REPUBLIC OF THE PHILIPPINES PROVINCE OF NEGROS OCCIDENTAL MURCIA NEGROS OCCIDENTAL



PROCUREMENT OF

INFRASTRUCTURE PROJECT FOR THE CONSTRUCTION OF MAIN SYSTEM IMPROVEMENT FOR MURCIA WATER DISTRICT (PHASE 1)

(MURCIA, NEGROS OCCIDENTAL)

PROJECT NO: MWD-INFRA-2025-002

Sixth Edition

TABLE OF CONTENTS

Glo	ssary	of Terms, Abbreviations, and Acronyms	4
Sec	tion I.	Invitation to Bid	7
Sec	tion II	. Instructions to Bidders	. 10
	1.	Scope of Bid	11
	2.	Funding Information	11
	3.	Bidding Requirements	11
	4.	Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices	11
	5.	Eligible Bidders	12
	6.	Origin of Associated Goods	12
	7.	Subcontracts	12
	8.	Pre-Bid Conference	12
	9.	Clarification and Amendment of Bidding Documents	12
	10.	Documents Comprising the Bid: Eligibility and Technical Components	13
	11.	Documents Comprising the Bid: Financial Component	13
	12.	Alternative Bids	14
	13.	Bid Prices	14
	14.	Bid and Payment Currencies	14
	15.	Bid Security	14
	16.	Sealing and Marking of Bids	14
	17.	Deadline for Submission of Bids	15
	18.	Opening and Preliminary Examination of Bids	15
	19.	Detailed Evaluation and Comparison of Bids	15
	20.	Post Qualification	15
	21.	Signing of the Contract	16
Sec	tion II	I. Bid Data Sheet	. 17
Sec	tion I\	/. General Conditions of Contract	. 20
	1.	Scope of Contract	21
	2.	Sectional Completion of Works	21
	3.	Possession of Site	21
	4.	The Contractor's Obligations	21
	5.	Performance Security	. 22

	6.	Site Investigation Reports	22
	7.	Warranty	22
	8.	Liability of the Contractor	.22
	9.	Termination for Other Causes	. 23
	10.	Dayworks	.23
	11.	Program of Work	.23
	12.	Instructions, Inspections and Audits	. 23
	13.	Advance Payment	23
	14.	Progress Payments	.24
	15.	Operating and Maintenance Manuals	24
Sec	tion	V. Special Conditions of Contract	25
Sec	tion	VI. Specifications	28
		VII. Drawings	
		VIII. Bill of Quantities	
Sec	tion	IX. Checklist of Technical and Financial Documents	53

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

MURCIA WATER DISTRICT

Invitation to Bid

PROCUREMENT OF INFRASTRUCTURE PROJECT FOR THE CONSTRUCTION OF MAIN SYSTEM IMPROVEMENT FOR MURCIA WATER DISTRICT (PHASE 1)

- The Murcia Water District (MWD), through LWUA-ICG Loan to apply the sum of Twenty-One Million Seven Hundred Fifty Thousand Pesos (Php 21,750,000.00) being the Approved Budget for the Contract (ABC) to payments under the contract for PROCUREMENT OF INFRASTRUCTURE PROJECT FOR THE CONSTRUCTION OF MAIN SYSTEM IMPROVEMENT FOR MURCIA WATER DISTRICT (PHASE 1). Bids received in excess of the ABC shall be automatically rejected at bid opening.
- 2. The MWD now invites bids for Procurement of Infrastructure Project for The Construction of Main System Improvement for Murcia Water District (Phase 1). Completion of the Works is required Two Hundred Ten (210) 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).
- Bidding will be conducted through open competitive bidding procedures using nondiscretionary "pass/fail" criterion as specified in the 2016 Revised Implementing Rules and Regulations (IRR) of Republic Act 9184 (RA 9184), otherwise known as the "Government Procurement Reform Act."
 - Bidding is restricted to Filipino citizens/sole proprietorships, cooperatives, and partnerships or organizations with at least seventy five percent (75%) interest or outstanding capital stock belonging to citizens of the Philippines.
- Interested bidders may obtain further information from the BAC Secretariat, Murcia Water District Office, KM-18, Neg. Occ. Eco Tourism Highway, Brgy. Salvacion and inspect the Bidding Documents at the address given below from 9:00 AM – 4:00 PM.
- 5. A complete set of Bidding Documents may be acquired by interested bidders from February 20, 2025 until the deadline for submission and receipt of bids and upon payment of non-refundable fee for the Bidding Documents in the amount of Twenty-Five Thousand Pesos (25,000.00) pursuant to the latest Guidelines issued by the GPPB. Only those who have purchased the Bidding Documents shall be allowed to participate in the pre-bid conference and raise or submit queries or clarifications.

It may also be downloaded free of charge from Murcia Water District Website (murciawd.gov.ph) provided that the bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

- 6. The *Murcia Water District* will hold a **Pre-Bid Conference on** *February 28, 2025 at* **9:00 A.M. at Murcia Water District Office** which shall be open to prospective bidders.
- Bids must be duly received by the BAC Secretariat at the office address as indicated below, on or before March 12, 2025 at 9:00 A.M (MWD Time). Late bids shall not be accepted.

The complete schedule of activities is listed, as follows:

Activities	Schedule	
1. Advertisement	February 20 to March 12, 2025	
2.Issuance of the Bidding Documents	February 20, 2025 until 9:00 A.M. of	
	March 12, 2025	
3. Pre-Bid Conference	February 28, 2025 at 9:00 A.M.	
4. Deadline for the Pre-qualification	March 12, 2025 at 9:00 A.M.	
Submission		
6. Opening of Bids	March 12, 2025 at 9:30 A.M.	
5. Evaluation of Bids	March 13, 2025	
6. Post-qualification of Bids	March 14 to 16, 2025	

- 8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **BDS** Clause 15.1.
- Bid opening shall be on 9:30 A.M. (MWD Time) on March 12, 2025 at Murcia Water District Office, KM-18, Neg. Occ. Eco Tourism Highway, Brgy. Salvacion. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
- 10. The Murcia 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:

BIDS AND AWARDS COMMITTEE (BAC)

CHARMAINE V. FLORES – BAC Secretary

Murcia Water District Office

KM-18, Neg. Occ. Eco Tourism Highway, Brgy. Salvacion

Murcia, Negros Occidental

Telephone/Fax No. (63 34) 458-8844

Email address: murciawaterdistrict@gmail.com

Date: February 20, 2025

(signed)
PAUL G. OÑAS
Chairperson, MWD-BAC

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, *Murcia (Negros Occidental) Water District* invites Bids for the *PROCUREMENT OF INFRASTRUCTURE PROJECT FOR THE CONSTRUCTION OF MAIN SYSTEM IMPROVEMENT FOR MURCIA WATER DISTRICT (PHASE 1)*, with Project Identification Number MWD-INFRA-2025-002.

