

PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

Drilling of One (1) Production Well

Government of the Republic of the Philippines



September 2022

Sixth Edition

TABLE OF CONTENTS

GLOSSARY OF	4
TERMS, ABBREVIATIONS, AND ACRONYMS	4
SECTION I. INVITATION TO BID	6
SECTION II. INSTRUCTIONS TO BIDDERS	9
1. Scope of Bid.....	10
2. Funding Information	10
3. Bidding Requirements.....	10
4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices	10
5. Eligible Bidders.....	10
6. Origin of Associated Goods	11
7. Subcontracts	11
8. Pre-Bid Conference.....	11
9. Clarification and Amendment of Bidding Documents.....	11
10. Documents Comprising the Bid: Eligibility and Technical Components	11
11. Documents Comprising the Bid: Financial Component	12
12. Alternative Bids	12
13. Bid Prices	12
14. Bid and Payment Currencies.....	12
15. Bid Security.....	13
16. Sealing and Marking of Bids.....	13
17. Deadline for Submission of Bids	13
18. Opening and Preliminary Examination of Bids	13
19. Detailed Evaluation and Comparison of Bids	13
20. Post Qualification.....	14
21. Signing of the Contract	14
SECTION III. BID DATA SHEET	15
SECTION IV. GENERAL CONDITIONS OF CONTRACT	18
1. Scope of Contract.....	19
2. Sectional Completion of Works	19
3. Possession of Site	19
4. The Contractor's Obligations.....	19
5. Performance Security	19
6. Site Investigation Reports	20
7. Warranty.....	20
8. Liability of the Contractor.....	20
9. Termination for Other Causes.....	20
10. Dayworks	20

11. Program of Work.....	20
12. Instructions, Inspections and Audits	21
13. Advance Payment.....	21
14. Progress Payments	21
15. Operating and Maintenance Manuals.....	21
SECTION V. SPECIAL CONDITIONS OF CONTRACT	22
SECTION VI. SPECIFICATIONS	24
SECTION VII. DRAWINGS	38
SECTION VIII. BILL OF QUANTITIES	41
SECTION IX. CHECKLIST OF TECHNICAL AND FINANCIAL DOCUMENTS.....	74
SECTION X. BIDDING FORMS.....	77

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



Republic of the Philippines

TANAY WATER DISTRICT

IFP Bldg., No. 41 F.T. Catapusan St., Tanay, Rizal

Telephone: 654-3891 / 654-4450 / 654-0033

Invitation to Bid for Drilling of One (1) Production Well

1. The **Tanay Water District**, through the **Corporate Budget for P1-3-1 / I-1** intends to apply the sum of **Five Million Pesos (₱ 5,000,000.00)** being the Approved Budget for the Contract (ABC) to payments under the contract for the **Drilling of One (1) Production Well located** at Asteria Subdivision Brgy. Tandang Kutyo, Tanay, Rizal with **Purchase Requisition No. 12290**. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The **Tanay Water District** now invites bids for the above Procurement Project. Completion of the Works is required within **193 Calendar Days**. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary “*pass/fail*” criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
4. Interested bidders may obtain further information from **Tanay Water District** and inspect the Bidding Documents at the address given below during Monday – Friday, **8:00 am to 5:00 pm Except Holidays**.
5. A complete set of Bidding Documents may be acquired by interested bidders on **September 10, 2022 to October 5, 2022, Monday to Friday 8:00 AM – 5:00 PM Except Holidays** from the given address and website/s below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of **Five Thousand Pesos (₱ 5,000.00)**. The Procuring Entity shall allow the bidder to present its proof of payment for the fees to be presented in person, by facsimile, or through electronic means.

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.
6. The **Tanay Water District** will hold a Pre-Bid Conference on **September 20, 2022, 2:00 PM** at **Tanay Water District Conference Room, 2/F IFP Bldg. #41 F. T. Catapusan St., Tanay Rizal** and/or through videoconferencing/webcasting via Zoom, which shall be open to prospective bidders.
7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below on or before **October 5, 2022, 02:00 PM**. Late bids shall not be accepted.
8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.

9. Bid opening shall be on **October 5, 2022, 02:00 PM** at **Tanay Water District Conference Room, 2/F IFP Bldg. #41 F. T. Catapusan St., Tanay Rizal** and/or through via Googlemeet. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
10. The **Tanay 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 Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
11. For further information, please refer to:

Mr. Wilfredo R. Ognilla
BAC Secretariat
Tanay Water District
2/F IFP Bldg. #41 F. T. Catapusan St., Tanay Rizal
Email Address : bacsec80@gmail.com
Telefax: 654-3891
12. You may visit the following websites:

For downloading of Bidding Documents: <http://www.tanaywaterdistrict.gov.ph/>

September 10, 2022

(SGD) Engr. Armando H. Bongat
BAC Chairperson

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, **Tanay Water District** invites Bids for the **Drilling of One (1) Production Well**, with Project Identification Number **Purchase Requisition No. 12290**.

The Procurement 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 **P1-3-1 / I-1** in the amount of **Five Million Pesos (₱ 5,000,000.00)**.

2.2. The source of funding is Tanay Water District's 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 Procuring Entity has prescribed that 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 **Tanay Water District Conference Room, 2/F IFP Bldg., # 41 F.T. Catapusan St. Tanay, Rizal** 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 **120 Days**. 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**.

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause																									
5.2	<p>For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be</p> <p>The drilling of production well and installation of uPVC well casing and screens.</p>																								
7.1	No further instructions																								
10.3	NWRB accreditation																								
10.4	<p>The key personnel must meet the required minimum years of experience set below:</p> <table><tr><td>Key Personnel</td><td>General Experience</td><td>Relevant Experience</td></tr><tr><td>Supervisor/Foreman</td><td>Well Drilling</td><td>5 years</td></tr><tr><td>Drilling Rig Operator</td><td>Rotary / Percussion</td><td>5 years</td></tr><tr><td>Welder</td><td>Arc Welding</td><td>5 years</td></tr></table>	Key Personnel	General Experience	Relevant Experience	Supervisor/Foreman	Well Drilling	5 years	Drilling Rig Operator	Rotary / Percussion	5 years	Welder	Arc Welding	5 years												
Key Personnel	General Experience	Relevant Experience																							
Supervisor/Foreman	Well Drilling	5 years																							
Drilling Rig Operator	Rotary / Percussion	5 years																							
Welder	Arc Welding	5 years																							
10.5	<p>The minimum major equipment requirements are the following:</p> <table><tr><td><u>Equipment</u></td><td><u>Capacity</u></td><td><u>Number of Units</u></td></tr><tr><td>Drilling Rig (Rotary) and Accessories</td><td>450mm Ø x 300 meters</td><td>1 set</td></tr><tr><td>Mud Pump</td><td></td><td>1 set</td></tr><tr><td>Generator set</td><td>90 KVA, 230/460V 3phase 60 Hz</td><td>1set</td></tr><tr><td>Air Compressor</td><td>500 cfm</td><td>1</td></tr><tr><td>Submersible pump and motor including power cable and control panel</td><td>100 cu.m/hr with TDH, coupled with 60hp, 230/460V 3phase 60 Hz</td><td>1 set</td></tr><tr><td>Welding machine</td><td></td><td>1</td></tr><tr><td>Water tank</td><td></td><td>1</td></tr></table>	<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>	Drilling Rig (Rotary) and Accessories	450mm Ø x 300 meters	1 set	Mud Pump		1 set	Generator set	90 KVA, 230/460V 3phase 60 Hz	1set	Air Compressor	500 cfm	1	Submersible pump and motor including power cable and control panel	100 cu.m/hr with TDH, coupled with 60hp, 230/460V 3phase 60 Hz	1 set	Welding machine		1	Water tank		1
<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>																							
Drilling Rig (Rotary) and Accessories	450mm Ø x 300 meters	1 set																							
Mud Pump		1 set																							
Generator set	90 KVA, 230/460V 3phase 60 Hz	1set																							
Air Compressor	500 cfm	1																							
Submersible pump and motor including power cable and control panel	100 cu.m/hr with TDH, coupled with 60hp, 230/460V 3phase 60 Hz	1 set																							
Welding machine		1																							
Water tank		1																							
12	No further instruction																								
15.1	<p>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:</p> <p>a. The amount of not less than One Hundred Thousand Pesos (₱ 100,000.00) (2% of ABC), if bid security is in cash, cashier’s/manager’s check, bank draft/guarantee or irrevocable letter of credit;</p>																								

	b. The amount of not less than Two Hundred Fifty Thousand Pesos (₱ 250,000.00) (5% of ABC) if bid security is in Surety Bond.
19.2	No further instruction
20	NWRB accreditation
21	Submission of construction schedule, PERT CPM and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE.

