



**REQUEST FOR QUOTATION (RFQ)
(Civil & Electrical Works)**

NAME & ADDRESS OF FIRM	DATE: July 19, 2019
	REFERENCE: RFQ-013-TLS-2019

Dear Sir / Madam:

We kindly request you to submit your quotation for the **procurement, construction and commissioning of one hydraulic-powered water system and one gravity-fed water system in the Municipality of Baucau** as detailed in Annex 1 of this RFQ. When preparing your quotation, please be guided by the form attached hereto as Annex 2.

Quotations can be submitted on or before August 2, 2019 via ☒ e-mail, ☒ mail or ☒ facsimile to the address below:

United Nations Development Programme
UN House, Caicoli Street, P.O Box 558 Dili, Timor-Leste
Attn: Ms. Tuya Altangerel, Resident Representative
Submission by e-mail: bids.tp@undp.org

Quotations submitted by email must be limited to a maximum of 5MB, virus-free and no more than 1 email transmissions. They must be free from any form of virus or corrupted contents, or the quotations shall be rejected.

It shall remain your responsibility to ensure that your quotation will reach the address above on or before the deadline. Quotations that are received by UNDP after the deadline indicated above, for whatever reason, shall not be considered for evaluation. If you are submitting your quotation by email, kindly ensure that they are signed and in the .pdf format, and free from any virus or corrupted files.

Delivery Terms [INCOTERMS 2010]	☐ FCA ☐ CPT ☐ CIP ☒ DAP ☐ Other	
Customs clearance ¹ , if needed, shall be done by:	☐ UNDP ☒ Supplier/Offeror ☐ Freight Forwarder	
Exact Address/es of Delivery Location/s (identify all, if multiple)	Two project sites in Quelicai Vila Municipality of Baucau, Timor-Leste	
UNDP Preferred Freight Forwarder, if any ²	N/A	
Distribution of shipping documents	N/A	
Latest Expected Delivery Date and Time	☐ 30 days from the issuance of the Purchase Order (PO) ☒ Implementation to be completed no later than: Time: December 15, 2019 Time Zone of Reference: GMT +9	
Implementation Methodology and Schedule	☒ Required ☐ Not Required	
Packing Requirements	N/A	
Mode of Transport	☒ AIR ☒ SEA	☒ LAND ☐ OTHER
Preferred Currency of Quotation ³	☒ United States Dollars ☐ Euro	
Value Added Tax on Price Quotation ⁴	☐ Must be inclusive of VAT and other applicable indirect taxes ☒ Must be exclusive of VAT and other applicable indirect taxes	
After-sales services required	☒ Warranty on Parts and Labor for minimum period of 3 months ☐ Technical Support for minimum period of 12 months ☒ Service Unit provided when the Purchased Unit is Under Repair ☒ Brand new replacement if Purchased Unit is beyond repair	
Deadline for the Submission of Quotation	COB, Friday, August 02, 2019 and GMT +9	
All documentations, including catalogs, instructions and operating manuals, shall be in this language	☒ English ☐ French ☐ Spanish ☐ Others	

¹ Must be linked to INCO Terms chosen.

² Depends on INCO Terms. The suggestion to use a UNDP preferred courier is only for purposes of familiarity with procedures and documentary requirements applicable to the UNDP when clearing with customs.

³ Local vendors must comply with any applicable laws regarding doing business in other currencies. Conversion of currency into the UNDP preferred currency, if the offer is quoted differently from what is required, shall be based only on UN Operational Exchange Rate prevailing at the time of UNDP's issuance of Purchase Order.

⁴ This must be reconciled with the INCO Terms required by the RFQ. Furthermore, VAT exemption status varies from one country to another. Pls. tick whatever is applicable to the UNDP CO/BU requiring the goods.

Documents to be submitted ⁵	☒ Duly Accomplished Form as provided in Annex 2, and in accordance with the list of requirements in Annex 1; ☒ A statement whether any import or export licenses are required in respect of the goods to be purchased including any restrictions on the country of origin, use/dual use nature of goods or services, including and disposition to end users; ☐ Confirmation that licenses of this nature have been obtained in the past and an expectation of obtaining all the necessary licenses should the quotation be selected; ☐ Quality Certificates (ISO, etc.); ☒ Latest Business Registration Certificate; ☒ Latest Internal Revenue Certificate / Tax Clearance; ☐ Manufacturer's Authorization of the Company as a Sales Agent (if Supplier is not the manufacturer); ☐ Certificate of Exclusive Distributorship in the country (if applicable, and if Supplier is not the manufacturer); ☐ Evidence/Certification of Environmental Sustainability ("Green" Standards) of the Company or the Product being supplied; ☐ Complete documentation, information and declaration of any goods classified or may be classified as "Dangerous Goods". ☐ Patent Registration Certificates (if any of technologies submitted in the quotation is patented by the Supplier); ☒ Written Self-Declaration of not being included in the UN Security Council 1267/1989 list, UN Procurement Division List or other UN Ineligibility List; ☒ Qualifications of Key Company Staff to Complete Scope of Work, (at least 3 key staff CV's); ☒ Implementation Methodology; ☒ Delivery Schedule; and ☒ Inspection and Testing Plan for the Scope of Works
Period of Validity of Quotes starting the Submission Date	☐ 30 days ☒ 90 days ☐ 120 days In exceptional circumstances, UNDP may request the Vendor to extend the validity of the Quotation beyond what has been initially indicated in this RFQ. The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Quotation.
Partial Quotes	☒ Not permitted ☐ Permitted
Payment Terms ⁶	☐ 100% upon complete delivery of services ☒ Other, refer Table 1.

⁵ First 2 items in this list are mandatory for the supply of imported goods

⁶ UNDP preference is not to pay advanced amount upon signing of contract. If vendor strictly requires advanced payment, it will be limited only up to 20% of the total price quoted. For any higher percentage, or advanced payment of \$30,000 or higher, UNDP shall require the vendor to submit a bank guarantee or bank cheque payable to UNDP, in the same amount as the advanced payment made by UNDP to the vendor.

	Payment Terms	Date	Contract Value
	Deliverable 1. Submission of a report showing implementation methodology, delivery schedule and inspection and testing plan for entire scope of works as well as proof that the contractor mobilized to site.	Ten days after signing the contract.	20%
	Deliverable 2. Submission of a progress report demonstrating the completion of the water intake tanks (Section B of BOQ), collector tank (Section C of BOQ), 60m ³ reservoir (Section H of BOQ), electrical network extension (Section N of BOQ) and the water transmission network (Section F of BOQ).	September 30 2019	20%
	Deliverable 3. Submission of a final report that demonstrates project completion and commissioning of the water system. (Sections A, D, E, G, I, J, K, L, M of BOQ)	November 30 2019	50%
	Deliverable 4. Final payment to be withheld until the defects liability period of three months has lapsed since project completion and the 'Conditions for Release of Final Payment' have been met.	Three months following project completion.	10%
Table 1. The payment terms will be linked to four deliverables in the project that can be drawn down by the company as a proportion of the total contract value once completed and approved by the person responsible for the project in the UNDP. The final payment will be dispensed if and only if all 'Conditions for Release of Final Payment' have been met.			
Liquidated Damages	☐ Will not be imposed ☒ Will be imposed under the following conditions: Percentage of contract price per day of delay: 2% Max. number of days of delay: 10 Days After which UNDP at its own discretion may terminate the contract.		

Evaluation Criteria	☒ Technical Responsiveness, Full Compliance to Requirements and Lowest Price ⁷ ☒ Comprehensiveness of After-Sales Services ☒ Full Acceptance of the PO/Contract General Terms and Conditions ☒ Earliest Delivery / Shortest Lead Time ⁸ ☒ Key Staff Show Evidence of Experience in the Implementation of Community Water Systems ☒ Registered Company is from the Municipality of Baucau
UNDP will award to:	☒ One and only one supplier ☐ One or more supplier
Type of Contract to be Signed	☐ Purchase Order ☒ Contract for Civil Works ☐ Contract Face Sheet (Goods and-or Services) UNDP ☐ Other Type/s of Contract
Contract General Terms and Conditions	☒ General Terms and Conditions for contracts (goods and/or services) ☐ General Terms and Conditions for de minimi contracts (services only, less than \$50,000) ☒ Applicable Terms and Conditions are available at http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html
Special conditions of Contract	☒ Cancellation of PO/Contract if the delivery/completion is delayed by 10 calendar days ☐ Others
Conditions for Release of Final Payment	☒ Procurement, Construction and Commissioning of One Hydraulic Powered Water System and One Gravity-Fed Water System as per Bill of Quantities and Design Drawings ☒ Completion of Inspection and Testing Checklists to Demonstrate Quality Assurance ☒ Written Acceptance of Goods/Services based on full compliance with RFQ requirements ☒ Contract to Submit As-Built Drawings ☐ Others

⁷ UNDP reserves the right not to award the contract to the lowest priced offer, if the second lowest price among the responsive offer is found to be significantly more superior, and the price is higher than the lowest priced compliant offer by not more than 10%, and the budget can sufficiently cover the price difference. The term "more superior" as used in this provision shall refer to offers that have exceeded the pre-determined requirements established in the specifications.

⁸ This shall be used for time-critical and/or exigent requirements (e.g., post-crisis emergencies, elections, etc.).

Annexes to this RFQ ⁹	☒ Specifications of the Goods/BOQ Required (Annex 1) ☒ Form for Submission of Quotation (Annex 2) ☒ General Terms and Conditions / Special Conditions: http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html ☒ Design Drawings (Annex 3) Non-acceptance of the terms of the General Terms and Conditions (GTC) shall be grounds for disqualification from this procurement process.
Contact Person for Inquiries (Written inquiries only) ¹⁰	Aaron Michael Thornton Project Engineer aaron.thornton@undp.org copy procurement.staff.tp@undp.org Any delay in UNDP's response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.

Goods offered shall be reviewed based on completeness and compliance of the quotation with the minimum specifications described above and any other annexes providing details of UNDP requirements.

The quotation that complies with all of the specifications, requirements and offers the lowest price, as well as all other evaluation criteria indicated, shall be selected. Any offer that does not meet the requirements shall be rejected.

Any discrepancy between the unit price and the total price (obtained by multiplying the unit price and quantity) shall be re-computed by UNDP. The unit price shall prevail and the total price shall be corrected. If the supplier does not accept the final price based on UNDP's re-computation and correction of errors, its quotation will be rejected.

After UNDP has identified the lowest price offer, UNDP reserves the right to award the contract based only on the prices of the goods in the event that the transportation cost (freight and insurance) is found to be higher than UNDP's own estimated cost if sourced from its own freight forwarder and insurance provider.

At any time during the validity of the quotation, no price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by UNDP after it has received the quotation. At the time of award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

⁹ Where the information is available in the web, a URL for the information may simply be provided.

¹⁰ This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was received.

Any Purchase Order that will be issued as a result of this RFQ shall be subject to the General Terms and Conditions attached hereto. The mere act of submission of a quotation implies that the vendor accepts without question the General Terms and Conditions of UNDP indicated above - <http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html>.

UNDP is not bound to accept any quotation, nor award a contract/Purchase Order, nor be responsible for any costs associated with a Supplier's preparation and submission of a quotation, regardless of the outcome or the manner of conducting the selection process.

Please be advised that UNDP's vendor protest procedure is intended to afford an opportunity to appeal for persons or firms not awarded a purchase order or contract in a competitive procurement process. **In the event that** you believe you have not been fairly treated, you can find detailed information about vendor protest procedures in the following link:

<http://www.undp.org/content/undp/en/home/operations/procurement/protestandsanctions/>

UNDP encourages every prospective Vendor to avoid and prevent conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, specifications, cost estimates, and other information used in this RFQ.

UNDP implements a zero tolerance on fraud and other proscribed practices, and is committed to identifying and addressing all such acts and practices against UNDP, as well as third parties involved in UNDP activities. UNDP expects its suppliers to adhere to the UN Supplier Code of Conduct found in this link : http://www.un.org/depts/ptd/pdf/conduct_english.pdf

Thank you and we look forward to receiving your quotation.

Sincerely yours,

Diana Lina Bernardo
UNDP Operations Manager
Date:

ANNEX 1

TERMS OF REFERENCE

POST TITLE:	: Engineering, procurement, construction and commissioning of one hydraulic-powered water system and one gravity-fed water system in the Municipality of Baucau
AGENCY/PROJECT NAME:	: Supporting Decentralization of Public Administration through Effective Delivery of Public Services at Municipal Level
PERIOD OF ASSIGNMENT/SERVICES:	: 7 Months
COUNTRY OF ASSIGNMENT:	: Timor-Leste
STARTING DATE	: August 15, 2019 – March 15, 2020

1) BACKGROUND

The United Nations Development Programme (UNDP), as central in the United Nation's global development network, is mandated to take upon an advisory role in driving the Sustainable Development Agenda, based on Member State's priorities and each country context. Currently, the UNDP is present in 170 countries.

In response to the commitment of the National Government of Timor-Leste to reach all its citizens with quality public services, the Ministry of State Administration, in line with its policies for the decentralization of public administration, initiated a project "Supporting Decentralization of Public Administration through Effective Delivery of Public Services at Municipal Level" to build the capacities of civil servants within municipalities to effectively deliver public services that are accessible to all. Apart from the increasing role that municipalities will have in delivering these services in the long term, decentralization supports democracy from below by which all inhabitants and local actors actively participate in the decision-making process, reflecting their needs and future aspirations.

In 2010, the National Strategic Development Plan 2011-2030 established the four main objectives relative to decentralized administration: development of the private sector in rural areas; creation of new opportunities for democratic participation; promotion of strong institutions; and establishment of more effective, efficient and equitable provision of public services. To achieve these aims and to contribute to the decentralization of the public administration, a new level of municipal governance was introduced. This required improving the capacities of local administrations through the introduction of processes and procedures of local governance and through the design and execution of capacity building actions mainly in public financial management, planning, and monitoring and evaluation of public programs.

Since then, the government has undergone reform with the present legal framework underpinning the gradual transition of power to the Municipal Administrations and Municipal Authorities. Due to the complexity of the process, the transition was organized in three stages, starting with 'administrative pre-deconcentration' as outlined under 2014 Decree Law No. 04/14 – which entailed the beginning of institutional reform, the creation and approval of the necessary framework and the preparation of local development plans. While the second stage requires additional actions towards administrative decentralization, whereby the national government would apply the approved legislation and a staged delegation of competences to municipalities to deliver public services, the third stage entails full decentralization, including transfer the power, responsibility and duty to the local government structures, in time for local elections to be held.

In 2016, the national government established four Municipal Authorities (Baucau, Bobonaro, Ermera, Dili) and eight Municipal Administrations (Aileu, Ainaro, Cova Lima, Lautem, Liquica, Manatuto, Manufahi, Viqueque) in the country. This was further buttressed by the adoption of a new Suco Law, which stipulated new roles & responsibilities to Suco councils. In July 2017, three laws concerning the establishment of local government was passed in the National Parliament after years of delay.

Recent developments of legal frameworks are encouraging local elections, this being recognized by the Law on Local Government and the Law on Municipal Elections, approved in 2017. Together with the Law on Territorial and Administrative Division, approved in 2009 and amended in 2017, the legal framework governing the decentralization process will soon be in full effect under the 8th Government.

Through the UNDP ART (Articulation of Territorial Networks) Initiative, this project will establish a multi-level and multi-actor governance framework for the delivery of public services, spearheaded by the municipalities and local communities. The initiation of such a platform, utilizing UNDP's worldwide tools and methodologies to promote territorial development and decentralization, becomes key for the local development agenda and eradication of poverty.

2) OBJECTIVES OF THE ASSIGNMENT AND SCOPE OF WORK

The objective of the assignment is to engineer, procure, construct and commission one hydraulic-powered water system and one gravity-fed water system in Quelicai Vila in the Municipality of Baucau.

The outcome of the assignment will be the completion of a commissioned water system to provide clean access to water for an estimated 2100 inhabitants. The assignment will also improve the capacity for the Municipality of Baucau to deliver public services to the community.

Methodology

An implementation methodology, delivery schedule and inspection and test plan must be included as part of the Contractor's quotation. These documents must provide details relating to:

1. Dates for mobilization, project commencement, and project completion.
2. List of key staff including qualifications and experience;
3. Lead time for the supply of materials, particularly if materials require importation;
4. Construction methodology, i.e. staging of the work;
5. Quality assurance;
6. Testing of the infrastructure during commissioning;
7. Comprehensiveness of maintenance and support for the three months following project completion;
8. Frequency of reporting to the Municipality of Baucau and the UNDP; and
9. Engagement of the community, particularly women and youth.

Additional considerations may be proposed at the discretion of UNDP Project Manager prior to commencing the implementation of the project.

Activities

The project scope of work can be broken down in the following activities:

- A** PRELIMINARY WORK
- B** CONSTRUCTION OF TWO WATER INTAKE TANKS
- C** CONSTRUCTION OF 20M³ COLLECTOR TANK
- D** SUPPLY AND INSTALLATION OF ONE SUBMERSIBLE PUMP
- E** CONSTRUCTION OF ONE 5.5M³ BREAK PRESSURE TANK & TWO 5.5M³ RESERVOIR TANKS
- F** CONSTRUCTION OF THE WATER TRANSMISSION NETWORK
- G** CONSTRUCTION OF THE WATER DISTRIBUTION NETWORK
- H** CONSTRUCTION OF ONE 60M³ RESERVOIR TANK
- I** CONSTRUCTION OF ONE 20M³ RESERVOIR TANK
- J** CONSTRUCTION OF ONE 2.1M³ PUBLIC TANKS
- K** SUPPLY AND INSTALLATION OF SIX NEW TAPS AND REHABILITATION OF EXISTING TAPS
- L** SUPPLY AND INSTALLATION OF SECURITY FENCE FOR THREE TANKS (BPT AND RESERVOIR)
- M** TOOLKIT FOR COMMUNITY MAINTENANCE GROUP
- N** EXTENSION OF ELECTRICAL NETWORK TO PROVIDE POWER SUPPLY TO PUMP

Refer to the Bill of Quantities in Annex 1 of the RFQ for further details concerning these activities.

3) EXPECTED OUTPUTS AND DELIVERABLES

Deliverables/ Outputs	Target Due Dates	Approvals Required	Payment Amount
Deliverable 1. Submission of a report showing implementation methodology, delivery schedule and inspection and testing plan for entire scope of works as well as proof contractor mobilized to site.	Ten days after signing contract.	Project Manager	20%
Deliverable 2. Submission of a progress report demonstrating the completion of the water intake tanks (Section B of BOQ), collector tank (Section C of BOQ), 60m ³ reservoir (Section H of BOQ), electrical network extension (Section N of BOQ) and the water transmission network (Section F of BOQ).	September 30 2019	Project Manager	20%
Deliverable 3. Submission of a final report that demonstrates project completion and commissioning of the water system. (Sections A, D, E, G, I, J, K, L, M of BOQ)	November 30 2019	Project Manager	50%
Deliverable 4.* Final payment to be withheld until the period of liability of three months has lapsed since project completion and the 'Conditions for Release of Final Payment' have been met.	3 months following project completion.	Project Manager	10%

*** Conditions for Release of Final Payment**

The final payment will be dispensed if and only if all following conditions have been met:

- ☒ Engineering, Procurement, Construction and Commissioning of One Hydraulic-Powered Water System and One Gravity-Fed Water System as per Bill of Quantities (Annex 1) and Design Drawings (Annex 3)
- ☒ Completion of Inspection and Testing Checklists to Demonstrate Quality Assurance
- ☒ Written Acceptance of Goods/Services based on full compliance with RFQ requirements
- ☒ Contractor to Submit As-Built Drawings

4) INSTITUTIONAL ARRANGEMENTS

The Contractor will work under the direction and supervision of the respective UNDP Project Manager and the Director of SMASA in the Municipality of Baucau.

5) DURATION OF ASSIGNMENT, DUTY STATION AND EXPECTED PLACES OF TRAVEL

Duration: The duration will be for a period of **4 month** starting on **15th August 2019**.

Expected places of travel: Travel between the Municipality of Baucau and Municipality of Dili.

6) CRITERIA FOR SELECTION OF THE BEST OFFER

The evaluation criteria of the best offer will be judged on the following:

- ☒ Technical Responsiveness, Full Compliance to Requirements and Lowest Price;
- ☒ Comprehensiveness of After-Sales Services;
- ☒ Full Acceptance of the PO/Contract General Terms and Conditions;
- ☒ Earliest Delivery / Shortest Lead Time;
- ☒ Key Staff Show Evidence of Experience in the Implementation of Community Water Systems;
- ☒ Registered Company in Timor-Leste or Elsewhere;

7) APPROVAL

This TOR is approved by:

Bernardino Da Costa Pereira

Project Manager

Decentralization Project UNDP Timor-Leste

Technical Specifications / Bill of Quantity (Annex to TOR)

Project Name: Supporting Decentralization of Public Administration
Project Locations: Quelicai Vila, Municipality of Baucau

SUMMARY TABLE

SECTION	ACTIVITIES	PROPOSED AMOUNT
A	PRELIMINARY WORK	\$
B	CONSTRUCTION OF TWO WATER INTAKE TANKS	\$
C	CONSTRUCTION OF 20M3 COLLECTOR TANK	\$
D	SUPPLY AND INSTALLATION OF ONE SUBMERSIBLE PUMP	\$
E	CONSTRUCTION OF ONE 5.5M3 BREAK PRESSURE TANK & TWO 5.5M3 RESERVOIR TANKS	\$
F	CONSTRUCTION OF THE WATER TRANSMISSION NETWORK	\$
G	CONSTRUCTION OF THE WATER DISTRIBUTION NETWORK	\$
H	CONSTRUCTION OF ONE 60M3 RESERVOIR TANK	\$
I	CONSTRUCTION OF ONE 20M3 RESERVOIR TANK	\$
J	CONSTRUCTION OF ONE 2.1M3 PUBLIC TANKS	\$
K	SUPPLY AND INSTALLATION OF SIX NEW TAPS AND REHABILITATION OF EXISTING TAPS	\$
L	SUPPLY AND INSTALLATION OF SECURITY FENCE FOR THREE TANKS (BPT AND RESERVOIR)	\$
M	TOOLKIT FOR COMMUNITY MAINTENANCE GROUP	\$
N	EXTENSION OF ELECTRICAL NETWORK TO PROVIDE POWER SUPPLY TO PUMP	\$
TOTAL COST OF PROJECT		\$
TAX (2%)		\$
CONTRACTOR PROFIT (10%)		\$
GRAND TOTAL		\$

Bill of quantities reviewed and approved by:

Aaron Thornton
 Project Engineer
 Decentralization Project UNDP Timor-Leste

Date:

No	Description	Unit	Quantity	Unit Price	Total Price
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A	PRELIMINARY WORK				
1	Site Mobilization				
1.1	Transport Cost	No.	1.0		
1.2	Transportation of Materials to Site	No.	1.0		
1.3	Contractor Office, Warehouse and Security	m ²	24.0		
1.4	Project Sign Board	No.	1.0		
1.5	Two Progress Reports and One Final Report to Demonstrate Procurement, Construction & Commissioning of One Hydraulic-Powered Water System and One Gravity-Fed Water System in the Municipality of Baucau per BOQ and Design Drawings	No.	3.0		
				Sub Total	\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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B	CONSTRUCTION OF TWO WATER INTAKE TANKS				
1	Preparation and Foundation Work				
1.1	Site cleaning	m ²	36.0		
1.2	Excavation	m ³	19.3		
1.3	Stone Masonry 1:4	m ³	1.0		
1.4	Lean Concrete 1:2:3	m ³	2.4		
1.5	Backfill	m ³	0.2		
1.6	Gravel 10/20	m ³	0.3		
1.7	Gravel 30/40	m ³	0.2		
2	Supply of Pipe and Pipe Accessories				
2.1	PE NOD 63 with min 1.0m slotted	Length	2.0		
2.2	End cap NOD 63	No.	4.0		
3	Construction of One 1m³ Intake Tank				
3.1	Site cleaning	m ²	16.0		
3.2	Excavation	m ³	1.4		
3.3	Compacted gravel around tank 150mm thick	m ³	0.3		
3.4	Polyethylene sheet under gravel	m ²	25.0		
3.5	Concrete (1:2:3 mix design)	m ³	3.3		
3.6	Wire mesh 8mmø x 150mm x150mm	m ²	4.0		
3.7	Steel reinforcement	kg	96.0		
3.8	Formwork	m ²	25.1		
3.9	Puddle Flange DN50	No.	4.0		
3.10	Puddle Flange DN25	No.	1.0		
3.11	Gal Mal 90° Elbow DN50	No.	13.0		
3.12	Gal Mal 90° Elbow DN25	No.	4.0		
3.13	Gal Mal Double Nipple DN50	No.	15.0		
3.14	Gal Mal Double Nipple DN25	No.	4.0		
3.15	Gal Mal Union DN50	No.	4.0		
3.16	Brass Gate Valve DN 50	No.	3.0		
3.17	Gal Mal Tee DN50	No.	2.0		
3.18	Gal Mal Tee DN25	No.	1.0		
3.19	Gal Mal Tee Reducer DN50xDN25xDN50	No.	1.0		
3.20	Gal Pipe DN25 x 6m	Length	1.0		
3.21	Gal Pipe DN50 x 6m	Length	2.0		
3.22	Gal Pipe Socket DN50	No.	3.0		
3.23	Gal pipe and fittings to comply with AS1074. Threaded pipe ends to be BSP. Contractor must examine quality and thickness of pipe prior to installation.	Notes	N/A	N/A	N/A
Sub Total for One Water Intake Tank					\$ -
Sub Total for Two Water Intake Tanks (2 x Sub-Total for One Water Intake Tank)					\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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C	CONSTRUCTION OF 20M3 COLLECTOR TANK				
1	Foundation Work				
1.1	Site cleaning	m ²	36.0		
1.2	Excavation	m ³	19.3		
1.3	Stone Masonry 1:4	m ³	1.0		
1.4	Compacted gravel around tank 150mm thick	m ³	1.4		
1.5	Polyethylene sheet under gravel	m ²	38.0		
2	Concrete Work				
2.1	Concrete (1:2:3 mix design)	m ³	10.4		
2.2	Wire mesh 8mmø x 150mm x150mm	m ²	29.4		
2.3	Steel reinforcement	kg	123.8		
2.4	Formwork	m ²	81.0		
3	Pipes and Fittings				
3.1	Float Valve DN50	No.	1.0		
3.2	Puddle Flange DN40	No.	3.0		
3.3	Gal Mal 90° Elbow DN40	No.	6.0		
3.4	Gal Mal Double Nipple DN40	No.	4.0		
3.5	Brass Valve DN 40	No.	2.0		
3.6	Gal Mal Union DN40	No.	2.0		
3.7	Ball Valve DN40 PN 16	No.	3.0		
3.8	Gal Pipe DN40 x 6m	Length	2.0		
3.9	PVC DN 100 x 6m	Length	10.0		
4	Supply and Installation of 9m x 9m Fence				
4.1	Galvanized Diamond Chain Wire 50mmx 2.5mm, 1800mm	m	36.0		
4.2	Galvanized Tension Wire 3.15MM	m	90.0		
4.3	Galvanized Tie Wire 1.57mm 280m (4.6kg)	No.	2.0		
4.4	Masproclick 500 pack	No.	1.0		
4.5	Fixed Corners - Galvanized Butt 40 - Thru 40	No.	3.0		
4.6	Fixed Cross - Galvanized Butt 40 – Thru 40	No.	7.0		
4.7	Fixed Tees - Galvanized Butt 80-Thru 40	No.	2.0		
4.8	Gate hinges DN80xDN40	No.	4.0		
4.9	Gal Fence Post DN40x3.2mmx3m BSP 1 end	No.	10.0		
4.10	Gal Gate Post DN80x4.2mmx3m BSP 1 end	No.	2.0		
4.11	Standard Diamond Chain Wire Gate 1.5m wide DN40x3.2mm	No.	2.0		
4.12	Gal Cross Bar DN40x3.2mmx6m BSP 2 ends	No.	5.5		
4.13	Underlay PE plastic, for concrete	m ²	61.0		
4.14	Excavation 16 footings 300x300x600mm	m ³	0.6		
4.15	Stone Masonry 1:4 mix design (including 3 rebar DIA 12), 36m ² . H=0.7m, thick=0.3m	m ³	7.6		