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

2. Funding Information

- 2.1. The GOP through the source of funding as indicated below LWUA-ICG Loan in the amount of ₱ 25,000.000.00.
- 2.2. The source of funding is: NGA, the LWUA-ICG.

3. Bidding Requirements

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

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

The Bidder, by the act of submitting its Bid, shall be deemed to have inspected the site, determined the general characteristics of the contracted Works and the conditions for this Project, such as the location and the nature of the work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

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

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

5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

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

- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Origin of Associated Goods

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

7. Subcontracts

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

The Procuring Entity has prescribed that: **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 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 *for one hundred twenty (120) calendar days from receipt of bids.* Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

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

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

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

20. Post Qualification

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder

shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

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

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause					
5.2	For this purpose, contracts similar to the Project refer to contracts which				
	have the same major categories of work, which shall be: Water Suppl				
<u>Projects</u> .					
10.3	Valid PCAB license and registration: at least License category: C &			nse category: C & D; Siz	
	Range: Small B; with license classification related to Water Supp			to Water Supply Projects	
in accordance with PCAB Board Resolution No. 201, Series of			Series of 2017.		
10.4	1	key personnel must meet the re	quired minimu	ım years of experience se	
	below:				
		W. D	Manpower	Minimum years of	
		Key Personnel	Requirement	Experience	
		Project Manager	1		
		Materials Engineer	1		
		Purchasing Manager	1		
		Safety Officer/Engineer	1		
		Project Engineer	1	5 years	
		Foreman	1		
		Pipe Fitter	2		
		Warehouseman / Timekeeper	1		
		Steelman	1		
	list c	of contractor's nersonnel shall h	e submitted ur	der oath and notarized	
10.5	List of contractor's personnel shall be submitted under oath and notarized. inimum major equipment requirements are the following:				
				Number of	
		Equipment		Units	
	Butt-fusion machine			1	
Truck		Truck		1	
	Plate Compactor			1	
Steel Plate		Steel Plate		2	
		Plumbing tools		3	
		Backhoe		1	
		Concrete Mixer		1	
		Dewatering Equipment		1	
		Welding Machine		1	
		Concrete Cutter		1	
		Pneumatic Jackhammer		2	
		Concrete Vibrator		1	
		Cutting Tools (Oxygen-A	cetylene)	1	
		Generator Set		2	
		200MHeadPressurized Pr	ump	1	
	contra	actor's equipment units shall be	submitted und	der oath and notarized.	
12	No further instructions.				

15.1	The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:	
	 a. The amount of not less than ₱ 435,000.00 (2% of ABC), if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; b. The amount of not less than ₱ 1,087,500 (5% of ABC), if bid security is in Surety Bond. 	
19.2	Partial bids are not allowed.	
20	No further instructions.	
21	The following additional contract documents relevant to the Project are required: a. construction schedule and S-curve, b. manpower schedule, c. construction methods, d. equipment utilization schedule, e. construction safety and health program approved by the DOLE. f. PERT/CPM or other acceptable tools of project scheduling.	

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

Special Conditions of Contract

GCC Clause		
2	The Intended Completion Date is Two Hundred Ten (210) calendar days upon receipt of the formal Notice to Proceed.	
	NOTE: The contract duration shall be reckoned from the start date and not from contract effectivity date.	
4.1	The Procuring Entity shall give possession of all parts of the site/s to the Contractor at the start of the project.	
6	The site investigation reports are: No further instructions.	
7.2 The Warranty shall be <i>Five (5) years</i> , reckoned from th issuance of the Certificate of Final Acceptance by the Procurin		
	In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures: Fifteen (15) years.	
	In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures: Five (5) years. In case of other structures, such as Bailey and wooden bridges, shallow wells, spring developments, and other similar structures: 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 seven (7) calendar days upon receipt of the Notice of Award.	
11.2	The period between Program of Work updates is ninety (90) calendar days .	
	The amount to be withheld for late submission of an updated Program	

	of Work is ₱50,000.00.	
13	The amount of the advance payment is fifteen percent (15%) of the total contract price. Recoupment shall start upon 20% accomplishment of the Project.	
14	Non-perishable materials such as pipes, deformed bars, treatment facilities, equipment, etc. delivered and accepted but not installed may be included for payment as Materials on Hand. Materials and equipment delivered on the site but not completely put in place shall be included for payment.	
15.1	The date by which operating and maintenance manuals are required is upon completion of the project/issuance of certificate of completion of works. The date by which "as built" drawings are required is upon completion of the works/project.	
15.2	Final Progress payment will be withheld for failing to produce Complete "as built" drawings and/or operating and maintenance manuals.	

Section VI. Specifications

1. POLYVINYL CHLORIDE ORIENTED (PVC-O) CLASS 500 PN 16

* Materials

PVC-O 500 is a material with a nominal pressure of 16 bar and a bursting pressure of 28.9 bar for 10 hours.

All compounds used shall be virgin plastic except that clean rework material from the manufacturer's own tubing production may be used so long as the original was virgin material. The pipe shall meet the requirements of the National Sanitation Foundation (NSF) for potable water use as tested by the National Science and Technology or other approved testing laboratories and shall be made from non-toxic, non-less based plasticizer approved by the Engineer.

Dimension

PVC-O CLASS 500 (PN-16):

NOMINAL DIAMATER	OUTSIDE DIAMETER	MINIMUM THICKNESS
200mm	200.6mm	4.4mm
160mm	160.5mm	3.5mm
110mm	110.4mm	2.4mm

Specification

The pipe shall be manufactured from oriented unplasticized polyvinyl chloride containing only those antioxidants, UV stabilizers and pigments necessary for the manufacture of pipes conforming to this specification and for its end use, including weld ability when it is possible.