Section IV. General 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

- 4.1. 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.
- 4.2. 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

GCC Clause	
2	No further instruction
4.1	The possession of the site to the Contractor is within Ten (10) days after receipt of Notice to Proceed
6	The site investigation report is based on the Well Drilling Report for Asteria Subdivision located at Brgy. Tandang Kutyo, Tanay, Rizal
7.2	Deep wells: Two (2) years.
10	No dayworks are applicable to the contract.
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 five (5%) of the previous work accomplishment.
13	The amount of the advance payment is fifteen (15) percent of the Contract Price subject to the requirements in Annex "E" of the 2016 revised IRR of RA No. 9184
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 Well Drilling report including "as built" drawings are required is upon submission of final billing request.
15.2	The amount to be withheld for failing to produce "as built" drawings and Well Drilling Report by the date required is Ten Thousand Pesos (P 10,000.00).

Section VI. Specifications

TECHNICAL SPECIFICATIONS

TABLE OF CONTENTS

1. GENERAL.....26

2. WELL DRILLING.....28

3. GEOPHYSICAL LOGGING29

4. WELL CASING29

5. WELL SCREENS30

6. FORMATION STABILIZER.....31

7. WELL DEVELOPMENT31

8. WELL TESTING.....32

9. WATER QUALITY TEST34

10. CEMENT GROUTING35

11. WELL CLEANING.....35

12. WELL COMPLETION36

13. SUBMITTAL OF REPORTS.....36

1.0 GENERAL

1.1 Scope

The work includes the Drilling of One (1) Production Well (250mmØ x 210m depth) at Asteria Subd., Brgy. Tandang Kutyo for Tanay Water District, including installation of casing/screens, well development, well testing, well completion and the submission of Final Well Drilling Report.

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 Procuring Entity's Engineer. The opinion of the Procuring Entity's Engineer must be obtained prior to utilizing such materials or 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 drill site, the Contractor shall make such arrangements including the provision for mobile tanks or fixed tanks 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 arrangement as may be necessary for the connection of or supply of power to the 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 BOQ for setting up equipment at the site, drilling rates and rates entered for operation of pumping unit.

1.5 Storage of Inflammables

The Contractor 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 Procuring Entity 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 material, any ground outside the property of the Procurement Entity without the written consent of the Procuring Entity of such property. Other Contractors and employees or agents of the Procuring Entity may, for all necessary purposes, enter upon the work and premises used by the Contractor, and the Contractor shall conduct his work so as not to impede unnecessarily any work being done by others on or adjacent 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. Excepting as otherwise provided herein, the Contractor shall protect all structures, walks, pipelines, trees, shrubbery, laws, 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 the replacement, at the Contractor's sole expense, of any facility or landscaping which has been damaged beyond restoration to its original condition as to the satisfaction of the Procuring Entity's Engineer.
2. Water pumped from the well shall be conducted to a place approved by the Procuring Entity's 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

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 Procuring Entity and the relevant authorities.

1.11 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 consultant.
2. In the event that the well becomes contaminated or that water having undesirable physical or chemical characteristic has entered the well due to the negligence of the Contractor, he shall at his 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.

1.12 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.

1.13 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 Procuring Entity.
2. Payment shall be deemed to be included in the items entered in the BOQ for erection and dismantling of drilling rigs.

1.14 Standing Time

Standing time will be paid only when drilling is suspended upon written instruction of the Procuring Entity or authorized representative.

1.15 *Water Level Sounding*

The Contractor shall provide a functioning and accurate water sounding instrument acceptable to the Procuring Entity to measure the water level, development and testing of the well. Failure to provide such will subject the Contractor to a penalty of P500.00 per day.

2.0 WELL DRILLING

2.1 *Equipment*

The Contractor shall provide and operate at least one (1) drilling rig including all auxiliary equipment, lubricants, fuels and spares necessary to complete the work within the contract period.

The rig shall have sufficient capacity to drill the specified boreholes in the diameters specified in the tentative well design to a depth which is minimum 25% higher than indicated in the design.

2.2 *Drilling Method*

All drilling shall, have unless otherwise specified, be performed with the rotary drilling method.

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 pack with a uniform thickness as specified.

2.3 *Strata Sampling*

Soil sample shall be taken every meter of penetration or less when change of formation occurs. Samples shall be placed in plastic or other appropriate bags in which the sampling depth and the date of sampling is written in such a manner that it is permanently readable. Each sample shall be placed in a wooden box with enough space for storage.

A record of samples taken with the details described above shall be submitted to the Procuring Entity everyday.

Payment for sampling shall be deemed to be included in the rates entered for drilling in the BOQ.

The failure on the part of the Contractor to obtain, preserve and deliver samples or records, satisfactory to the Procuring Entity's Engineer, shall be considered as actual damage to the Procuring Entity. Such a failure shall authorize the Procuring Entity's Engineer to retain from money due or to become due the Contractor the sum of P1,500.00 as liquidated 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 Procuring Entity's 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 Procuring Entity's Engineer deems necessary to remedy such failure at no cost to the Procuring Entity. It is understood that the liquidated damages herein provided are fixed, agreed and not by way of penalty; and that the Procuring Entity shall not be required to prove that he has incurred actual damages. If possible, water level should be monitored every shifting of personnel.

2.4 *Drilling Mud*

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 and a mud weight of less than 1.10 kg/1 (9.2 lb/US gal.)

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.

During drilling with mud, the Contractor shall perform hourly measurements of the following mud characteristics.

- pH value
- Funnel viscosity
- Specific gravity
- Sand content
- Filtration loss
- Filter cake thickness

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

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

2.5 Working Hours

All work from start of drilling of the borehole until completion of well development shall be on a round the clock basis.

3.0 GEOPHYSICAL LOGGING

3.1 Equipment

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 by the manual method, reading shall be taken every meter of borehole depth.

4.0 WELL CASING

4.1 Well Blank Casing

1. The technical specifications for the permanent casing are as follows:

Material: PVC
Method of Jointing: Square Treaded
Must Conform with DIN 4925

Nominal Dia. (mm)	Outside Dia. (mm)		Wall Thickness (mm)	Collapse Resistance
	min	max	min	
250	280	280.5	12.5	15.5 kg/cm²

2. The Contractor shall assume responsibility for any casing failure and shall correct such failure, as approved by the Procuring Entity's Engineer, at no cost to the Procuring Entity. In the event that the Contractor cannot correct a casing failure, the Contractor shall replace the casing with material complying with the specifications, or if necessary, better casing as approved by the Procuring Entity's Engineer at no extra cost to the Procuring Entity.

4.2 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.

