Republic of the Philippines
SOUTHERN LUZON STATE UNIVERSITY
Lucban, Quezon

BAGONG PILIPINAS

REQUEST FOR QUOTATION

WATER DRILLING WITH PUMPHOUSE AT SLSU PIIS (PMO)

Purchase Request No. 2026-10-2708
Approved Budget for the Contract: ₱ 800,000.00

The Southern Luzon State University through the Bids and Awards Committee invites interested firms/supplier to submit quotation for the procurement of **Water Drilling with Pumphouse at SLSU Piis (PMO)** to apply the sum of **Eight Hundred Thousand Pesos Only (₱ 800,000.00) inclusive of VAT,** being the **Approved Budget for the Contract (ABC),** details as follows:

Qty.	Unit	ITEM/S DESCRIPTION
1	lot	Water Drilling with Pumphouse at SLSU Piis

1. The quotation shall be submitted on or before November 3, 2026 to:
   (a) Procurement Office/BAC Office
   Southern Luzon State University
   2nd Flr. Hermano Puli Building, Quezon Ave.,
   Brgy. Kulapi, Lucban, Quezon
   OR
   (b) Thru email: slsuprocurement@slsu.edu.ph

2. Requirements for Infrastructure Projects should be submitted such as;

*PhilGEPS Registration	*ITR / Tax Clearance (for 500k Above)
*SEC / DTI Permit	*PCAB License
*Mayor's / Business Permit	*List of Personnel
*Omnibus Sworn Statement and ID	*SPA (for authorized representative)

3. The SLSU reserves the right to reject any or all quotations and/or proposals and waive any formalities/ informalities therein and to accept such bids it may consider as most advantageous to the agency and to the government. Southern Luzon State University SLSU neither assumes any obligation for whatsoever losses that may be incurred in the preparation of bids, nor does it guarantee that an award will be made.

MARIDEL C. ZABELLA, JD
Director, Procurement Office
Southern Luzon State University
Lucban, Quezon
Tel. No.: (042)540-6519

Republic of the Philippines
SOUTHERN LUZON STATE UNIVERSITY
Lucban, Quezon

REQUEST FOR QUOTATION

Office/End-User:	**Project Management Office**	**Date:**	
COMPANY NAME:		**PR No.:**	**2026-10-2708**
ADDRESS :			
TEL. NO./FAX NO. :		**TIN No.:**	

Please quote your lowest price on the item(s) listed below, subject to the Terms & Conditions stated below and submit your quotation duly signed by your representative not later than _____ of _____ in the return envelope attached herewith to the Procurement office.

TERMS and CONDITIONS

1. *All entries must be typewritten or legibility written.*
2. *Delivery period within _____ upon conforme of the approved Purchase Order (P.O). Administratitive penalties to Sec. 69 of the Revised IRR-RA 1984 shall be imposed for non-delivery without valid reason.*
3. *Warranty shall be for a minimum of three (3) months for Supplies & Materials; (1) one year for Equipment from date of acceptance by the end-user.*
4. *Price validity shall be for a period of sixty (60) calendar days.*
5. *Suppliers required to submit updated documents yearly such as G-EPS Resgistration, Certificate of Tax, Mayor'sPermit, DTI, Bank Name/Account and Branch for evaluation of the Procurement Office upon submission of the quotation.*
6. *Bidders shall submit complete specifications showing products certification, if applicable.*
7. *Please indicate the brand for each items being offered.*
8. *The Approved budget celling for this procurement is PHP 800,000.00 .*

MARIDEL C. ZABELLA
Director, Procurement Office

Item #	Qty.	Unit	ITEM/S DESCRIPTION	Unit Price	Total Cost
	1	lot	Water Drilling with Pumphouse at SLSU Piis		

Source of Fund: **PRE STF**
Delivery Period: **90 DAYS**
Warranty:
Price Validity:

After having carefully need & accepted your Genaral Conditions, We quote you on the item(s) at prices note above. If the space of providec on the Delivery Period, Warranty & Price Validity are left blank, it means that I concur w/ the Terms & Conditions specified by SLSU Procurement Office.

_____
Printed Name/Signature/Date

Republic of the Philippines
SOUTHERN LUZON STATE UNIVERSITY
Project Management Office
Lucban , Quezon

INFRA

PROJECT TITLE: Water Drilling with Pumphouse at SLSU-Piis
PROJECT LOCATION: Brgy. Piis, Lucban Quezon
OWNER : Southern Luzon State University
MODE OF IMPLEMENTATION : by Contract
ABC : P 800,000.00
PROJECT DURATION : 90 CD
PROJECT BRIEF DESCRIPTION : Construction of pumphouse, water well drilling, casing & installation of pump, testing and commissioning.

SUMMARY

ITEM	DESCRIPTION	COST OF MATERIALS	COST OF LABOR AND EQUIPMENT	TOTAL
I	General Requirements			
II	Bore Hole (Drilling)			
III	Pumphouse			
IV	Plumbing & Mechanical Works			
V	Electrical Works			
VI	Testing & Commissioning			
			TOTAL ESTIMATED DIRECT COST P	
INDIRECT COST			*OVERHEAD, CONTINGENCIES & MISC.(OCM)* P	
			CONTRACTOR'S PROFIT P	
			VALUE ADDED TAX (VAT) P	
			TOTAL PROJECT COST P	

Amount in Words : _____

Name of Bidder : _____

Republic of the Philippines
SOUTHERN LUZON STATE UNIVERSITY
Project Management Office
Lucban , Quezon

PROJECT TITLE: Water Drilling with Pumphouse at SLSU-Piis
PROJECT LOCATION: Brgy. Piis, Lucban Quezon
OWNER : Southern Luzon State University
MODE OF IMPLEMENTATION : by Contract
PROJECT DURATION: 90 CD

BILL OF MATERIALS

I. General Requirements				
Quantity	Unit	Description	Unit Cost	Total Cost
1.00	lot	Mobilization		
1.00	lot	Project Identification & Signs, Tarpaulin with Marine, Plywood Backing		
1.00	lot	Temporary Facilities		
1.00	lot	Demobilization		
			Sub - Total P	