The pipes for drinking water shall be either black or blue or black with blue stripes. For black pipes, the carbon black content in the compound shall be $(2.25 \pm 0.25\%)$ by mass, when measured in accordance with ISO 6964.

The use of the colour blue or black with blue stripes shall be specified in accordance with national requirements. The material for the stripes shall be of the same type of resin as used in the base compound for the pipe. The product is conforming to the PNS / ISO 4427 (Philippine National Standard / International Organization for Standardization), the governing manufacturing quality standards. All pipes and fittings shall be manufactured in the Philippines.

Print on pipes should include PS License Number, BPS Logo and Manufacturing Date.

Gasket

The material for gasket shall be made of two component system made of EPDM & Polypropylene Rubber and machine fixed seal ready.

Standards

*PNS / ISO 4427 (Philippine National Standard / International Organization for Standardization)

*PNS / ISO 6964

*ISO 16422:2014 (International Standard)

2. HIGH-DENSITY POLYETHYLENE (HDPE) PIPE SDR 13.6 (PN 12.5)

Materials

• Philippine National Standard Specification for POLYETHYLENE (PE) Pipes (SDR-13.6) for Potable Water Supply (PN12.5) with a nominal outside diameter of **160mm** intended for the conveyance of potable water under pressure and of temperatures up to 45°C for use below the ground.

* Specification

- The use of the manufacturer's own clean network material produced during the manufacture and production testing of products conforming to this standard is permissible. No other rework material shall be used.
- Consist substantially of polyethylene that conforms to PNS 4427-2002 or equivalent ISO, to which may be added only those additives necessary to facilitate the manufacture of quality pipes of good surface finish and sound physical, mechanical and chemical properties.
- None of the additives shall be used separately or together in quantities sufficient to constitute a toxic, organoleptic or microbial growth hazard or to impair the fabrication or welding properties of the product, or to impair the chemical, mechanical and physical properties (particularly long-term hydrostatic and impact strength) as defined in this specification.
- Homogeneous throughout and free of cracks, holes, encrustations and other foreign inclusions. Excessive die lines and/or stress marks (particularly in the

socket and bell groove) as well as discernible material marbling are not allowed. The ends of the pipe shall be cleanly cut and square to the axis of the pipe.

- Pipe shall be homogenous throughout; free from voids, cracks, inclusions, and other defects; and as uniform as commercially practical in black color, density and other physical properties. Pipe surfaces shall be free from nicks and scratches. The end of the pipe shall be cleanly out and square to the axis of the pipe.
- When used under the conditions for which they are designed, non-metallic
 materials in contact with, or likely to come into contact with potable water
 shall not constitute a toxic hazard, shall not support microbial growth and shall
 not give rise to unpleasant taste or odor, cloudiness or discoloration of the
 water.
- Concentration of substances, chemicals and biological agents leached from materials in contact with potable water, and measurements of the relevant organoleptic/physical parameters shall not exceed the maximum values recommended by the World Health Organization in its publication "Guidelines for Drinking Water Quality" Vol. 1 "Recommendations" (WHO, Geneva, 1984).
- If lead or mono/di-alkyl tin compounds are permitted to be used as stabilizers, the quantities of lead or tin measured as metals shall be determined in accordance with the method described in PNS 4427/ISO 2002.
- The physical properties shall conform to the physical properties, to with:

Minimum Wall Thickness; For 160mm (OD) = 11.75 mm

- The pipe shall not show signs of delamination or disintegration when immersed in acetone. Flattening and/or swelling of the pipe shall not be deemed to constitute failure when tested in accordance with PNS 4427/ISO 2002.
- The mass of the specimen shall not increase by more than 0.316 g nor decrease by more than 0.013 g when tested with Sulfuric Acid in accordance with PNS 4427/ISO 2002. The effect of the acid on the surface appearance of the specimen (roughening, bleaching or blackening) shall be ignored.

Standards

- PE (SDR-13.6) (PN-12.5) Pipes can sustain a nominal pressure (PN) of 1.24 megapascals at 28°C
- PNS 4427-2002

3. High-Density Polyethylene (HDPE) Pipe (SDR-17) (PN 10)

Materials

• Philippine National Standard Specification for POLYETHYLENE (PE) Pipes (SDR-17) for Potable Water Supply (PN10) with a nominal outside diameter of **160mm** intended for the conveyance of potable water under pressure and of temperatures up to 45°C for use below the ground.

Specification

- The use of the manufacturer's own clean network material produced during the manufacture and production testing of products conforming to this standard is permissible. No other rework material shall be
- Consist substantially of polyethylene that conforms to PNS 4427-2002 or equivalent ISO, to which may be added only those additives necessary to facilitate the manufacture of quality pipes of good surface finish and sound physical, mechanical and chemical properties.
- None of the additives shall be used separately or together in quantities sufficient to constitute a toxic, organoleptic or microbial growth hazard or to impair the fabrication or welding properties of the product, or to impair the chemical, mechanical and physical properties (particularly long-term hydrostatic and impact strength) as defined in this specification. The dimension should be in standard configurations of PE Pipes (SDR-17) (PN-10).
- The dimension should be in standard configurations of PE Pipes (SDR-17) (PN-10).
- Homogeneous throughout and free of cracks, holes, encrustations and other foreign inclusions. Excessive die lines and/or stress marks (particularly in the socket and bell groove) as well as discernible material marbling are not allowed. The ends of the pipe shall be cleanly cut and square to the axis of the pipe.
- Pipe shall be homogenous throughout; free from voids, cracks, inclusions, and other defects; and as uniform as commercially practical in black color, density and other physical properties. Pipe surfaces shall be free from nicks and scratches. The end of the pipe shall be cleanly out and square to the axis of the pipe.
- When used under the conditions for which they are designed, non-metallic materials in contact with, or likely to come into contact with potable water shall not constitute a toxic hazard, shall not support microbial growth and shall

not give rise to unpleasant taste or odor, cloudiness or discoloration of the water.