4.3 Lining Installation

- 1. Lining material shall be assembled and located in 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 Procuring Entity’s 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 the lining material at his own expense.

4.4 Lining Material Accessories

- 1. The Contractor shall provide as necessary the following accessories to see the lining material to the required depth.
 - a. Supporting clamps, equipment and tools;
 - b. Reducing cones and connecting pieces;
 - c. Casing hangers;
 - d. All other necessary equipment.
- 2. Except where expressly provided, all accessories shall be deemed to be included in the BOQ for the provision and insertion of lining material.

4.5 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 drawing and the description of the tests to the satisfaction of the Procuring Entity’s Engineer.
- 2. Test for plumbness and alignment must be made before lining installation. Additional tests however, may be made by the Contractor during the performance of the work. No specific payments shall be made for making these tests.

5.0 WELL SCREEN

5.1 Well Screen

- 1. The technical specifications for the well screen are as follows:

Material: PVC
Method of Jointing: Square Treaded
Must Conform with DIN 4925

Nominal Dia. (mm)	Outside Dia. (mm)		Wall Thickness (mm)	Slot No.
	min	max	min	min
250	280	280.5	12.5	No. 60

5.2 *Screen Accessories*

All fittings, packers, coupling, joints, plugs and seals used during installation of well-screen together with the installation procedure, shall be to the approval of the Procuring Entity's Engineer.

6.0 GRAVEL PACK, FILTER PACK AND FILL PIPE

6.1 *Scope*

The Contractor shall provide and install a well-rounded, sorted siliceous grain gravel pack materials from river or ocean deposit and a gravel fill pipe.

6.2 *Filter Material*

The filter material or gravel pack should be of a uniform size (No.10) which is just slightly larger than the size of the slots in the pvc well screen. Filter material must be clean to minimize filter pack collapse and reduce well development time. Angular rock should not be used since it will compact when the well is pumped and can severely restrict the flow of water.

6.3 *Installation / Placing of gravel pack*

Gravel pack shall be installed immediately upon completion of lining installation. Installation of gravel pack shall be done by circulation of drilling water. The filter material shall be slowly poured into the annular space between the borehole and the casing such that separation of gravel and bridging is avoided. A feeler line or weighted measuring tape should be used to confirm where the top filter of the pack is.

6.4 *Gravel Fill Pipe Installation*

The contractor shall provide and install a 50mm dia x 18 meters G.I. pipe and ensure that the top part/level of the gravel pack is more than 3 meters above from the bottom end of the gravel fill pipe.

7.0 WELL DEVELOPMENT

7.1 *Scope*

Well development shall consist of treatment of polyphosphate solution, high velocity water jetting and airlifting as specified in the BOQ.

The Contractor shall furnish compressors, electric generators, jetting tools and other equipment required for satisfactory well development and re-development.

7.2 *Treatment of Polyphosphate Solution*

Mud displacement shall immediately be followed by injection and/or jetting through the screened sections with a polyphosphate solution or equivalent to deflocculates the mud cake on the borehole wall. The well shall be left for 24 hours before developing is continued to allow the polyphosphate to react.

7.3 *High Velocity Jetting*

The Contractor shall develop the well on all screen sections by high velocity jetting. The jetting tool shall be equipped with nozzles as properly placed to the satisfaction of the Procuring Entity's Engineer.

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

Section of the screen shall be jetted until the return water is free from drilling mud for 12 hours or as specified in the BOQ.

7.4 *Development by Airlifting*

Upon completion of high velocity jetting, the well shall be discharged by the airlifting method. Development shall continue to ensure that all sand has been cleaned out of the sump pipe.

7.5 *Well Cleaning*

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

7.6 *Freedom from Sand*

The Contractor shall develop the well with methods specified herein until the water pumped from the well is substantially free from sand and until the turbidity is less than the Silica scale described in the Standard Methods of Water Analysis (latest edition as published by AWWA, APHA, and WPCT).

The water pumped from the well shall not contain an amount of fine material in excess of 1.0 mg/liter when the well is pumped at its maximum expected yield. The equipment for measurement of the sand content shall be furnished by the Contractor.

7.7 *Acceptance of Development*

The development by the specified method shall be repeated and continued until the well is thoroughly developed in accordance with the criteria specified in Sub-Section 7.5.

If after well development works has been completed and the well is found to be sand free in accordance with Section 7.6, but the well production is still below the anticipated well yield, then the Engineer may instruct the Contractor to perform further well development.

7.8 *Expected Yield*

The Contractor shall develop the well to its maximum expected yield in the range of 15-25 lps.

8.0 WELL TESTING

Scope

8.1 The Contractor shall, unless otherwise specified, provide and operate a Pumping Unit for the following purposes:

- a. Step-drawdown pumping test on the completed well
- b. 72 hours constant discharge pumping test on the completed well, and
- c. 12 hours recovery test or when water level reaches its original static water level, whichever comes first.

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 or aquifer testing.
2. The pumping unit must be able to deliver a discharge rate 50% higher than the expected yield of the well and a minimum discharge, which is 15% higher of the expected yield of the well when suitably throttled by use of a gate valve.
3. Suitable pumping machinery will be deemed to be:

Submersible electric pump unit together with generator and such 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 Procuring Entity's Engineer.
3. The Contractor shall provide sufficient competent personnel including a qualified mechanic 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 Pipe**

1. The Contractor shall, if instructed by the Procuring Entity's Engineer, provide and install a temporary tube of at least 1 inch diameter from the top of the well to 2 inches above the pump bowl assembly to facilitate easy measurements of water level. The tube shall be open 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 pumping tests.

8.6 ***Discharge Rate Monitoring***

Discharge rates may be measured by drum filling or a water meter. All items are subject to the Procuring Entity's Engineer's approval before start of pumping test.

8.7 ***Definition of "Pumping Unit"***

The equipment specified in Clause 8.2-8.6 is hereto referred as the pumping equipment used to draw water from the well during pumping test.

8.8 ***Pumping Procedure***

The Procuring Entity will determine the pumping procedure necessary to obtain the objectives of the Contract.

8.9 ***Suspension of Pumping***

If the Procuring Entity's 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, then he may suspend the work in accordance with the provision 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 Procuring Entity 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 Procuring Entity.
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 recommending the re-test.

8.11 ***Duration of Tests***

1. The step-drawdown pumping tests shall be performed on 5 steps with duration of 60 minutes each.
2. The constant discharge pumping tests shall be performed for a period of 72 hours, unless otherwise instructed by the Procuring Entity.

8.12 ***Temporary Pipeline***

1. The Contractor shall provide a temporary pipeline as directed by the Procuring Entity during pumping tests, to convey pumped water to a suitable water course or drain.
2. Under certain circumstances when re-infiltration cannot be avoided, the Procuring Entity's Engineer shall determine to what distance from the well, pumped water may be discharged to the ground.

9.0 WATER QUALITY TEST

9.1 Procedure

The Contractor shall collect water samples for analysis to determine the suitability for domestic consumption. During the constant discharge test, a (4) four liter water sample should be collected for laboratory analysis 4 minutes before putting off the pump.

The samples shall be sent to DOH accredited laboratory where the following test will be conducted:

A. PHYSICAL ANALYSIS

- a. Color
- b. Turbidity
- c. Odor

B. CHEMICAL ANALYSIS

Chemical Characteristics / Constituents

- a. Total Hardness
- b. pH
- c. Total Dissolved Solids
- d. Arsenic
- e. Cadmium
- f. Chlorine
- g. Lead
- h. Nitrate
- i. Sodium
- j. Sulfate

C. BACTERIOLOGICAL ANALYSIS

- a. Coliform
- b. Heterotrophic Plate Count

9.2 Sample Presentation and Preparation

The Contractor shall ensure the integrity of the samples collected. As much as possible all samples for laboratory analysis shall be submitted within 24 hours from sampling without preservative, provided samples are kept in a cooler.

