings will not be required.
- f. If three (3) prints of the drawings are returned to the Contractor marked "MAKE CORRECTIONS NOTED", formal revision of said drawings will not be required.
- g. If one (1) print of the drawings is returned to the Contractor marked "AMEND RESUBMIT", THE Contractor shall revise the said drawing and shall resubmit eight (8) copies of said revised drawing to the Owner.
- h. If one (1) print of the drawings is returned to the Contractor marked "REJECTED RESUBMIT", the Contractor shall revise the said drawings and shall resubmit eight (8) copies of said revised drawing to the Owner.
- i. Fabrication of an item shall not be commenced before the Owner has reviewed/examined the pertinent shop drawings and returned copies to the Supplier marked either "NO EXCEPTIONS TAKEN, or "MAKE CORRECTIONS NOTED". Revisions indicated on shop drawings shall be considered as changes necessary to meet the requirements of the Contract Drawings and Specifications and shall not be taken as the basis of claims for extra work. The Contractor shall have no claim for damages or extension of time due to any delay resulting from the Contractor having to make the required revisions to shop drawings (unless reviewed by the Owner of said drawings is delayed beyond a reasonable period of time and unless the Contractor can establish that the Owner's delay in review actually resulted in a delay in the Contractor's Construction Schedule). The review of said drawings by the Owner will be limited to checking for general agreement with the specifications and drawings and shall in no way relieve the Contractor of the responsibility for errors or omissions contained therein nor shall review operate to waive or modify any provision contained in Specifications or Contract Drawings. Fabricating dimensions, quantities of material, applicable code requirements shall be the Contractor's responsibility.

#### 3. Reference to Standards or Publications

Any reference in the Specifications or Drawings to any specification, standard or publication of any organization shall, in the absence of a specific designation to the contrary, be understood to refer to the latest edition of the specification, standard or publication in effect as of the date of advertising the work. Internationally, accepted standards equal to or bette than specified standards or specifications are acceptable.

4. Reference to Proprietary Products

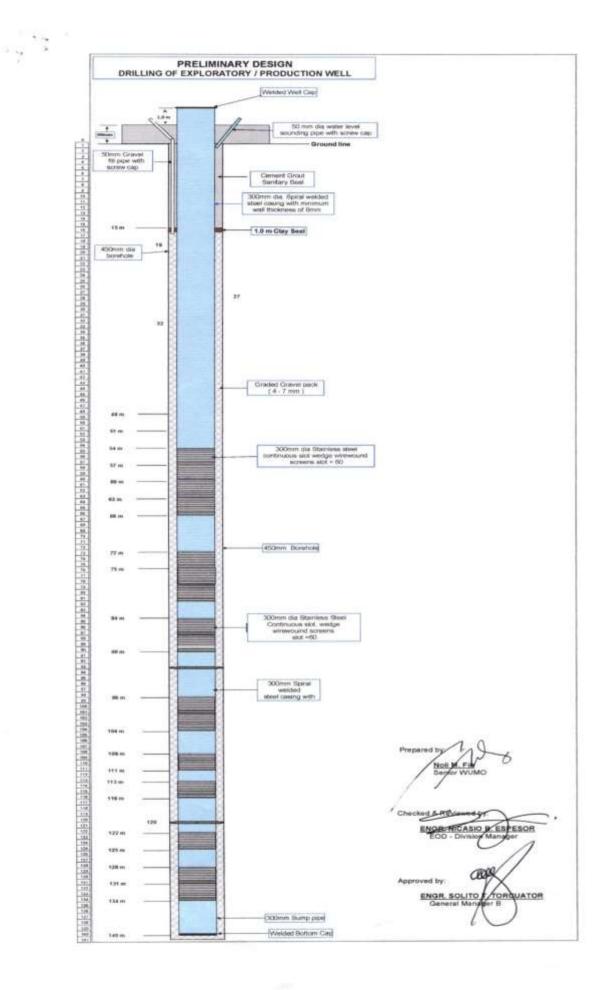
Where references to proprietary products appear in the Specifications or Drawings, it is for the purpose of establishing an acceptable standard of quality or design but no guarantee is given that said referenced manufacturer's products will meet contract requirements without modifications. Unless a substitute is expressly prohibited, the Contractor may request approval of a substitute for any such proprietary product. Such request may be in writing and must include descriptive literature, specifications, test reports of samples, as appropriate, to enable the Owner to determine the acceptability of the product proposed for substitution. No substitute product shall be used in the work until written approval has been from the Owner. All costs involved in making laboratory tests of the sample submitted as substitute for the specified materials shall be done by the Contractor.