4.16	Concrete Mix 1:2:3	m ³	0.7		
4.17	Install Fence Poles including painting	No.	1.0		
4.18	Compacted gravel 5/7 CM with thickness 100mm around including underlay PE plastic	m ³	6.9		
Sub Total					\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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D	SUPPLY AND INSTALLATION OF ONE SUBMERSIBLE PUMP				
1	Supply and Installation of Submersible Pump				
1.1	Grundfos Pump SP 5A-17 Rp 1 1/2 3 x 380 - 415 V. 1.5 KW 50 HZ	Set	1.0		
1.2	Control Panel Standard Semi-Automatic	No.	1.0		
1.3	Drop Cable 4 x 2.5 MM	m	20.0		
1.4	Censor Cable 3 x 1.5 MM	m	20.0		
1.5	Fittings	No.	1.0		
1.6	Electrical Conduit	m	5.0		
1.7	Set Manifold 2" Water Meter Included	No.	1.0		
1.8	Pump Sleep 4"	No.	1.0		
1.9	Pump Housing	unit	1.0		
1.10	Warranty Period for Pump is 12 Months	Notes	N/A	N/A	N/A
				Sub Total	\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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E	CONSTRUCTION OF THREE 5.5M3 TANK				
1	Demolition Work				
1.1	Demolish existing tank	No.	1.0		
2	Foundation Work				
2.1	Site cleaning	m ²	25.0		
2.2	Excavation	m ³	1.2		
2.3	Stone Masonry 1:4	m ³	1.2		
2.4	Compacted sand for foundation 150mm thick	m ³	0.7		
2.5	Polyethylene sheet under gravel	m ²	21.0		
3	Concrete Work				
3.1	Concrete (1:2:3 mix design)	m ³	0.7		
3.2	Wire mesh 8mmø x 150mm x150mm	m ²	4.9		
3.3	Formwork	m ²	8.3		
4	Supply and Install Tank, Pipes and Fittings				
4.1	5.50m ³ tank	No.	1.0		
4.2	Additional Opening DN50 for Inlet	No.	1.0		
4.3	Brass Float Valve DN 40	No.	1.0		
4.4	Gal Mal Socket DN40	No.	1.0		
4.5	Gal Mal Hex Nipple DN40	No.	4.0		
4.6	Gal Mal Hex Nipple DN25	No.	3.0		
4.7	Gal Mal Hex Reducing Nipple DN 40 x DN25	No.	1.0		
4.8	Gal Mal (FF) 90° Elbow DN40	No.	3.0		
4.9	Gal Mal (FF) 90° Elbow DN25	No.	2.0		
4.10	Gate Valve (Female BSP Ends) DN 40	No.	1.0		
4.11	Gate Valve (Female BSP Ends) DN 25	No.	1.0		
4.12	Gal Mal Union DN40	No.	3.0		
4.13	Gal Mal Union DN25	No.	1.0		
4.14	Gal Pipe DN40 x 6m	Length	1.5		
4.15	Gal Pipe DN25 x 6m	Length	0.5		
4.16	Tank should be 0.6mm thick Australian BlueScope Aquaplate steel tank with 25mm outlet, 50mm overflow and inspection cover, unless otherwise approved by SMASA or the person responsible for the UNDP.	Notes	N/A	N/A	N/A
Sub Total for One 5.5m³ Tank					\$ -
Sub Total for Three 5.5m³ Tanks (One 5.5m³ Break Pressure Tank and Two 5.5m³ Reservoir Tanks)					\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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F	CONSTRUCTION OF THE WATER TRANSMISSION NETWORK				
	Gal pipe and fittings to comply with AS1074. Threaded pipe ends to be BSP. Contractor must examine quality and thickness of pipe prior to installation. PE pipe to comply with AS/NZS 4130:2001 or equivalent. PE pipe fittings shall comply with AS/NZS 4129:2000 or equivalent. Thermoplastic PE pipe must comply ISO3458, IS3459, ISO3501 or ISO35.	Notes	N/A	N/A	N/A
1	Construction Intake – Collector Tank				
1.1	PE 100 PN12.5 NOD63	m	300.0		
1.2	PE Fit Compression Male Adaptor NOD63xDN50 (M)	No.	2.0		
1.3	PE Fit Compression Straight Coupling NOD63	No.	3.0		
2	Construction Collector Tank – Reservoir				
2.1	Gal PIPE DN40 x 3.2MM x 6M	m	300.0		
2.2	Gal Mal Socket DN50 (2") (F)	No.	50.0		
2.3	Gal Mal Union DN50 (2")	No.	30.0		
2.4	Gal Mal Hex Nipple DN40 (1 ½")	No.	10.0		
3	Construction Intake Lalabailiu – Reservoir				
3.1	PE 100 PN12.5 NOD32	m	1200.0		
3.2	PE Fit Compression Straight Couplings NOD32	No.	12.0		
3.3	PE Fit Compression Male Adaptor NOD32 x DN25 (M)	No.	2.0		
4	Construction 60m³ Reservoir – Two 5.5m³ Reservoir Tanks				
4.1	Gal Pipe DN40 x 3.2MM x 6M	m	585.0		
4.2	Gal Pipe DN32 x 3.2MM x 6M	m	585.0		
4.3	Gal Mal Socket DN40 (1 ½") (F)	No.	97.5.0		
4.4	Gal Mal Socket DN32 (1 ¼") (F)	No.	97.5.0		
4.5	Gal Mal Socket DN50 (2") (F) x DN40 (1½") (F)	No.	2.0		
4.6	Gal Mal Union DN 40 (1 ½")	No.	9.8		
4.7	Gal Mal Union DN 32 (1 ¼")	No.	9.8		
4.8	Gal Mal Hex Nipple DN40 (1 ½")	No.	19.5		
4.9	Gal Mal Hex Nipple DN32 (1 ¼")	No.	19.5		
5	Construction 5.5m³ BPT – 20m³ Reservoir				
5.1	PE 100 PN12.5 NOD40	m	618.0		
5.2	PE 100 PN12.5 NOD32	m	242.0		
5.3	PE Fit Compression Straight Couplings NOD40	No.	7.0		
5.4	PE Fit Compression Straight Couplings NOD32	No.	3.0		
5.5	PE Fit Compression Reducer NOD40xNOD32	No.	1.0		

5.6	PE Fit Compression Adaptor NOD40xDN32 (F)	No.	1.0		
5.7	PE Fit Compression Adaptor NOD32xDN25 (F)	No.	1.0		
6	Installation of Water Transmission Network				
6.1	Soil excavation W:300mmxH:1000mm according to field condition. Every 1m of excavation is 0.3m ³ of backfill after the pipe is installed and tested to ensure there is no leak from the main pipe to public taps.	m	2360.0		
6.2	PE (HDPE) Pipe	m	1500.0		
6.3	GIP Pipe DN25MM-DN50MM	m	1470.0		
7	Pipe Testing				
7.1	Contractor to conduct pipe testing, cost of which is included in installation cost. Refer to technical specification document. Testing on every three pipe sections. Backfill of pipe and compaction after testing. During testing, the pipes must pass with no leaks. If there are leaks, the contractor must repair and retest.	Notes	N/A	N/A	N/A
7.2	Pipe supports 500mmx200mmx300mm (1Pc:2 Sand:3 Gravel 10mm/20mm)	No.	245		
				Sub Total	\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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G	CONSTRUCTION OF THE WATER DISTRIBUTION NETWORK				
	Gal pipe and fittings to comply with AS1074. Threaded pipe ends to be BSP. Contractor must examine quality and thickness of pipe prior to installation. PE pipe to comply with AS/NZS 4130:2001 or equivalent. PE pipe fittings shall comply with AS/NZS 4129:2000 or equivalent. Thermoplastic PE pipe must comply ISO3458, IS3459, ISO3501 or ISO35.	Notes	N/A	N/A	N/A
1	Distribution Network Construction to Lailaisi				
1.1	PE 100 PN12.5 NOD40	m	186.0		
1.2	PE 100 PN12.5 NOD32	m	126.0		
1.3	PE 100 PN12.5 NOD25	m	179.0		
1.4	PE 100 PN12.5 NOD20	m	100.0		
1.5	PE Fit Compression Straight Couplings NOD40	No.	1.0		
1.6	PE Fit Compression Straight Couplings NOD32	No.	1.0		
1.7	PE Fit Compression Straight Couplings NOD25	No.	1.0		
1.8	PE Fit Compression Reducer NOD40xNOD32	No.	1.0		
1.9	PE Fit Compression Reducer NOD32xNOD25	No.	1.0		
1.10	PE Fit Compression Reducer NOD25xNOD20	No.	1.0		
1.11	PE Fit Compression Tee NOD40x15x40	No.	1.0		
1.12	PE Fit Compression Tee NOD32x20x32	No.	1.0		
1.13	PE Fit Compression Tee NOD25x20x25	No.	1.0		
1.14	Tee PE NOD20 x BSP (M) DN15 ka DN20 x PE NOD20	No.	4.0		
2	Distribution Network Construction of 20m³ Reservoir Tank to Public School Letemumu				
2.1	PE 100 PN12.5 NOD40	m	260.0		
2.2	PE 100 PN12.5 NOD32	m	100.0		
2.3	PE 100 PN12.5 NOD25	m	120.0		
2.4	PE 100 PN12.5 NOD20	m	300.0		
2.5	PE Fit Compression Straight Couplings NOD40	No.	2.0		
2.6	PE Fit Compression Straight Couplings NOD32	No.	1.0		
2.7	PE Fit Compression Straight Couplings NOD25	No.	1.0		
2.8	PE Fit Compression Straight Couplings NOD20	No.	3.0		
2.9	PE Fit Compression Reducer NOD40xNOD32	No.	1.0		
2.10	PE Fit Compression Reducer NOD32xNOD25	No.	1.0		
2.11	PE Fit Compression Reducer NOD25xNOD20	No.	1.0		
2.12	PE Fit Compression Tee NOD40x15x40	No.	1.0		
2.13	PE Fit Compression Tee NOD32x20x32	No.	1.0		
2.14	PE Fit Compression Tee NOD25x20x25	No.	1.0		

2.15	PE Fit Compression Tee NOD20x15x20	No.	4.0		
2.16	PE Fit Compression Female Adaptor NOD20XDN15 (F)	No.	6.0		
3	Distribution Network Construction of 20m³ Reservoir to Nebre				
3.1	PE 100 PN12.5 NOD50	m	350.0		
3.2	PE 100 PN12.5 NOD32	m	30.0		
3.3	PE 100 PN12.5 NOD25	m	300.0		
3.4	PE 100 PN12.5 NOD20	m	400.0		
3.5	PE Fit Compression Straight Couplings NOD50	No.	3.0		
3.6	PE Fit Compression Straight Couplings NOD25	No.	2.0		
3.7	PE Fit Compression Straight Couplings NOD20	No.	4.0		
3.8	PE Fit Compression Tee NOD32x20x32	No.	2.0		
3.9	PE Fit Compression Tee NOD25x20x25	No.	1.0		
3.10	PE Fit Compression Female Adaptor NOD32XDN25 (F)	No.	4.0		
3.11	PE Fit Compression Male Adaptor NOD20XDN15 (M)	No.	4.0		
4	Distribution Network Construction from 5.5m³ Reservoir Tank to Health Post				
4.1	PE 100 PN12.5 NOD32	m	60.0		
4.2	PE 100 PN12.5 NOD25	m	73.0		
4.3	PE 100 PN12.5 NOD20	m	300.0		
4.4	PE Fit Compression Reducer NOD32xNOD25	No.	1.0		
4.5	PE Fit Compression Reducer NOD25xNOD20	No.	2.0		
4.6	PE Fit Compression Male Adaptor NOD32XDN25 (M)	No.	1.0		
4.6	PE Fit Compression Male Adaptor NOD20XDN15 (M)	No.	4.0		
5	Distribution Network Construction from 20m³ Reservoir Tank to Public Tank 2.1m³				
5.1	PE 100 PN12.5 NOD20	m	280.0		
5.2	PE Fit Compression Straight Couplings NOD20	No.	3.0		
5.3	PE Fit Compression Female Adaptor NOD25XDN20 (F)	No.	3.0		
5.4	Tee PE NOD40 x BSP (M) DN32 ka DN40 x PE NOD40	No.	1.0		
6	Installation of Water Distribution Network				
6.1	Soil excavation W:300mmxH:1000mm according to field condition. Every 1m of excavation is 0.3m ³ of backfill after the pipe is installed and tested to ensure there is no leak from the main pipe to public taps.	m	3164.0		
6.2	PE 100 (HDPE) Pipe	m	3164.0		
7	Pipe Testing				
7.1	Contractor to conduct pipe testing, cost of which is included in installation cost. Refer to	Notes	N/A	N/A	N/A

technical specification document. Testing on every three pipe sections. Backfill of pipe and compaction after testing. During testing, the pipes must pass with no leaks. If there are leaks, the contractor must repair and retest.				
Sub Total				\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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H	CONSTRUCTION OF 60M3 RESERVOIR TANK				
1	Foundation Work				
1.1	Site cleaning	m ²	54.0		
1.2	Foundation excavation	m ³	5.1		
1.3	Polyethylene sheet under gravel	m ²	20.3		
1.4	Stone Masonry 1:4	m ³	5.1		
1.5	Compacted gravel around tank 150mm thick	m ³	3.1		
2	Concrete Work				
2.1	Concrete (1:2:3 mix design)	m ³	14.1		
2.2	Wire mesh 8mmø x 150mm x150mm	m ²	2.1		
2.3	Apply water proofing grip set 11Y	m ²	66.8		
2.4	Steel reinforcement	kg	664.3		
2.5	Formwork	m ²	91.0		
3	Pipes and Fittings				
3.1	Float Valve DN50	No.	1.0		
3.2	Puddle Flange DN50	No.	3.0		
3.3	Gal Mal 90° Elbow DN50	No.	6.0		
3.4	Gal Mal Double Nipple DN50	No.	4.0		
3.5	Brass Valve DN 50	No.	1.0		
3.6	Gal Mal Union DN50	No.	2.0		
3.7	Ball Valve DN50	No.	1.0		
3.8	Gal Mal Tee DN50	No.	1.0		
3.9	Gal Pipe DN50 x 6m	Length	2.0		
3.10	PVC DN 100 x 6m	Length	10.0		
4	Supply and Installation of 12m x 12m Fence				
4.1	Galvanized Diamond Chain Wire 50mmx2.5mm, 1800mm	m	48.0		
4.2	Galvanized Tension Wire 3.15MM	m	90.0		
4.3	Galvanized Tie Wire 1.57mm 280m (4.6kg)	No.	2.0		
4.4	Masproclick 500 pack	No.	1.0		
4.5	Fixed Corners - Galvanized Butt 40 - Thru 40	No.	3.0		
4.6	Fixed Cross - Galvanized Butt 40 – Thru 40	No.	11.0		
4.7	Fixed Tees - Galvanized Butt 80 – Thru 40	No.	2.0		
4.8	Gate Hinges DN80xDN40	No.	4.0		
4.9	Gal Fence Post DN40x3.2mmx3m BSP 1 end	No.	14.0		
4.10	Gal Gate Post DN80x4.2mmx3m BSP 1 end	No.	2.0		
4.11	Standard Diamond Chain Wire Gate 1.5m wide DN40x3.2mm	No.	2.0		
4.12	Gal Cross Bar DN40x3.2mmx6m BSP 2 ends	No.	8.0		
4.13	Underlay PE plastic, for concrete	m ²	144.0		
4.14	Excavation 16 footings 300x300x600mm	m ³	0.6		

4.15	Stone Masonry 1:4 mix design (including 3 rebar DIA 12), 36m ² . H=0.7m, thick=0.3m	m ³	7.6		
4.16	Concrete Mix 1:2:3	m ³	7.6		
4.17	Install Fence Poles including painting	No.	1.0		
4.18	Compacted gravel 5/7 CM with thickness 100mm around including underlay PE plastic	m ³	6.9		
Sub Total					\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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I	CONSTRUCTION OF 20M3 RESERVOIR TANK				
1	Foundation Work				
1.1	Site cleaning	m ²	54.0		
1.2	Excavation	m ³	3.5		
1.3	Stone Masonry 1:4	m ³	3.4		
1.4	Compacted gravel around tank 150mm thick	m ³	1.4		
1.5	Polyethylene sheet under gravel	m ²	38.1		
2	Concrete Work				
2.1	Concrete (1:2:3 mix design)	m ³	10.4		
2.2	Wire mesh 8mmø x 150mm x150mm	m ²	29.4		
2.3	Apply water proofing grip set 11Y	m ²	108.1		
2.4	Steel reinforcement	kg	123.8		
2.5	Formwork	m ²	80.9		
3	Pipes and Fittings				
3.1	Float Valve DN50	No.	1.0		
3.2	Puddle Flange DN50	No.	3.0		
3.3	Gal Mal 90° Elbow DN50	No.	6.0		
3.4	Gal Mal Double Nipple DN50	No.	4.0		
3.5	Brass Valve DN 50	No.	1.0		
3.6	Gal Mal Union DN50	No.	2.0		
3.7	Ball Valve DN50	No.	1.0		
3.8	Gal Mal Tee DN50	No.	1.0		
3.9	Gal Pipe DN50 x 6m	Length	2.0		
3.10	PVC DN 100 x 6m	Length	10.0		
				Sub Total	\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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J	CONSTRUCTION OF ONE 2.1M3 PUBLIC TANK				
1	Foundation Work				
1.1	Site cleaning	m ²	2.5		
1.2	Excavation	m ³	0.3		
1.3	Stone Masonry 1:4	m ³	0.5		
1.4	Compacted gravel around tank 150mm thick	m ³	0.2		
1.5	Polyethylene sheet under gravel	m ²	9.1		
2	Concrete Work				
2.1	Concrete (1:2:3 mix design)	m ³	0.4		
2.2	Wire mesh 8mmø x 150mm x150mm	m ²	0.9		
2.3	Formwork	m ²	1.8		
3	Tank, Pipes and Fittings				
3.1	Supply and Installation of 2.1m ³ Tank	No.	1.0		
3.2	Additional Opening DN50 for Inlet	No.	1.0		
3.3	Brass Float Valve DN 25	No.	1.0		
3.4	Gal Mal Socket DN25	No.	1.0		
3.5	Gal Mal Hex Nipple DN25	No.	8.0		
3.6	Gal Mal (FF) 90° Elbow DN25	No.	5.0		
3.7	Gate Valve (Female BSP Ends) DN 25	No.	2.0		
3.8	Gal Mal Union DN25	No.	4.0		
3.9	Gal Pipe DN20 x 6m	Length	2.0		
3.10	Tank should be 0.6mm thick Australian BlueScope Aquaplate steel tank with 25mm outlet, 50mm overflow and inspection cover, unless otherwise approved by SMASA or the person responsible for the UNDP.	Notes	N/A	N/A	N/A
Sub Total					\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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K	SUPPLY AND INSTALLATION OF SIX NEW TAP AND REHABILITATION OF EXISTING TAPS				
1	Preparation Work				
1.1	Site cleaning	m ²	25.0		
1.2	Ensure location of tap is not constructed in a depression prone to flooding.	Notes	N/A	N/A	N/A
2	Concrete Work				
2.1	Concrete (1:2:3 mix design)	m ³	1.6		
2.2	Steel reinforcement 10mm	kg	103.7		
2.3	Formwork	m ²	3.0		
3	Supply and Install Tap, Pipes and Fittings				
3.1	6m Gal Pipe DN15x2.6mm	No.	1.0		
3.2	Brass Gate Valve DN15, PN16, BSP (M)	No.	1.0		
3.3	Gal Mal Hex Nipple DN15	No.	1.0		
3.4	Gal Mal FF Union DN15	No.	2.0		
3.5	Gal Mal FF Tee DN15	No.	1.0		
3.6	Gal Mal FF Bush DN20xDN15	No.	2.0		
3.7	Gal Mal FF Elbow 90 DN15	No.	4.0		
3.8	PTFE Tape 12mm	No.	4.0		
3.9	Installation of Gal Pipe and PTFE tape	No.	1.0		
3.10	Gal pipe and fittings to comply with AS1074. Threaded pipe ends to be BSP. Contractor must examine quality and thickness of pipe prior to installation. Cut and connect pipe as per drawings. Laundry bench should be constructed as per drawing to allow people to sit while washing clothes.	Notes	N/A	N/A	N/A
Sub Total of Supply and Installation of One New Tap					\$ -
Sub Total of Six New Taps (6 x Sub Total of Supply and Installation of One New Tap)					\$ -
4	Rehabilitation of One Existing Tap				
4.1	Repair damaged existing public taps	Lump Sum	1.0		
Sub Total of Rehabilitation of Existing Taps					\$ -
Sub Total of Supply and Installation of Six New Taps and Rehabilitation Existing Taps					\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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L	SUPPLY AND INSTALLATION OF SECURITY FENCE FOR THREE TANKS (BPT AND TWIN RESERVOIR TANKS)				
1	Supply and Installation of 9m x 6m Fence				
1.1	Galvanized Diamond Chain Wire 50mmx2.5mm, 1800mm	m	54.0		
1.2	Galvanized Tension Wire 3.15MM	m	120.0		
1.3	Galvanized Tie Wire 1.57mm 280m (4.6kg)	No.	2.0		
1.4	Masproclick 500 pack	No.	1.0		
1.5	Fixed Corners - Galvanized Butt 40 - Thru 40	No.	3.0		
1.6	Fixed Cross - Galvanized Butt 40 – Thru 40	No.	11.0		
1.7	Fixed Tees - Galvanized Butt 80 – Thru 40	No.	2.0		
1.8	Gate Hinges DN80xDN40	No.	4.0		
1.9	Gal Fence Post DN40x3.2mmx3m BSP 1 end	No.	10.0		
1.10	Gal Gate Post DN80x4.2mmx3m BSP 1 end	No.	2.0		
1.11	Standard Diamond Chain Wire Gate 1.5m wide DN40x3.2mm	No.	2.0		
1.12	Gal Cross Bar DN40x3.2mmx6m BSP 2 ends	No.	5.0		
1.13	Underlay PE plastic, for concrete	m ²	61.0		
1.14	Excavation 16 footings 300x300x600mm	m ³	0.6		
1.15	Stone Masonry 1:4 mix design (including 3 rebar DIA 12), 36m ² . H=0.7m, thick=0.3m	m ³	7.6		
1.16	Concrete Mix 1:2:3	m ³	0.7		
1.17	Install Fence Poles including painting	No.	1.0		
1.18	Compacted gravel 5/7 CM with thickness 100mm around including underlay PE plastic	m ³	6.9		
				Sub Total	\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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M	TOOLKIT FOR COMMUNITY MAINTENANCE GROUP				
1	Toolbox				
1.1	0.6mm gal toolbox with handle and padlock	No.	1.0		
1.2	Hacksaw Frame	No.	5.0		
1.3	Pipe wrench 18"	No.	1.0		
1.4	Pipe wrench 14"	No.	1.0		
1.5	Camlock DN50-DN65	No.	1.0		
1.6	Camlock DN15-DN32	No.	1.0		
1.7	Vice table with 4" capacity anti-rust paint	No.	1.0		
1.8	Wheel pipe cutter for pipe DN50	No.	1.0		
1.9	Wheel pipe cutter for pipe DN25	No.	2.0		
1.10	Strap DN63	No.	1.0		
1.11	Bi-metal Safety Blade 12" (300mm)	No.	1.0		
1.12	Contractor must supply the GMF with these tools new and unused.	Notes	N/A	N/A	N/A
				Sub Total	\$ -

No	Description	Unit	Quantity	Unit Price	Total Price
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N	EXTENSION OF ELECTRICAL NETWORK TO PROVIDE POWER SUPPLY TO PUMP				
1	Preparation				
1.1	Coordinate with EDTL Municipality of Baucau prior to purchasing materials. All materials must be approved by EDTL Engineer.	Notes	N/A	N/A	N/A
2	Extension of Low Voltage Line				
2.1	Steel Pole 9m 156 dAN	No.	6.0		
2.2	Cable ABC 4x25mm ²	m	300.0		
4.3	Fixed Dead End Assembly	No.	4.0		
4.4	Stainless Steel Suspension Assembly	No.	3.0		
4.5	Stainless Steel Buckle	No.	30.0		
4.6	Stainless Steel Strip	No.	40.0		
4.8	Assembly	No.	2.0		
4.9	Earthing	No.	1.0		
4.10	LV Tap Connector 25 - 95mm ²	No.	4.0		
4.11	Painting	No.	6.0		
4.12	Administration	No.	1.0		
4.13	Installation	Lump Sum	1.0		
				Sub Total	\$ -

Annex 2

FORM FOR SUBMITTING SUPPLIER'S QUOTATION¹

(This Form must be submitted only using the Supplier's Official Letterhead/Stationery²)

We, the undersigned, hereby accept in full the UNDP General Terms and Conditions, and hereby offer to supply the items listed below in conformity with the specification and requirements of UNDP as per RFQ Reference No. _____:

TABLE 1 : Offer to Supply Goods Compliant with Technical Specifications and Requirements

Item No.	Description/Specification of Goods	Quantity	Latest Delivery Date	Unit Price	Total Price per Item
1	Procurement, construction and commissioning of one hydraulic-powered water system and one gravity-fed water system in the Municipality of Baucau [please indicate detailed price per each item in the Bill of Quantity and indicate Total Price here]	1 Lump sum	December 15, 2019		
	Total Prices of Goods³				
	Total Final and All-Inclusive Price Quotation				

TABLE 2 : Estimated Operating Costs (if applicable)

List of Consumable Item/s (Include fast moving parts, if any)	Estimated Average Consumption	Unit of Measure	Unit Price	Total Price per Item

¹ This serves as a guide to the Supplier in preparing the quotation and price schedule.

² Official Letterhead/Stationery must indicate contact details – addresses, email, phone and fax numbers – for verification purposes

³ Pricing of goods should be consistent with the INCO Terms indicated in the RFQ

TABLE 3 : Offer to Comply with Other Conditions and Related Requirements

Other Information pertaining to the Quotation are as follows :	Your Responses		
	<i>Yes, we will comply</i>	<i>No, we cannot comply</i>	<i>If you cannot comply, pls. indicate counter proposal</i>
Date of mobilization following award of the contract: 1 week			
Country/ies of origin of materials to be procured ⁴ : Preference for Timor-Leste			
Warranty and After-Sales Requirements			
a) Minimum one (1) year warranty on both parts and labor			
b) Service Unit to be Provided when the Purchased Unit is Under Repair			
c) Brand new replacement if Purchased Unit is beyond repair			
Validity of Quotation: 90 days			
All Provisions of the UNDP General Terms and Conditions			
Engagement of Community to Assist During the Implementation of the Project			
Engagement of Women and Youth to Assist During the Implementation of the Project			

All other information that we have not provided automatically implies our full compliance with the requirements, terms and conditions of the RFQ.