- Concentration of substances, chemicals and biological agents leached from materials in contact with potable water, and measurements of the relevant organoleptic/physical parameters shall not exceed the maximum values recommended by the World Health Organization in its publication "Guidelines for Drinking Water Quality" Vol. 1 "Recommendations" (WHO, Geneva, 1984).
- The physical properties shall conform to the physical properties, to with:

Minimum Wall Thickness;

For 160 mm (OD) = 9.50 mm

- The pipe shall not show signs of delamination or disintegration when immersed in acetone. Flattening and/or swelling of the pipe shall not be deemed to constitute failure when tested in accordance with PNS 4427/ISO 2002.
- The mass of the specimen shall not increase by more than 0.316 g nor decrease by more than 0.013 g when tested with Sulfuric Acid in accordance with PNS 4427/ISO 2002. The effect of the acid on the surface appearance of the specimen (roughening, bleaching or blackening) shall be ignored.
- The pipe shall conform with the applied pressure for the hydrostatic pressure tests of PNS 4427:2002 when tested in accordance with PNS 4427/ISO 2002, to with:
- The pipe shall not show evidence of splitting, cracking and breaking when fattened to a minimum of 40% of its outside diameter when tested in accordance with PNS 800/ASTM D2241.
- The pipe shall be clearly marked with the following information spaced at intervals of not more than one meter.
 - 1. Name of Product
 - 2. Nominal Outside Diameter, mm
 - 3. Series and/or Nominal Pressure, MPa
 - 4. Manufacturer's name and/or its recognized trademark
 - 5. The words "Made in PHL" or
 - 6. The words "For Potable Use"

7. Seal, or mark, of the testing agency, that certified the compliance of the pipe in accordance with PNS ISO 4427:2002/AMD 01:2002; PWWA NM 201:2002, Latest edition and the suitability of the pipe material for potable water products.

Sampling And Testing of Specified Pipes

The pipes shall be sampled and tested in accordance with the requirements and methods prescribed in PNS ISO 4427:2002/AMD 01:2002; PWWA NM 201:2002, Latest edition and this Standard. With the presence of the Owner's representative/s or Quality Control Inspector/s, laboratory tests shall be conducted but not limited to the following:

- a. Dimensional and other physical test;
- b. Impact test;
- c. 100% Flattening or Compression test
- d. Bending test
- e. Tension or elongation test
- f. Heat reversion test
- g. Acetone test
- h. Short term hydrostatic test
- i. long term hydrostatic test
- j. Burst pressure test

* Product Warranty of Specified Pipes

The manufacturer/dealer shall guarantee the purchaser that the PE Pipes furnished are new and of current manufacture, free from defects in materials, design and workmanship and shall work best within a minimum period of one (1) year starting from the date of acceptance of the products by the purchaser. During the warranty period, if the HDPE/PVC-O pipes furnished are found to be defective due to materials, design and workmanship under normal condition, operation and use, the manufacturer/dealer at his own option shall either replace or repair the defective product/s to its original condition. A certificate of Warranty is required to this effect.

* Affidavit Of Compliance

The manufacturer shall furnish the purchaser with an affidavit stating that the PE/PVC-O Pressure Pipes and all materials used in its construction conform to all applicable requirements of this standard and the purchaser's specifications and that all test specified herein have been performed and all test requirements have been met.

Storage Requirements Of Pipes

- The Goods to be delivered shall be unloaded and stacked by the Supplier at the Place of Delivery designated by the Purchaser. Pipe shall be placed on beams large enough to prevent contact with the ground and shall be held in place by wedges.
- The Goods shall be stacked in an approved manner in the pipe store compound and shall be arranged in an orderly and safe fashion. The pipes shall be stacked by type and size on timbers in parallel formation and with adequate wedges at the end of each row of pipes to ensure stability.
- The stacking arrangement shall be such as to prevent any damage and deformation.
- The Goods shall be covered with black PE sheet of at least 0.2mm thickness or any other equivalent cover approved by the Purchaser.
- The Goods shall be stockpiled in such a way as to prevent deterioration during a prolonged period of storage under tropical conditions. It shall be effectively protected from exposure to direct sunlight.
- Cost of proper storage as specified above should be inclusive in the Price Schedule of the Bid Price.8

Standards

- PE (SDR-17) (PN-10) Pipes can sustain a nominal pressure (PN) of 1.0 megapascals at 28°C
- PNS 4427-2002

4. High-Density Polyethylene (HDPE) Pipe (SDR-11) (PN 16)

* Material

• Philippine National Standard Specification for POLYETHYLENE (PE) Pipes (SDR-11) for Potable Water Supply (PN16) with a nominal outside diameter of **225mm** intended for the conveyance of potable water under pressure and of temperatures up to 45°C for use below the ground.

* Specification

- The use of the manufacturer's own clean network material produced during the manufacture and production testing of products conforming to this standard is permissible. No other rework material shall be used.
- Consist substantially of polyethylene that conforms to PNS 4427-2002 or equivalent ISO, to which may be added only those additives necessary to facilitate the manufacture of quality pipes of good surface finish and sound physical, mechanical and chemical properties

- None of the additives shall be used separately or together in quantities sufficient to constitute a toxic, organoleptic or microbial growth hazard or to impair the fabrication or welding properties of the product, or to impair the chemical, mechanical and physical properties (particularly long-term hydrostatic and impact strength) as defined in this specification.
- The dimension should be in standard configurations of PE Pipes (SDR-11) (PN-16).
- Homogeneous throughout and free of cracks, holes, encrustations and other foreign inclusions. Excessive die lines and/or stress marks (particularly in the socket and bell groove) as well as discernible material marbling are not allowed. The ends of the pipe shall be cleanly cut and square to the axis of the pipe.
- Pipe shall be homogenous throughout; free from voids, cracks, inclusions, and other defects; and as uniform as commercially practical in black color, density and other physical properties. Pipe surfaces shall be free from nicks and scratches. The end of the pipe shall be cleanly out and square to the axis of the pipe.
- When used under the conditions for which they are designed, non-metallic
 materials in contact with, or likely to come into contact with potable water
 shall not constitute a toxic hazard, shall not support microbial growth and shall
 not give rise to unpleasant taste or odor, cloudiness or discoloration of the
 water.
- Concentration of substances, chemicals and biological agents leached from materials in contact with potable water, and measurements of the relevant organoleptic/physical parameters shall not exceed the maximum values recommended by the World Health Organization in its publication "Guidelines for Drinking Water Quality" Vol. 1 "Recommendations" (WHO, Geneva, 1984).
- If lead or mono/di-alkyl tin compounds are permitted to be used as stabilizers, the quantities of lead or tin measured as metals shall be determined in accordance with the method described in PNS 4427/ISO 2002.
- The physical properties shall conform to the physical properties, to with:

Minimum Wall Thickness;

For 225mm (OD) = 20.45 mm

- The pipe shall not show signs of delamination or disintegration when immersed in acetone. Flattening and/or swelling of the pipe shall not be deemed to constitute failure when tested in accordance with PNS 4427/ISO 2002.
- The mass of the specimen shall not increase by more than 0.316 g nor decrease by more than 0.013 g when tested with Sulfuric Acid in accordance

- with PNS 4427/ISO 2002. The effect of the acid on the surface appearance of the specimen (roughening, bleaching or blackening) shall be ignored.
- The pipe shall conform with the applied pressure for the hydrostatic pressure tests of PNS 4427:2002 when tested in accordance with PNS 4427/ISO 2002
- The pipe shall be clearly marked with the following information spaced at intervals of not more than one meter.
 - 1.Name of Product
 - 2. Nominal Outside Diameter, mm
 - 3. Series and/or Nominal Pressure, MPa
 - 4. Manufacturer's name and/or its recognized trademark
 - 5. The words "Made in PHL" or
 - 6. The words "For Potable Use"
 - 7. Seal, or mark, of the testing agency, that certified the compliance of the pipe in accordance with PNS ISO 4427:2002/AMD 01:2002; PWWA NM 201:2002, Latest edition and the suitability of the pipe material for potable water products.

❖ Sampling And Testing Of Specified Pipes

The pipes shall be sampled and tested in accordance with the requirements and methods prescribed in PNS ISO 4427:2002/AMD 01:2002; PWWA NM 201:2002, Latest edition and this Standard. With the presence of the Owner's representative/s or Quality Control Inspector/s, laboratory tests shall be conducted but not limited to the following:

- a. Dimensional and other physical test;
- b. Impact test;
- c. 100% Flattening or Compression test
- d. Bending test
- e. Tension or elongation test
- f. Heat reversion test
- g. Acetone test
- h. Short term hydrostatic test
- i. Long term hydrostatic test
- j. Burst pressure test

Product Warranty of Specified Pipes

The manufacturer/dealer shall guarantee the purchaser that the PE Pipes furnished are new and of current manufacture, free from defects in materials, design and workmanship and shall work best within a minimum period of one (1) year starting from the date of acceptance of the products by the purchaser. During the warranty period, if the HDPE/PVC-O pipes furnished are found to be defective due to materials, design and workmanship under normal condition, operation and use, the manufacturer/dealer at his own option shall either replace or repair the defective product/s to its original condition. A certificate of Warranty is required to this effect.

❖ Affidavit of compliance

The manufacturer shall furnish the purchaser with an affidavit stating that the PE/PVC-O Pressure Pipes and all materials used in its construction conform to all applicable requirements of this standard and the purchaser's specifications and that all test specified herein have been performed and all test requirements have been met.

Storage requirements of pipes

- The Goods to be delivered shall be unloaded and stacked by the Supplier at the Place of Delivery designated by the Purchaser. Pipe shall be placed on beams large enough to prevent contact with the ground and shall be held in place by wedges.
- The Goods shall be stacked in an approved manner in the pipe store compound and shall be arranged in an orderly and safe fashion. The pipes shall be stacked by type and size on timbers in parallel formation and with adequate wedges at the end of each row of pipes to ensure stability.
- The stacking arrangement shall be such as to prevent any damage and deformation.
- The Goods shall be covered with black PE sheet of at least 0.2mm thickness or any other equivalent cover approved by the Purchaser.
- The Goods shall be stockpiled in such a way as to prevent deterioration during a prolonged period of storage under tropical conditions. It shall be effectively protected from exposure to direct sunlight.
- Cost of proper storage as specified above should be inclusive in the Price Schedule of the Bid Price.8
- The Goods to be delivered shall be unloaded and stacked by the Supplier at the Place of Delivery designated by the Purchaser. Pipe shall be placed on beams large enough to prevent contact with the ground and shall be held in place by wedges.
- The Goods shall be stacked in an approved manner in the pipe store compound and shall be arranged in an orderly and safe fashion. The pipes shall be stacked by type and size on timbers in parallel formation and with adequate wedges at the end of each row of pipes to ensure stability.
- The stacking arrangement shall be such as to prevent any damage and deformation.
- The Goods shall be covered with black PE sheet of at least 0.2mm thickness or any other equivalent cover approved by the Purchaser.

- The Goods shall be stockpiled in such a way as to prevent deterioration during a prolonged period of storage under tropical conditions. It shall be effectively protected from exposure to direct sunlight.
- Cost of proper storage as specified above should be inclusive in the Price Schedule of the Bid Price.8

Standards

- PNS ISO 4427:2002/AMD 01:2002
- PWWA NM 201:2002

5. 4" \(\varphi \) & 8" \(\varphi \) BUTTERFLY VALVES - 6" \(\varphi \) GATE VALVE

* Specification

• This section applies to gate valves 50mm (2in.) through 300mm (12in.) in sizes. All valves shall confirm with the "Standard for Resilient seated Gate Valves" (AWWA C509). Gate valves where the pipeline design pressure is 1.0MPa (150psi) or less shall be designed for a minimum water working pressure of 1.0 MPa (150psi) and shall be cast iron bodied, the resilient seats applied to the body or gate. Discs shall be cast iron with bronze disc rings, and the seat shall be bronze and replaceable. The valve shall be non-rising stem with a minimum of two "0" ring seal as (at least one above the stem collar), or rising stem when shown on the drawings. The valves shall havea50 mm (2in.) square operating nut with a cast arrow showing direction in which the nut is to be turned to open the valve. Valves shall be constructed to permit their placement of the "O" rings above the stem collar under full working water pressure with the valves in the fully open position. The valves shall be coated in accordance with Division 5 –Painting and Coatings.