#### 5. Specifications and Drawings furnished to Contractor

The Owner will furnish the Contractor with two (2) set of Specifications together with reduced drawings (if any) and two (2) sets of full – scale Drawings. Additional quantities of Specifications and Drawings will be furnished at reproduction cost.

#### 6. As Built – Drawings

The Contractor shall maintain at least one (1) set of blueprints of all works at the job site. These prints shall be marked and updated to indicate current job progress and shall show deviations from the construction drawings. After final inspection, the Contractor shall transfer all as-built information to a set of reproducible tracings that shall be delivered to the Engineer prior to acceptance of the project.



# Notes on the Bill of Quantities

# Objectives

The objectives of the Bill of Quantities are:

- a. to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and
- b. when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and brief as possible.

# Daywork Schedule

A Daywork Schedule should be included only if the probability of unforeseen work, outside the items included in the Bill of Quantities, is high. To facilitate checking by the Entity of the realism of rates quoted by the Bidders, the Daywork Schedule should normally comprise the following:

- a. A list of the various classes of labor, materials, and Constructional Plant for which basic daywork rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a daywork basis.
- b. Nominal quantities for each item of Daywork, to be priced by each Bidder at Daywork rates as Bid. The rate to be entered by the Bidder against each basic Daywork item should include the Contractor's profit, overheads, supervision, and other charges.

# **Provisional Sums**

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the SCC should state the manner in which they will be used, and under whose authority (usually the Procuring Entity's Representative's).

The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors should be indicated in the relevant part of the Bill of Quantities as a particular provisional sum with an appropriate brief description. A separate procurement procedure is normally carried out by the Procuring Entity to select such specialized contractors. To provide an element of competition among the Bidders in respect of any facilities, amenities, attendance, etc., to be provided by the successful Bidder as prime Contractor for the use and convenience of the specialist contractors, each related provisional sum should be followed by an item in the Bill of Quantities inviting the Bidder to quote a sum for such amenities, facilities, attendance, etc.

# **Signature Box**

A signature box shall be added at the bottom of each page of the Bill of Quantities where the authorized representative of the Bidder shall affix his signature. Failure of the authorized representative to sign each and every page of the Bill of Quantities shall be a cause for rejection of his bid.

These Notes for Preparing a Bill of Quantities are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final documents.

# Section VIII. Bill of Quantities

NO.	WORK ITEM	QUANTITY	UNIT
	A. Exploratory Phase		
1	Mobilization of Rotary Drilling Equipment and Crew	1	l.s
2	Site Preparation and Setting up all equipment	1	l.s
3	Drilling of <b>200</b> mm dia. Pilot hole, including strata sample collection every meter.	150	m
4	Geophysical borehole logging	1	l.s
5	Rental of Temporary 4" <b>Ø</b> dia Blank and perforated casing		
	(if pump testing will be required there is a tendency that the wall will collapse – <mark>as per</mark> end- user requirement, a pump testing shall be required)	1	lot
6	Installation and pull-out of blank casing and perforated casing	140	m
7	Development by water jetting	48	hrs
8	Continuous constant discharge rate pumping test	24	hrs
	Note: Charges for Production phase will depend on the results of Exploratory Phase		
	B. Production Phase		
9	Reaming of 200 mm pilot hole to 450 mm dia. Borehole	140	m
10	Furnishing of 300 mm <b>Ø</b> Spiral welded steel casing with min. wall thickness of 6 mm including <b>1.0</b> m stick-up pipe	93	m