[Name and Signature of the Supplier's Authorized Person]
[Designation]
[Date]

⁴ If the country of origin requires Export License for the goods being procured, or other relevant documents that the country of destination may require, the supplier must submit them to UNDP if awarded the PO/contract.

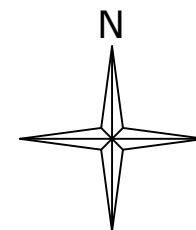
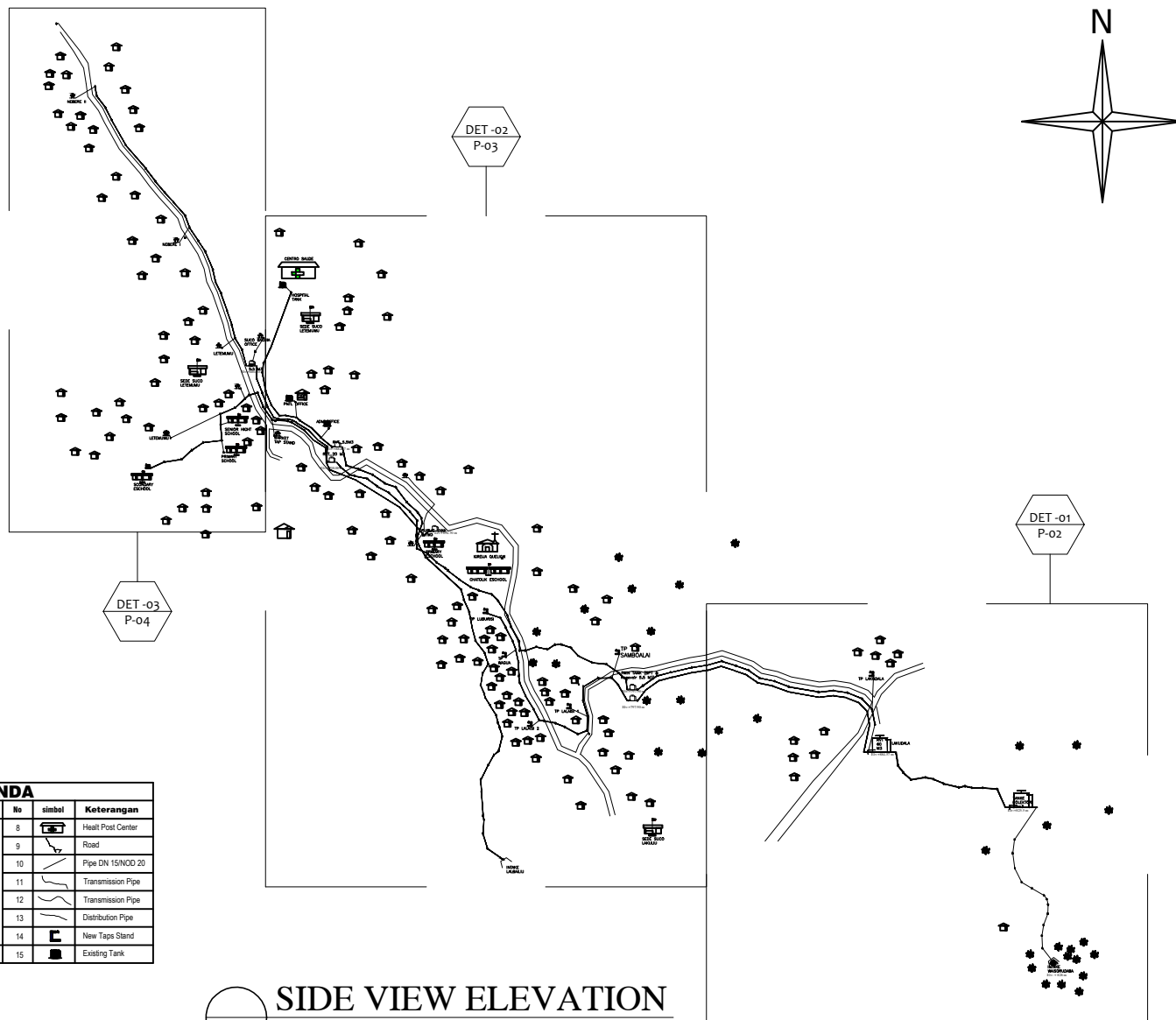
SCHEDULE OF DRAWINGS

TITLE OF DRAWING	DRAWING No. :	TITLE OF DRAWING	DRAWING No. :
-- LOCATION MAP	DWRG No. : 00	-- TWIN B.A.T & RV TANK SCHEMATIC PIPE WORKS	DWRG No. : 18
-- LAYOUT PLAN	DWRG No. : 01	-- 20M3 RCT PLAN	DWRG No. : 19
-- DETAIL 01 LAYOUT PLAN	DWRG No. : 02	-- 20M3 RCT FOUNDATION, ELEVATION & SECTIONS	DWRG No. : 20
-- DETAIL 02 LAYOUT PLAN	DWRG No. : 03	-- 20M3 RCT SCHEMATIC PIPE WORKS	DWRG No. : 21
-- DETAIL 03 LAYOUT PLAN	DWRG No. : 04	-- 2.1M3 PUBLIC TANK PLAN & ELEVATION	DWRG No. : 22
-- PIPE NETWORK & LENGTH OF PIPE	DWRG No. : 05	-- 2.1M3 PUBLIC TANK FOUNDATION PLAN & DETAILS	DWRG No. : 23
-- GS & P.E PIPE INSTALLATION	DWRG No. : 06	-- 2.1M3 PUBLIC TANK SCHEMATIC PIPE WORKS	DWRG No. : 24
-- INTAKE PLAN, ELEVATION & COVERS DETAIL	DWRG No. : 07	-- 5.5M3 BPT PLAN & ELEVATION	DWRG No. : 25
-- INTAKE SECTIONS	DWRG No. : 08	-- 5.5M3 BPT FOUNDATION PLAN & DETAIL	DWRG No. : 26
-- 20M3 RCT (PUMP STATION) PLAN & FENCE	DWRG No. : 09	-- 5.5M3 BPT SCHEMATIC PIPE WORKS	DWRG No. : 27
-- 20M3 RCT (PUMP STATION) FOUNDATION, ELEVATION & SECTION	DWRG No. : 10	-- TAPS STAND PLAN	DWRG No. : 28
-- 20M3 RCT SCHEMATIC PIPE WORKS	DWRG No. : 11	-- TAPS STAND SECTIONS	DWRG No. : 29
-- 60m3 RESEVOIR TANK PLAN & FENCE	DWRG No. : 12	-- TAPS STAND ELEVATION	DWRG No. : 30
-- 60M3 RESERVOIR TANK FOUNDATION, ELEVATION & SECTIONS	DWRG No. : 13	-- LAUNDRY BENCH	DWRG No. : 31
-- 60M3 RESERVOIR TANK PIPE WORKS PLAN & VALVE BOX DETAIL	DWRG No. : 14	-- CHAIN WIRE SECURITY FENCE	DWRG No. : 32
-- 60M3 RESERVOIR TANK PIPE WORKS SECTIONS & VIEW	DWRG No. : 15	-- CHAIN WIRE DETAIL	DWRG No. : 33
-- 60M3 RESERVOIR TANK SCHEMATIC PIPE WORKS	DWRG No. : 16	-- ELECTRICAL PLAN	DWRG No. : 34
-- TWIN B.A.T & RV TANK PLAN, ELEVATION & FOUNDATION DETAIL	DWRG No. : 17		

LEGENDA					
No	simbol	Keterangan	No	simbol	Keterangan
1		Intake (Water Source)	8		Health Post Center
2		Water Tank	9		Road
3		Communities House	10		Pipe DN 15/NOO 20
4		School	11		Transmission Pipe
5		Church	12		Transmission Pipe
6		PNTL Office	13		Distribution Pipe
7		Tap Stand Existing	14		New Taps Stand
			15		Existing Tank



SIDE VIEW ELEVATION



NOTES

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) All GS pipe installed above ground level with concrete support pipe every 6 meter distance
- 3.) All P.E pipe installed buried under ground level

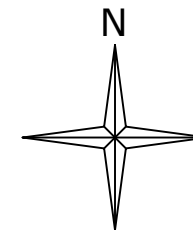
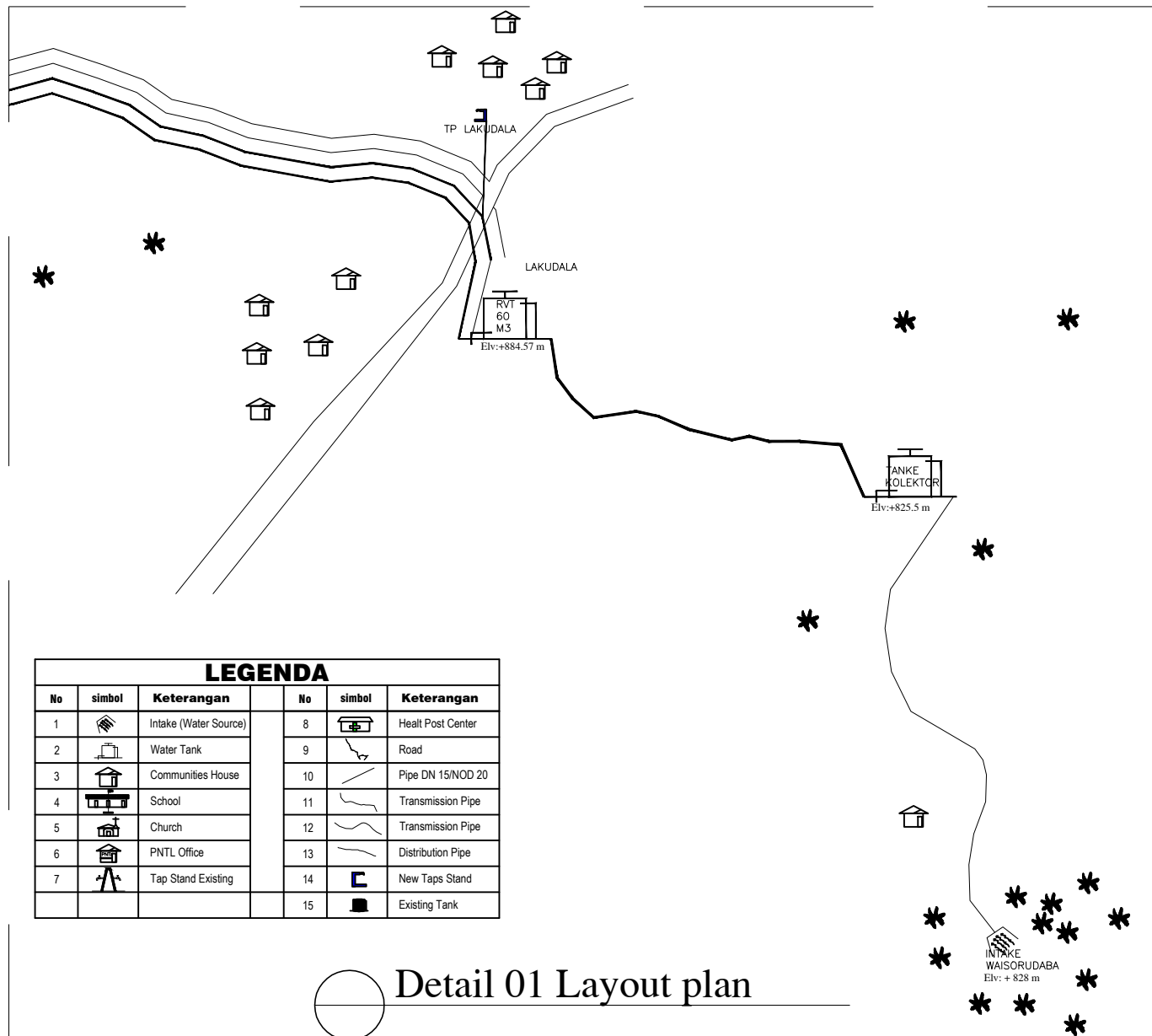
Revistu	Eskala
-	N.T.S
-	
-	



AUTORIDADE MUNICIPAL DE BAUCAU



Projeto: Konstrusaun Ba'e Moos uza sistema Bomba no Gravitasaun			Munisipiu: Baucau
Lay out Plan			Postu Admin: Quelicai
Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
<u>Vicente da Costa Freitas</u>	<u>Gil Samba</u>	<u>Nelson V. Coelho de Sousa Guterres</u>	Drwa No: 01



NOTES

- 1.)ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.)All GS pipe installed above ground level with concrete support pipe every 6 meter distance
- 3.)All P.E pipe installed buried under ground level

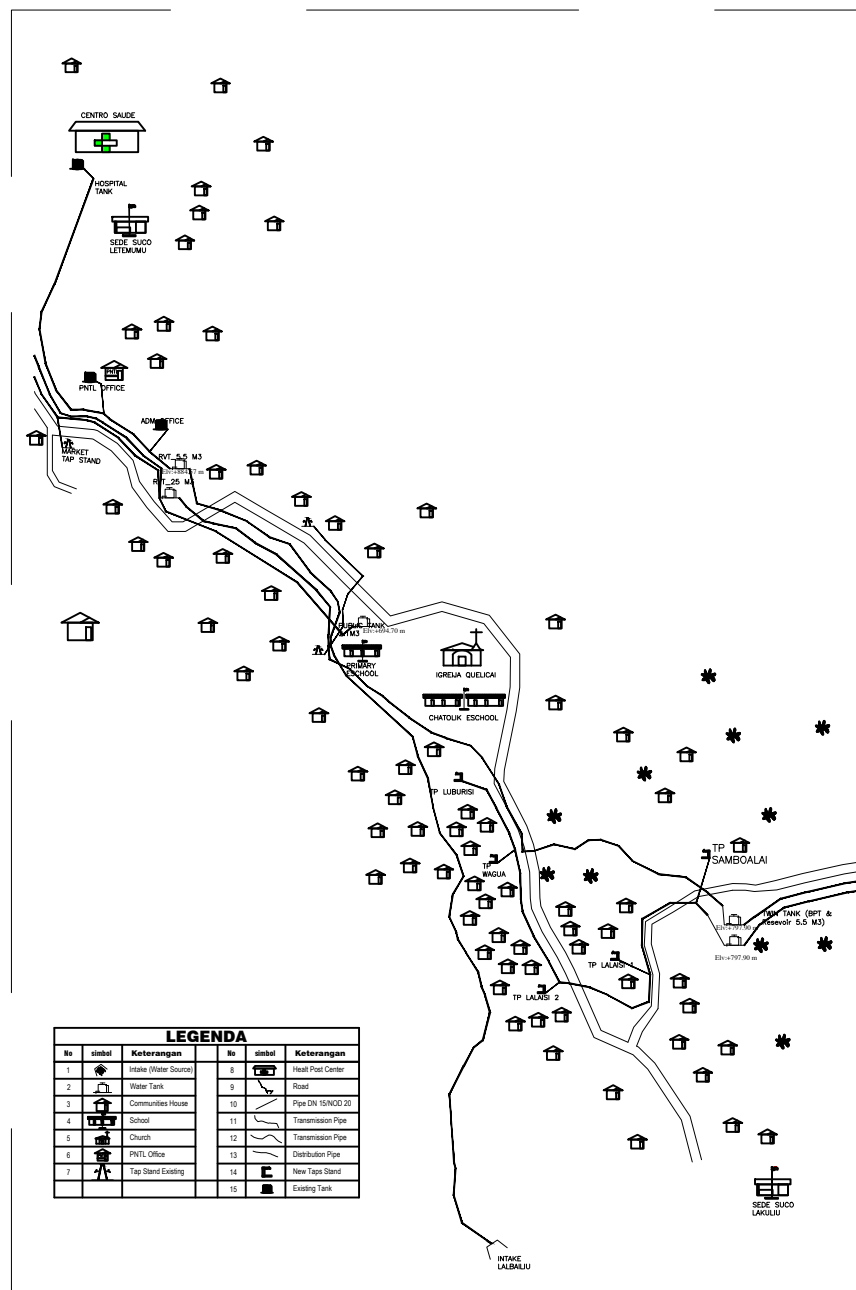
LEGENDA

No	simbol	Keterangan	No	simbol	Keterangan
1		Intake (Water Source)	8		Health Post Center
2		Water Tank	9		Road
3		Communities House	10		Pipe DN 15/NOD 20
4		School	11		Transmission Pipe
5		Church	12		Transmission Pipe
6		PNTL Office	13		Distribution Pipe
7		Tap Stand Existing	14		New Taps Stand
			15		Existing Tank



Detail 01 Layout plan

Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE	Projeto:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau
-	N.T.S			Detail 01 lay out plan		Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			Vicente da Costa Freitas Tékniu SMASeA Baucau	Gil Samba Konsultor Tékniku UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Drwg No: 02



Detail 02 Layout plan

● NOTES ●

- 1.)ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.)All GS pipe installed above ground level with concrete support pipe every 6 meter distance
- 3.)All P.E pipe installed buried under ground level

Revistu

Eskala

N.T.S



AUTORIDADE MUNICIPAL DE BAUCAU



Projetu:

Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun

Detail 02 lay out plan

Dezena husi:

Vicente da Costa Freitas
Técnico SMASeA Baucau

Verifika husi:

Gil Samba
Consultor Técnico UNCP

Aprova husi:

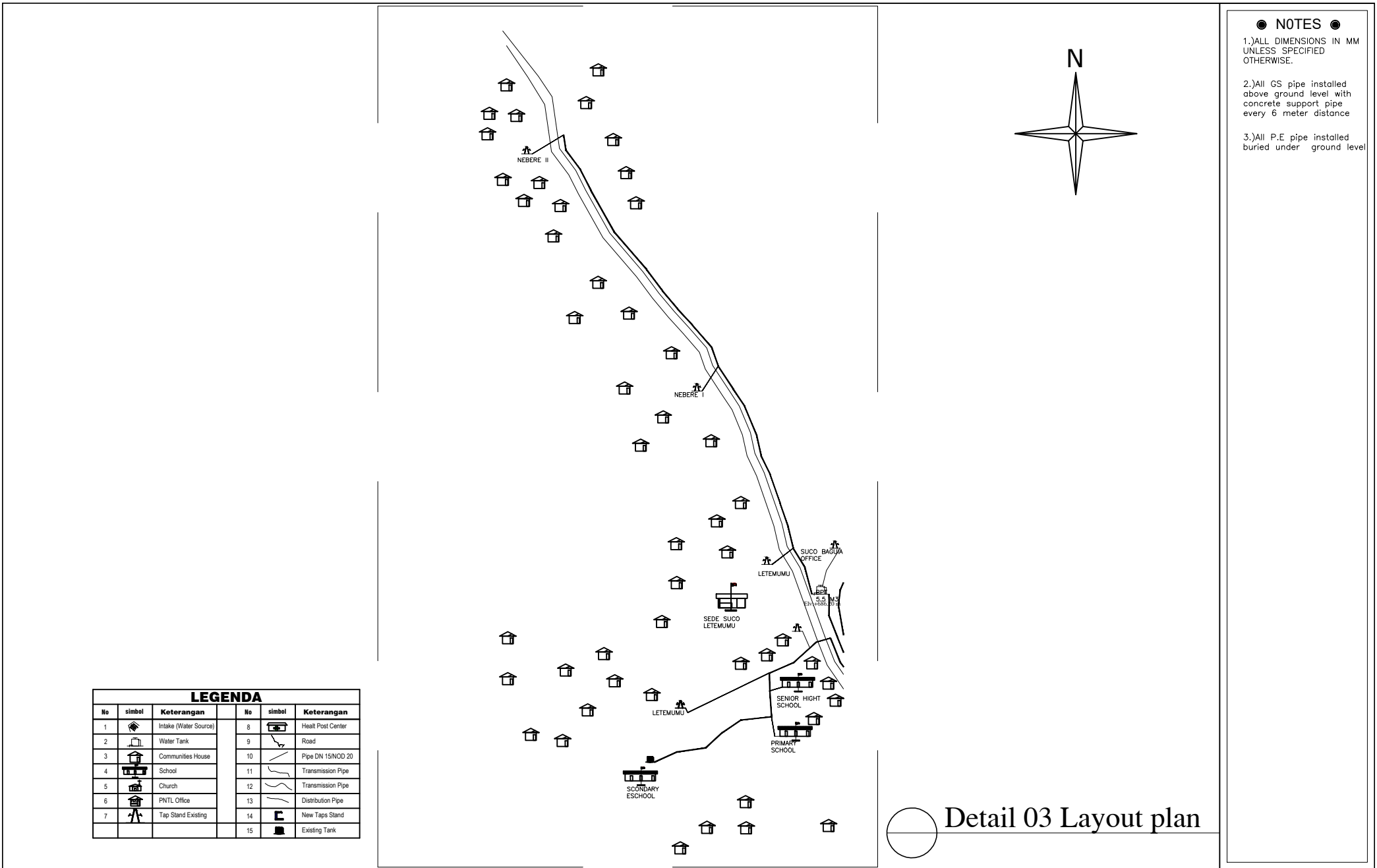
Nelson V. Coelho de Sousa Guterres
Diretor SMASeA Baucau

Munisipiu: Baucau

Postu Admin: Quelicai

Lokal:

Drwg No: **03**

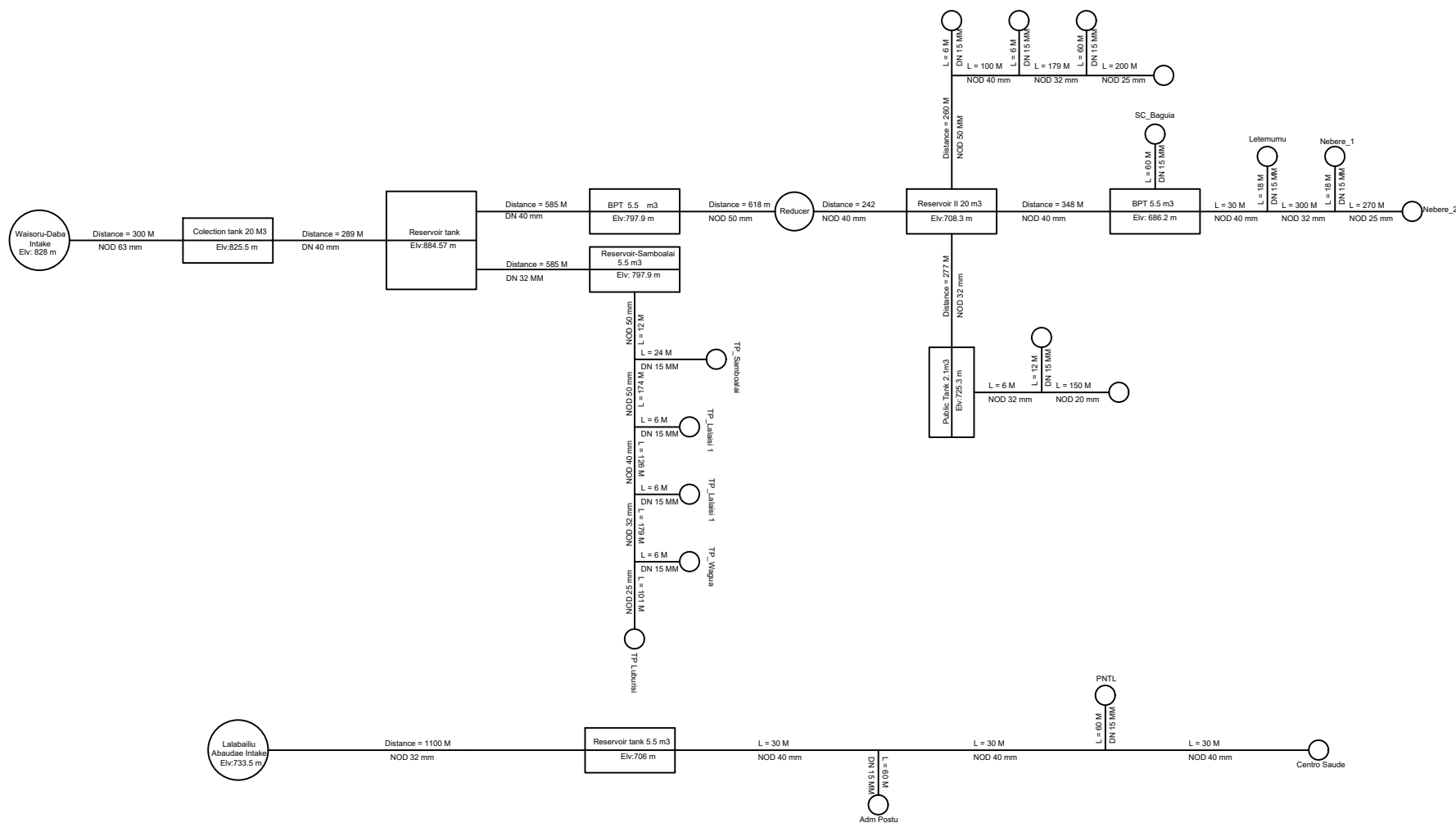


- NOTES ●
- 1.)ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
 - 2.)All GS pipe installed above ground level with concrete support pipe every 6 meter distance
 - 3.)All P.E pipe installed buried under ground level

Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU  Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE 	Projeto: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun			Munisipiu: Baucau
-	N.T.S		Detail 03 lay out plan			Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			Vicente da Costa Freitas Tékniu SMASeA Baucau	Gil Samba Konsultor Tékniku UNCP	Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Drwg No: 04

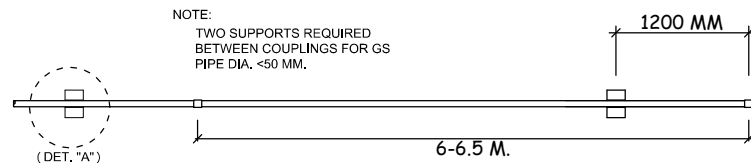
● NOTES ●

1.) ALL DIMENSIONS IN MM
UNLESS SPECIFIED
OTHERWISE.