The sample containers should be such that when filled with the desired amount of sample, space roughly equivalent to 1 percent of the volumetric capacity of the container is available for expansion of the liquid.

Stopper or cap closing the sample container must be fixed in place by wire, tape or cord to prevent leakage during transit. It should be wrapped with a relatively inert metal foil.

Sample containers must be properly labeled. A tag securely affixed to the container should be provided with the following information:

- a. Date and time of sampling
- b. Source of sample
- c. Type of pumping test and discharge rate
- d. Name of collector

9.3 *Field Test Kit and Instrument*

The Contractor shall provide field test kit for chloride analysis, by titration, and functioning and accurate electrical conductivity/TDS meter. Failure to provide such will subject the Contractor to penalty of P500.00 a day.

10.0 CEMENT GROUTING

10.1 *Grouting Material*

1. Cement grout shall consist of a mixture of 95% Portland Cement, 5% bentonite and clean water, mixed in the proportion of 52.5 kg of Portland Cement/Bentonite to max. 30 liters of water.
2. All cement shall, unless otherwise specified in the Contract Documents, conform to the "Specifications for Portland Cement" (ASTM C150-latest revision)

10.2 *Method of Placing Grout Material*

1. The method and equipment for placing the grout shall be to the approval of the Procuring Entity. No method will be approved that does not provide for the forcing of grout from the bottom of the casing/hole/annulus to be grouted, to the surface. Flushing of the annular space with fluid to assure the space is open and to remove loose material will be required by the Procuring Entity 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 grout shall be continuously stirred. The Contractor shall provide such tanks, hoppers and other equipment as may be necessary to meet these requirements.

10.3 *Starting Time*

No work will be allowed on the well within a period of 72 hours after completion of grouting unless quick setting cement is used. In such case, the idle period may be reduced to 24 hours subject to the Procuring Entity's prior approval.

11.0 WELL CLEANING

The Contractor shall upon completion of well construction and well testing thoroughly clean the well of all foreign substance including tools, timbers, rope, and debris of any kind, cement, oil, grease and scum.

12.0 WELL COMPLETION

12.1 *Scope*

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

12.2 *Site Restoration*

The site shall be restored to a condition as nearly as 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 surfaces and replacement or compensation for the destroyed plants and landscaping.

12.3 Well Head Capping

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

13.0 SUBMITTAL OF REPORTS, BOREHOLE DATA AND WATER QUALITY ANALYSIS

The Contractor shall submit to the Procuring Entity the daily time records containing the following information:

- Site:
- Date:
- Description of each stratum encountered:
- Depth below ground of each change of stratum:

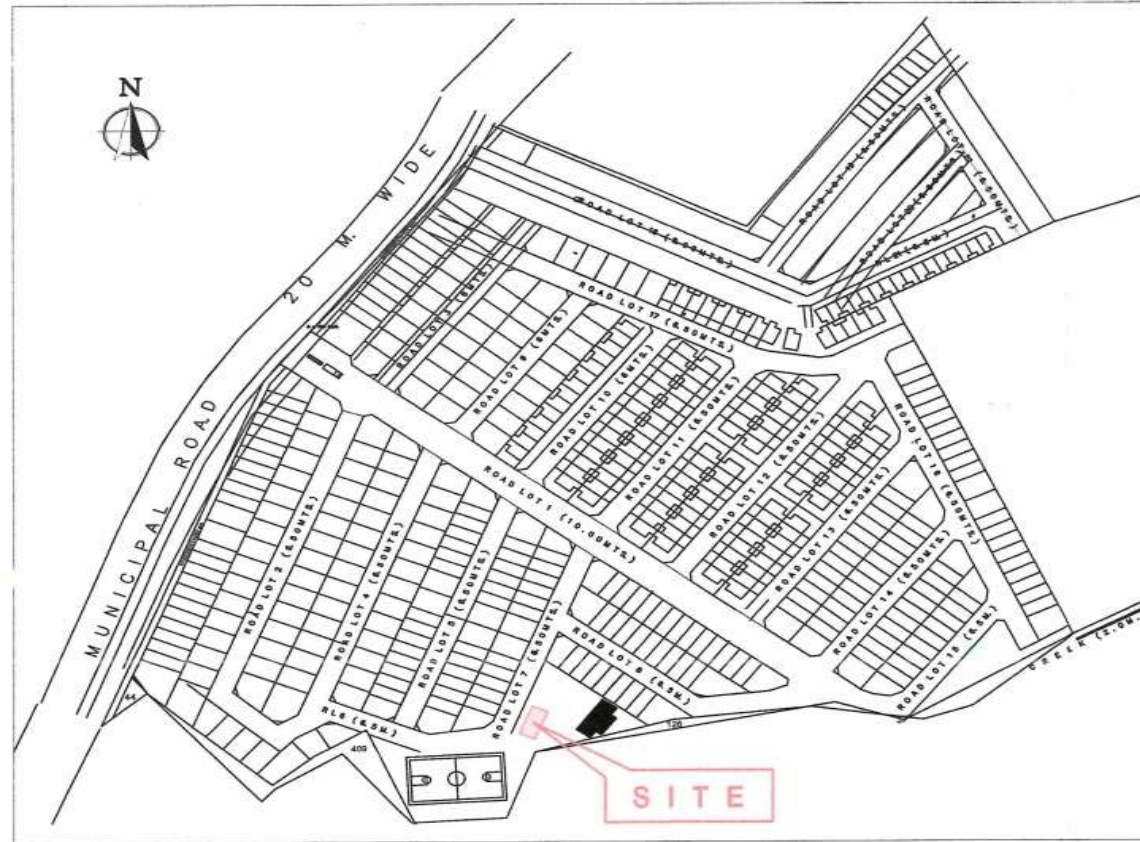
The Contractor shall be required to keep a record of penetration rate, mud losses and mud conditions.

At the end of the well construction and before final payment is made, the Contractor shall submit to the Procuring Entity a final report containing the following information:

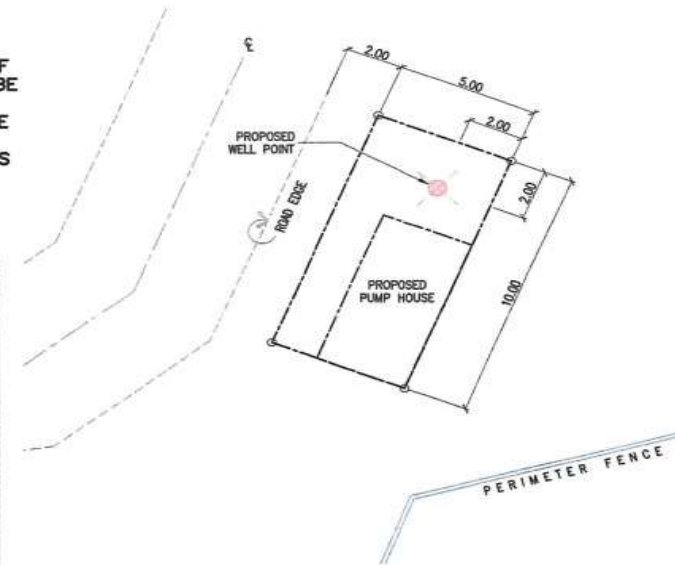
- a. The total depth of the well
- b. Description of strata encountered
- c. The size and lengths/specifications of the casings installed
- d. The date of the start and the completion of the well construction
- e. The location and the description of the casings and screens
- f. The location of the gravel, the size and the amount of cement installed
- g. Records of discharge rates and drawdown during well development together with the description of the methods of development
- h. The well yield, the dates and the duration of the tests
- i. The method of measuring the discharge rates and the drawdown
- j. The complete water quality analysis