II. Bore Hole/ Drilling Works				
Quantity	Unit	Description	Unit Cost	Total Cost
	lm	Drilling/Borehole		
			Sub - Total P	

III. Pumphouse				
Quantity	Unit	Description	Unit Cost	Total Cost
		Earth Works		
	cu.m	Earthfill/backfill incl. compaction		
	cu.m	Gravel bedding		
	sq.m	Clearing and Grubbing		
	lot	Hauling and Disposal		
	cu.m	Excavation		
		Sub - Total P		
		Reinforced Concrete Works (V= 2.50 cu.m)		
	bags	Portland Cement (40 kgs)		
	cu.m	Sand S1		
	cu.m	Gravel 3/4"		
	cu.m	Gravel 1" (Bedding)		
	pcs	12mm dia RSB x 6m		
	pcs	10mm dia RSB x 6m		
	kgs	G.I. Tie Wire #16		
1.00	lot	Consumables		
		Sub - Total P		
		Masonry Works (Area = 17.50 sq.m)		
	pcs	CHB 5"		
	bags	Portland Cement		
	cu.m	White Sand		
	pcs	10 mm dia RSB x 6m		
	kgs	G.I. Tie Wire #16		
1.00	lot	Consumables		
		Sub - Total P		
		Formworks & Scaffolding Works (A= sq.m)		
	bd.ft	2"x4" coco lumber		
	pcs	1/2"thk x4'x8' Phenolic Board		
	kgs	Assorted Nail		
1.00	lot	Consumables		
		Sub - Total P		
		Doors & Windows		
	set/s	Steel Doors (1.00m x 2.10m)		
	set/s	Powder Coated Aluminum Frame Awning Glass Window (0.50m x 0.50m)		
	set/s	Powder Coated Aluminum Frame Awning Glass Window (0.50m x 1.00m)		
1	lot	Consumables		
		Sub - Total P		

		Truss & Tinsmithry Works		
	lm	0.50mm thk PPGI Rib Typed		
	pcs	0.50mm thk 0.610m x 2.44m PPGI Fascia Flashing		
	pcs	12mm x 300mm x 2.44m Fascia Board		
	pcs	50mm x 100mm x 1.50mm thk C-Purlins		
	pcs	50mm x 150mm x 3.00mm C-Channel (Rafter)		
	pcs	1.50mm x 50mm x 150mm G.I. C-purlins (L=6.00m)		
	gal	Epoxy Gray Primer with Catalyst		
1	lot	Consumables (Tekscrew, Blind Rivets, Cutting Disc,Welding Rod)		
		Sub - Total P		
		Painting Works		
	gal	Concrete Neutralizer		
	gal	Flat Latex - White		
	gal	Semi-Gloss Latex Paint		
	bags	Skim Coat (25 kgs)		
1	lot	Consumables		
		Sub - Total P		
			Sub - Total P	

IV. Electrical Works				
Quantity	Unit	Description	Unit Cost	Total Cost
	set	Panel Board with Complete Electronic Sensor (Including breaker)		
1	lot	Electrical Wires & Conduits		
1	lot	Consumables		
			Sub - Total P	

V. Plumbing Works & Mechanical Works (Deep Well)				
Quantity	Unit	Description	Unit Cost	Total Cost
	set/s	Submersible Pump (3hp)		
	pcs	4" Ø Well Casing Sch. 20 L=6.0m		
	pcs	2" Ø G.I. Pipe Sch 20 L=6.0m		
	pcs	2" Ø G.I. Coupling		
	pcs	2" Ø G.I. Elbow		
	pcs	2" Ø Brass Ball Valve		
	pcs	4" Ø Well Seal		
1	lot	Consumables		
			Sub - Total P	

VI. Testing & Commisioning				
Quantity	Unit	Description	Unit Cost	Total Cost
1	lot	Testing & Commissioning (Pumping Test Included)		
			Sub - Total P	

Republic of the Philippines
Southern Luzon State University
Project Management Office
Lucban, Quezon

PROJECT TITLE: Water Drilling with Pumphouse at SLSU-Piis
PROJECT LOCATION: Brgy. Piis, Lucban Quezon
OWNER: Southern Luzon State University
PROJECT DURATION: 90 CD
SUBJECT: Minimum Technical Personnel and Equipment

MINIMUM TECHNICAL PERSONNEL AND EQUIPMENT

QUANTITY	MINIMUM TECHNICAL PERSONNEL
1	Project Engineer / Site Engineer
1	Foreman
2	Skilled Worker
2	Unskilled Worker

QUANTITY	MINIMUM EQUIPMENT
1	One Bagger Mixer
1	Welding Machine
1	Well Drilling Machine

Prepared by:

Engr. Joe Marino P. Abutal
Assistant Planning Engineer

Reviewed by:

Engr. Joel E. Morales
Project Development Officer -1

Recommending Approval:

Engr. Melvin P. Makipagay
Director, Project Management Office

Approved by:

Dr. Frederick T. Villa
University President

Republic of the Philippines
SOUTHERN LUZON STATE UNIVERSITY
Planning and Development Office
Lucban, Quezon

Project : Water Drilling with Pumphouse at SLSU-Piis
Location : Brgy. Piis, Lucban Quezon
Owner : Southern Luzon State University
Mode of Implementation : by Contract
Project Duration : 90 CD

GANTT CHART/CONSTRUCTION SCHEDULE

Item	Description	Duration (days)	Duration (Days)												
			7	14	21	28	35	42	49	56	63	70	77	84	90
I.	GENERAL REQUIREMENTS														
	Mobilization	7													
	Project Identification & Signs	7													
	Temporary Facilities	77													
	Demobilization	7													
II.	BOREHOLE (Drilling)														
	Borehole Drilling	21													
III.	PUMPHOUSE														
	Construction of Pumphouse	35													
IV.	PLUMBING WORKS & MECHANICAL WORKS														
	Pipe Casing Installation	21													
	Installation of G.I. Pipes & Fittings	21													
V.	ELECTRICAL WORKS														
	Panel Board with Complete Electronic Sensor (Inc. breaker)	7													
	Installation of Electrical Wires & Conduits.	14													
VI.	ELECTRICAL WORKS														
	Testing & Commissioning	14													