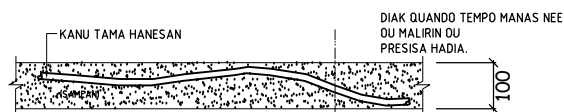


PIPE NETWORK & LENGTH OF PIPE

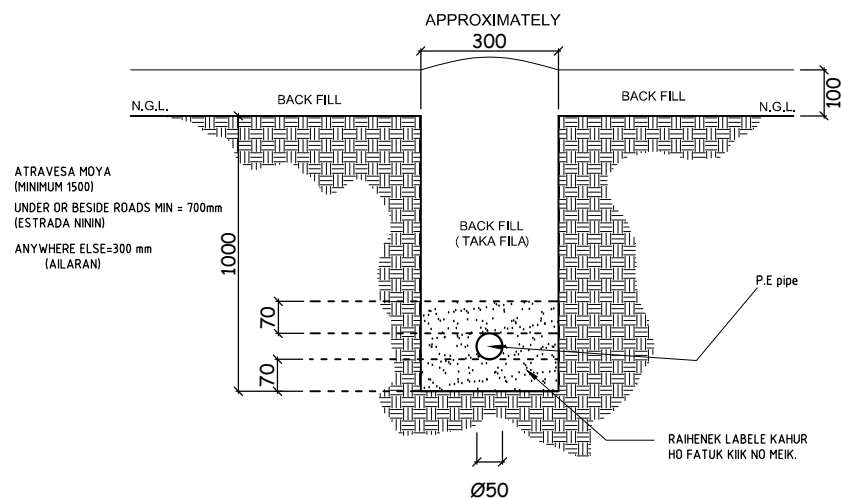
Revistu - - -	Eskala N.T.S	AUTORIDADE MUNICIPAL DE BAUCAU	Projetu: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun Pipe Network & Length of Pipe Dezena husi: Vicente da Costa Freitas Técnico SMASa Baucau Verifika husi: Gil Samba Konsultor Técnico UNDP Aprova husi: Nelson V. Coelho de Sousa Guterres Diretor SMASa Baucau	Munisipiu: Baucau Postu Admin: Quelicai Lokal: Drwg No: 05
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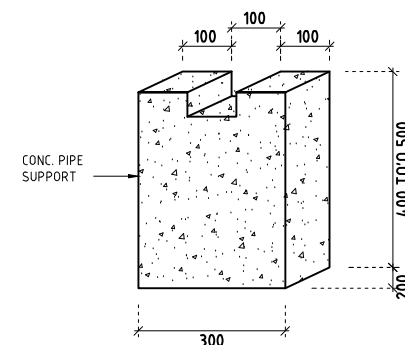
TYPICAL GS ABOVE
GROUND INSTALLATION



PLAN VIEW OF P.E PIPE IN TRENCH



SECTION @ A



Detail A
TIPE-1

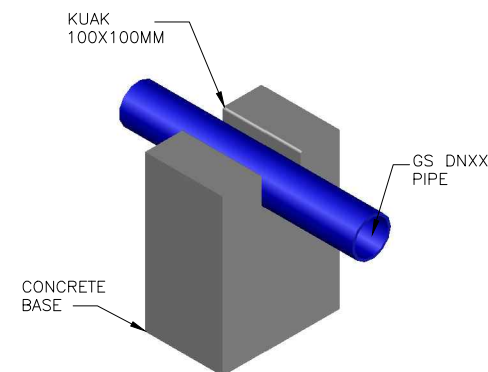


ILLUSTRATION
VIEW

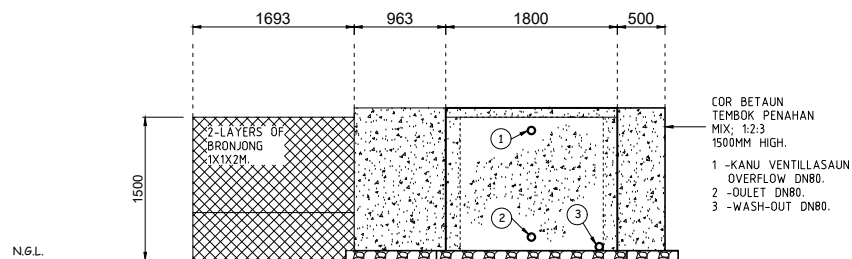
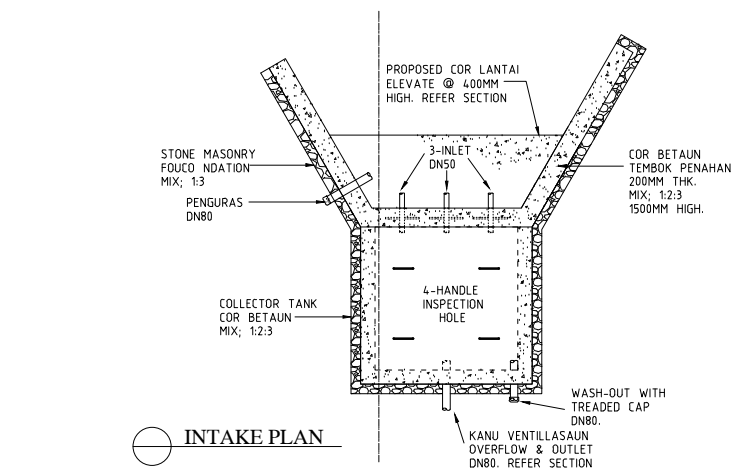
NOTES:

1.) ALL DIMENSIONS IN MM
UNLESS SPECIFIED
OTHERWISE.

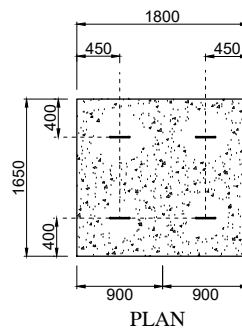
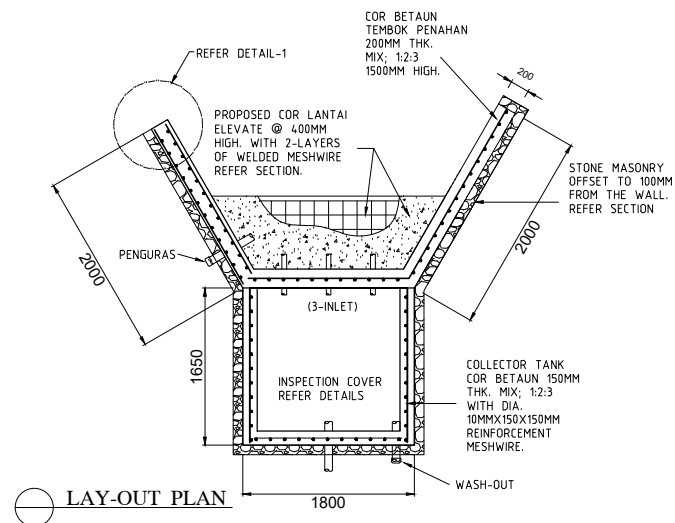
Revistu	Eskala
-	N.T.S
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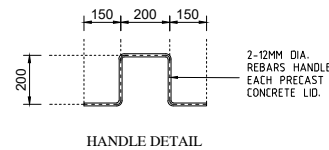
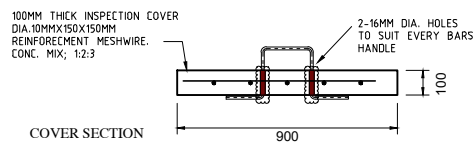
Projetu: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun GS & P.E pipe Installation			Munisipiu: Baucau
Dezena husi: Vicente da Costa Freitas Técnico SMASeA Baucau			Postu Admin: Quelicai
Verifika husi: Gil Samba Consultor Técnico UNDP	Aprova husi: Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Lokal:	
			Drwg No: 06



FRONT VIEW ELEVATION

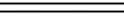


INSPECTION HOLE DETAILS



NOTES:

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCEMENT CONCRETE MIX; 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS
- 3.) STONE MASONRY MORTAR MIX:
 - 1 SEMENTE
 - 3 RAIHENEK
- 4.) BRITAS UKURAN 20/30MM MAHAR 50MM ENSI IHA LUTU LARAN.
- 5.) USA BEKISTING (FORMA)

Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU  Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau	
-	N.T.S		Intake Plan, Elevation & Inspection Cover Detail		Postu Admin: Quelicai	
-			Dezena husi:	Verifika husi:	Aprova husi:	
-			<u>Vicente da Costa Freitas</u>	<u>Gil Samba</u>	<u>Nelson V. Coelho de Sousa Guterres</u>	Lokal:
-			Técnico SMASeA Baucau	Consultor Técnico UNDP	Diretor SMASeA Baucau	Drwg No: 07

1.) ALL DIMENSIONS IN MM
UNLESS SPECIFIED
OTHERWISE.

2.) ALL REINFORCEMENT
CONCRETE MIX: 1:2:3,
SEE TECHNICAL
SPECIFICATION FOR DETAILS

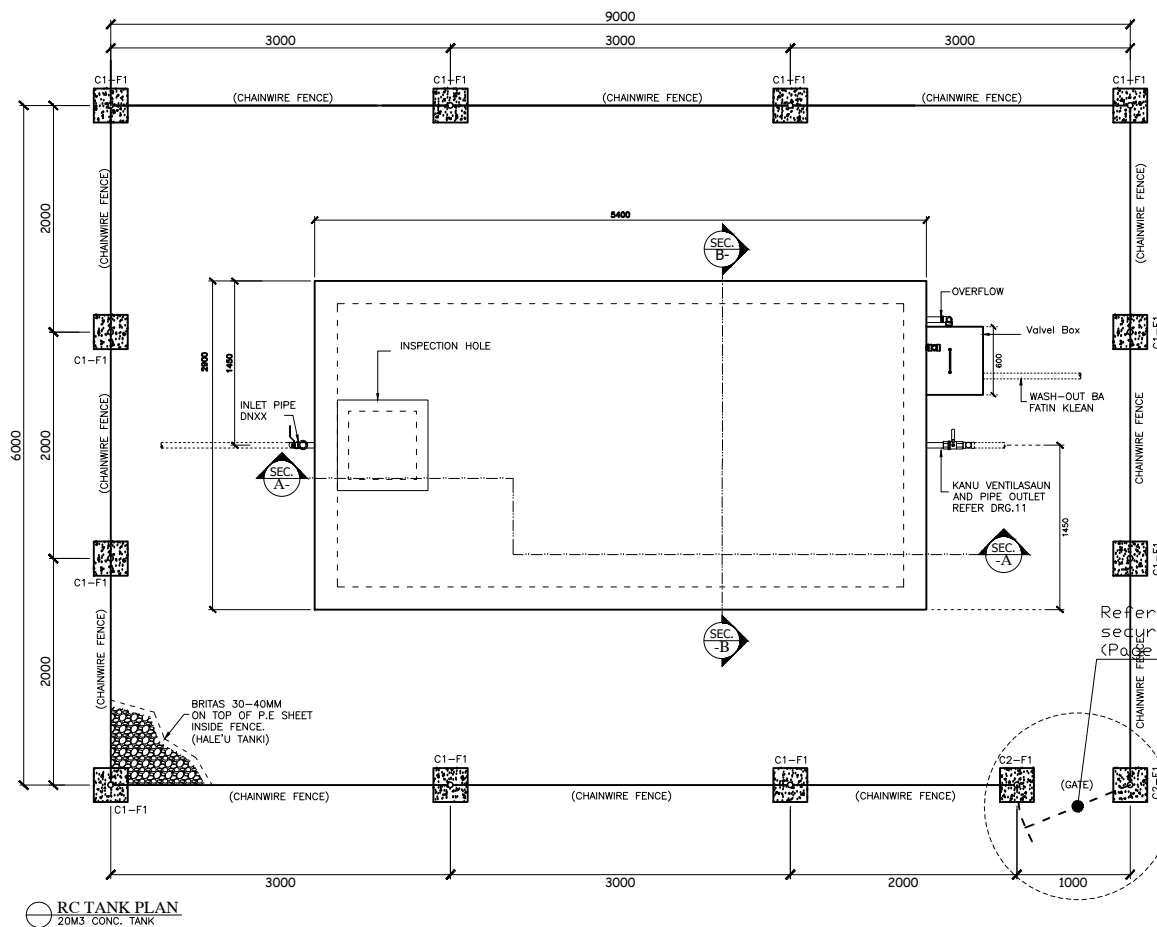
3.) STONE MASONRY
MORTAR
MIX:
1 SEMENTE
3 RAIHENEK

4.) BRITAS UKURAN
20/30MM MAHAS 50MM
ENSI IHA LUTU LARAN.

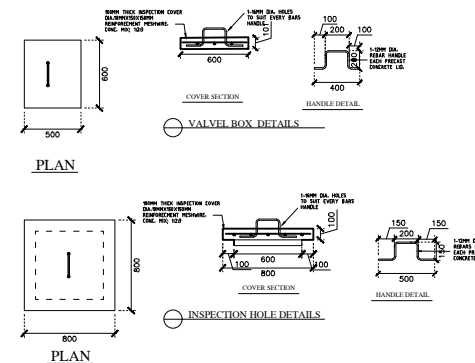
5.) UJA BEKISTING (FORMA)



Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU  Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE 	Projeto: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun			Munisipiu: Baucau
-	N.T.S		Intake Section			Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			<u>Vicente da Costa Freitas</u>	<u>Gil Samba</u>	<u>Nelson V. Coelho de Sousa Guterres</u>	Drwg No: 08



Refers to typical
security fence 02
(Page 32)



NOTES:

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCEMENT CONCRETE MIX: 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS.
- 3.) USA BEKISTING (FORMA)
- 4.) FUI BETAUN RAI OKUS HO NINIA DIDIN LORON PREMEIRO TOO LORON TOLU LIU LORON NEN, HASAI BEKISTING DIDIN, MONTA FALI BEKISTING MATAN DEPOIS LIU SEMANA IDA KONTINUA FALI FUI NIA MATAN. LORON TOLU LIU TIHA HASAI BEKISTING. REGA BE LOR LORON HO BEMOS DURANTE SEMANA IDA NIA LARAN DEPOIS DE FUI BETON.
- 4.) TAU BRITAS 30-40MM HALE'U TANKI

Revistu

Eskala

-
-
-

N.T.S



Projetu:

Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun

RCT 20m³ (Pump station) and Fence Plan

Dezena husi:

Vicente da Costa Freitas
Técnico SMASeA Baucau

Verifika husi:

Gil Samba
Consultor Técnico UNDP

Aprova husi:

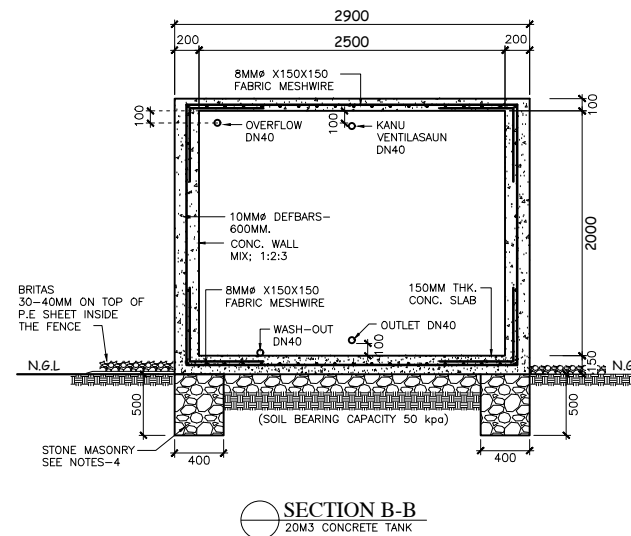
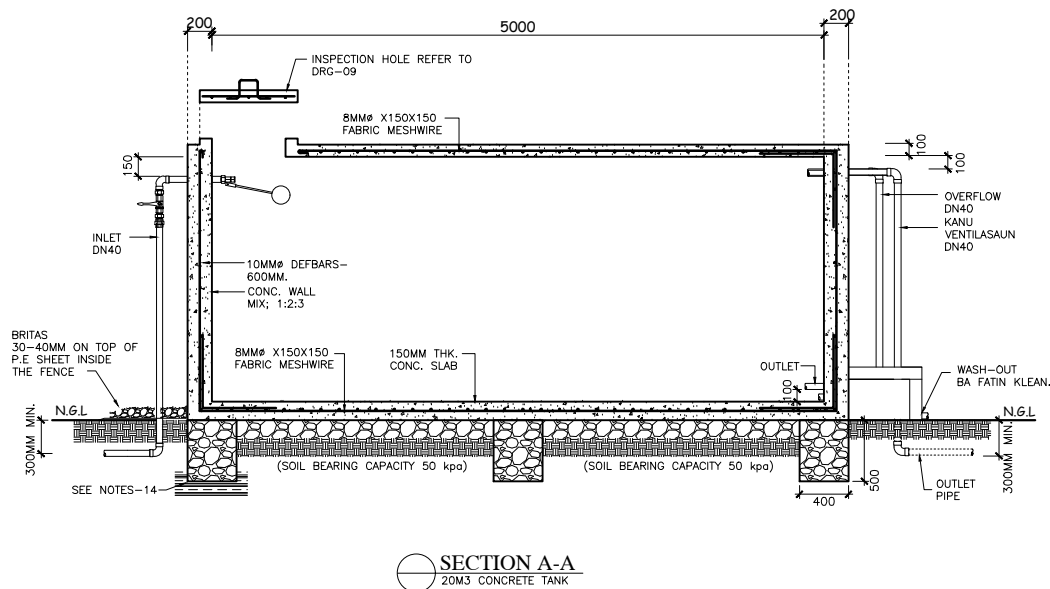
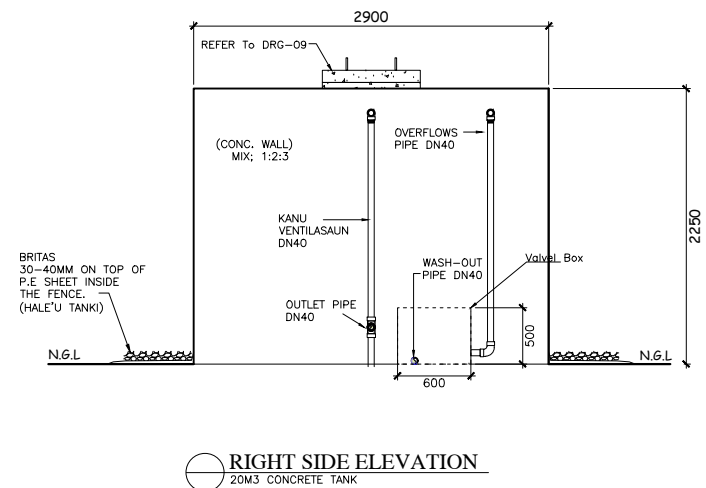
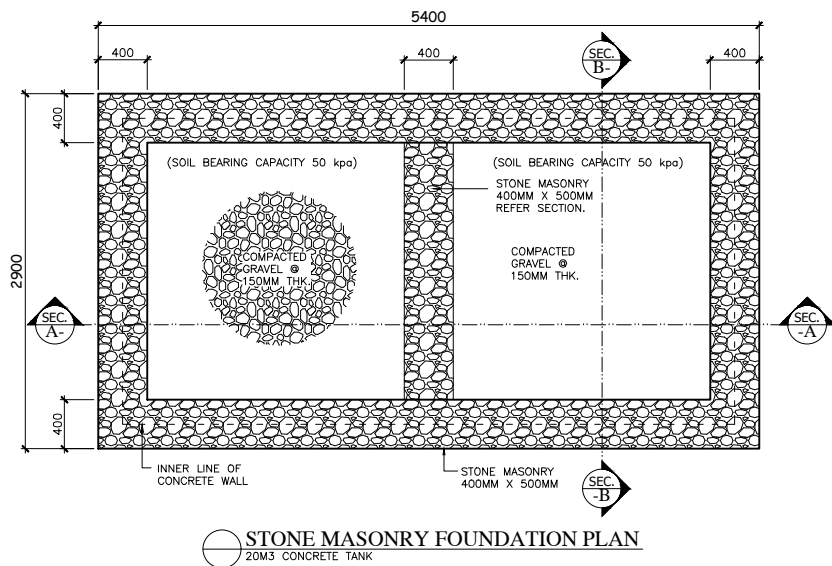
Nelson V. Coelho de Sousa Guterres
Diretor SMASeA Baucau

Munisipiu: Baucau

Postu Admin: Quelicai

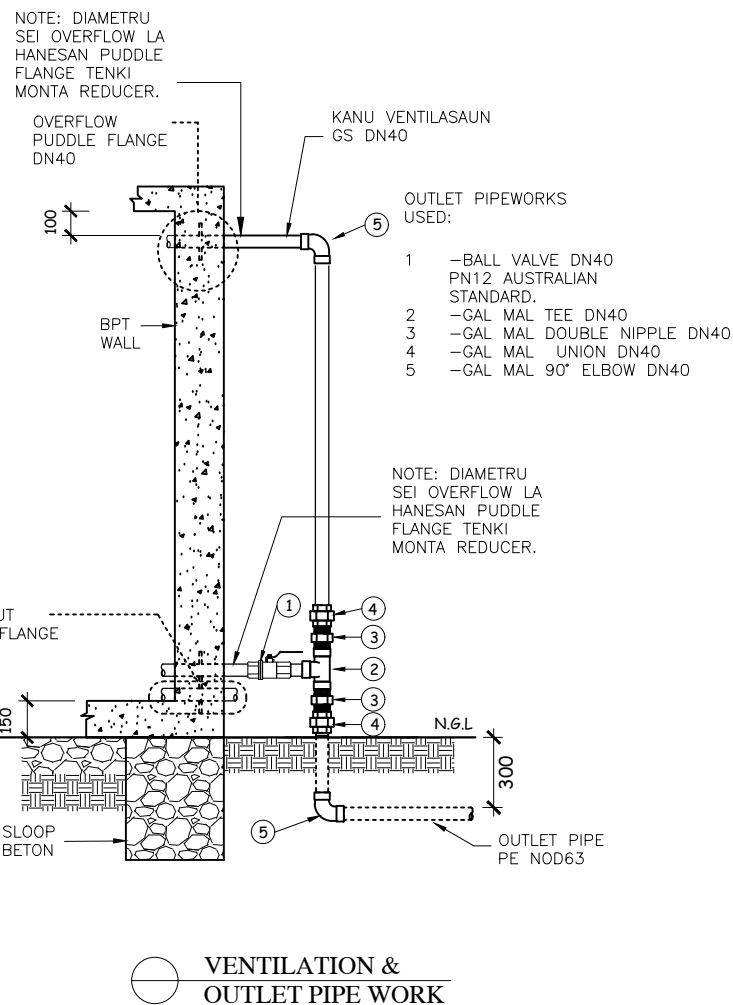
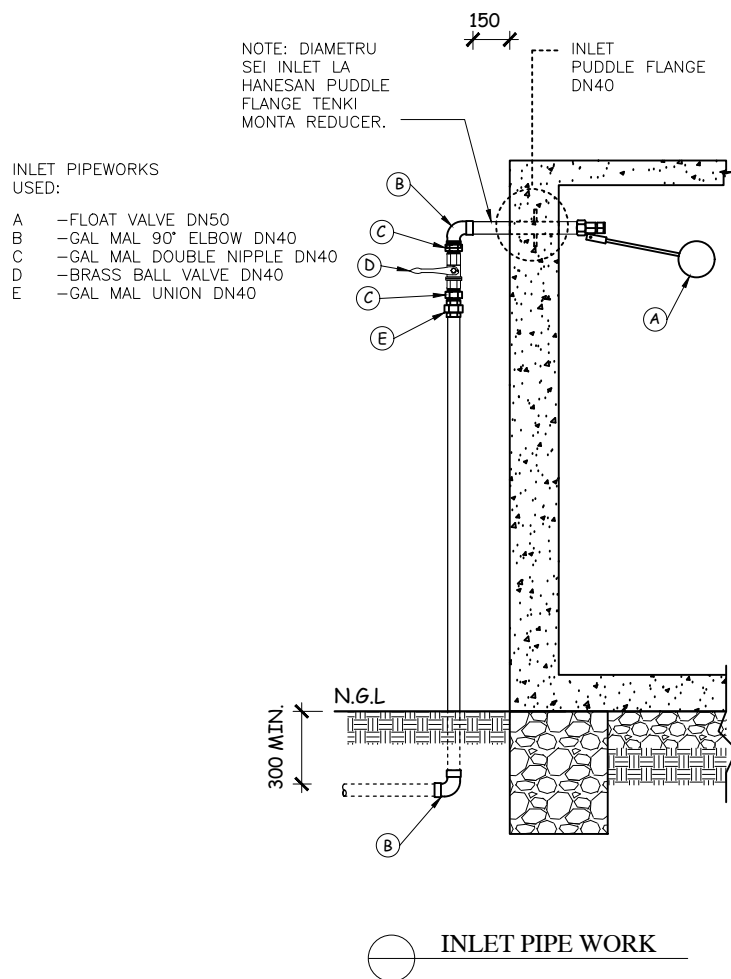
Lokal:

Drwg No: 09



- NOTES:**
- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
 - 2.) ALL REINFORCEMENT CONCRETE MIX: 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS.
 - 3.) USA BEKISTING (FORMA)
 - 4.) STONE MASONRY FOUNDATION MIX: 1-SEMENTE, 3-RAIHANEK.
 - 5.) HADA FATUK IHA TENKI NIA OKOS, DEFOIS BAKU TUN (COMPACTED).
 - 6.) NAHI RAIHANEK ATU HALO TETUK.
 - 7.) FUI BETAUN RAI OKOS HO NINIA DIDIN LORON PREMEIRO TOO LORON LIU LORON HAT, HASAI BEKISTING DIDIN, MONTA FALI BEKISTING MATAN DEPOIS, KONTINUA FALI FUI NIA MATAN LORON IDA.
 - 8.) LIU SEMANA IDA, HASAI BEKISTING DIDIN, MONTA FALI BEKISTING MATAN DEPOIS, KONTINUA FALI FUI NIA MATAN LORON IDA.
 - 9.) INDICATIVE FITTINGS TO USE:
- FLOAT VALVE DN40 (BSP) (M) & BALL VALVE DN40 (BSP) (M)
- GAL MAL SOCKET DN40.
- GAL MAL HEX NIPPLE DN40.
- GAL MAL FF (LR) BEND 90° DN40
- GAL MAL UNION.
- BALL VALVE DN40 FEMALE BSP ENDS.
- GATE VALVE DN40 (F) BSP ENDS.
 - 10.) FLOAT VALVE, BALL VALVE HO GATE VALVE TENKI ESTANDAR AUSTRALIA PN12 OU LIU.
 - 11.) ALL SOFT / UNSUITABLE MATERIAL TO BE REMOVED & REPLACED WITH WELL COMPACTED GRAVEL.
 - 12.) XX=Ø50 PIPE

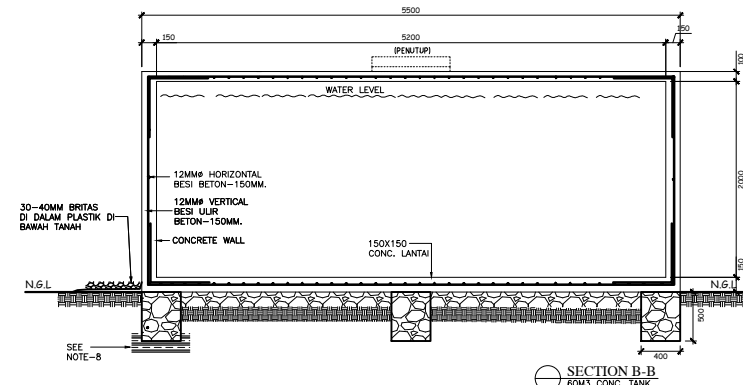
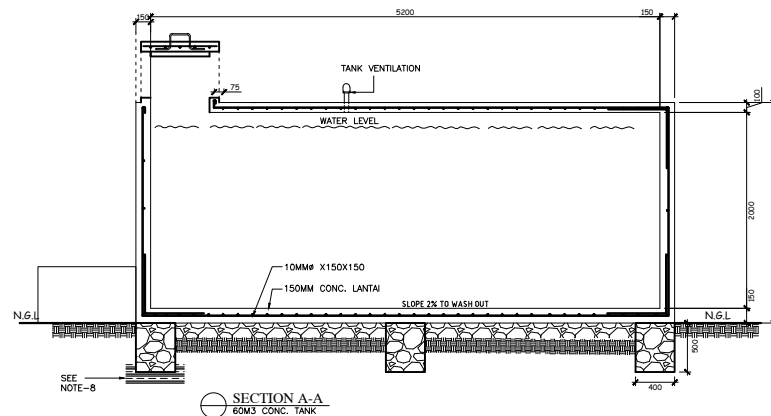
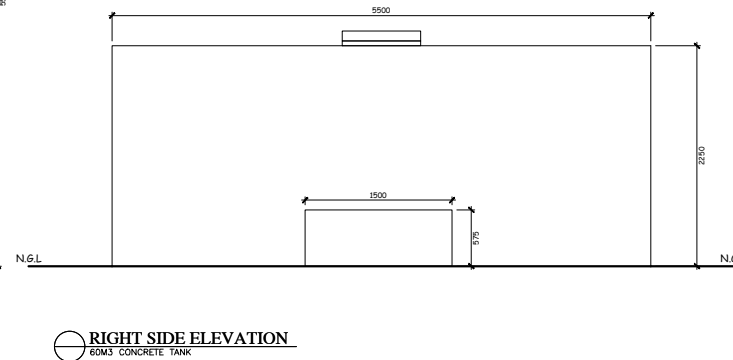
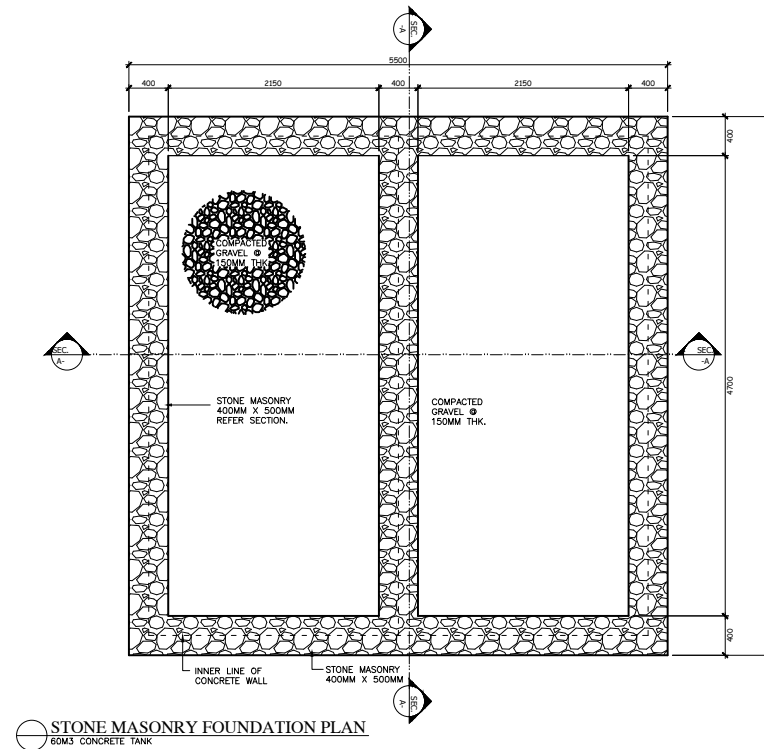
Revistu 	Eskala N.T.S	 AUTORIDADE MUNICIPAL DE BAUCAU 	Projetu: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun 20m3 RCT foundation plan, Elevation and Sections Dezena husi: Vicente da Costa Freitas Técnico SMASeA Baucau Verifika husi: Gil Samba Consultor Técnico UNDP Aprova husi: Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Munisipiu: Baucau Postu Admin: Quelicai Lokal: Drwg No: 10
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NOTES:

- 1.)ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.)FLOAT VALVE,BALL VALVE HO GATE VALVE TENKI ESTANDAR AUSTRALIA PN12 OU LIU.