Section VII. Drawings

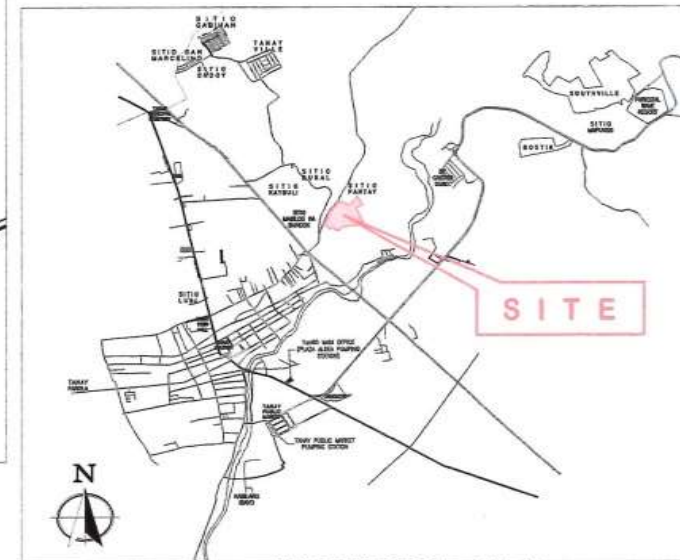
NOTE: LOCATION OF WELL POINT CAN BE TRANSFERRED DEPENDING ON THE CAPABILITY OF EQUIPMENT AND ITS SIZE.



LOCATION MAP
SCALE N.T.S.

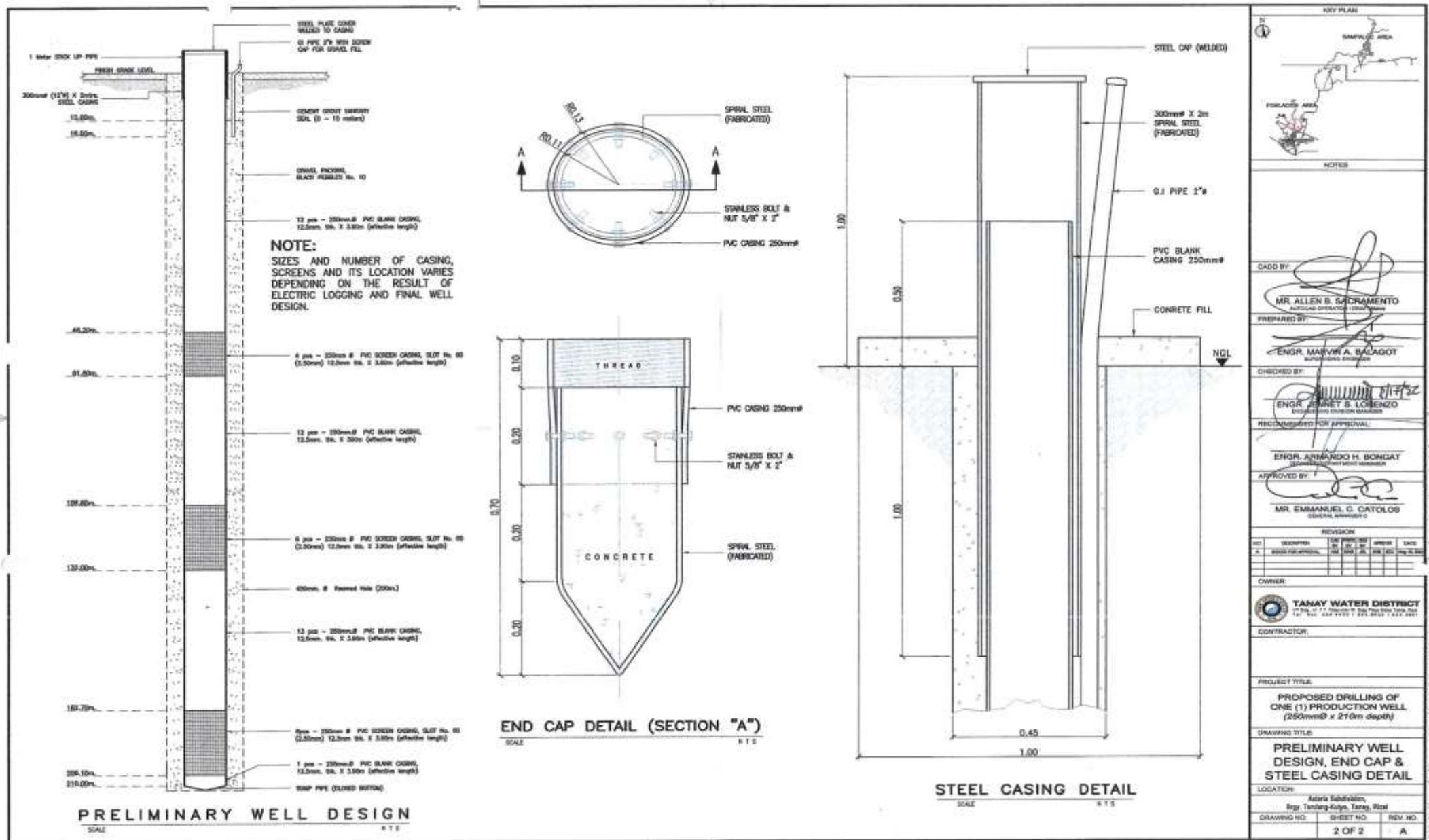


PROPOSED WELL DRILLING POINT LAYOUT
SCALE 1:100



VICINITY MAP
SCALE N.T.S.

KEY PLAN													
NOTES													
CADD BY: MR. ALLEN B. SACRAMENTO AUTOCAD OPERATOR / DRAFTSMAN													
PREPARED BY: ENGR. MARVIN A. BALAGOT PROFESSIONAL ENGINEER													
CHECKED BY: ENGR. JANNET S. LORENZO PROFESSIONAL ENGINEER													
RECOMMENDED FOR APPROVAL: ENGR. ARMANDO H. BONGAT TECHNICAL DEPARTMENT MANAGER													
APPROVED BY: MR. EMMANUEL C. CATOLES GENERAL MANAGER													
REVISION <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>BY</th> <th>CHKD BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>ISSUED FOR APPROVAL</td> <td>11/11/2023</td> <td>AB</td> <td>AB</td> <td>11/11/2023</td> </tr> </tbody> </table>		NO.	DESCRIPTION	DATE	BY	CHKD BY	DATE	1	ISSUED FOR APPROVAL	11/11/2023	AB	AB	11/11/2023
NO.	DESCRIPTION	DATE	BY	CHKD BY	DATE								
1	ISSUED FOR APPROVAL	11/11/2023	AB	AB	11/11/2023								
OWNER: TANAY WATER DISTRICT 177 Pina St. 1st Floor Tanay, Rizal TEL: 02-424-4450 / 02-424-4451													
CONTRACTOR:													
PROJECT TITLE: PROPOSED DRILLING OF ONE (1) PRODUCTION WELL (250mmØ x 210m depth)													
DRAWING TITLE: LOCATION MAP, VICINITY MAP & LAYOUT													
LOCATION: Astoria Subdivision, Brgy. Tandang-Kutyo, Tanay, Rizal													
DRAWING NO.	SHEET NO.												
1 OF 2	A												



Section VIII. Bill of Quantities

BILL OF QUANTITIES

Pay Item No.	Description	Unit	Qty.	Unit Price (Pesos)	Amount (Pesos)
1.0	Mobilization of drilling unit, including all accessories and staff to project site.	lot	1.00	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>
2.0	Preparation of Site and Setting-up of equipment	lot	1.00	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>