Prepared by:

Engr. Joe Marino P. Abutal
Assistant Planning Engineer

Reviewed by:

Engr. Joel E. Morales
Project Development Officer-1

Recommending Approval:

Engr. Melvin A. Makipagay
Director - PMO

Approved by:

Dr. Frederick T. Villa
University President

Republic of the Philippines
Southern Luzon State University
Project Management Office
Lucban, Quezon

PROJECT TITLE : Water Drilling with Pumphouse at SLSU-Piis
PROJECT LOCATION : Brgy. Piis, Lucban, Quezon
OWNER : Southern Luzon State University
PROJECT DURATION : 90 CD
SUBJECT : Scope of Works/Specification

SCOPE OF WORKS/SPECIFICATIONS

I. GENERAL WORKS

- Mobilization – Mobilization shall include all activities and associated cost for transportation of contractor's personnel, equipment and material supplies to the site.
- Construction of temporary facilities.
- Project Billboards – refer to the project engineer for the design/lay-out.
- Material Testing – all material testing and quality control expenses shall be shouldered by the contractor.
- Demobilization – Demobilization shall include all activities and cost for transportation of personnel, equipment and supplies not required or included in the contract from the site; including disassembly, removal and site clean-up of facilities assembled at the site.

II. EARTHWORKS (Pump House)

- **Clearing & Grubbing**
  - This item shall consist of clearing, grubbing, removing and disposing all vegetation and debris as designated in the Contract, except those objects that are designated to remain in place or are to be removed in consonance with other provisions of this Specification. The work shall also include the preservation from injury or defacement of all objects designated to remain.
- **Excavation**
  - This Item shall consist of foundation, drainage and borrow excavation and the disposal of material in accordance with this Specification and in conformity with the lines, grades and dimensions shown on the Plans or established by the Engineer.
- **Gravel Bedding**
  - This item shall consist of the construction of gravel bedding for the following structural member: column footings, wall footings, footing tie beams and slab on grade to cover of any particles that will weaken the structure.
  - All gravel bedding shall be tamped by a plate compactor or any tampering equipment to make it compact
- **Earth fill/Backfill**
  - An excavation shall be backfilled and filling materials shall be made in layers not to exceed 15 centimeters and thoroughly tamped before the next fill is placed.
- **Hauling & Disposal**
  - Hauling & disposal shall consist of authorized hauling in excess of the free-haul distance. Hauling distance is the specified distance that excavated material shall be hauled without additional compensation.

III. REINFORCED CONCRETE WORKS

- All concrete works shall be done in accordance with the standard specification for plain and reinforced concrete.

- Concrete works included the pouring of concrete for footing, column, slab, stair / ramp and other concrete structures of the building.
- Concrete mix and steel reinforcement shall be approved by the Civil / Structural Engineer of the Southern Luzon State University.
- Reinforcing steel bars shall conform to ASTM Specifications A-615. All mild steel columns, shear wall, footings, footing tie beams and beams shall be high grade deformed bars Fy = 276 Mpa.

IV. MASONRY WORKS

- The masonry works include the laying of the Concrete Hollow Blocks of non-bearing type with even textures and wall defined edges, all masonry walls shall provide with 10mm reinforcing bars as specified in the details.
- The masonry finishes shall be smooth plaster finish unless otherwise specified.
- The scope covers only the perimeter wall and partition wall of ground floor.
- The scope also covers the wall at roof.

V. FORMWORKS AND SCAFFOLDINGS

- The work includes the construction and installation of formworks and scaffolding, fabrication of column and beam forms and erection of the forms and scaffolding and dismantling & stripping of forms.
- The work under this project shall include the furnishing of all materials, labor, tools, equipment and other facilities and construction necessary as on the plans and in accordance with the specifications.

VI. PLUMBING WORKS (Well Construction)

- All plumbing works included herein shall be executed according to the provision of the National Plumbing Code of the Philippines, national Building Code and the rules and regulation of the city/province.
- This scope of works requires construction of well for SLSU Piis Campus. The works include drilling of well, well development, insertion of casings, installation of pump & conducting pump test.
- All materials and equipment to be installed shall be approved quality and should be presented to Southern Luzon State University / Representative Engineer for approval prior to installation.

VII. DOORS & WINDOWS

- The contractor shall provide all the steel door, steel door jamb, awning glass windows and other materials needed as specified in the drawing plans and specifications.
- All materials shall be new and shall conform to reference code and standard. Use of materials shall furfure be governed by other requirements, imposed on the specifications. Materials shall be subjected to test if necessary, for fitness if so required.

VIII. ELECTRICAL WORKS

- All electrical works shall provide all materials and equipment and perform all the works necessary for the complete execution of the electrical system shown on the electrical drawings with the reference to the general construction drawings as herein specified, for both excepts as otherwise excluding the generality of the foregoing, shall include but not limited to the following principal items of the works.
- Supply and installation of electrical fixtures.
- Supply and installation of electrical wire and cable.
- Supply and installation of electrical pipeline.

- Tapping of electrical lines to electrical service lines which include testing and commissioning.
- All materials and equipment to be installed shall be approved quality and should be presented to Southern Luzon State University/ Representative Engineer for approval prior to installation.
- All materials shall conform to the reference code and standard. Use of materials shall furture be governed by other requirements, imposed on the specification. Materials shall be subjected to test if necessary, for their fitness if so required.

IX. TRUSS & TINSMITHRY

- Fabrication of steel trusses, installation of roof frame, ribbed type roof, cap flashing , gutter and other accessories.
- Painting of steel rafters and framing (epoxy paint).

X. PAINTING WORKS

- This item shall consists of furnishing all paints, enamels, epoxy, varnishes and other products to be used including labor, tools and equipment required as shown on the plans and in accordance with this specifications.