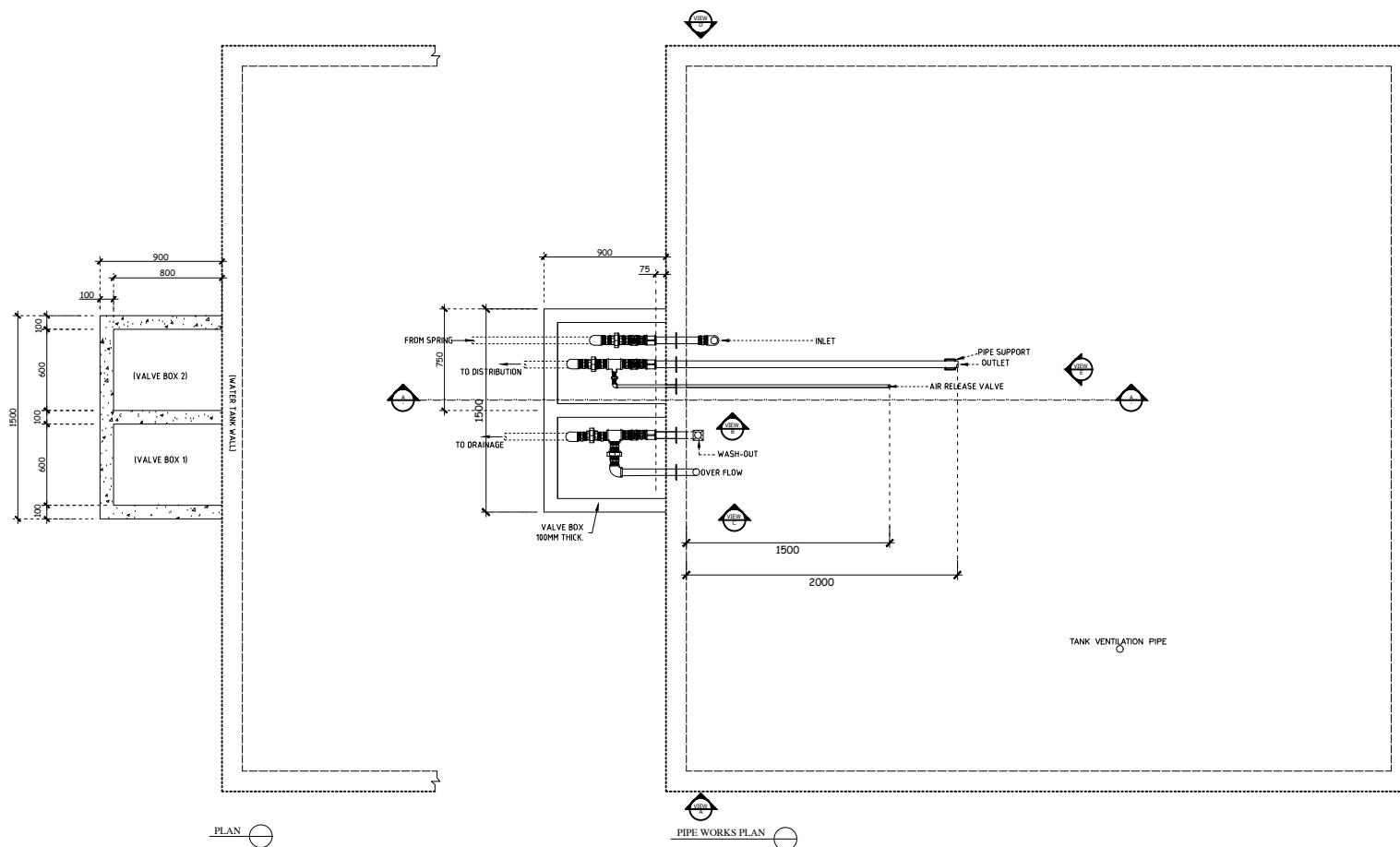
Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU  Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE 	Projetu: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun			Munisipiu: Baucau
-	N.T.S		20m3 RCT Schematic Pipe Work			Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			<u>Vicente da Costa Freitas</u> Engenheiro de Saneamento e Abastecimento de Água	<u>Gil Samba</u> Engenheiro de Saneamento e Abastecimento de Água	<u>Nelson V. Coelho de Sousa Guterres</u> Engenheiro de Saneamento e Abastecimento de Água	Drwg No: 11



NOTES:

- 1.) SEMUA DIMENSI MENGGUNAKAN MM, KECUALI YANG SUDAH DITENTUKAN
- 2.) SEMUA BETON DIPERKUAT DENGAN CAMPURAN ; 1:2:3, 1. SEMEN 2. PASIR 3. KERIKIL
- 3.)USA BEKISTING (FORMA)
- 4.) STONE MASONRY PONDASI MIX; 1-SEMENTE,2-RAIHANEK, 4-FATUK
- 5.) HADA FATUK IHA TENKI NIA OKOS,DEFOIS BAKU TUN (COMPACTED).
- 6.)NAHI RAIHANEK ATU HALO TETUK.
- 7.) FLOAT VALVE,BALL VALVE HO GATE VALVE TENKI ESTANDAR PEDOMAN TIMOR-LESTE.
- 8.) SEMUA BAHAN YANG LUNAK ATAU TIDAK COCOK, DIHAPUS DAN DIGANTI DENGAN KERIKIL
- 9.) SEMUA BESI BETON DITEMPATKAN SECARA TERPUSAT DI DINDING & LANTAI
- 10.) SEMUA BESI BETON DITEMPATKAN SECARA TERPUSAT DI DINDING & LANTAI
- 11.) COR HARUS SELALU DIBASAH SELAMA DUA MINGGU
- 12.) DIAMETER PIPA (Ø) -OVER FLOW -INLET -OUTLET -WASH OUT TERGANTUNG DARI ANALYSA HYDROLIC

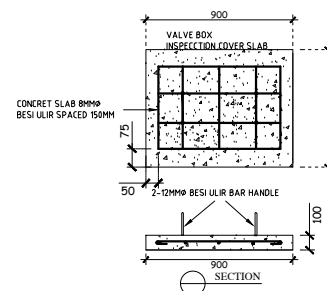
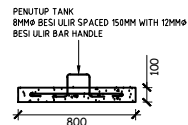
Revistu 	Eskala N.T.S	 AUTORIDADE MUNICIPAL DE BAUCAU  Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE	Projetu: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun Reservoir 60m3 Foundation plan, Elevation and Section Dezena husi: Vicente da Costa Freitas Técnico SMASeA Baucau Verifika husi: Gil Samba Consultor Técnico UNDP Aprova husi: Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Munisipiu: Baucau Postu Admin: Quelicai Lokal: Drwg No: 13
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FITTINGS TO BE USED:
FOR INLET,OUTLET,WASH-OUT AND OVERFLOW ARE ALL IN GAL MAL DN50MM
WITH PUDDLE FLANGE AS SHOWN ON DRAWING.

FOR AIR RELEASE PIPE REDUCE TO GAL MAL DN25MM REFER DRAWINGS.

- GAL MAL DN50MM BRASS GATE VALVE
- GAL MAL DN50MM DOUBLE NIPPLE
- GAL MAL DN50MM UNION
- GAL MAL DN50MM 90° ELBOW
- GAL MAL DN50MM TEE
- GAL MAL DN50MM REDUCING TEE



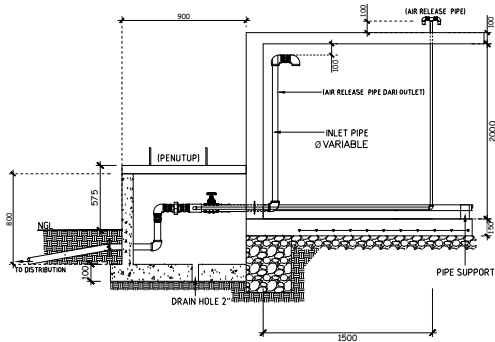
NOTES:

- 1.) SEMUA DIMENSI MENGGUNAKAN MM, KECUALI YANG SUDAH DITENTUKAN
- 2.) SEMUA BETON DIPERKUAT DENGAN CAMPURAN : 1:2:3, 1. SEMEN 2. PASIR 3. KERIKIL
- 3.)USA BEKISTING (FORMA)
- 4.) STONE MASONRY PONDASI MIX; 1-SEMENTE,2-RAIHANEK, 4-FATUK
- 5.) HADA FATUK IHA TENKI NIA OKOS,DEFOIS BAKU TUN (COMPACTED).
- 6.)NAHI RAIHENEK ATU HALO TETUK.
- 7.) FLOAT VALVE,BALL VALVE HO GATE VALVE TENKI ESTANDAR PEDOMAN TIMOR-LESTE.
- 8.) SEMUA BAHAN YANG LUNAK ATAU TIDAK COCOK, DIHAPUS DAN DIGANTI DENGAN KERIKIL
- 9.) SEMUA BESI BETON DITEMPATKAN SECARA TERPUSAT DI DINDING & LANTAI
- 10.) SEMUA BESI BETON DITEMPATKAN SECARA TERPUSAT DI DINDING & LANTAI
- 10.) COR HARUS SELALU DIBASAH SELAMA DUA MINGGU
- 11.) DIAMETER PIPA (Ø)
-OVER FLOW
-INLET
-OUTLET
-WASH OUT
TERGANTUNG DARI ANALYSA HYDROLIC

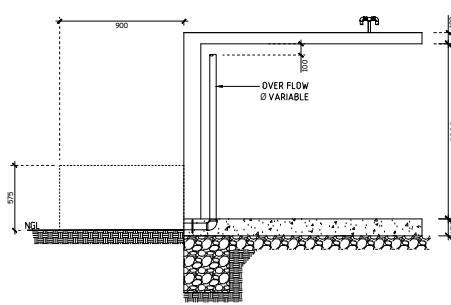
Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE	Projeto:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau
-	N.T.S		Reservoir 60m3 Pipe Plan & Valve Box Detail			Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			Vicente da Costa Freitas Técnico SMASa Baucau	Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASa Baucau	Drwg No: 14

NOTES:

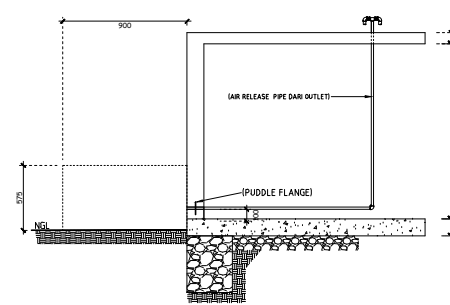
- 1.) SEMUA DIMENSI MENGGUNAKAN MM, KECUALI YANG SUDAH DITENTUKAN
- 2.) SEMUA BETON DIPERKUAT DENGAN CAMPURAN : 1:2:3,
1. SEMEN
2. PASIR
3. KERIKIL
- 3.)USA BEKISTING (FORMA)
- 4.) STONE MASONRY PONDASI MIX;
1--SEMENTE,2--RAIHANEK,
4--FATUK
- 5.) HADA FATUK IHA TENKI NIA OKOS,DEFOIS BAKU TUN (COMPACTED).
- 6.)NAHI RAIHANEK ATU HALO TETUK.
- 7.) FLOAT VALVE,BALL VALVE HO GATE VALVE TENKI ESTANDAR PEDOMAN TIMOR--LESTE.
- 8.) SEMUA BAHAN YANG LUNAK ATAU TIDAK COCOK, DIHAPUS DAN DIGANTI DENGAN KERIKIL
- 9.) SEMUA BESI BETON DITEMPATKAN SECARA TERPUSAT DI DINDING & LANTAI
- 10.) SEMUA BESI BETON DITEMPATKAN SECARA TERPUSAT DI DINDING & LANTAI
- 10.) COR HARUS SELALU DIBASAH SELAMA DUA MINGGU
- 11.) DIAMETER PIPA (Ø)
--OVER FLOW
--INLET
--OUTLET
--WASH OUT
TERGANTUNG DARI ANALYSA HYDROLIC



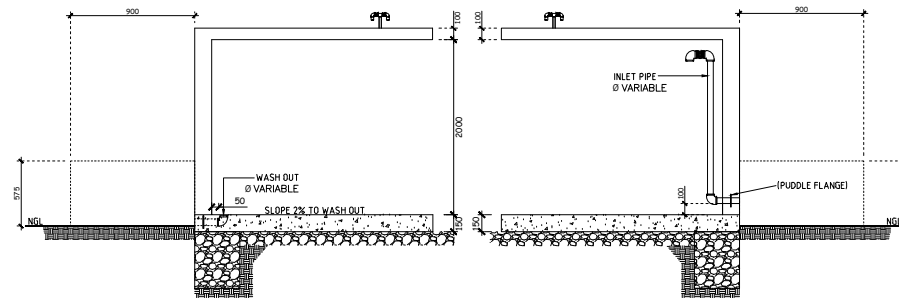
PIPE WORKS SECTION A-A



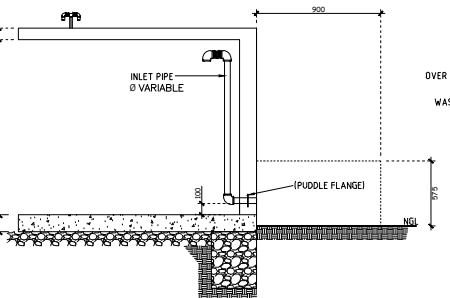
VIEW-A



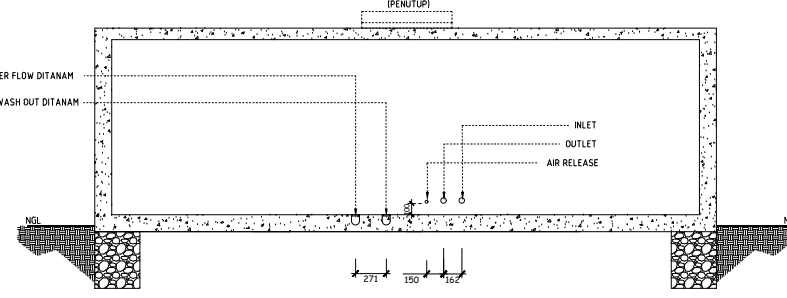
VIEW-B



VIEW-C



VIEW-D



VIEW-E

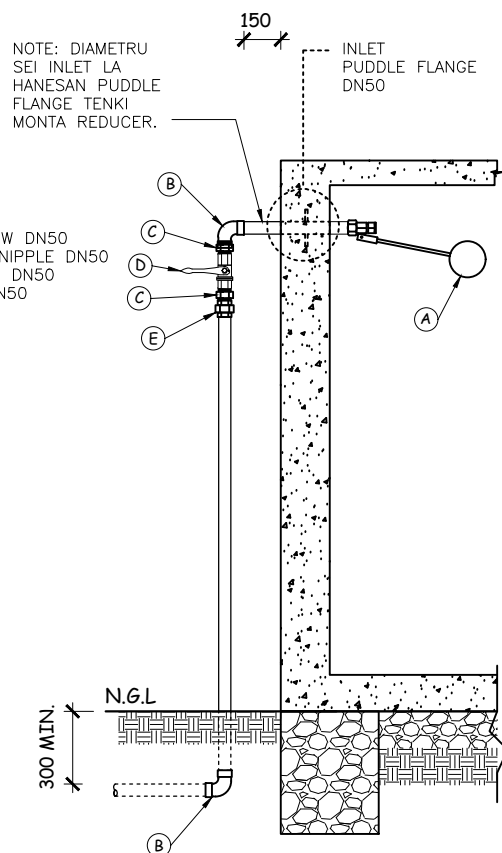
Revistu	Eskala



Projeto: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun			Munisipiu: Baucau
Pipe Work Section and View			Postu Admin: Quelicai
Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
Vicente da Costa Freitas Técnico SMASeA Baucau	Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Drwg No: 15

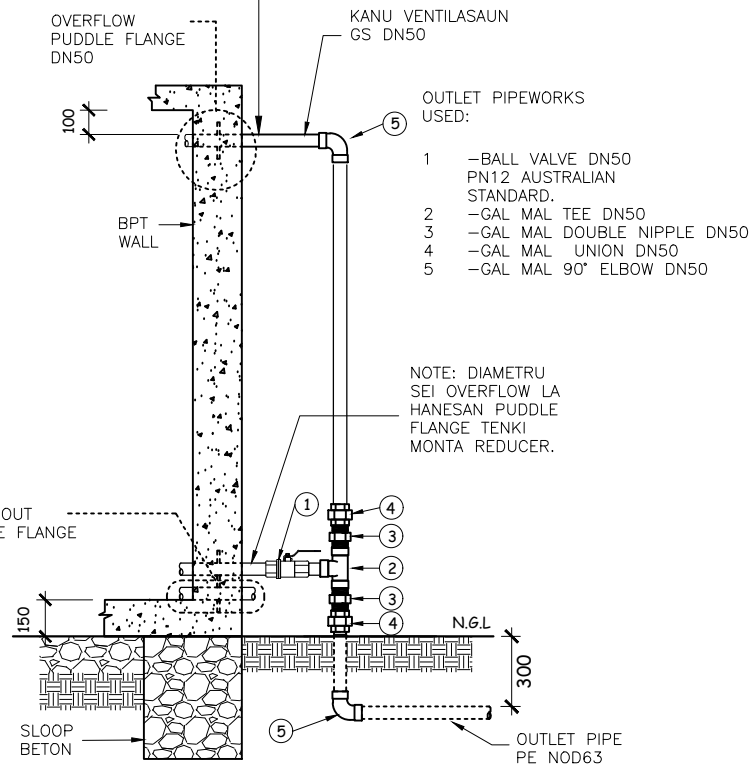
INLET PIPEWORKS
USED:

- A -FLOAT VALVE DN50
B -GAL MAL 90° ELBOW DN50
C -GAL MAL DOUBLE NIPPLE DN50
D -BRASS BALL VALVE DN50
E -GAL MAL UNION DN50



INLET PIPE WORK

NOTE: DIAMETRU
SEI OVERFLOW LA
HANESAN PUDDLE
FLANGE TENKI
MONTA REDUCER.

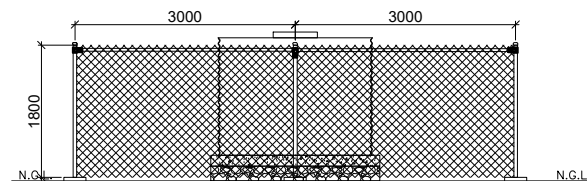
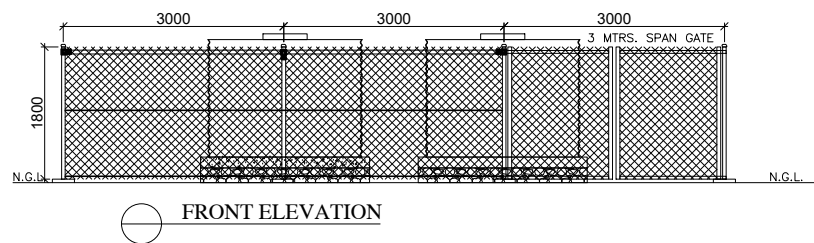
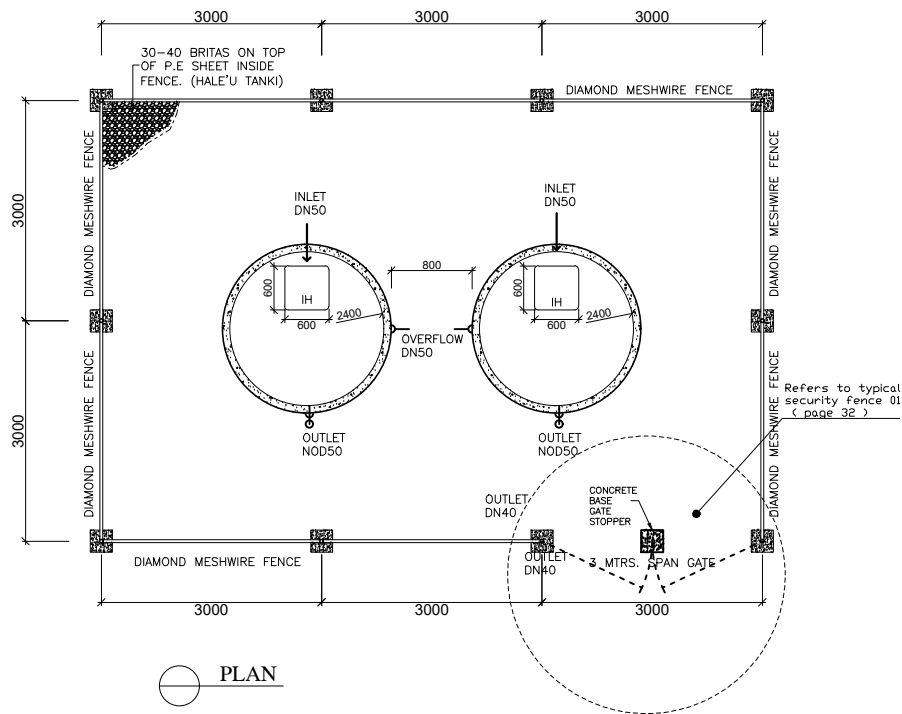


VENTILATION &
OUTLET PIPE WORK

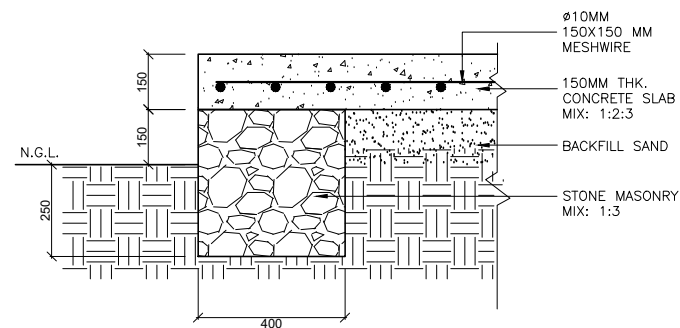
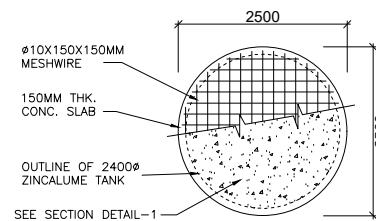
NOTES:

- 1.)ALL DIMENSIONS IN MM
UNLESS SPECIFIED
OTHERWISE.
2.)FLOAT VALVE,BALL VALVE HO
GATE VALVE TENKI ESTANDAR
AUSTRALIA PN12
OU LIU.
3.)LR: LONG RADIUS.
4.) PUDDLE FLANGE REFER
TO CWS-DRG-T4(R08)
5.)XX=Ø PIPE

Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE	Projetu:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau
-	N.T.S		60m3 RCT SCHEMATIC PIPE WORK			Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			Vicente da Costa Freitas Técnico SMASa Baucau	Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASa Baucau	Drwg No: 16



SIDE VIEW ELEV.