6.0	Reaming of pilot hole to 450mm Ø borehole from ground surface to final depth or as instructed by the Engineer /or authorized representative.	Mtrs	210.00	In words: Pesos _____ _____ _____ _____ _____ In figures: Php	In words: Pesos _____ _____ _____ _____ _____ In figures: Php
7.0	Furnishing of 250mm Ø (10"Ø) N.D. uPVC Blank Casing 280mm outside dia., wall thickness of 12.5mm one end socketed. M/F end trapezoidal thread at 4 m. length end to end as per DIN 4925	pcs.	38.00	In words: Pesos _____ _____ _____ _____ _____ In figures: Php	In words: Pesos _____ _____ _____ _____ _____ In figures: Php
8.0	Furnishing of 250mm Ø (10"Ø) N.D. uPVC Screen casing 280mm" outside dia., (slot no. 60) wall thickness of 12.5mm one end socketed, M/F end trapezoidal thread at 4 m. length end to end as per DIN 4925	pcs.	16.00	In words: Pesos _____ _____ _____ _____ _____ In figures: Php	In words: Pesos _____ _____ _____ _____ _____ In figures: Php

9.0	Furnishing of 250mm Ø (10"Ø) End Cap	pc.	1.00	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>
10.0	Installation of End cap, Casings and Screens	mtrs	210.00	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>
11.0	Furnishing and installation of gravel pack/formation stabilizers in annular space around casing and screens.	Mtrs	195.00	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>
12.0	Furnishing & installation of gravel fill pipe 50mm Ø with screw cap.	mtrs	19.00	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>

13.0	Chemical Treatment with polyphosphate solution	lot	1.00	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>
14.0	Well Development by high velocity water jetting.	Hrs.	12.00	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>
15.0	Well Development by Airlifting.	hrs.	24.00	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>
16.0	Step-drawdown pumping test, 5 steps at 60 mins.	lot.	1.00	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>	<div>In words: Pesos</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>In figures: Php</div>

17.0	Constant Discharge Pumping Test (Continuous)	hrs	72.00	In words: Pesos _____ _____ _____ _____ _____ In figures: Php	In words: Pesos _____ _____ _____ _____ _____ In figures: Php
18.0	Recovery Test	hrs	12.00	In words: Pesos _____ _____ _____ _____ _____ In figures: Php	In words: Pesos _____ _____ _____ _____ _____ In figures: Php
19.0	Disinfection, Water Quality Test / Analysis and to submit results	lot.	1.00	In words: Pesos _____ _____ _____ _____ _____ In figures: Php	In words: Pesos _____ _____ _____ _____ _____ In figures: Php
20.0	Furnishing and Installation of 300 mm steel pipe as stick up pipe	lot	1.00	In words: Pesos _____ _____ _____ _____ _____ In figures: Php	In words: Pesos _____ _____ _____ _____ _____ In figures: Php

21.0	Cement grouting of annular space from ground surface to 15 meters.	Mtrs	15.00	In words: Pesos _____ _____ _____ _____ _____ In figures: Php	In words: Pesos _____ _____ _____ _____ _____ In figures: Php
22.0	Well completion, furnishing and installation of water level sounding tube and well head cover.	lot	1.00	In words: Pesos _____ _____ _____ _____ _____ In figures: Php	In words: Pesos _____ _____ _____ _____ _____ In figures: Php
23.0	Site clean-up and demobilization.	lot	1.00	In words: Pesos _____ _____ _____ _____ _____ In figures: Php	In words: Pesos _____ _____ _____ _____ _____ In figures: Php
Total Amount in Figures					
Total Amount in words:					

Submitted by:Contract Duration:_____ Calendar Days

Name_____ in the capacity of

Signed_____ Date _____

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

Tanay Water District					
41 FT Catapusan St., Tanay, Rizal					
Contract ID	W.O# 2022-02-05				
Project:	Drilling of One (1) Production Well : 250mm Ø X 210 meters depth				
Location:	Asteria Subd. Area Brgy. Tandang Kutyo, Tanay, Rizal				
BILL OF QUANTITIES					
ITEM NO.	SCOPE OF WORKS	UNIT	QTY.	UNIT PRICE	AMOUNT
1	Mobilization of drilling unit, including all accessories and staff to project site.	lot	1		
2	Preparation of Site and Setting-up of equipment.	lot	1		
3	Drilling of pilothole (200mmØ) pilothole, including strata sampling every meter of penetration or less when change of formation occurs and installation of temporary casing if necessary .	meters	210		
4	Geo-physical borehole logging, self-potential and electric resistivity , and to submit result, report and recommendation.	lot	1		
5	Well Plumbness and Alignment.	lot	1		
6	Reaming of pilot hole to 450mm Ø borehole from ground surface to final depth or as instructed by the Engineer /or authorized representative.	meters	210		
7	Furnishing of 250mm Ø (10"Ø) N.D. uPVC Blank Casing 280mm outside dia., wall thickness of 12.5mm one end socketed. M/F end trapezoidal thread at 4 m. length end to end as per DIN 4925	pcs	38		
8	Furnishing of 250mm Ø (10"Ø) N.D. uPVC Screen casing 280mm" outside dia., (slot no. 60) wall thickness of 12.5mm one end socketed, M/F end trapezoidal thread at 4 m. length end to end as per DIN 4925	pcs	16		
9	Furnishing of 250mm Ø (10"Ø) End Cap	pc	1		
10	Installation of End cap, Casings and Screens	meters	210		
11	Furnishing and installation of gravel pack/ formation stabilizers in annular space around casing and screens.	meters	195		
12	Furnishing & installation of gravel fill pipe 50mm Ø with screw cap.	meters	19		
13	Chemical Treatment with polyphosphate solution	lot	1		
14	Well Development by high velocity water jetting.	hrs.	12		
15	Well Development by Airlifting.	hrs.	24		
16	Step-drawdown pumping test, 5 steps at 60 mins.	lot	1		
17	Constant Discharge Pumping Test (Continuous)	hrs.	72		
18	Recovery Test	hrs.	12		
19	Disinfection, Water Quality Test / Analysis and to submit results	lot	1		
20	Furnishing and Installation of 300 mm steel pipe as stick up pipe	lot	1		
21	Cement grouting of annular space from ground surface to 15 meters.	meters	15		
22	Well completion, furnishing and installation of water level sounding tube and well head cover.	lot	1		
23	Site clean-up and demobilization.	lot	1		
			Total Amount		
Total Amount in words : _____					

			Contract Duration : 193 Calendar Days		
Submitted by:					
Name _____ in the capacity of _____					
Signed _____ Date _____					
Duly authorized to sign the Bid for and on behalf of _____					

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
23.0	Site clean-up and demobilization				1.00	lot
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
						-
						-
						-
						-
						-
						-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
						-
						-
						-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
	Name & Signature					
	Contractor					
	Date Signed					

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
1.0	Mobilization of drilling unit, including all accessories and staff to project site				1.00	lot
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
						-
						-
						-
						-
						-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
						-
						-
						-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						
UNIT COST						
ADJUSTED TOTAL COST						
	Submitted By:					
	Name & Signature					
	Contractor					
	Date Signed					