Prepared by:

Engr. Joe Marino P. Abutal
Assistant Planning Engineer

Reviewed by:

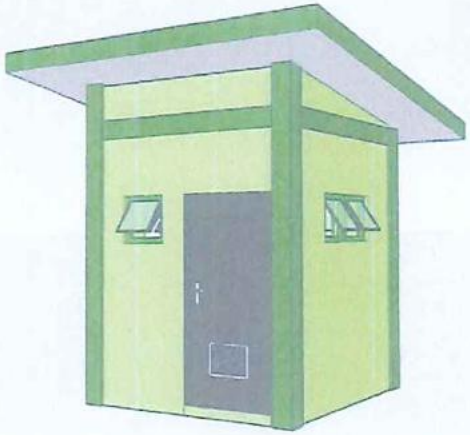
Engr. Joel E. Morales
Project Development Officer -1

Recommending Approval:

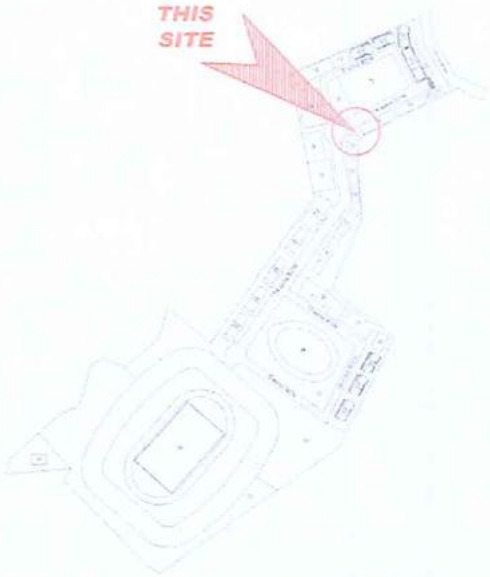
Engr. Melvin A. Makipagay
Director, Project Development Officer

Approved by:

Dr. Frederick T. Villa
University President



1 / W-1 PERSPECTIVE
SCALE : NTS



Legend

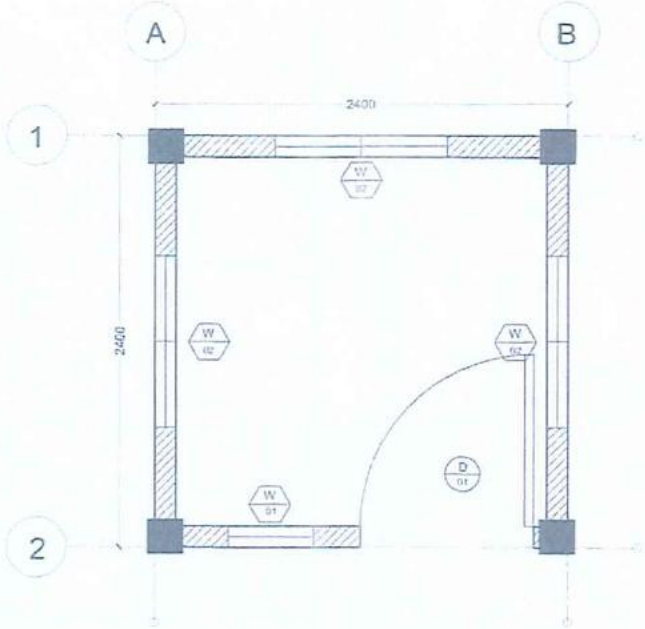
1 - Dormitory for Students
2 - SLSU Erasmus Resource Center
3 - Entrance Gate
4 - Substation / Powerhouse
5 - SLSU Product and Display Center
6 - Dormitory for Faculty and Employee
7 - Dormitory for Students
8 - Office of the Students Affairs Building
9 - SLSU Library
10 - ICT Building
11 - Technological laboratory Building
12 - Administration Building
13 - International Conference Center
14 - SLSU Auditorium
15 - SLSU Performing Arts Theater
16 - University Registrar Building
17 - International Building
18 - College of Arts and Sciences building 1
19 - College of Arts and Sciences building 2
20. Faculty and Student Lounge Building
21. College of Teachers Education building 1
22. College of teachers Education building 2
23. Audio Visual and Learning Resource Center
24. Three Storey Green building with 21st Century Room and Industry 4.0 Technological laboratory
25. Five Storey Design and Innovation building
26. Student Learning Center and Multi Purpose
27. Hostel 1
28. Hostel 2
29. Dormitory for Faculty and Employee
30. Acqua Sports Center
31. Waste Water Treatment Facility
32. University Stadium
33. Greenery and Landscape
34. Parking Space
35. Parking Space
36. SLSU Field
37. UEMARA (DERMOICS Bldg
38. Elevated Water Tanks with Cistern Tank