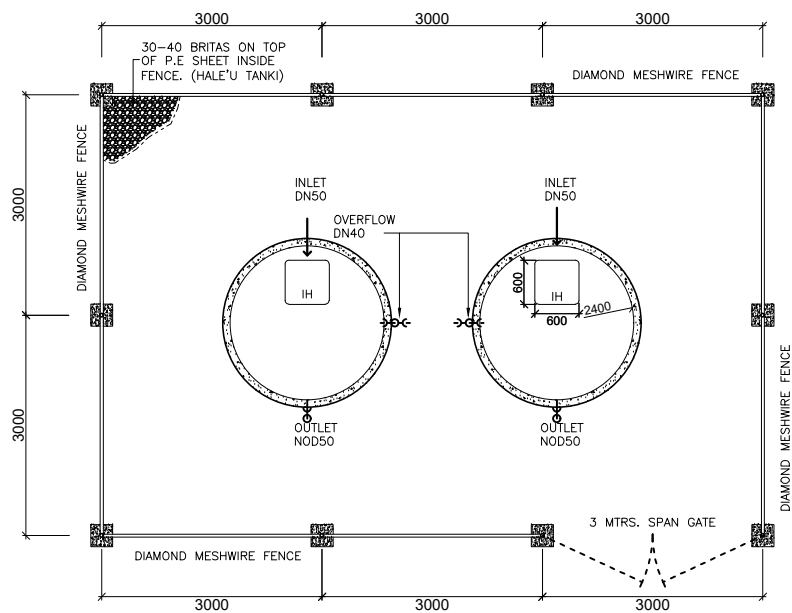
NOTES:

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCEMENT CONCRETE MIX: 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS.
- 3.) USA BEKISTING (FORMA)
- 4.) B.A.T. -BLUESCOPE AQUAPLATE TANK

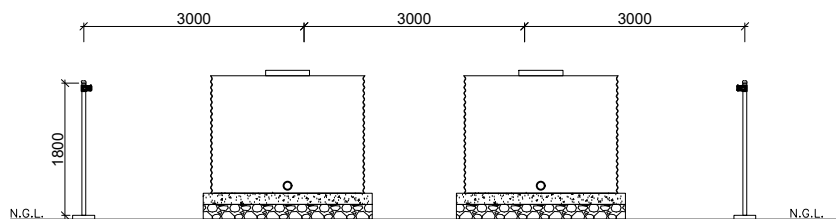
Revistu	Eskala
-	N.T.S
-	
-	



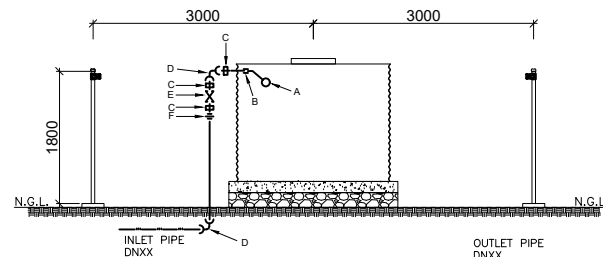
Projetu: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun Twin 5,5m3 B.A.T & RV Tank Plan, Elevation & Foundation Detail			Munisipiu: Baucau
Dezena husi:			Postu Admin: Quelicai
Verifika husi:	Aprova husi:		Lokal:
Vicente da Costa Freitas Tecnico SMASa Baucau	Gil Samba Konsultor Tekniku UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASa Baucau	Drwg No: 17



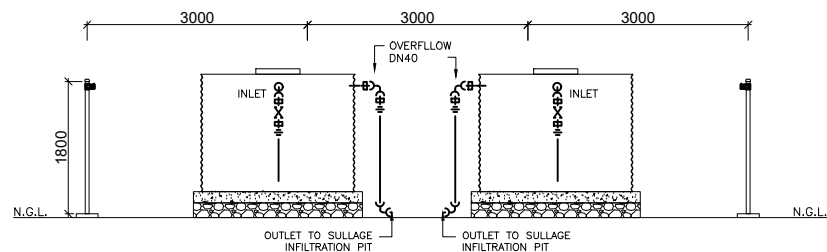
PLAN



FRONT ELEVATION
SHOWING OUTLET PIPEWORK



CROSS SECTION
SHOWING INLET PIPEWORK



FRONT ELEVATION
SHOWING INLET, OUTLET PIPEWORK

FITTINGS USED FOR INLET:

- A --BRASS FLOAT VALVE DN40
- B --GAL MAL REDUCING SOCKET DN40 X DN25
- C --GAL MAL HEX NIPPLE DN40
- D --GAL MAL 90° ELBOW DN40
- E --BRASS BALL VALVE DN40 AUSTRALIAN STANDARD
- F --GAL MAL UNION DN40

FITTINGS USED FOR OUTLET:

- A --GAL MAL (REDUCING) HEX NIPPLE DN40 x DN25
- B --BRASS GATE VALVE DN40, AUSTRALIAN STANDARD
- C --GAL MAL HEX NIPPLE DN40
- D --GAL MAL HEX UNION DN40
- E --GAL MAL TEE DN40

FITTINGS USED FOR OVERFLOW:

- A --GAL MAL HEX NIPPLE DN40
- B --GAL MAL 90° ELBOW DN40
- C --GAL MAL HEX UNION DN40

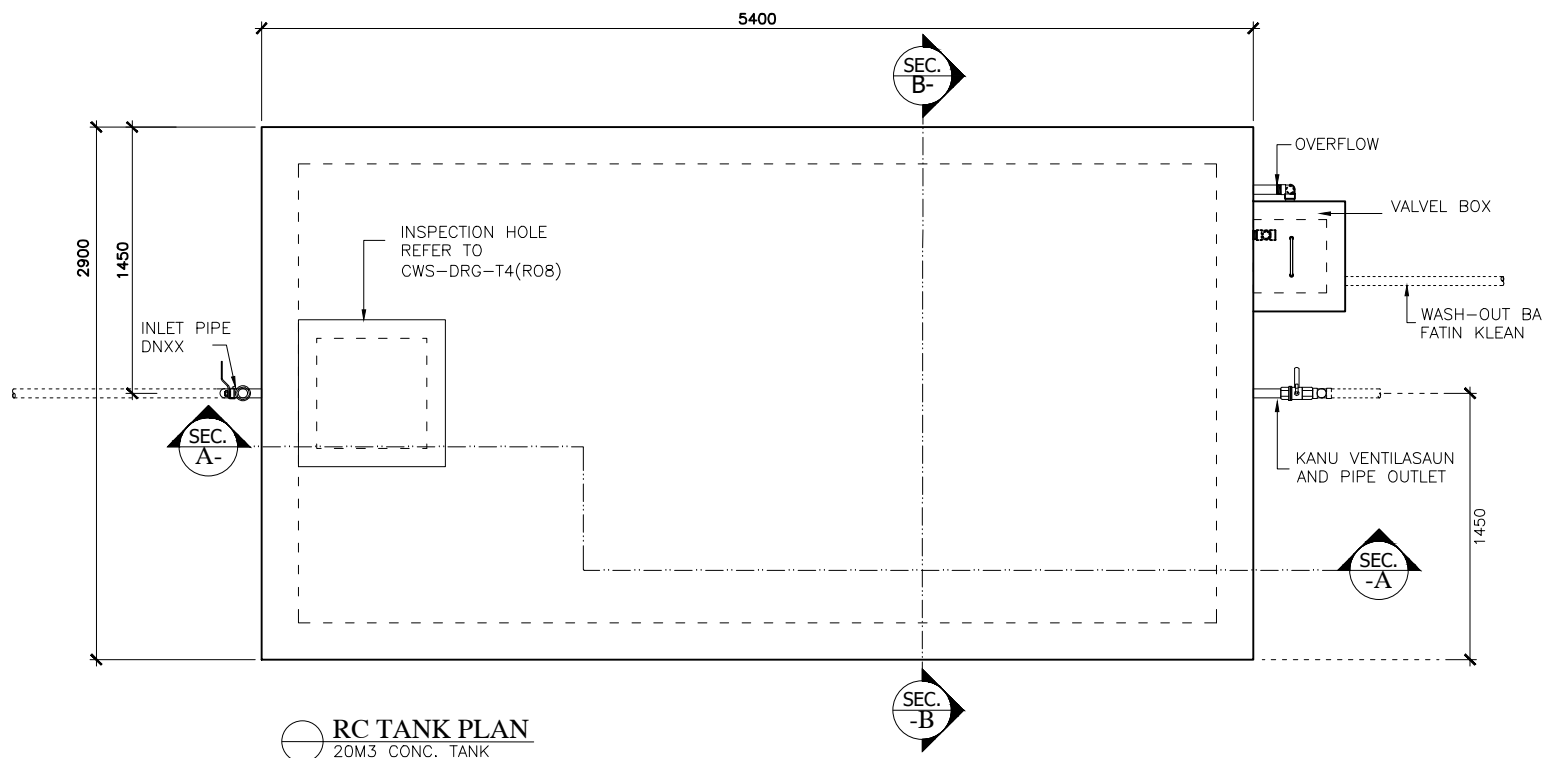
NOTES:

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) USA BEKISTING (FORMA)
- 3.) USA BEKISTING (FORMA)
- 4.) B.A.T --BLUESCOPE AQUAPLATE TANK

Revistu	Eskala
-	N.T.S

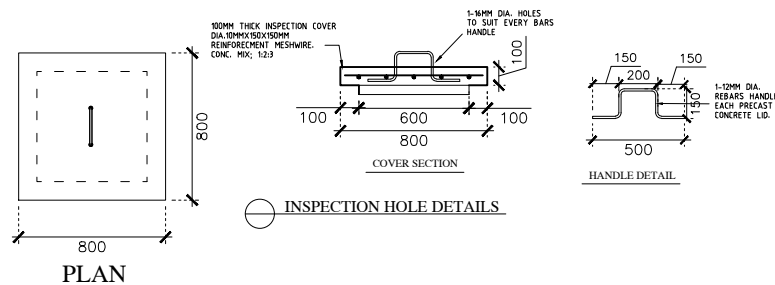
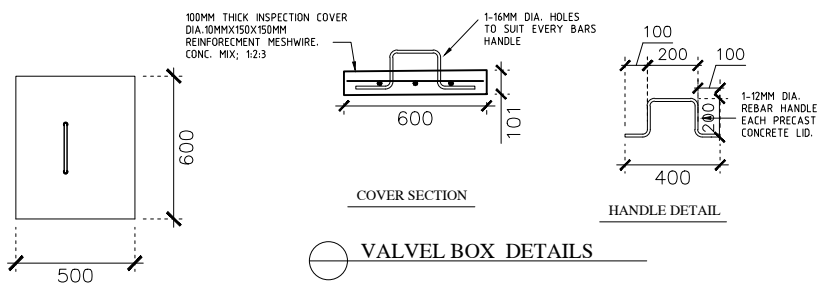


Projeto: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun			Munisipiu: Baucau
Twin 5.6m3 B, A, T & RV Tank Schematic Pipe Work			Postu Admin: Quelicai
Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
Vicente da Costa Freitas Técnico SMASeA Baucau	Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Drwg No: 18

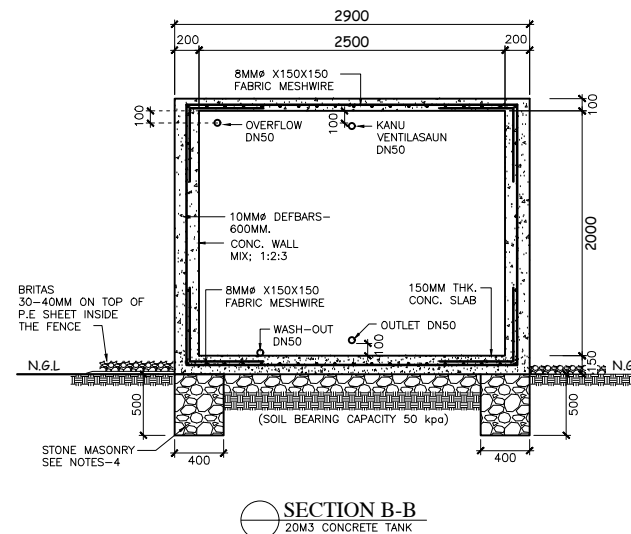
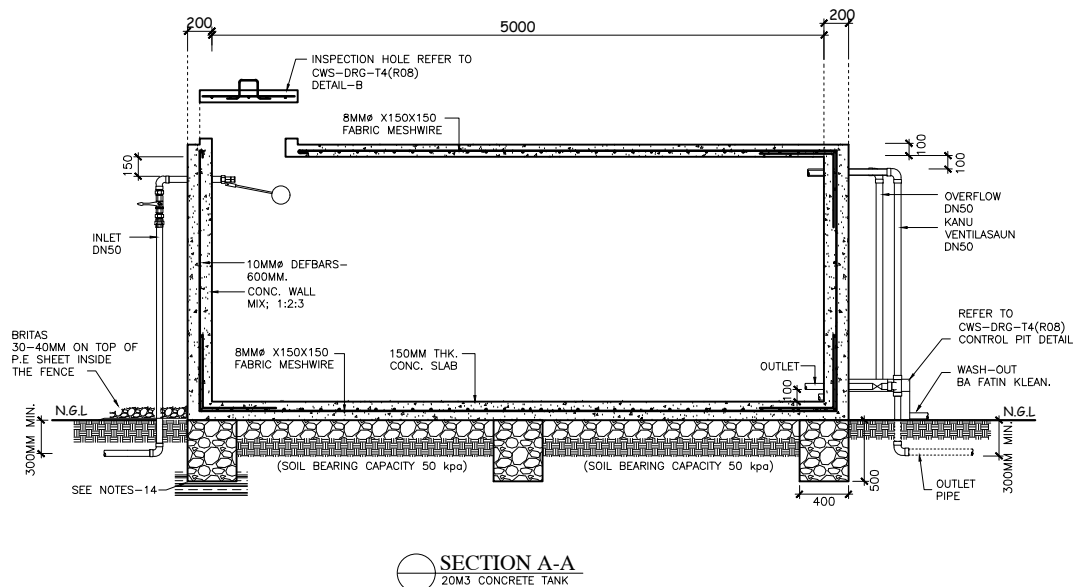
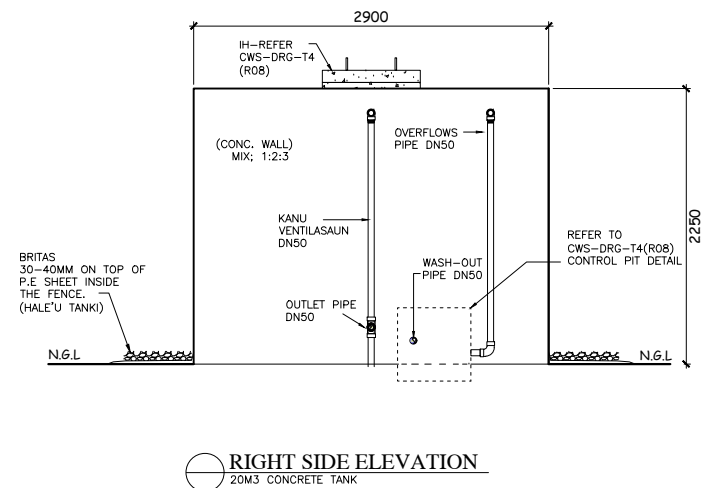
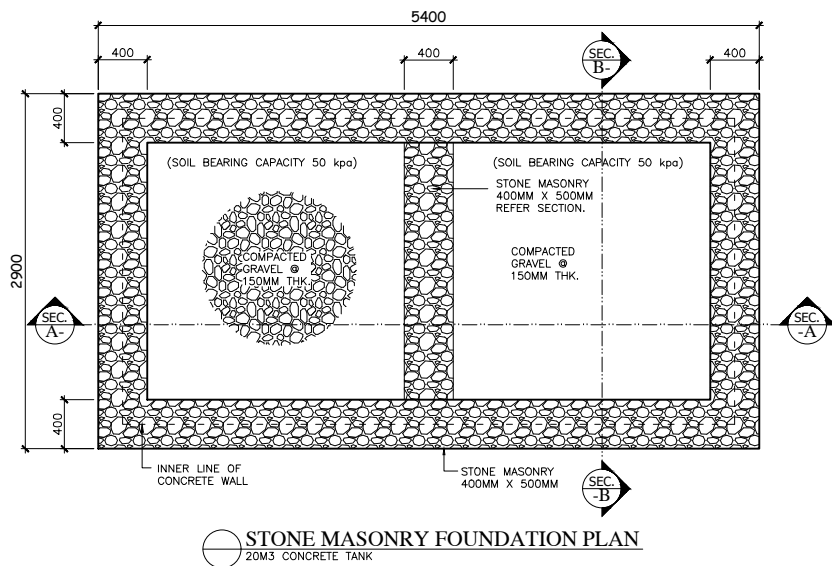


NOTES:

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCEMENT CONCRETE MIX: 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS.
- 3.) USA BEKISTING (FORMA)
- 4.) FUI BETAUN RAI OKUS HO NINIA DIDIN LORON PREMEIRO TOO LORON TOLU LIU LORON NEN, HASAI BEKISTING DIDIN, MONTA FALI BEKISTING MATAN DEPOIS LIU SEMANA IDA KONTINUA FALI FUI NIA MATAN LORON TOLU LIU TIHA HASAI BEKISTING. REGA BE LOR LORON HO BEMOS DURANTE SEMANA IDA NIA LARAN DEPOIS DE FUI BETON.
- 5.) JAU BRITAS 30-40MM HALE'U TANKI

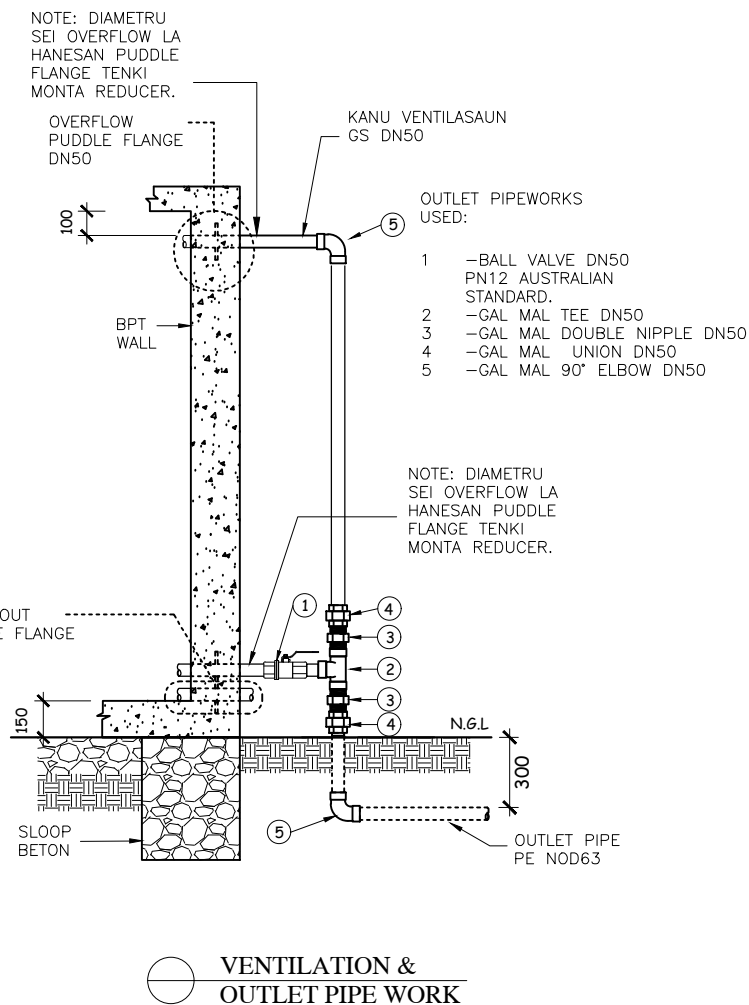
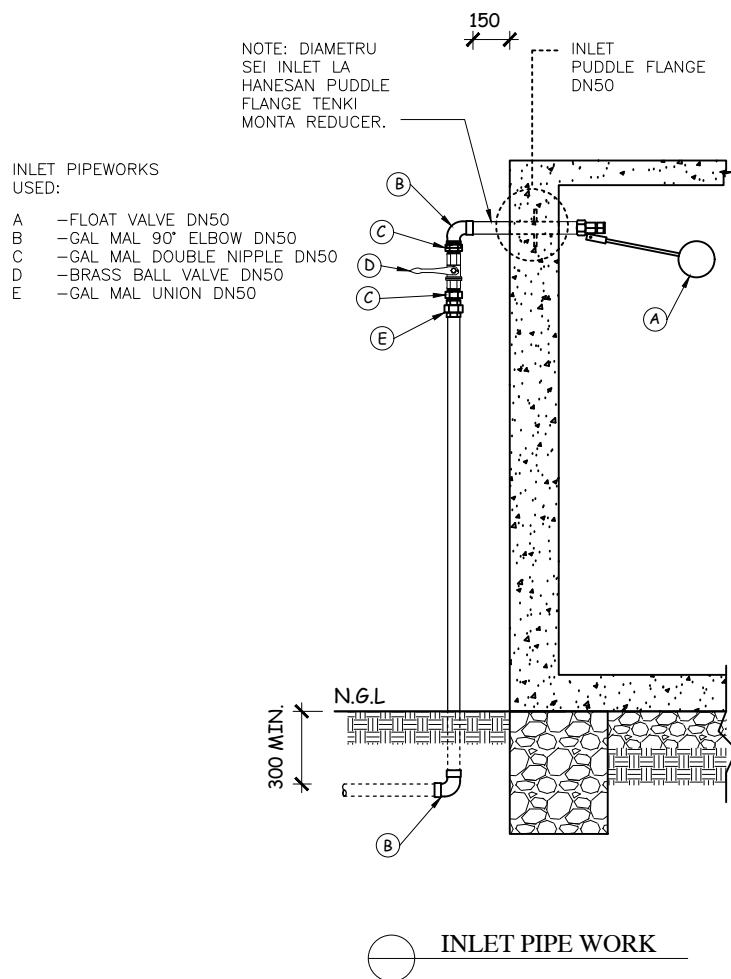


Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE	Projetu:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau
-	N.T.S		RCT 20m3 Plan			Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			Vicente da Costa Freitas Técnico SMASeA Baucau	Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Drwg No: 19



- NOTES:**
- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
 - 2.) ALL REINFORCEMENT CONCRETE MIX: 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS.
 - 3.) USA BEKISTING (FORMA)
 - 4.) STONE MASONRY FOUNDATION MIX: 1-SEMENTE, 3-RAIHANEK.
 - 5.) HADA FATUK IHA TENKI NIA OKOS, DEFOIS BAKU TUN (COMPACTED).
 - 6.) NAHI RAIHANEK ATU HALO TETUK.
 - 7.) FUI BETAUN RAI OKOS HO NINIA DIDIN LORON PREMEIRO TOO LORON LIU LORON HAT, HASAI BEKISTING DIDIN, MONTA FALI BEKISTING MATAN DEPOIS LIU SEMANA IDA KONTINUA FALI FUI NIA MATAN.
 - 8.) LIU SEMANA IDA, HASAI BEKISTING DIDIN, MONTA FALI BEKISTING MATAN DEPOIS, KONTINUA FALI FUI NIA MATAN LORON IDA.
 - 9.) INDICATIVE FITTINGS TO USE:
- FLOAT VALVE DN50 (BSP) (M) & BALL VALVE DN50 (BSP) (M)
- GAL MAL SOCKET DN50.
- GAL MAL HEX NIPPLE DN50.
- GAL MAL FF (LR) BEND 90° DN50
- GAL MAL UNION.
- BALL VALVE DN50 FEMALE BSP ENDS.
- GATE VALVE DN50 (F) BSP ENDS.
 - 10.) FLOAT VALVE, BALL VALVE HO GATE VALVE TENKI ESTANDAR AUSTRALIA PN12 OU LIU.
 - 11.) IH-INSPECTION HOLE.
 - 12.) DETELHA LUTU SEGURO REFERE FE3, FE4.
 - 13.) LR: LONG RADIUS.
 - 14.) ALL SOFT / UNSUITABLE MATERIAL TO BE REMOVED & REPLACED WITH WELL COMPACTED GRAVEL.
 - 15.) XX=Ø50 PIPE

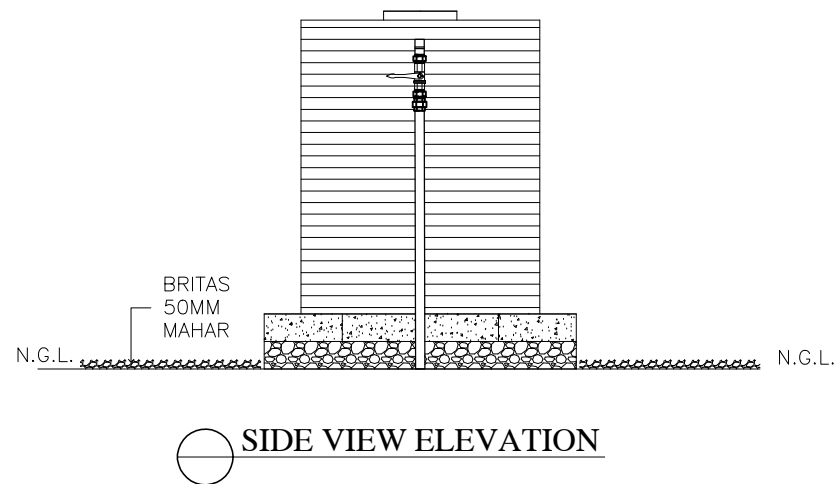
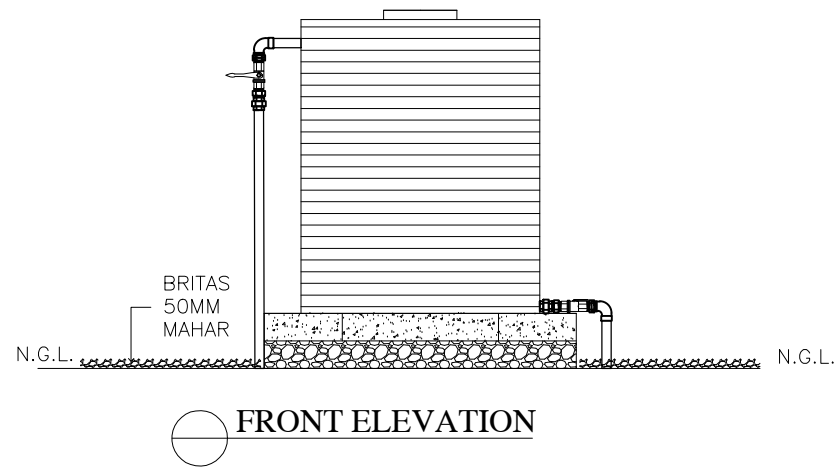
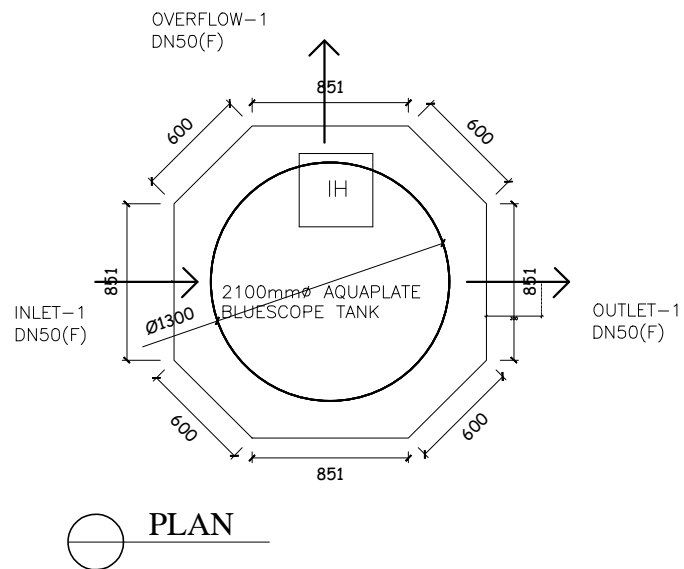
Revistu 	Eskala N.T.S	 AUTORIDADE MUNICIPAL DE BAUCAU 	Projetu: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun 20m3 RCT foundation plan, Elevation and Sections Dezena husi: Vicente da Costa Freitas Tecnico SMASeA Baucau Verifika husi: Gil Samba Konsultor Tekniku UNDP Aprova husi: Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Munisipiu: Baucau Postu Admin: Quelicai Lokal: Drwg No: 20
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NOTES:

- 1.)ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.)FLOAT VALVE,BALL VALVE HO GATE VALVE TENKI ESTANDAR AUSTRALIA PN12 OU LIU.
- 3.)LR: LONG RADIUS.

Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU  Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE 	Projetu: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun			Munisipiu: Baucau
-	N.T.S		20m3 RCT Schematic Pipe Work			Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			<u>Vicente da Costa Freitas</u> Engenheiro de Projectos, SMASeA Baucau	<u>Gil Samba</u> Engenheiro de Projectos, UNDP	<u>Nelson V. Coelho de Sousa Guterres</u> Engenheiro de Projectos, SMASeA Baucau	Drwg No: 21



NOTES:

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCEMENT CONCRETE MIX; 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS
- 3.) STONE MASONRY MORTAR MIX:
1 SEMENTE
3 RAIHENEK
- 4.) BRITAS UKURAN 20/30MM MAHAR 50MM ENSI IHA LUTU LARAN.
- 5.) USA BEKISTING (FORMA)
- 6.) DETELHA LUTU SEGURO REFERE CWS-DRG-FE3,F34.

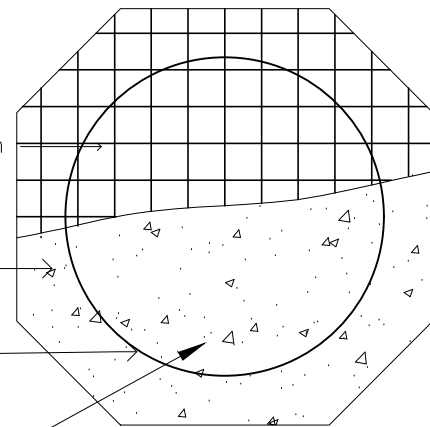
Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU 	Projetu:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau
-	N.T.S		2.1m3 Public Tank plan & Elevation			Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			Vicente da Costa Freitas Técnico SMASeA Baucau	Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Drwg No: 22

8MMØ-150mm X 150mm
FABRIC DEFORMED BARS.

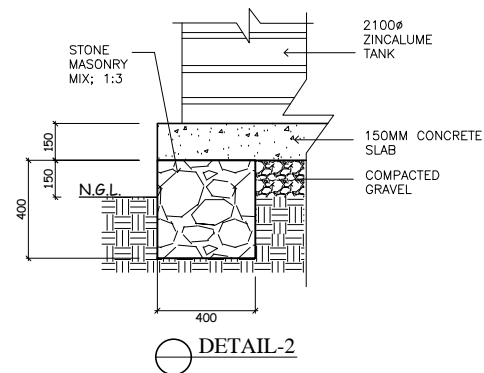
150 MM THK.
CONCRETE SLAB

OUTLINE OF
ZINCALUME TANK

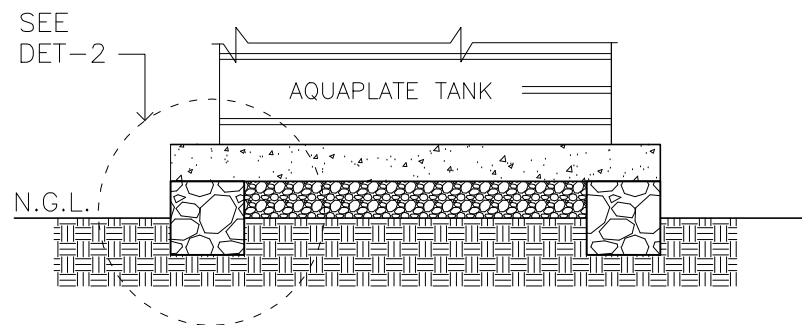
SEE SECTION
DETAIL-1



FOUNDATION PLAN



DETAIL-2



DETAIL-1

NOTES:

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCEMENT CONCRETE MIX; 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS
- 3.) STONE MASONRY MORTAR MIX:
1 SEMENTE
3 RAIHENEK
- 4.) BRITAS UKURAN 20/30MM MAHAR 50MM ENSI IHA LUTU LARAN.
- 5.) USA BEKISTING (FORMA)
- 6.) DETELHA LUTU SEGURO REFERE CWS-DRG-FE3,F34.

Revistu	Eskala
-	N.T.S
-	
-	



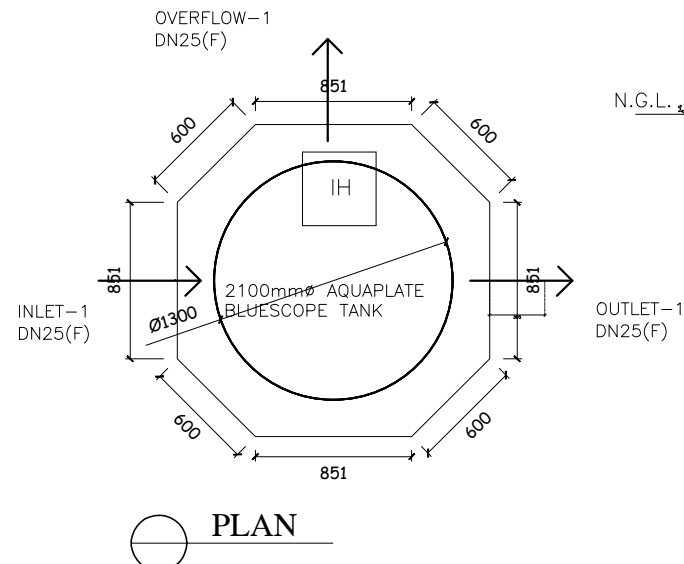
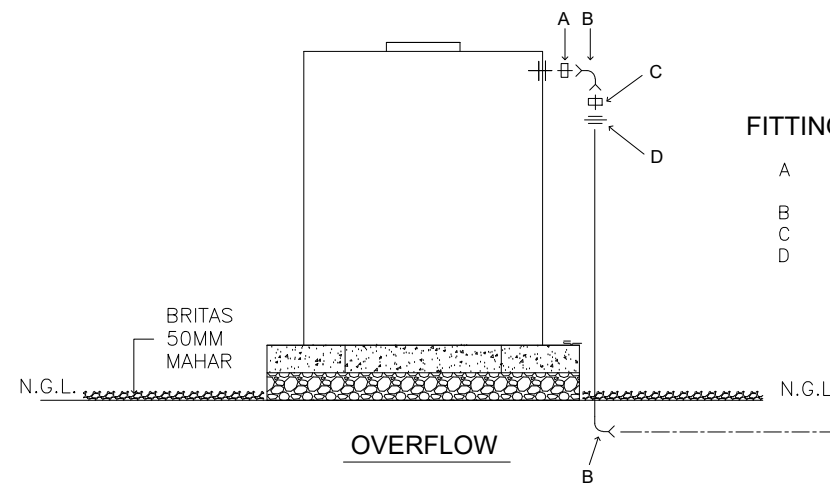
Projeto: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun 2.1m3 Public Tank Foundation Plan & Detail			Munisipiu: Baucau
Dezena husi: Vicente da Costa Freitas Tecnico SMASeA Baucau			Postu Admin: Quelicai
Verifika husi: Gil Samba Konsultor Tekniku UNDP	Aprova husi: Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Lokal: 	
			Drwg No: 23

NOTES:

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCEMENT CONCRETE MIX; 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS
- 3.) STONE MASONRY MORTAR MIX:
1 SEMENTE
3 RAIHENEK
- 4.) BRITAS UKURAN 20/30MM MAHAR 50MM ENSI IHA LUTU LARAN.
- 5.) USA BEKISTING (FORMA)

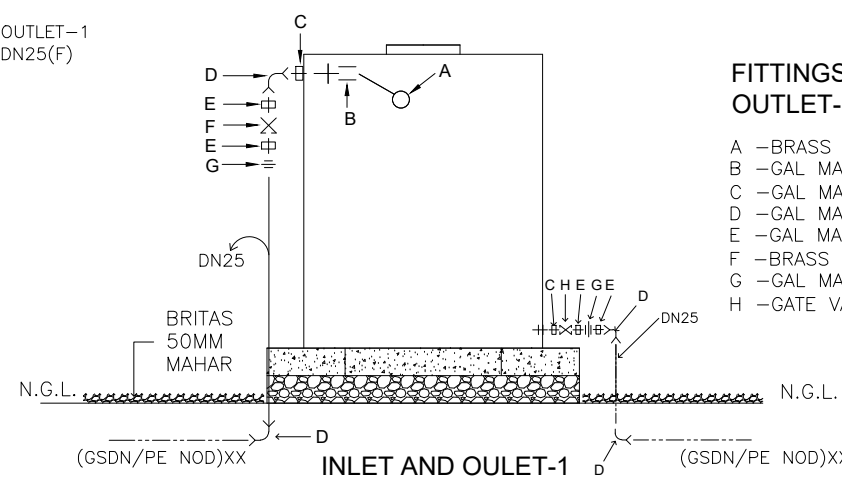
FITTINGS FOR OVERFLOW:

- A -GAL MAL (REDUCING) HEX NIPPLE DN25 X DN25
- B -GAL MAL FF BEND 90° DN25
- C -GAL MAL HEX NIPPLE DN25
- D -GAL MAL UNION DN25



FITTINGS FOR INLET & OUTLET-1:

- A -BRASS FLOAT VALVE
- B -GAL MAL SOCKET DN25
- C -GAL MAL (REDUCING) HEX NIPPLE DN25
- D -GAL MAL FF BEND 90° DN25
- E -GAL MAL HEX NIPPLE DN25
- F -BRASS BALL VALVE (FEMALE BSP END)DN25
- G -GAL MAL UNION DN25
- H -GATE VALVE BSP ENDS(F)DN25

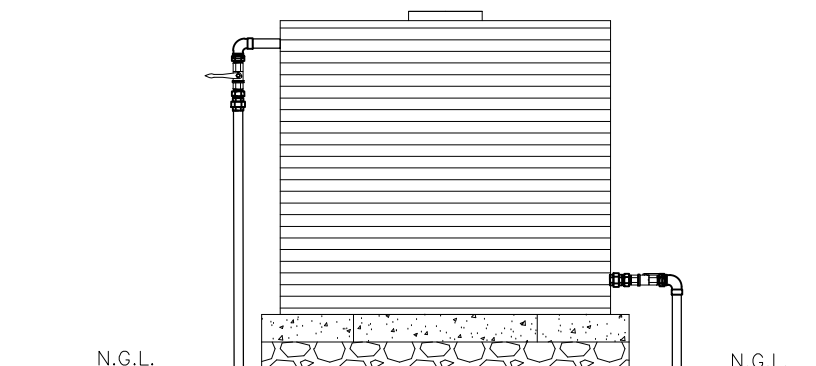


SCHEMATIC PIPE WORKS

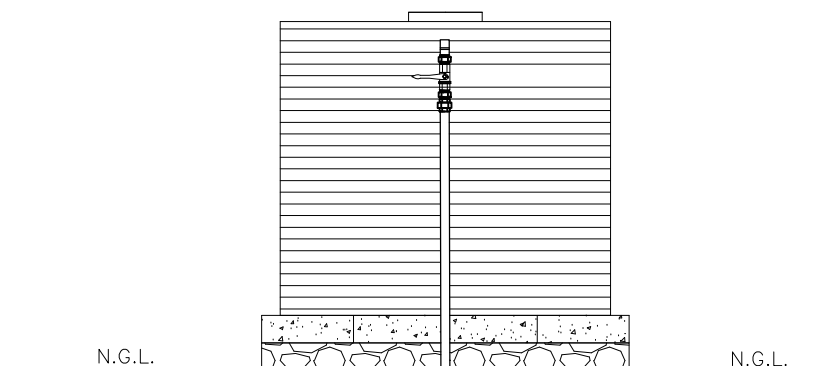
Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE	Projetu:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau
-	N.T.S		2.1m3 Public Tank Schematic Pipe Work			Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			Vicente da Costa Freitas Técnico SMASeA Baucau	Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Drwg No: 24

● NOTES ●

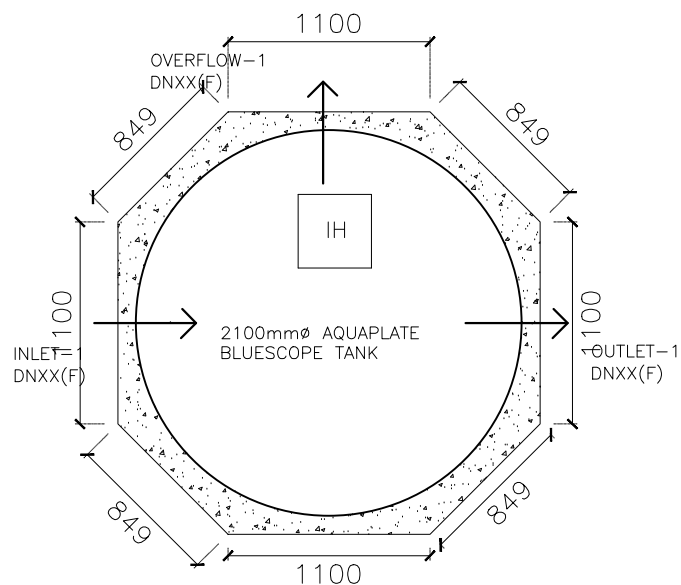
- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCEMENT CONCRETE MIX; 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS
- 3.) STONE MASONRY MORTAR MIX:
1 SEMENTE
3 RAIHENEK
- 4.) BRITAS UKURAN 20/30MM MAHAR 50MM ENSI IHA LUTU LARAN.
- 5.) USA BEKISTING (FORMA)
- 6.) DETELHA LUTU SEGURO REFERE CWS-DRG-FE3,F34.



FRONT ELEVATION



SIDE ELEVATION

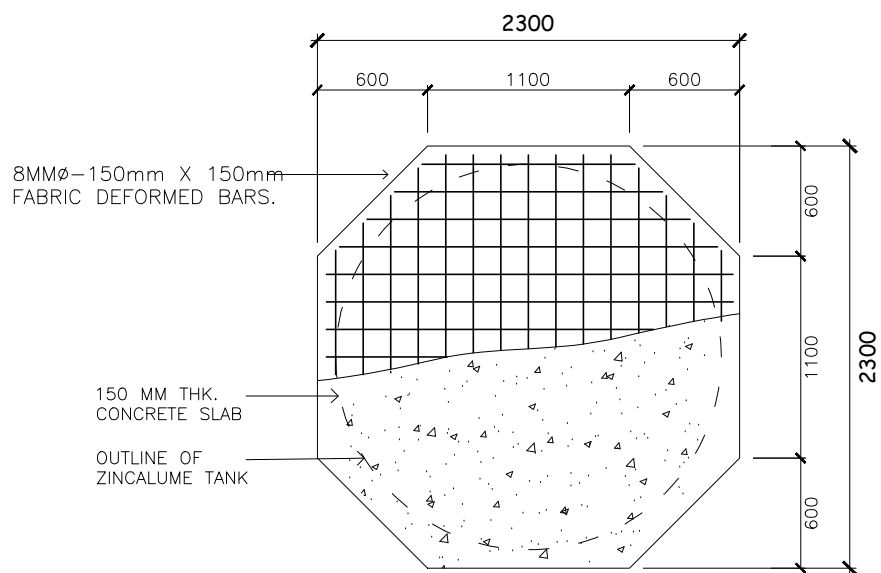


PLAN

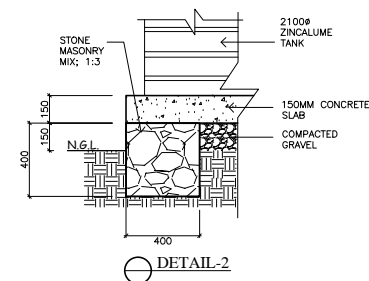
Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU 	Projeto:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau
-	N.T.S		5.6M3 B.P.T Plan & ELEVATION			Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			Vicente da Costa Freitas Técnico SMASa Baucau	Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASa Baucau	Drwg No: 25

● NOTES ●

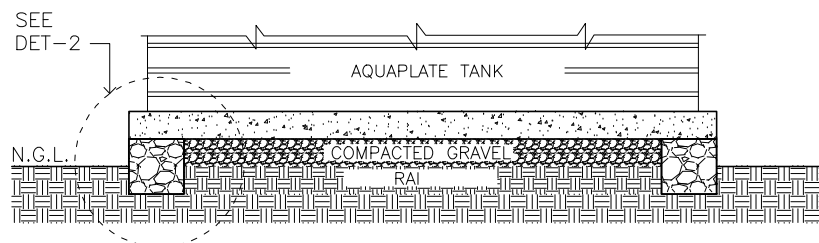
- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCEMENT CONCRETE MIX; 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS
- 3.) STONE MASONRY MORTAR MIX:
1 SEMENTE
3 RAIHENEK
- 4.) BRITAS UKURAN 20/30MM MAHAR 50MM ENSI IHA LUTU LARAN.
- 5.) USA BEKISTING (FORMA)
- 6.) DETELHA LUTU SEGURO REFERE CWS-DRG-FE3,F34.



○ FOUNDATION PLAN



○ DETAIL-1



Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU  Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE  <td>Projeto:</td> <td colspan="2">Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun</td> <td>Munisipiu: Baucau</td>	Projeto:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau
-	N.T.S		5.6M3 B.P.T Foundation Plan & Detail		Postu Admin: Quelicai	
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			<u>Vicente da Costa Freitas</u> Engenheiro Técnico, I. UNDP	<u>Gil Samba</u> Engenheiro Técnico, I. UNDP	<u>Nelson V. Coelho de Sousa Guterres</u> Engenheiro Técnico, I. UNDP	Drwg No: 26

● NOTES ●

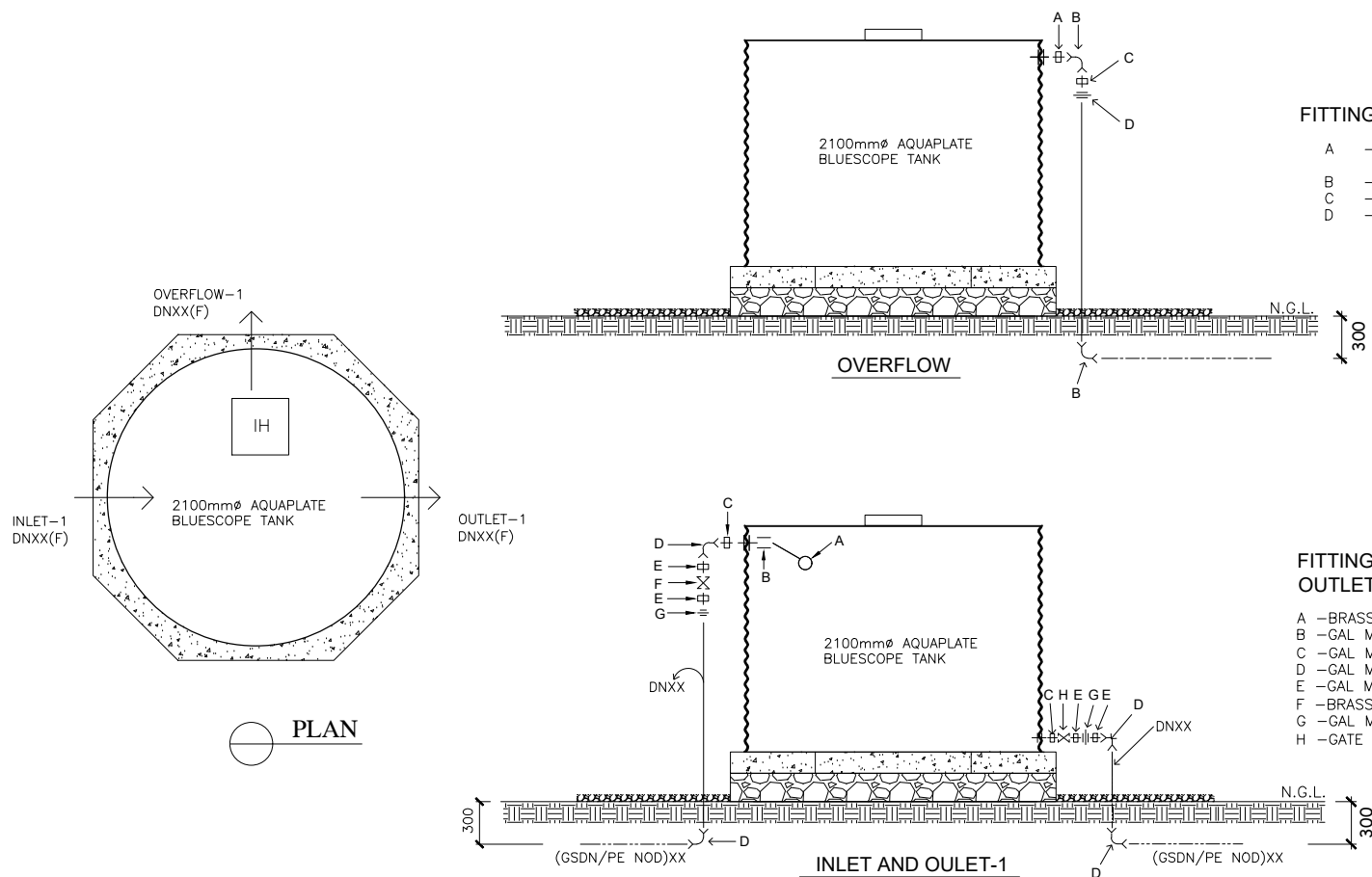
- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) FLOAT VALVE PN10 HO GATE/BALL VALVE PN16 TENKI ESTANDAR AUSTRALIAN.
- 3.) POSISAUN INLET,OUTLET HO OVERFLOW TUIR KONDISAUN FATIN SERVISU KONSULTA HO POVU.

FITTINGS FOR OVERFLOW:

- A -GAL MAL (REDUCING) HEX NIPPLE DNXX X DNXX
- B -GAL MAL FF BEND 90° DNXX
- C -GAL MAL HEX NIPPLE DNXX
- D -GAL MAL UNION DNXX

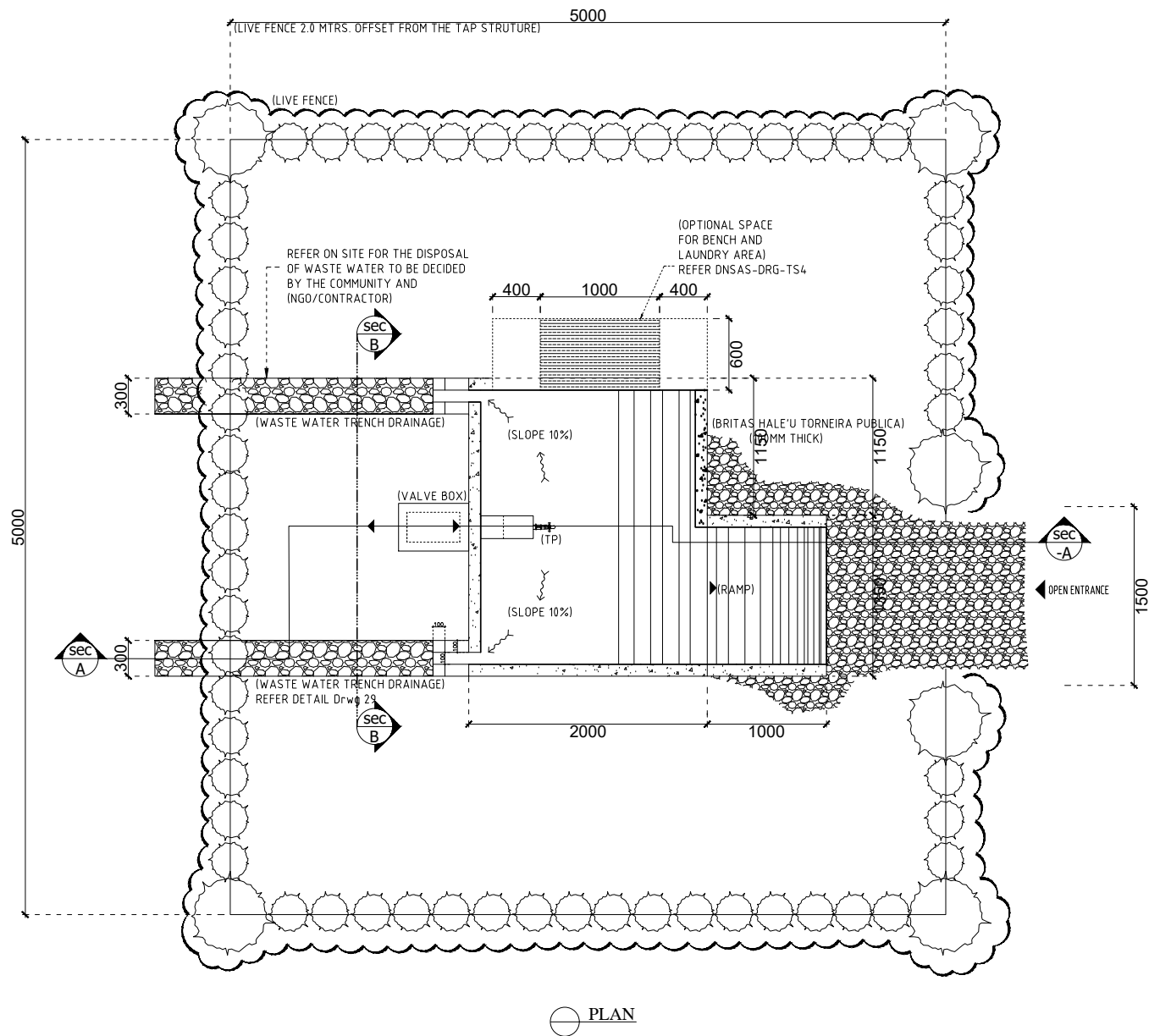
FITTINGS FOR INLET & OUTLET-1:

- A -BRASS FLOAT VALVE
- B -GAL MAL SOCKET DNXX
- C -GAL MAL (REDUCING) HEX NIPPLE DNXX
- D -GAL MAL FF BEND 90° DNXX
- E -GAL MAL HEX NIPPLE DNXX
- F -BRASS BALL VALVE (FEMALE BSP END)DNXX
- G -GAL MAL UNION DNXX
- H -GATE VALVE BSP ENDS(F)DNXX