11	Furnishing of 300 mm <b>Ø</b> Stainless Steel continuous slot wedge wirewound screens, slot size 1.5 mm, 3 m length each section ( slot 60 )	48	m
12	Installation of 300 mm Ø Casings & screens	150	m
13	Furnishing and installation of Gravel Pack Materials (includes furnishing and installation of <b>1.0</b> mtr clay seal, 50mm Ø <b>17.0</b> Lm. Gravel Fill Pipe and 50 mmØ water level and Cement Grouting of Well annulus sounding tube with screw caps.	1	lot
14	Deflocculate drilling mud by water jetting	1	lot
15	Development by vigorous Airlifting =12.0 hrs	1	lot
16	Development by surging including bailing out sediments		
17	Step Drawdown pumping tests with five (5) steps at one (1) hour duration each step (Max <b>Q = 60 lps</b> ).	1	lot
18	Constant Discharge Pumping (Maximum <b>Q=60</b> lps) = 72 hrs	1	lot
19	Well Completion including furnishing and installation of well head cap and concreting of pedestal.	1	lot
20	Demobilization of Rotary Drilling equipment, crew and site clean-up.	1	l.s
21	Secure Permit to drill prior to drilling and must be presented to PolWD.	1	lot
22	Facilitate Processing of NWRB Conditional Water Permit.	1	lot
23	Water Quality Testing	1	lot
24	Bacti – test (MTFT) Physical and Chemical Laboratory Testing (14 parameters)	1	lot
25	Pesticide analysis	1	lot

# Section IX. Checklist of Technical and Financial Documents

# Notes on the Checklist of Technical and Financial Documents

The prescribed documents in the checklist are mandatory to be submitted in the Bid, but shall be subject to the following:

- a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or
- b. any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

The BAC shall be checking the submitted documents of each Bidder against this checklist to ascertain if they are all present, using a non-discretionary "pass/fail" criterion pursuant to Section 30 of the 2016 revised IRR of RA No. 9184.

# **Checklist of Technical and Financial Documents**

# I. TECHNICAL COMPONENT ENVELOPE

# **Class** "A" Documents

Legal Documents

- Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages); П (a) or
- (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;

and

- Mayor's or Business permit issued by the city or municipality where the (c) principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas; and
- (e) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

Technical Documents

- Statement of the prospective bidder of all its ongoing government and private (f) 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 Single Largest Completed Contract (SLCC) similar (g) to the contract to be bid, except under conditions provided under the rules; and
- (h) Philippine Contractors Accreditation Board (PCAB) License;

Special PCAB License in case of Joint Ventures;

and registration for the type and cost of the contract to be bid; and

Original copy of Bid Security. If in the form of a Surety Bond, submit also a (i) certification issued by the Insurance Commission; or

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Original copy of Notarized Bid Securing Declaration; and

- Project Requirements, which shall include the following: (j)
  - Organizational chart for the contract to be bid; a.
  - b. List of contractor's key 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;
  - List of contractor's major equipment units, which are owned, leased, c. and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; and
- Original duly signed Omnibus Sworn Statement (OSS); (k)

**and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

# Financial Documents

- □ (1) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; and
- □ (m) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

## Class "B" Documents

□ (n) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence;
 or

duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

## **II. FINANCIAL COMPONENT ENVELOPE**

(o) Original of duly signed and accomplished Financial Bid Form; and

#### Other documentary requirements under RA No. 9184

- (p) Original of duly signed Bid Prices in the Bill of Quantities; and
- □ (q) Duly accomplished Detailed Estimates Form, including a summary shee indicating the unit prices of construction materials, labor rates, and equipmen rentals used in coming up with the Bid; and
- $\Box$  (r) Cash Flow by Quarter.