* Testing Requirements

- 1. Operation Test Each valve shall be operated in the position for which it was designed to ensure free and perfect functioning of all parts in the intended manner. Any defects of workmanship shall be corrected and the test repeated until satisfactory performance is demonstrated.
- 2. Shell Test A hydrostatic test pressure equal to twice the rated working pressure of the valve shall be applied to the body with the gate in the open position. The test shall show no leakage through the metal, flanged joints, or stem seals.

- 3. Seal Test A test shall be made at rated working pressure to prove the sealing ability of each valve from both directions of flow. The test shall allow no leakage through the metal, pressure-containing joints, or past the seat.
- 4. Hydrostatic Test One prototype valve of each size and class of a manufacturer's design shall be hydrostatically tested with twice the specified rated pressure applied to one side of the gate and zero pressure on the other side. The test is to be made in each direction across the gate. Under this hydrostatic test, the manufacturer may make special provisions to prevent leakage past the seats. No part of the valve or gate shall be permanently deformed by the test.
- 5. Torque test A prototype of each size should be over torque in the closed and open positions to demonstrate no distortion of the valve stem or damage to the resilient seat as evidenced by failure to seal at rated pressure. The applied torque shall be 250 ft-lb for 3 and 4 NRS valves, and 350 ft-lb for 6,8,10, and 12 NRS valves (1.0 ft-lb=0.736 Newton-meter=0.66 kg-m).
- 6. Leakage Test Two prototype valves of each size chosen by the LWUA quality control inspector to represent the extremes of seat compression shall be fully opened and closed to a seal or 500 complete cycles with sufficient flow that the valve is at 200 psi pressure differential at the point of opening and closing. The valves shall be drop tight under rated pressure differential applied alternately to each side of the gate after completion of the tests.
- 7. Pressure Test One prototype of each valve size shall be tested to 500 psi with the closure member in the position. There shall be no rupture or cracking of the valve body, valve bonnet, or seal plate. Leakage at pressure-containing joints shall not be a cause for failure of the test.

Standards

- AWWA C509
- LWUA Standard

6. 6" Ø FLOWMETER

Specification

- Good against fogging
- Flange Type
- Cast Iron Body
- Vacuum Sealed

- Bi-Directional Flow
- Reed Switch Ready
- Stainless Steel Encapsulated Register with double magnetic (repelling magnet) transmission
- Finished Electrostatically applied fusion bonded epoxy resin with RAL- GZ 662 as approved by WRAS
- Min. Coating thickness 250-300 microns
- With Accessories and repairable parts
- TEN (10) YEARS WARRANTY

Standards

- PNS / ISO 4427 (Philippine National Standard / International Organization for Standardization)
- Water Regulations Advisory Scheme (WRAS)
- ANSI CLASS 150

7. 2" Ø AIR RELEASE VALVES

* Specification

- Operating pressure of 0.1 bar / 1.5 psi to 16 bar / 230 psi
- Maximal water temp. for continuous operation: 60° C / 140° F
- Maximal water temp. for intermittent operation: 80°C / 175°F
- 1/2", 3/4", 1", 2" BSP or NPT threaded base as per the customer's choice
- Structure materials: Cover: GRP (UV resistant)/ Polypropylene Base
- Internal parts: corrosion resistant, reinforced plastic materials and Synthetic rubber.
- The valves allow the discharge of 40 m3/h /24 CFM of air pipe pressure Of 6 bar/90 psi.

Standards

- National Sanitation Foundation (NSF)
- Water Regulations Advisory Scheme (WRAS)

8. (4" Ø, 6" Ø & 8"Ø) MECHANICAL TYPE COUPLING/ADAPTORS

* Specification

Mechanical-type coupling/adaptors shall be designed for water working pressure not less than the design Pressure of the pipe on which they are to be installed,

and equipped with Grade H rubber gaskets. Couplings shall be Gustin-Bacon or Victaulic style 44 when pipe ends are banded, and Gustin-Bacon or Victaulic style 77 when pipe ends are grooved. Buried or submerged couplings shall be coated in accordance with LWUA Standards.

Standards

LWUA Standards

9. 6" Ø & 8" Ø SLEEVE-TYPE COUPLING

Specification

Sleeve-type coupling shall be provided where shown and shall be Smith-Blair, style 441 or style 412, equipment styles manufactured by dresser, or approved substitute.

Couplings shall be of steel with steel bolts, without pipe stop, and shall be of sizes to fit the pipe and fitting shown. The middle ring shall not less than 6mm (1/4 in.) in thickness and shall be 125 to 175 (5 in. to 7 in.) long for standard steel couplings, and 400 mm (16 in.) long for long-sleeved couplings. Bolts for exposed couplings shall be hot-dip galvanized. Buried bolts and sleeve-type couplings shall be coated in accordance with LWUA Standards.

Standards

• LWUA Standards

10. GASKET AND BOLTS

* Specification

- a. Except as otherwise provided, gasket for flanged joints shall be 1.5mm (1/16 in.) thick laminated asbestos fiber.
- b. Wherever blind flanges are shown, the gasket shall consist of 3mm (1/8 in.) thick cloth inserted rubber sheet which shall be cemented to the surface of the blind flange.
- c. Except as otherwise provided, bolts shall confirm with the requirements.

02 Standards

LWUA Standards

11. 4" Ø FIRE HYDRANT (3-WAY)

Specification

- **a.** Fire hydrants heads shall be cast iron body conforming to the requirements of AWWA C503 (WET-BARREL FIRE HYDRANTS) with bronze working parts.
- **b.** Fire hydrants shall be designed for a minimum pressure of 1.0MPa (150 psi) and have a 100mm (4") flanged inlet and two (2) 63mm (2½") fire hose outlet.
- **c.** The outlets shall have National Standard Hose Threads with hose caps and chains.
- **d.** The stem shall be provided with at least two (2) O-rings. e.
- e. Hydrant valves shall open counter clockwise.
- **f.** Breakable piece and extension elbow shall be provided.
- **g.** Epoxy lining and coatings for valves shall conform to AWWA C550 (PROTECTIVE EPOXY INTERIOR COATINGS FOR VALVES AND HYDRANTS).