DETAILED ESTIMATES						
PROJECT:		Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)			DATE:	
LOCATION:		Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal			REV. NO:	
ITEM NO.		NAME OF ITEM			QUANTITY	UNIT OF MEASUREMENT
2.0		Preparation of Site and Setting-up of equipment			1.00	lot
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS		QTY	UNIT	COST
	1.0	Tempacil (including water & electrical facilities)			lot	-
						-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS		NO. OF UNITS	NO. OF HRS	COST
						-
						-
						-
						-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION		QTY	UNIT	COST
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL		NO. OF UNITS	NO. OF HRS	COST
	1.0	Project Engineer				-
	2.0	Rig Operator				-
	3.0	Labor/Helper				-
	4.0	Driver				-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)					-	
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)					-	
CONTRACTOR'S PROFIT 10% (CP)					-	
VALUE ADDED TAX 5% of (EDC+OCM+CP)					-	
ESTIMATED INDIRECT COST					-	
TOTAL COST					-	
UNIT COST					-	
ADJUSTED TOTAL COST						
Submitted By:						
Name & Signature						
Contractor						
Date Signed						

DETAILED ESTIMATES						
PROJECT:		Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)			DATE:	
LOCATION:		Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal			REV. NO:	
ITEM NO.		NAME OF ITEM			QUANTITY	UNIT OF MEASUREMENT
3.0		Drilling of pilothole (200mmØ) pilothole, including strata sampling every meter of penetration or less when change of formation occurs and installation of temporary casing if necessary			210.00	meters
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Drilling Rig				-
	2.0	Mudpump				-
						-
						-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
	1.0	Diesel		liters		-
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer				-
	2.0	Rig Operator				-
	3.0	Labor/Helper				-
						-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
		Name & Signature				
		Contractor				
		Date Signed				

DETAILED ESTIMATES

PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
4.0	Geo-physical borehole logging, self-potential and electric resistivity, and to submit result, report and recommendation				1.00	lot
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Electric Logging Equipment				-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer				-
	2.0	Technician				-
	3.0	Labor/Helper				-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
		Name & Signature				
		Contractor				
		Date Signed				

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	0
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	-
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
5.0	Well Plumbness and Alignment				1.00	lot
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
						-
						-
						-
						-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer				-
	2.0	Rig Operator				-
	3.0	Labor/Helper				-
						-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
		Name & Signature				
		Contractor				
		Date Signed				

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal			REV. NO:		
ITEM NO.	NAME OF ITEM			QUANTITY	UNIT OF MEASUREMENT	
6.0	Reaming of pilot hole to 450mm Ø borehole from ground surface to final depth or as instructed by the Engineer /or authorized representative			210.00	meters	
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Drilling Rig			-	-
	2.0	Mudpump			-	-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
	1.0	Diesel		liters	-	-
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer				-
	2.0	Rig Operator				-
	3.0	Labor/Helper				-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
		Name & Signature				
		Contractor				
		Date Signed				

DETAILED ESTIMATES

PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	0
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	-
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
7.0	Furnishing of 250mm Ø (10"Ø) N.D. uPVC Blank Casing 280mm" outside dia., wall thickness of 12.5mm one end socketed. M/F end trapezoidal thread at 4 m. length end to end as per DIN 4925				38.00	pcs
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
	1.0	250mm Ø (10"Ø) N.D. uPVC Blank Casing 280mm outside dia		pcs		-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
						-
						-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
						-
						-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
<p>Note: Delivery charge included</p>						
Submitted By:						
Name & Signature						
Contractor						
Date Signed						

DETAILED ESTIMATES

PROJECT:		Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)			DATE:		0
LOCATION:		Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal			REV. NO:		-
ITEM NO.		NAME OF ITEM			QUANTITY		UNIT OF MEASUREMENT
8.0		Furnishing of 250mm Ø (10"Ø) N.D. uPVC Screen casing 280mm outside dia., (slot no. 60) wall thickness of 12.5mm one end socketed, M/F end trapezoidal thread at 4 m. length end to end as per DIN 4925			16.00		pcs
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS		QTY	UNIT	UNIT RATE	COST
	1.0	250mm Ø (10"Ø) N.D. uPVC Screen casing 280mm outside dia.			pcs		-
							-
							-
	TOTAL for MATERIALS						-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS		NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
							-
							-
							-
	TOTAL for EQUIPMENT						-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION		QTY	UNIT	UNIT RATE	COST
							-
							-
							-
	TOTAL for FUEL						-
LABOR	NO.	DESIGNATION OF PERSONNEL		NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
							-
							-
							-
	TOTAL for LABOR						-
ESTIMATED DIRECT COST (EDC)							-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)							-
CONTRACTOR'S PROFIT 10% (CP)							-
VALUE ADDED TAX 5% of (EDC+OCM+CP)							-
ESTIMATED INDIRECT COST							-
TOTAL COST							-
UNIT COST							-
ADJUSTED TOTAL COST							
<p>Note: Delivery charge included</p>							
<p>Submitted By:</p>							
Name & Signature							
Contractor							
Date Signed							

DETAILED ESTIMATES

PROJECT:		Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:		Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	
ITEM NO.		NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
9.0		Furnishing of 250mm Ø (10"Ø) End Cap				1.00	pc
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS		QTY	UNIT	UNIT RATE	COST
							-
	1.0	Fabrication of End Cap 250mmØ			lot		-
							-
							-
	TOTAL for MATERIALS						-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS		NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Welding Machine				-	-
							-
							-
	TOTAL for EQUIPMENT						-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION		QTY	UNIT	UNIT RATE	COST
							-
							-
	TOTAL for FUEL						-
	LABOR	NO.	DESIGNATION OF PERSONNEL		NO. OF UNITS	NO. OF HRS	HOURLY RATE
1.0		Project Engineer					-
2.0		Skilled (Welder)					-
3.0		Labor/Helper					-
TOTAL for LABOR						-	
ESTIMATED DIRECT COST (EDC)							-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)							-
CONTRACTOR'S PROFIT 10% (CP)							-
VALUE ADDED TAX 5% of (EDC+OCM+CP)							-
ESTIMATED INDIRECT COST							-
TOTAL COST							-
UNIT COST							-
ADJUSTED TOTAL COST							
Submitted By:							
		Name & Signature					
		Contractor					
		Date Signed					

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
11.0	Furnishing and installation of gravel pack/ formation stabilizers in annular space around casing and screens				195.00	meters
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
	1.0	Pebbles		cum		-
						-
						-
TOTAL for MATERIALS						-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Mini Dump Tuck (Service)				-
	TOTAL for EQUIPMENT					
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
						-
	TOTAL for FUEL					
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer				-
	2.0	Driver				-
	3.0	Labor/Helper				-
	TOTAL for LABOR					
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
		Name & Signature				
		Contractor				
		Date Signed				

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
12.0	Furnishing & installation of gravel fill pipe 50mm Ø with screw cap				19.00	meters
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
	1.0	GI Pipe 2"Ø sch 40 with screw cap & coupling		pcs		-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
						-
						-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer				-
	2.0	Skilled				-
	3.0	Labor/Helper				-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
		Name & Signature				
		Contractor				
		Date Signed				

DETAILED ESTIMATES						
PROJECT:		Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)			DATE:	
LOCATION:		Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal			REV. NO:	
ITEM NO.		NAME OF ITEM			QUANTITY	UNIT OF MEASUREMENT
13.0		Chemical Treatment with polyphosphate solution			1.00	lot
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
	1.0	polyphosphate solution		bags		-
						-
						-
TOTAL for MATERIALS						-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
						-
						-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer				-
	2.0	Labor/Helper				-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
		Name & Signature				
		Contractor				
		Date Signed				

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
14.0	Well Development by high velocity water jetting				12.00	hrs
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
	TOTAL for MATERIALS					-
	EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE
1.0		Jetting tools				-
2.0		Air Compressor				-
3.0		Genset				-
TOTAL for EQUIPMENT					-	
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
	1.0	Diesel		liters		-
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer				-
	2.0	Skilled (machine operator)				-
	3.0	Labor/Helper				-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
		Name & Signature				
		Contractor				
		Date Signed				