2 / W-1 SITE DEVELOPMENT
SCALE : NTS

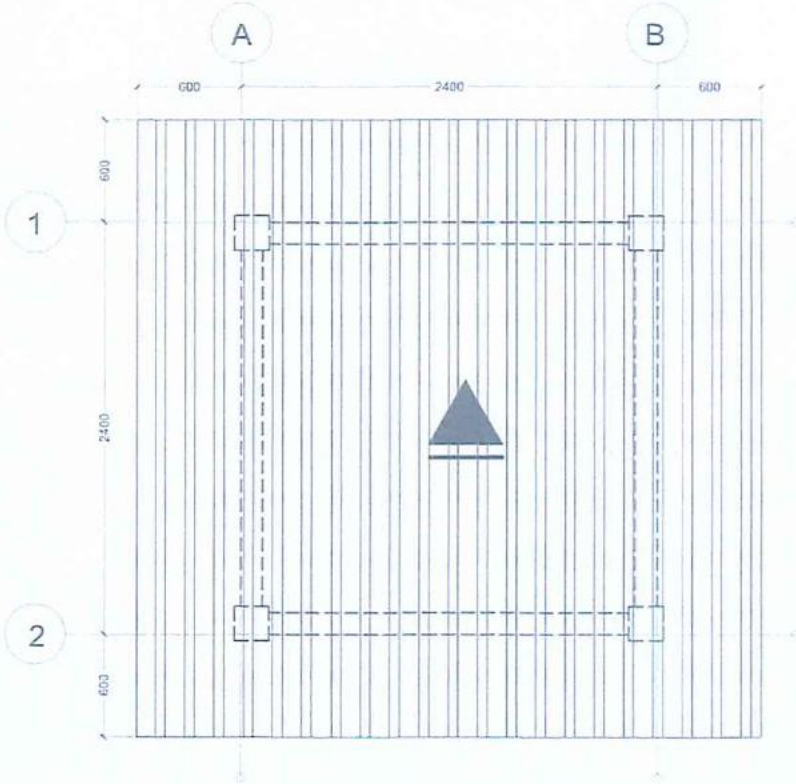


3 / W-1 VICINITY MAP
SCALE : NTS

CIVIL/STRUCTURAL ENGINEER:	PROJECT TITLE: WATER DRILLING WITH PUMPHOUSE AT SLSU PIIS	DRAWN BY: ENGR. JOE MARVIN P. ABUTAL	REVIEWED BY: ENGR. JOEL [illegible]	RECOMMENDING APPROVAL: ENGR. MELVIN A. MAKIPAGAY	APPROVED BY: DR. FREDERICK T. VILLA	SHEET CONTENT: PERSPECTIVE; VICINITY MAP; SITE DEVELOPMENT PLAN	SHEET #: W-1

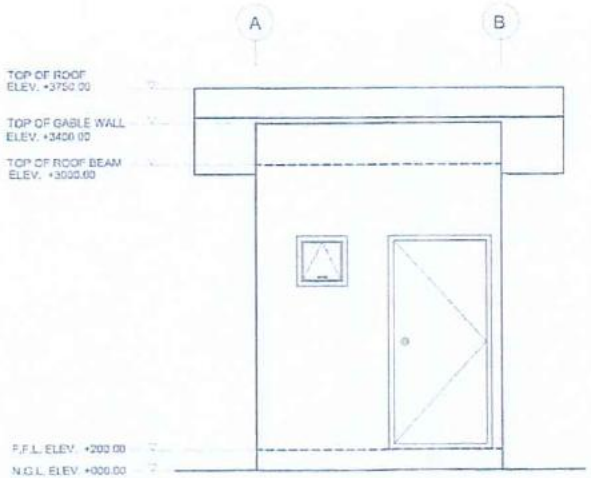


1 / A-2 FLOOR PLAN
SCALE : 1:30

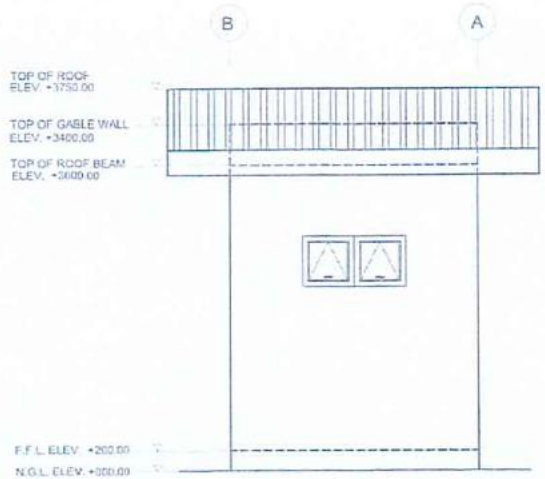


2 / A-2 ROOF PLAN
SCALE : 1:30

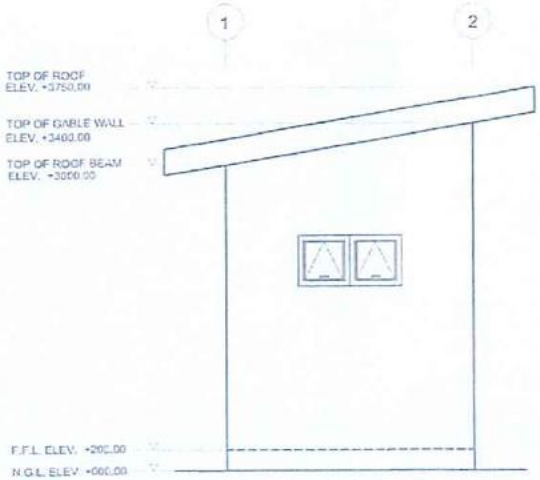
CIVIL/STRUCTURAL ENGINEER:	PROJECT TITLE:	DRAWN BY:	REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET #
	WATER DRILLING WITH PUMPHOUSE AT SLSU PIIS	ENGR. JOEMARINO P. ABUTAL	ENGR. JOEL E. [illegible]	ENGR. MELVIN A. MIKIPAGAY	DR. FREDERICK T. VILLA	FLOOR PLAN ROOF PLAN	W-2