SCHEMATIC PIPE WORKS

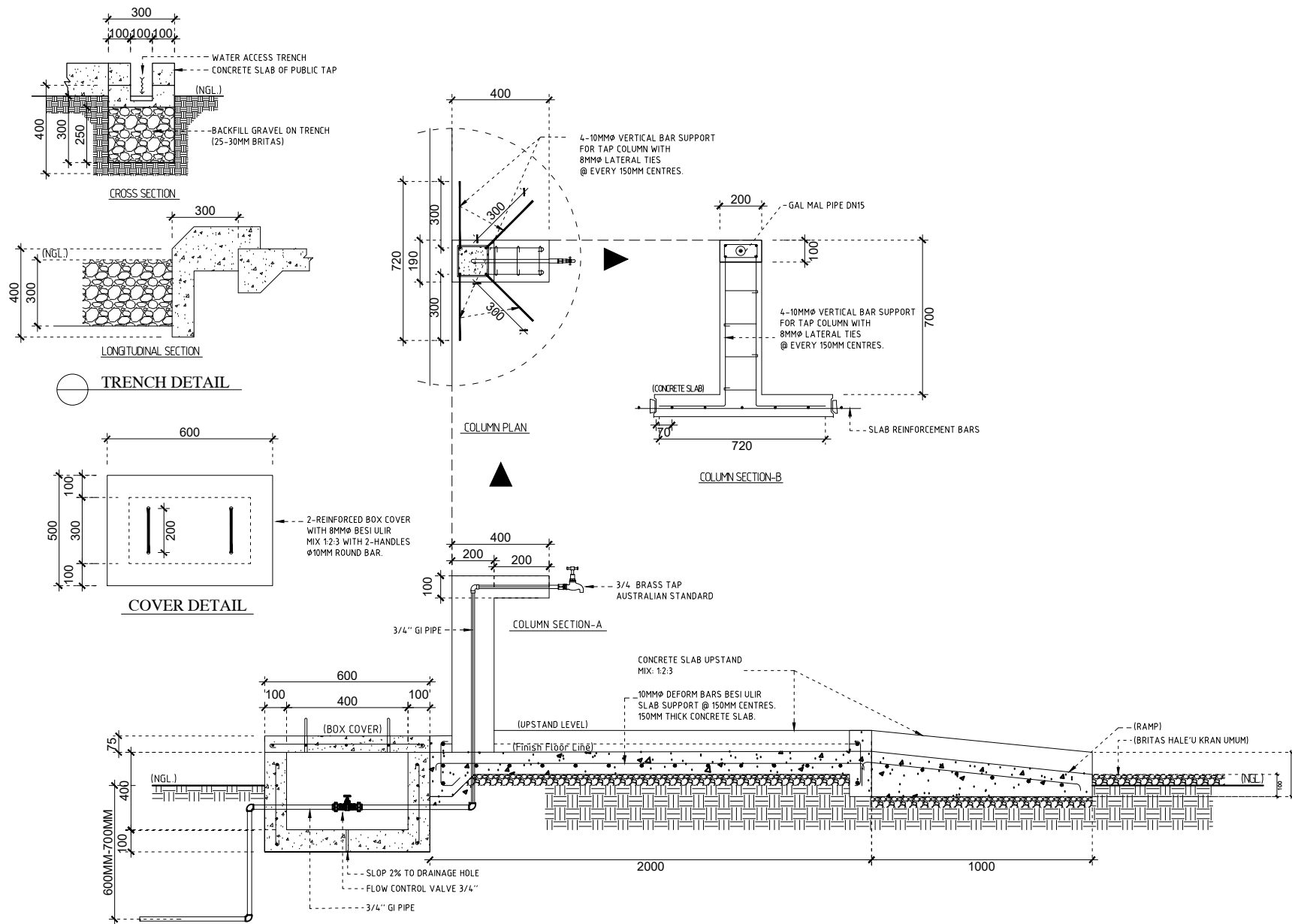
Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE	Projetu:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau
-	N.T.S		5.6M3 B.P.T Schematic Pipe Works			Postu Admin: Quelicai
-			Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			Vicente da Costa Freitas Técnico SMASa Baucau	Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASa Baucau	Drwg No: 27



NOTES:

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCED CONCRETE MIX: 1:2:3 SEE TECHNICAL SPECIFICATION FOR DETAILS.
- 3.) USA BEKISTING (FORMA)
- 4.) POSISAUN BOX, INSPESAUN BEE FOER HO ENTRADA TUIR SITUASAUN FATIN IDA IDAK.
- 5.) BE FOER BELE KARIK TAMA SISTEMA DRAINASE SEI IHA.
- 6.) PREPARA RAI HODI TETUK LABEL MOSU BEE NALIHUN.
- 7.) (N.G.L.) = NORMAL GROUND LEVEL

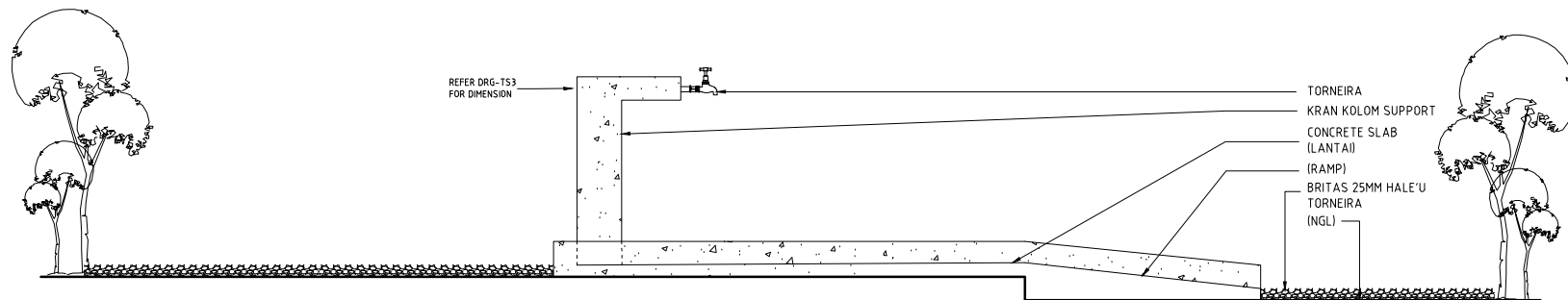
Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU 			Projetu:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun			Munisipiu: Baucau
-	N.T.S				Taps Stand Plan				Postu Admin: Quelicai
-					Dezena husi:	Verifika husi:	Aprova husi:		Lokal:
-					Vicente da Costa Freitas Técnico SMASeA Baucau	Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau		Drwg No: 28



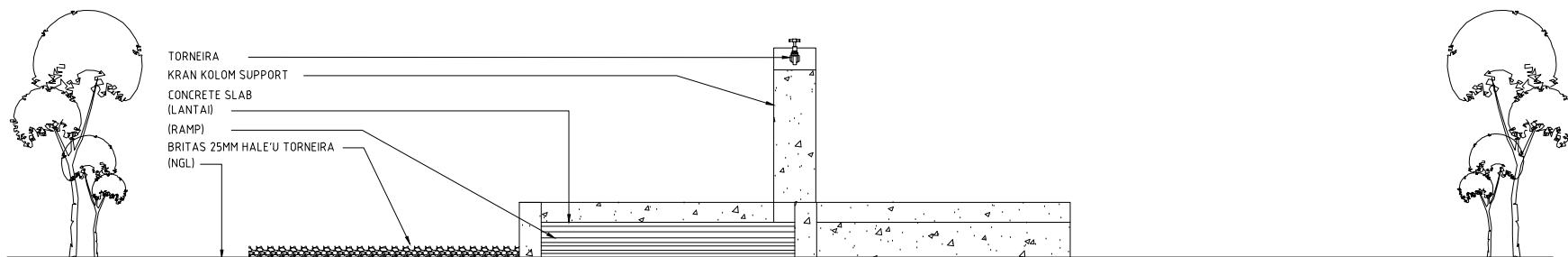
NOTES:

- 1.)ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.)ALL REINFORCED CONCRETE MIX: 1:2:3 SEE TECHNICAL SPECIFICATION FOR DETAILS.
- 3.)USA BEKISTING (FORMA)
- 4.)POSISAUN BOX, INSPESAUN BEE FOER HO ENTRADA TUIR SITUASAUN FATIN IDA IDAK.
- 5.)BE FOER BELE KARIK TAMA SISTEMA DRAINASE SEI IHA.
- 6.)PREPARA RAI HODI TETUK LABELE MOSU BEE NALIHUN.
- 7.)(N.G.L.)= NATURAL GROUND LINE

Revistu 	Eskala N.T.S	 AUTORIDADE MUNICIPAL DE BAUCAU 	Projetu: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun Taps Stand Section Dezena husi: Vicente da Costa Freitas Técnico SMASeA Baucau Verifika husi: Gil Samba Consultor Técnico UNDP Aprova husi: Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Munisipiu: Baucau Postu Admin: Quelicai Lokal: Drwg No: 29
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TAMPAK SAMPING

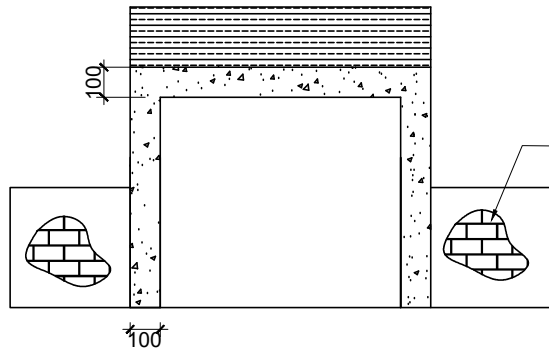


TAMPAK DEPAN

NOTES:

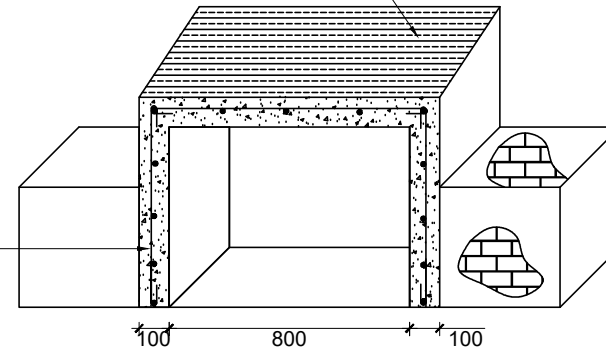
- 1.)ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.)ALL REINFORCED CONCRETE MIX: 1:2:3 SEE TECHNICAL SPECIFICATION FOR DETAILS.
- 3.)USA BEKISTING (FORMA)
- 4.)POSISAUN BOX, INSPESAUN BEE FOER HO ENTRADA TUIR SITUASAUN FATIN IDA IDAK.
- 5.)BE FOER BELE KARIK TAMA SISTEMA DRAINASE SEI IHA.
- 6.)PREPARA RAI HODI TETUK LABELE MOSU BEE NALIHUN.
- 7.)(N.G.L.)= NORMAL GROUND LINE

Revistu 	Eskala N.T.S	 AUTORIDADE MUNICIPAL DE BAUCAU Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE 			Projetu: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun Taps Stand Elevation Dezena husi: Vicente da Costa Freitas Tekniko SMASeA Baucau Verifika husi: Gil Samba Konsultor Tekniku UNDP Aprova husi: Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Munisipiu: Baucau Postu Admin: Quelicai Lokal: Drwg No: 30
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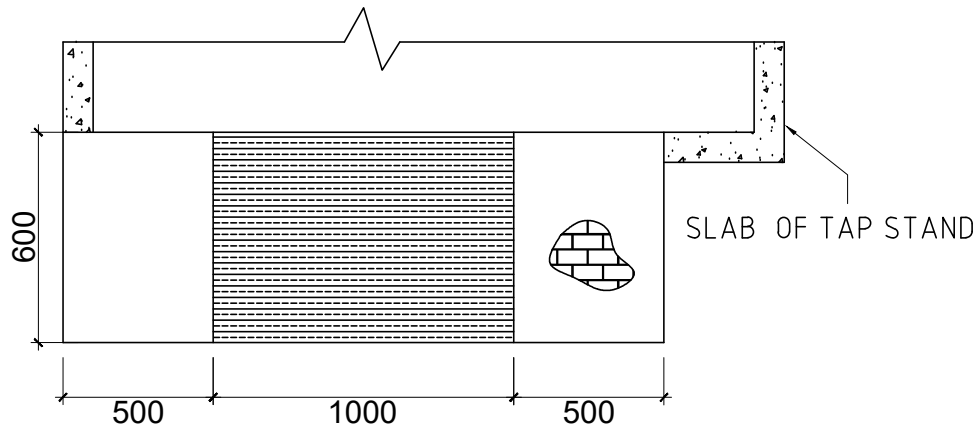


TAMPAK DEPAN

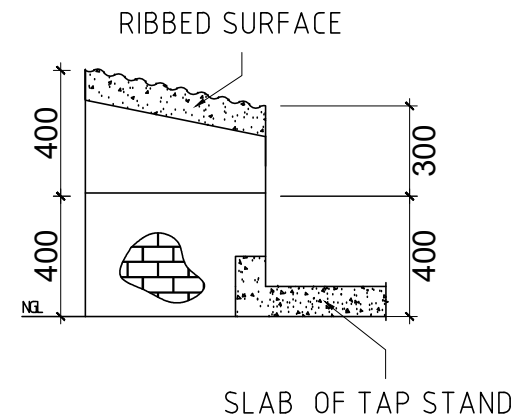
RIBBED SURFACE



PERSPECTIVE



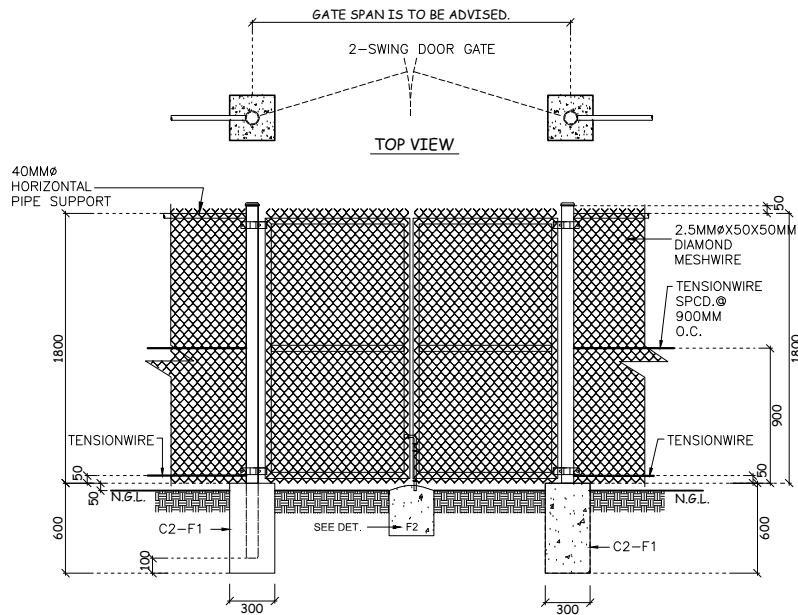
PLAN



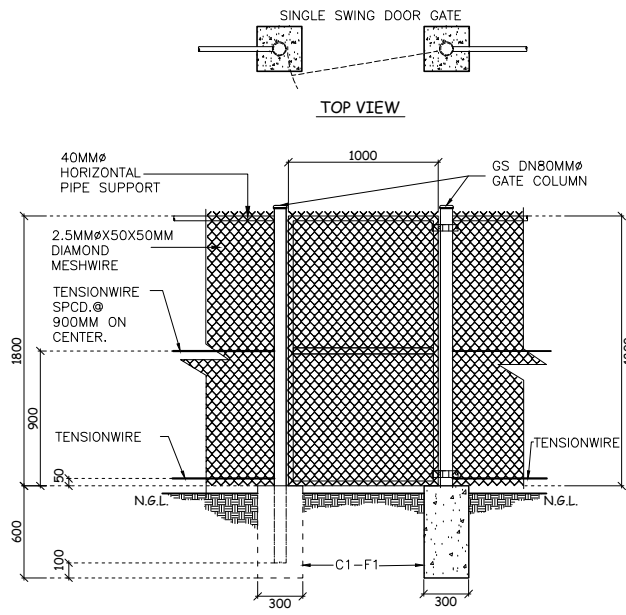
TAMPAK SAMPING

NOTES:

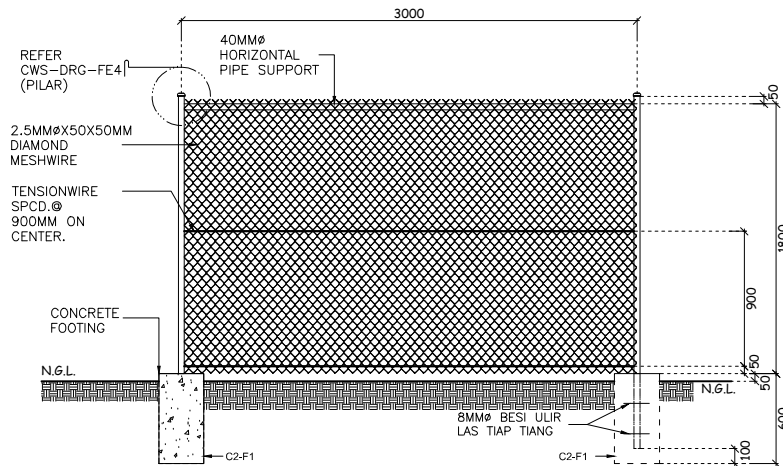
Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU	Projetu:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau
-	N.T.S		Laundry Bench			Postu Admin: Quelicai
-		 Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE	Dezena husi:	Verifika husi:	Aprova husi:	Lokal:
-			Vicente da Costa Freitas Técnico SMASeA Baucau	Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Drwg No: 31



TYPICAL-1 SECURITY FENCE
ILLUSTRAAUN:



TYPICAL-2 SECURITY FENCE
ILLUSTRAAUN:

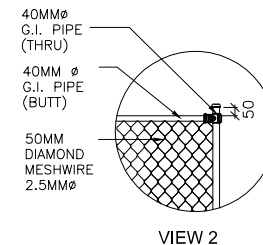
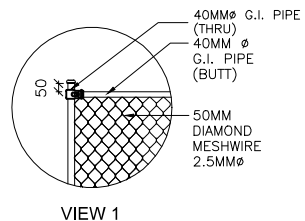
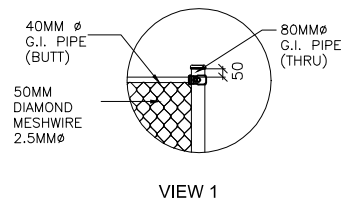
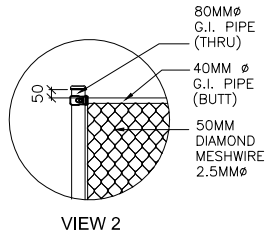
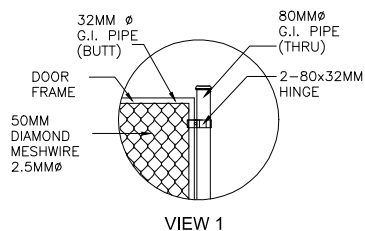


TYPICAL-3 SECURITY FENCE
ILLUSTRAAUN:

NOTES:

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCED CONCRETE MIX; 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS.
- 3.) USA BEKISTING (FORMA)
- 4.) USA MANGEIRA NIVELDADI NO NIVEL AIRIN OU VORAMU HUDI HALO AIRIN LOS.
- 5.) MONTA LUTU TUIR PLANO.
- 6.) FURA KUAK KANU DIAMETRO 4mm, AAS HO POSISAUN TUIR DESENHO HATAMA ARAME SUPORTA (TENSION WIRE).
- 7.) ARAME REDE HADULAS HUSI LUIR, AIRIN HAMPIK HUSI LARAN; DADA ESTIKA.

Revistu - - -	Eskala N.T.S	AUTORIDADE MUNICIPAL DE BAUCAU Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE	Projetu: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun Chain wire Security Fence Dezena husi: Vicente da Costa Freitas Técnico SMASeA Baucau Verifika husi: Gil Samba Consultor Técnico UNDP Aprova husi: Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau	Munisipiu: Baucau Postu Admin: Quelicai Lokal: Drwg No: 32
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VIEW 1

VIEW 2

VIEW 1

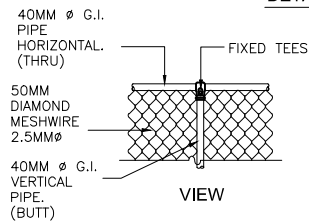
VIEW 1

VIEW 2

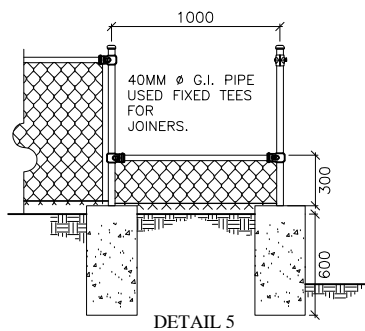
DETAIL 1

DETAIL 2

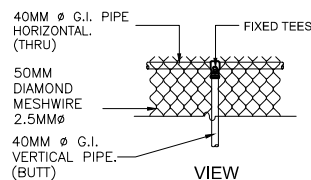
DETAIL 3



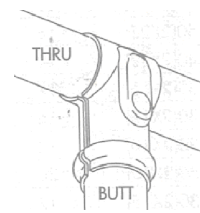
DETAIL 4



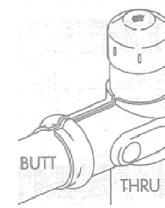
DETAIL 5



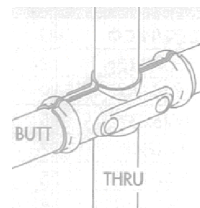
VIEW
DETAIL 6



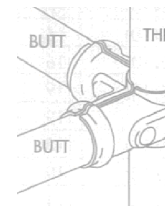
FIXED TEE ON TOP



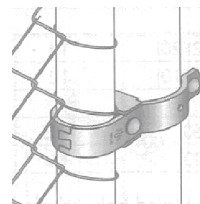
FIXED TEE ON CORNER



FIXED CROSSES



FIXED CORNERS



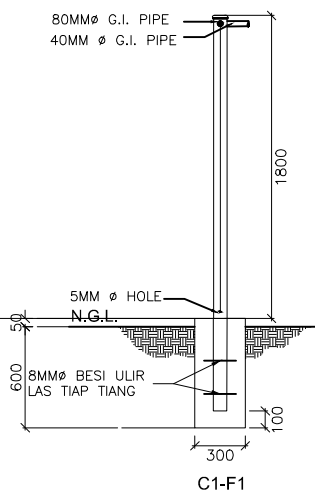
2 PART INTERLOCKING HINGES



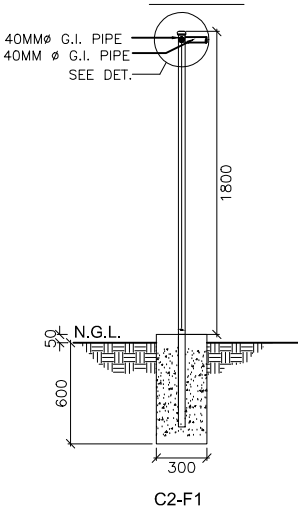
PICTORIAL VIEWS FOR PIPE JOINER INSTALLATION

NOTES:

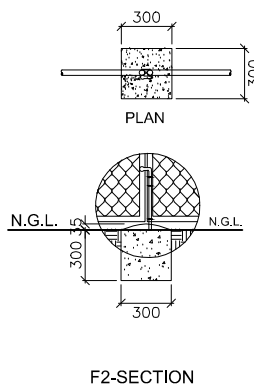
- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) ALL REINFORCED CONCRETE MIX: 1:2:3, SEE TECHNICAL SPECIFICATION FOR DETAILS.
- 3.) USA BEKISTING (FORMA)
- 4.) USA MANGEIRA NIVELDAD NIVEL AIRIN OU VORAMU HUDI HALO AIRIN LOS.
- 5.) MONTA LUTU TUIR PLANU.
- 6.) FURA KUAK KANU DIAMETRO 5mm, AAS HO POSISAUN TUIR DESENHO HATAMA ARAME SUPORTA (TENSION WIRE).
- 7.) ARAME REDE HADULAS HUSI LUIR, AIRIN HAMPIK HUSI LARAN; DADA ESTIKA.



C1-F1



C2-F1



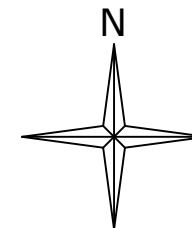
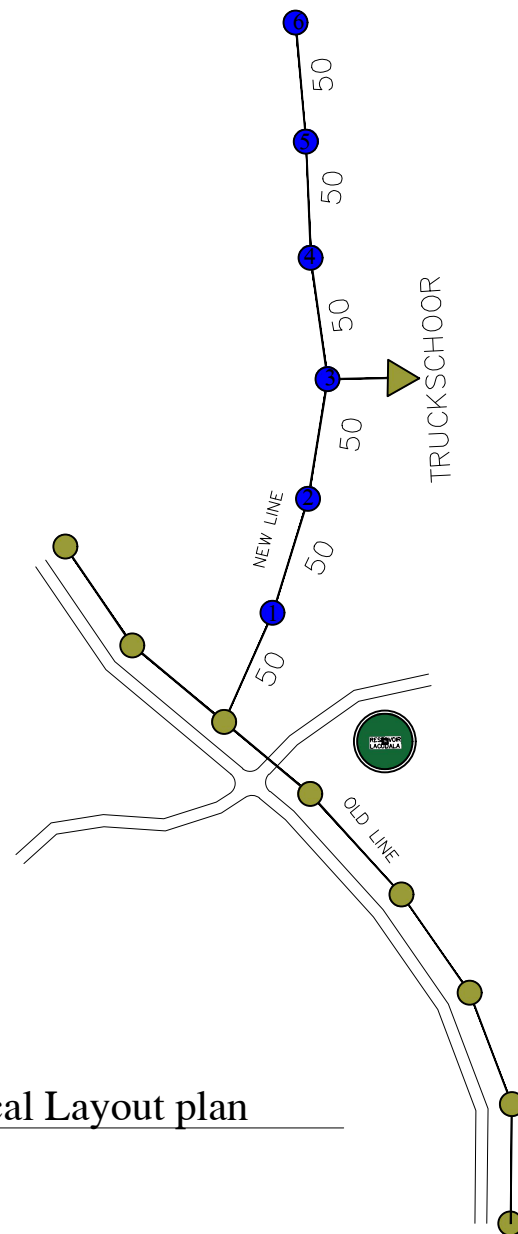
F2-SECTION

NOTE:
GAL MESHWIRE 2.5 MM DIA.
GAL TENSION WIRE 3.15 MM DIA.
MESHWIRE 50 MM DIAMOND.



COLUMN DETAIL

Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE			Projetu:	Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun		Munisipiu: Baucau
	N.T.S				Chain Fence Details			Postu Admin: Quelicai
		Dezena husi:		Verifika husi:	Aprova husi:		Lokal:	
		Vicente da Costa Freitas Tecnico SMASeA Baucau		Gil Samba Konsultor Tekniku UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau		Drwg No: 33	



● NOTES ●

- 1.) ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE.
- 2.) Distance between electrical pole is 50m
- 3.) Total 6 pole

○ Electrical Layout plan

Revistu	Eskala	 AUTORIDADE MUNICIPAL DE BAUCAU Serviço Municipal de ÁGUA, SANEAMENTO E AMBIENTE			Projeto: Konstrusaun Be'e Moos uza sistema Bomba no Gravitasaun Electrical lay out plan	Munisipiu: Baucau
-	N.T.S				Dezena husi:	Postu Admin: Quelicai
-					Verifika husi:	Lokal:
-					Aprova husi:	Drwg No: 34
		Vicente da Costa Freitas Técnico SMASeA Baucau			Gil Samba Consultor Técnico UNDP	Nelson V. Coelho de Sousa Guterres Diretor SMASeA Baucau