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
15.0	Well Development by Airlifting				24.00	hrs
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Air Compressor			-	-
	2.0	Genset			-	-
	TOTAL for EQUIPMENT					-
	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
FUEL CONSUMPTION						
	1.0	Diesel		liters		-
						-
						-
	TOTAL for FUEL					-
	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
LABOR	1.0	Project Engineer			-	-
	2.0	Skilled (machine operator)			-	-
	3.0	Labor/Helper			-	-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	NOTE: Other accessories - to be provided by the contractor (charged to OCM)					
	Submitted By:					
	Name & Signature					
	Contractor					
	Date Signed					

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	0
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal			REV. NO:	-	
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
16.0	Step-drawdown pumping test, 5 steps at 60 mins				1.00	lot
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Pump and Motor				-
	2.0	Genset				-
	TOTAL for EQUIPMENT					-
	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
FUEL CONSUMPTION						
	1.0	Diesel		liters		-
						-
						-
	TOTAL for FUEL					-
	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
LABOR	1.0	Project Engineer				-
	2.0	Skilled (machine operator)				-
	3.0	Labor/Helper				-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	NOTE: Other accessories - to be provided by the contractor (charged to OCM)					
	Submitted By:					
		Name & Signature				
		Contractor				
		Date Signed				

DETAILED ESTIMATES						
PROJECT:		Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)			DATE:	0
LOCATION:		Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal			REV. NO:	-
ITEM NO.		NAME OF ITEM			QUANTITY	UNIT OF MEASUREMENT
17.0		Constant Discharge Pumping Test (Continuous)			72.00	hrs
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Pump and Motor				-
	2.0	Genset				-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
	1.0	Diesel		liters		-
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer				-
	2.0	Rig Operator				-
	3.0	Skilled (machine operator)				-
	4.0	Labor/Helper				-
TOTAL for LABOR					-	
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
NOTE: Other accessories - to be provided by the contractor (charged to OCM)						
Submitted By:						
Name & Signature						
Contractor						
Date Signed						

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	0
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal			REV. NO:	-	
ITEM NO.	NAME OF ITEM			QUANTITY	UNIT OF MEASUREMENT	
18.0	Recovery Test			12.00	hrs	
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
						-
						-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer				-
	2.0	Labor/Helper				-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
		Name & Signature				
		Contractor				
		Date Signed				

Detailed Estimates						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
20.0	Furnishing and Installation of 300 mm steel pipe as stick up pipe				1.00	lot
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
	1.0	300mm Ø Steel Pipe		lot		-
						-
						-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Welding Machine			-	-
						-
						-
TOTAL for EQUIPMENT					-	
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
						-
TOTAL for FUEL					-	
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer				-
	2.0	Skilled (Welder)				-
	3.0	Labor/Helper				-
TOTAL for LABOR					-	
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
	Name & Signature					
	Contractor					
	Date Signed					

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
21.0	Cement grouting of annular space from ground surface to 15 meters				15.00	meters
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
	1.0	Cement		bags		-
	2.0	Sand		cum		-
	3.0	Gravel		cum		-
	TOTAL for MATERIALS					-
EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
						-
						-
						-
	TOTAL for EQUIPMENT					-
FUEL CONSUMPTION	NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE	COST
						-
						-
	TOTAL for FUEL					-
LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE	COST
	1.0	Project Engineer			-	-
	2.0	Skilled (Mason)			-	-
	3.0	Labor/Helper			-	-
	TOTAL for LABOR					-
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
	Name & Signature					
	Contractor					
	Date Signed					

DETAILED ESTIMATES						
PROJECT:	Proposed Drilling of One (1) Production Well (250mm Ø X 210 meters depth)				DATE:	
LOCATION:	Asteria Subd. Area, Brgy. Tandang Kutyo, Tanay, Rizal				REV. NO:	
ITEM NO.	NAME OF ITEM				QUANTITY	UNIT OF MEASUREMENT
23.0	Site clean-up and demobilization				1.00	lot
MATERIALS	NO.	NAME AND SPECIFICATIONS OF MATERIALS	QTY	UNIT	UNIT RATE	COST
						-
						-
						-
	TOTAL for MATERIALS					-
	EQUIPMENT	NO.	NAME AND CAPACITY OF EQUIPMENT / TOOLS	NO. OF UNITS	NO. OF HRS	HOURLY RATE
						-
						-
						-
						-
						-
TOTAL for EQUIPMENT					-	
FUEL CONSUMPTION		NO.	FUEL CONSUMPTION	QTY	UNIT	UNIT RATE
						-
						-
	TOTAL for FUEL					-
	LABOR	NO.	DESIGNATION OF PERSONNEL	NO. OF UNITS	NO. OF HRS	HOURLY RATE
						-
						-
						-
TOTAL for LABOR					-	
ESTIMATED DIRECT COST (EDC)						-
OVERHEAD CONTINGENCIES & MISC. 15% (OCM)						-
CONTRACTOR'S PROFIT 10% (CP)						-
VALUE ADDED TAX 5% of (EDC+OCM+CP)						-
ESTIMATED INDIRECT COST						-
TOTAL COST						-
UNIT COST						-
ADJUSTED TOTAL COST						
	Submitted By:					
		Name & Signature				
		Contractor				
		Date Signed				

Section IX. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class “A” Documents

Legal Documents

- ☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
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
- ☐ (c) Mayor’s or Business permit issued by the city or municipality where the 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

- ☐ (f) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- ☐ (g) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules;
and
- ☐ (h) Philippine Contractors Accreditation Board (PCAB) License;
or
Special PCAB License in case of Joint Ventures;
and registration for the type and cost of the contract to be bid; **and**
- ☐ (i) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
or
Original copy of Notarized Bid Securing Declaration; **and**
- ☐ (j) Project Requirements, which shall include the following:
 - ☐ a. Organizational chart for the contract to be bid;
 - ☐ 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;
 - ☐ c. List of contractor’s major equipment units, which are owned, leased, 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**
- ☐ (k) Original duly signed Omnibus Sworn Statement (OSS);
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

- ☐ (l) 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 sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**
- ☐ (r) Cash Flow by Quarter.

Section X. Bidding Forms

Omnibus Sworn Statement

REPUBLIC OF THE PHILIPPINES)

CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

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

1. *[Select one, delete the other:]*

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

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

2. *[Select one, delete the other:]*

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

[If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary’s Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)];

3. [Name of Bidder] is not “blacklisted” or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided

therein are true and correct;

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

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

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

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

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

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

10. **In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to**

deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

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

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory’s legal capacity]

Affiant

Bid Form for the Procurement of Infrastructure Projects

BID FORM

Date : _____

Project Identification No. : _____

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

Having examined the Philippine Bidding Documents (PBDs) including the Supplemental or Bid Bulletin Numbers *[insert numbers]*, the receipt of which is hereby duly acknowledged, we, the undersigned, declare that:

- a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: *[insert name of contract]*;
- b. We offer to execute the Works for this Contract in accordance with the PBDs;
- c. The total price of our Bid in words and figures, excluding any discounts offered below is: *[insert information]*;
- d. The discounts offered and the methodology for their application are: *[insert information]*;
- e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties]*, which are itemized herein and reflected in the detailed estimates,
- f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines¹ for this purpose;
- h. We are not participating, as Bidders, in more than one Bid in this bidding process,

¹ currently based on GPPB Resolution No. 09-2020

other than alternative offers in accordance with the Bidding Documents;

- i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.
- k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the [Name of the Procuring Entity].
- l. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name: _____

Legal Capacity: _____

Signature: _____

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

Date: _____

Bid Securing Declaration Form

REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

BID SECURING DECLARATION

Project Identification No.: *[Insert number]*

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

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
 - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

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

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