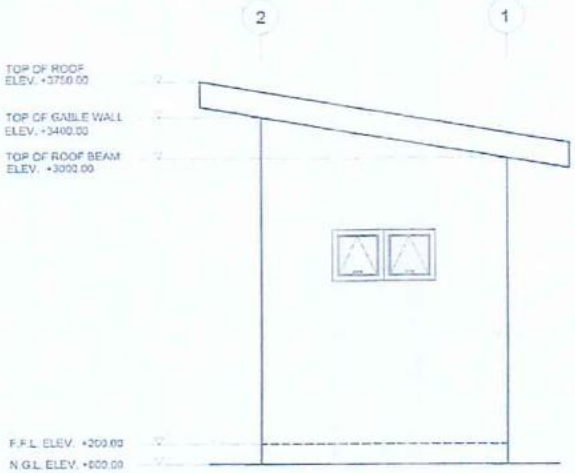
1 A-3 FRONT ELEVATION
SCALE : 1:50



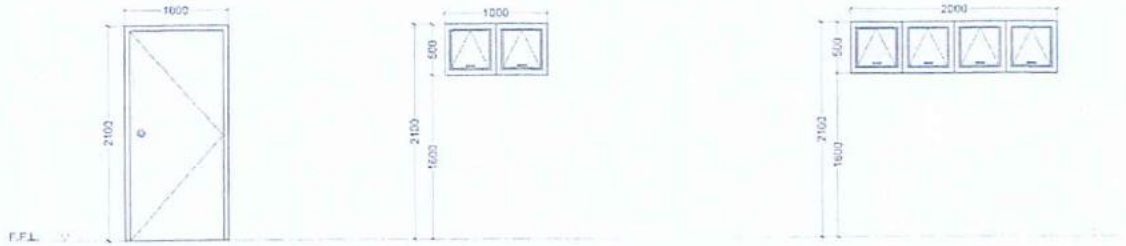
2 A-3 REAR ELEVATION
SCALE : 1:50



3 A-3 LEFT SIDE ELEVATION
SCALE 1:50



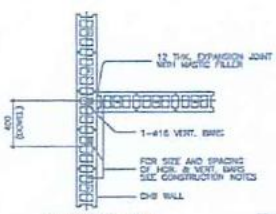
4 A-3 RIGHT SIDE ELEVATION
SCALE : 1:50



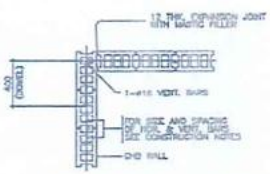
DESIGNATION	D-1	W-1	W-2
DESCRIPTION	STEEL DOOR	AWNING WINDOW - ¼" THK GLASS ON ALUMINUM FRAME	AWNING WINDOW - ¼" THK GLASS ON ALUMINUM FRAME
NO. OF SETS	1 SET	1 SET	2 SETS
LOCATION	MAIN DOOR	FRONT	LEFT SIDE AND RIGHT SIDE

5 A-3 DOOR & WINDOW SCHEDULES
SCALE : 1:50

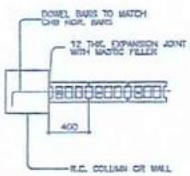
CIVIL/STRUCTURAL ENGINEER:	PROJECT TITLE:	DRAWN BY:	REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET #
	WATER DRILLING WITH PUMPHOUSE AT SLSU PIIS	ENGR. JOE MARINO P. AEUTAL	ENGR. JOEL A. MORALES	ENGR. MELVIN L. MAKIPAGAY	DR. FREDERICK T. VILLA	FRONT ELEVATION REAR ELEVATION LEFT SIDE ELEVATION RIGHT SIDE ELEVATION	W-3



INTERSECTION WALL

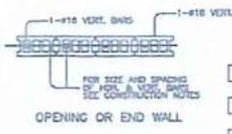


CORNER WALL

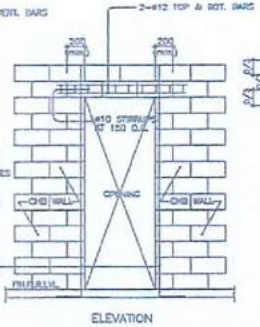


INTERSECTING R.C. COLUMN OR WALL

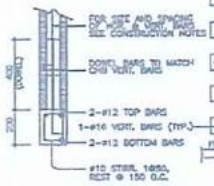
TYPICAL CONNECTION DETAIL OF MASONRY WALL



OPENING OR END WALL

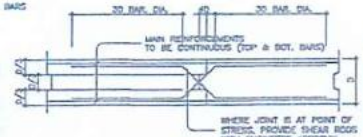


ELEVATION

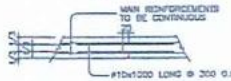


SECTION

TYPICAL DETAIL OF LINTEL BEAM AT CHB WALL OPENING



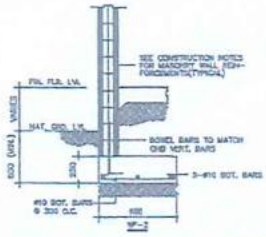
BEAM

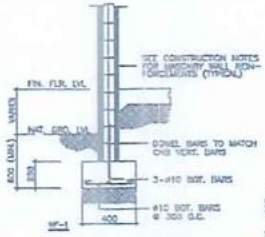


SLAB

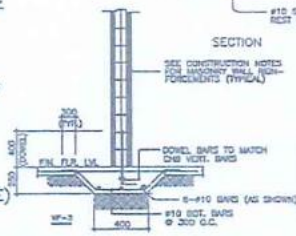
TYPICAL SLAB AND BEAM CONSTRUCTION JOINT DETAIL

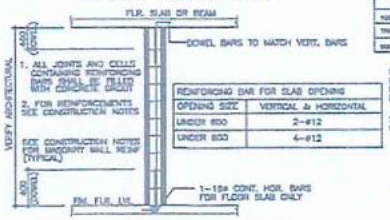
REINFORCING BAR FOR SLEEVES				
OPENING DIAMETER	REINFORCING BARS DIAGONAL	REINFORCING BARS VERTICAL	HORIZONTAL	STIRRUP
$\leq \frac{\Delta}{3}$ mm	2 - #12	2 - #12		
$\frac{\Delta}{3}$ < ≤ $\frac{2\Delta}{3}$ mm	2 - #12	2 - #12	2 - #12	#12 @ 150
$\frac{2\Delta}{3}$ < ≤ Δ mm	2 - #16	2 - #16	2 - #16	#12 @ 150
Δ < ≤ 1.5Δ mm	2 - #20	2 - #16	2 - #16	#12 @ 150





TYPICAL CHB FOOTING DETAILS (WHERE APPLICABLE)



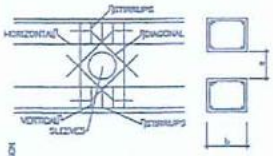


REINFORCING BAR FOR SLAB OPENING	
OPENING SIZE	VERTICAL & HORIZONTAL
UNDER 600	2-#12
UNDER 800	4-#12

NOTE:
PROVIDE THESE ADDITIONAL BARS FOR ALL OPENINGS PLUS BARS (NOT SHOWN) PARALLEL TO SIDE OF OPENING EQUAL TO THE NUMBER OF TERMINATED BARS AT OPENING