***** Certification:

• The manufacturer shall furnish a sworn statement that the inspection and metallurgical and pressure tests have been results thereof comply with the requirements of the applicable Standard(s) herein specified.

Standards

• AWWA C550

A. GENERAL CONDITIONS and SCOPE OF WORKS

The Works to be executed under this contract shall consist of furnishing all materials, labor, tools, and equipment and everything listed, mentioned or as scheduled in the drawings herein specified or both, for the Completion of Main System Improvement Project – (Phase 1) at aforementioned location as per *LWUA Standard Specifications for Water System Construction Volume II*.

All works to be done shall be in the highest quality of workmanship to the fullest intent and meaning of the plans and specifications unless otherwise specified.

PLANS and SPECIFICATIONS:

All drawings, small scale and detail drawings are intended to collaborate with the specifications and to form part thereof, where figures are given, they are to be followed in preference to measurement by scale. Anything shown in the drawings and not mentioned in

the specifications or vice-versa or anything not expressly set forth in either but which is reasonably implied shall be furnished and installed as thought specifically shown in mentioned both.

Project Title : MAIN SYSTEM IMPROVEMENT PROJECT (Phase 1)

Location : KM18, Neg. Occ. Eco Tourism Highway, Brgy. Salvacion, Murcia,

Negros Occidental

Owner : MURCIA WATER DISTRICT

Section VII. Drawings

REFER TO

CONSTRUCTION DRAWINGS

Section VIII. Bill of Quantities

Project Name: CONSTRUCTION OF MAIN SYSTEM IMPROVEMENT FOR MURCIA WATER DISTRICT (PHASE 1) (MURCIA, NEGROS OCCIDENTAL). Location: MURCIA, NEGROS OCCIDENTAL. **SECTION VIII - BILL OF QUANTITIES** Part No. __ of __ Part Description: (Columns (1), (2), (3) and (4) are to be filled up by the Procuring (Columns (5) and (6) are to be filled up by the Bidder) Pay Unit Price (Pesos) Amount (Pesos) Unit Quantity Item Description No **SPRING & PIPELAYING WORKS** 1 **SPRING SOURCE DEVELOPMENT** Spring Source Development In Words: ____ In Words: _____ (incl. spring boxes, chlorination facility, pipes, production meter, 1 lot valves, fittings & other In Figures: _____ In Figures: _____ appurtenances) In Words: SUB-TOTAL Figures: PIPELAYING, VALVING AND INTERCONNECTION WORKS, CULVERT CROSSINGS AND MISCELLANEOUS II. **WORKS PIPELAYING** A. PIPELINES - Furnish and install pipes complete including joints, fittings, and warning/detection tapes, perform excavation of any type of soil excluding rock/boulders/hard limestone with pipe cover of 1.2 meters or less, measured to existing ground surface, sump pumping, pipe supports, thrust blocks, backfilling using suitable materials from the trench, disposal of surplus materials where directed, compaction and hydrotesting in accordance with Specifications and Drawings. The cost shall include provision and maintaining enough safety barricades, bollards, warning signs/lights and steel plates to cover open trenches when required and in accordance with the Plans and Technical Specifications. Note 1: Quantity - Length in meters, excluding length of valves, assemblies and fittings under Items B, C and D. Note 2: Concrete thrust blocks not required for welded steel pipes. Note 3: Warning and detection tapes required for all pipes. Note 4: The unit cost of pipelines includes the cost of providing barricades, warning lights and steel plates. Note 5: Quantities Estimated are for the purposes of comparing bids. Payment will be based on actual quantities furnished, installed or constructed In Words: _____ In Words: 225mmx6m PVC-O - Class 500

lm

In Figures: ____

In Figures: ___

1,200

a.1

(incl. siteworks & pipework's)

a.2	160mmx6m PE Pipe – SDR13.6 (incl. siteworks & pipework's)	1,500	lm	In Words:	In Words:	
				In Figures:	In Figures:	
				In Words:	In Words:	
a.3	160mmx6m PVC-O – Class 500 (incl. siteworks & pipework's)	5,964	lm			
	110mmx6m PVC-O – Class 500	330	lm	In Figures:	In Figures:	
				In Words:	In Words:	
a.4						
	(incl. siteworks & pipework's)			In Figures:	In Figures:	
В.	VALVING AND INTERCONNECTION	N WORK	S			
	Valves, Fittings &			In Morder	In Morder	
	Appurtenances			In Words:	In Words:	
b.	(incl. pipes, bridge crossing pipe	1	ls			
	supports, valves, fittings, pipeworks & siteworks, etc.)			In Figures:	In Figures:	
С	MISCELLANEOUS WORKS					
d.1 Concrete Pavement Demolition (thickness 200 mm) 1 Is				In Words: In Figures: In Figures:		
	SUB-TOTALB					
30B-TOTALB				Figures:		
VI.	VI. CONSTRUCTION PERMITS					
	PERMITS, CLEARANCES & CE	RTIFIC	ATION			
	Acquisition, processing, and payment of all building and excavation permits, clearances, and all other permits necessary in the project implementation.	1	lot	In Words: In Figures:	In Words: In Figures:	
	SUB-TOTAL: CONSTRUCTION PE	RMITS		n Words:		
				igures:		
	TOTAL	In Words: In Figures:				

Submitted by:	
Name of & Signature and Official Stamp of Bidder/Bidd	ler's Representative:
Date:	
Position:	
Name of Bidder:	
Notes:	

- 1. In case of discrepancy between the amount in words and the amount in figures, amount in words shall prevail.
- 2. Unit bid prices in Bid Forms shall prevail over the detailed cost estimates in Breakdown of Prices.
- 3. Quantities Estimated are for the purposes of comparing bids. Payment will be based on actual quantities furnished, installed or constructed.