SEE ARCHITECTURAL & MECHANICAL PLANS FOR SLAB OPENING LOCATION

TYPICAL SECTION OF MASONRY PARTITION REINFORCEMENTS



PARAMETERS

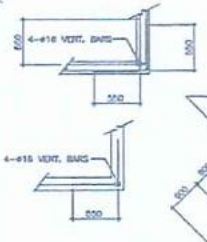
MATERIAL	MPa	ACI 318-05
f'_c	21	DEVT. & SPLICE LENGTH
f_y	276	#10mm & HIGHER
f_{yh}	276	#12mm & LOWER

TIE #	10	STIRRUP #	10
f_y	276	f_{yh}	276

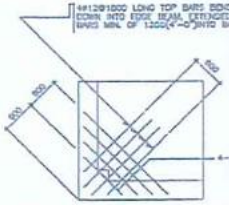
NOTES:
1. DEVELOPMENT LENGTH OF INDIVIDUAL BARS WITHIN A BUNDLE, IN TENSION OR COMPRESSION, SHALL BE THAT FOR THE INDIVIDUAL BAR, INCREASED 20% FOR THREE-BAR BUNDLES, AND 33% FOR FOUR-BAR BUNDLES.
2. FOR COLUMNS AT ANY LEVEL, NO MORE THAN ALTERNATE BARS SHALL BE SPLICED, NOT MORE THAN 1/5 OF THE BARS SHALL BE SPLICED WITH THE REQUIRED LAP LENGTH, MINIMUM DISTANCE BETWEEN TWO ADJACENT SPLICED SHALL BE 600mm.
3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 300mm. DEPTH OF CONCRETE CAST BELOW REINFORCEMENT.
4. LAP SPLICE SHALL BE USED, IF TENSION LAP SPLICE IS MORE THAN ONE HALF OF THE BARS WERE SPLICED AT ANY SECTION, WHILE "CLASS A" TENSION LAP SPLICE IF HALF OR FEWER THAN HALF OF BARS WERE SPLICED.
5. TOP BARS SPLICE FOR BEAMS SHOULD BE "CLASS C" TENSION LAP SPLICE IF $\frac{A_s(\text{provided})}{A_s(\text{required})} \geq 1.5$.

BAR # (mm)	ANCHORAGE LENGTH (mm)	Ldh (mm)	STANDARD HOOK (mm) 90°	135°	135°-90°	BEAM COMP. SPLICE (mm)
10	600	150	180	110	120~122	300
12	710	150	200	120	130~133	300
16	950	240	280	130	160~180	310
20	1180	300	320	160	200~320	380
25	1500	370	400	200	250~405	400

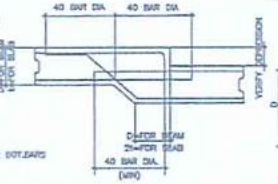
TENSION LAP SPLICE (mm)												UNIT WT. (kg/m)
LAP CLASS	20MPa			25MPa			30MPa			40MPa		
	TOP BAR	OTHER BAR	VERTICAL	TOP BAR	OTHER BAR	VERTICAL	TOP BAR	OTHER BAR	VERTICAL	TOP BAR	OTHER BAR	VERTICAL	
A	450	350	350	400	300	300	350	300	300	300	300	300	0.616
B	600	450	450	500	400	400	450	350	350	350	350	350	0.888
C	800	600	600	700	500	500	600	450	450	450	450	450	1.578
D	1000	750	750	850	650	650	750	600	600	550	550	550	2.466
E	1200	900	900	1050	800	800	900	700	700	650	650	650	3.553



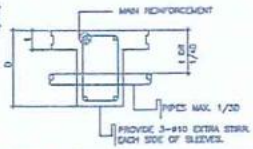
TYPICAL CONNECTION DETAIL OF R.C. WALL AT CORNERS



TYPICAL CORNER SLAB DETAIL

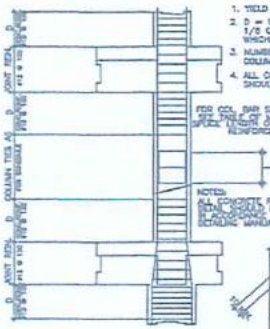


TYPICAL DETAIL FOR BEAM OR SLAB CHANGE SOFFIT

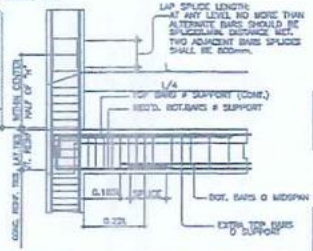


TYPICAL DETAIL FOR SLEEVES THRU CONCRETE BEAM

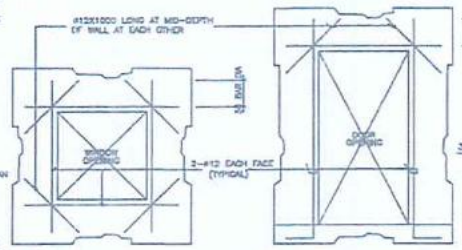
NOTES:
1. YIELD STRESS OF HOOPS=40 KSI
2. D = USE MAXIMUM COLUMN DIMENSION, 1/6 CLEAR HEIGHT OR 18" (450mm) WHICHEVER IS GREATER.
3. NUMBER OF HOOP TIES SAME AS PER COLUMN TIES SCHEDULE.
4. ALL CONCRETE REINFORCEMENT DETAIL SHOULD BE DONE INACCORDANCE WITH



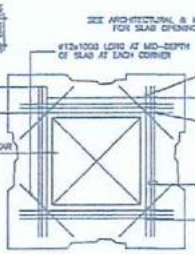
TYPICAL COLUMN ELEV. SHOWING DOWELS AND TIES SPACING



TYPICAL DETAIL OF COL. LAP SPLICE & EXT. GIRDER TO COL. CONNECTION



TYPICAL WALL OPENING



CONSTRUCTION NOTES

A. GENERAL

1. CONSTRUCTION NOTES AND TYPICAL DETAILS APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED. MODIFY TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.
2. SHOP DRAWINGS WITH ERECTION AND PLACING DIAGRAMS OF ALL STRUCTURAL STEEL, MISCELLANEOUS IRON, PRE-CAST CONCRETE ETC. SHALL BE SUBMITTED FOR ENGINEERS APPROVAL BEFORE FABRICATION.
3. CONTRACTOR SHALL VERIFY ALL DIMENSION KEYED ALL INSERTS TO BE USED ON SITE WITH MECHANICAL AND ELECTRICAL CONTRACTORS WITH CONDUITS AND SLEEVES, ETC. TO BE EMBEDDED IN CONCRETE.
4. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ADEQUATE SHORING & BRACINGS OF THE STRUCTURE FOR ALL LOADS THAT MAY BE IMPOSED DURING CONSTRUCTION.