BREAKDOWN OF PRICES

The Bidder shall completely fill up the Bidder's Breakdown of the Unit Price and Lump Sum Bids herein below provided by inserting the amount in figures for each item in the space provided. The Breakdown shall be submitted together with and shall form part of the Bid Form. The amounts shall represent a true breakdown of the bid prices of the Unit Price and Lump Sum Bids shown in the Bid Form in Philippine Peso. These amounts will be used in preparing monthly estimates. All breakdowns should be balance and consistent with the bid amount in Section VIII — Bill of Quantities. An UNBALANCED BREAKDOWN WILL NOT BE ACCEPTABLE. The total amount indicated in the form below for each Unit Price and Lump Sum Bid Items must equal the bid price shown in the Bid Form.

LUMP SUM BID ITEMS (including all taxes). Indicate *not applicable (N/A)* if work item listed is not needed and *insert/add* work item(s) not indicated but necessary.

UNIT PRICE BID ITEMS

	BID ITEM	QTY (sets)	UNIT PRICE SUPPLY / MATERIAL (Pesos)	UNIT PRICE INSTALLATION (Pesos)	BID ITEM TOTAL UNIT PRICE (Pesos)		
A.	SPRING SOURCE DEVELOPMENT						
I.	Spring Source Development (incl. spring boxes, chlorination facility, pipes, production meter, valves, fittings & other appurtenances)	1 lot					
	SUB-TOTAL						
В.	PIPELAYING, VALVING AND INTERCO	ONNECTION	N WORKS, PIPE CRO	SSINGS AND MISC	ELLANEOUS		
I.	PIPELAYING						
b.1	225mmx6m PVC-O – Class 500						
b.1.1	225mm Ø X 6.0 m PVC-O- Class 500	1,200 lm					
b.1.2	Fittings	1,200 lm					
b.1.3	Warning Tape	1,200 lm					
b.1.4	Excavation	1,200 lm					
b.1.5	Laying/ Jointing	1,200 lm					
b.1.6	Backfilling, Compaction, Hydrotesting and Disinfection	1,200 lm					
b.2	160mmx6m PE Pipe-SDR 13.6						
b.2.1	160mm Ø X 6.0m PE Pipe -SDR 13.6	1,500 lm					
b.2.2	Fittings	1,500 lm					
b.2.3	Warning Tape	1,500 lm					
b.2.4	Excavation	1,500 lm					

b.2.5	Laying/ Jointing	1,500 lm					
b.2.6	Backfilling, Compaction, Hydrotesting and Disinfection	1,500 lm					
b.3	160mmx6m PVC-O- Class 500						
b.3.1	160mm Ø X 6.0m PE Pipe -SDR 13.6	5,964 lm					
b.3.2	Fittings	5,964 lm					
b.3.3	Warning Tape	5,964 lm					
b.3.4	Excavation	5,964 lm					
b.3.5	Laying/ Jointing	5,964 lm					
b.3.6	Backfilling, Compaction, Hydrotesting and Disinfection	5,964 lm					
b.4	110mmx6m PVC-O- Class 500						
b.4.1	110mm Ø X 6.0m PE Pipe -SDR 13.6	330 lm					
b.4.2	Fittings	330 lm					
b.4.3	Warning Tape	330 lm					
b.4.4	Excavation	330 lm					
b.4.5	Laying/ Jointing	330 lm					
b.4.6	Backfilling, Compaction, Hydrotesting and Disinfection	330 lm					
C.	VALVING AND INTERCONNECTION						
	Valves, Fittings & Appurtenances (incl. pipes, bridge crossing pipe supports, valves, fittings, pipeworks & siteworks, etc.)	1 ls					
D.	D. MISCELLANEOUS WORKS						
d.1	Concrete Pavement Demolition (thickness 200 mm)	1 ls					
d.2	Concrete Pavement Restoration (thickness 200 mm)	1 ls					
	SUB-TOTAL						
VI.	CONSTRUCTION PERMITS						
Α	PERMITS, CLEARANCES & CERTIFICATIO	N					
	Acquisition, processing, and payment of all building and excavation permits, clearances, and all other permits necessary in the project implementation.	1 lot					
	SUB-TOTAL		SUB-TOTAL SUB-TOTAL				

	TOTAL BIDDED COST				
Subi	nitted by:			<u>'</u>	
Nam	ne of & Signature and Official Stamp of Bidder/	'Bidder's Represen	tative:		
 Date	::				
Posi	tion:				
Nam	ne of Bidder:				
Note	es:				
1.	In case of discrepancy between the amounwords shall prevail.	nt in words and th	e amount in fig	ures, amount in	
2. Price	Unit bid prices in Bid Forms shall prevail o	over the detailed	cost estimates i	in Breakdown of	
3.	Quantities estimated are for the purposes of quantities furnished, installed or constructed		Payment will be	based on actual	
	SUMMARY C	F BID PRIC	ES		
TEM NO.	DESCRIPTION			AMOUNT	
1.	SPRING & PIPELAYING WORKS				
2.	CONSTRUCTION PERMITS				
OTAL A	AMOUNT IN FIGURES				
otal Ar	nount in Words:				
	AD AND ACCEPTED AND GOOD FOR A	AGREEMENT:			
REA					
	me and Signature of the Bidder or D	uly Authorized	 Bidder's	Date	
(Na	me and Signature of the Bidder or D			Date	

Section IX. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

<u>Leg</u>	al Dod	<u>cuments</u>
	(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;
	(e)	and Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).
<u>Tec</u>	hnica	<u> Documents</u>
	(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
	(g)	be bid; <u>and</u> Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules;
	(h)	<pre>and Philippine Contractors Accreditation Board (PCAB) License; or</pre>
	(i)	Special PCAB License in case of Joint Ventures; and registration for the type and cost of the contract to be bid; and Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
	(j)	or Original copy of Notarized Bid Securing Declaration; and 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;
		List of contractor's personnel shall be submitted under oath and notarized.
		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
		List of contractor's equipment shall be submitted under oath and
	(k)	notarized. 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.
<u>Fin</u>	<u>ancial</u>	<u>Documents</u>
	(1)	The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized
	(m)	institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; <u>and</u> 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.
		L COMPONENT ENVELOPE
	(0)	Original of duly signed and accomplished Financial Bid Form; and
<u>Oth</u>	ner doo	cumentary requirements under RA No. 9184
	(p)	Original of duly signed Bid Prices in the Bill of Quantities; <u>and</u> Duly accomplished Detailed Estimates Form, including a summary shee indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; and
П	(r)	· ·

II.