B. CONCRETE & REINFORCEMENT

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE LATEST BUILDING CODE OF AMERICAN CONCRETE INSTITUTE (ACI-318).
2. ALL CONCRETE SHALL DEVELOP A MIN. COMPRESSIVE STRENGTH AT THE END OF TWENTY EIGHT (28) DAYS AS CORRESPONDING MAXIMUM SIZE AGGREGATE & SLUMPS AS FOLLOWS:

LOCATION	28 DAYS STRENGTH	MAX. SIZE AGGREGATES	MAX. SLUMP
ALL OTHERS, INCLUDING SUSPENDED SLABS	3,000 PSI	3/4" (19 MM)	4" (100 MM)
COLUMNS, RETAINING WALLS	3,000 PSI	3/4" (19 MM)	4" (100 MM)
BEAMS, GIRDERS	3,000 PSI	3/4" (19 MM)	4" (100 MM)
SLAB ON GRADE	3,000 PSI	3/4" (19 MM)	4" (100 MM)

3. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 FOR DIAMETER 12 & SMALLER BARS AND GRADE 40 FOR DIA. 16 AND LARGER BARS.
4. IN GENERAL THE LATEST EDITION OF ACI 315 "MANUAL OF STANDARD PRACTICE DETAILING REINFORCED CONCRETE STRUCTURES" SHALL BE ADHERED TO UNLESS OTHERWISE SHOWN OR NOTED.
5. MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS:
   - SLAB SUSPENDED IS MID ..... 3/4" (19 mm)
   - SLAB ON GRADE ..... 1 1/2" (38 mm)
   - WALLS ABOVE GRADE ..... 1" (25 mm)
   - BEAMS STIRRUPS AND COLUMN TIES ..... 1 1/2" (38 mm)
   - WHERE CONCRETE IS EXPOSED TO EARTH BUT POURED AGAINST FORMS ..... 2" (50 mm)
   - OTHER CONCRETE IS EXPOSED TO DIRECTLY AGAINST EARTH ..... 3" (75 mm)
6. SPLICES SHALL BE OF CLEARLY WIRED TOGETHER & SHALL LAP OR EXTEND IN ACCORDANCE TO TABLE 1 (TABLE OF LAP SPLICE & ANCHORAGE LENGTH) UNLESS OTHERWISE SHOWN ON DRAWINGS. SPLICES SHALL BE STAGGERED WHENEVER POSSIBLE.
7. ALL ANCHOR BOLTS, BOWELS, AND OTHER INSERTS, SHALL BE PROPERLY POSITIONED & SECURED IN PLACE PRIOR TO PLACING OF CONCRETE.
8. CONTRACTOR SHALL NOTE AND PROVIDE ALL MISCELLANEOUS CURBS, SILLS, TOOLS, EQUIPMENTS AND MECHANICAL BASES THAT ARE REQUIRED BY THE ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS.
9. ALL CONCRETE SHALL BE KEPT MOIST FOR A MINIMUM OF SEVEN CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE OF WET BURLAP, FOG SPRAYING, CURING COMPOUNDS OR OTHER APPROVED METHODS.
10. STRIPPING OF FORMS AND SHORES
    - FOUNDATION ..... 24 HRS
    - SUSPENDED SLAB EXCEPT WHEN ..... 8 DAYS
    - ADDITIONAL LOADS ARE IMPOSED
    - WALLS ..... 12 HRS
    - BEAMS ..... 14 DAYS

C. MASONRY AND CONCRETE BLOCKS

1. ALL NON-LOAD BEARING TYPE CONCRETE BLOCKS SHALL HAVE A UNIT WEIGHT NOT TO EXCEED 90 PCF. FOR LOAD BEARING TYPE, TYPE CONCRETE BLOCKS A MINIMUM COMPRESSIVE STRENGTH OF 6.90 MPA SHALL BE DEVELOPED.
2. PROVIDE 1-#16 VERTICAL BARS AT CORNERS, INTERSECTIONS, AND WALLS AND EACH SIDE OF OPENINGS.
3. LINTEL BEAMS SHALL BEAR AT LEAST 8 INCHES (200 MM) ON EACH SIDE OF MASONRY WALL OPENINGS.
4. WALL REINFORCEMENTS SHALL BE AS FOLLOWS:

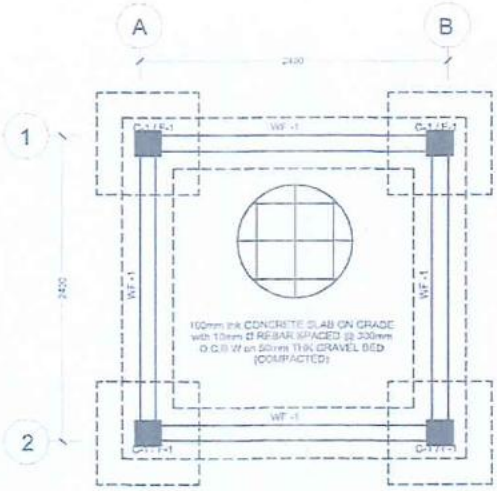
WALL THICKNESS	VERTICAL REINFORCEMENTS	HORIZONTAL REINFORCEMENT
6 IN. (150 MM)	#12 @ 600 MM	#12 @ 600 MM
8 IN. (200 MM)	#12 @ 800 MM	#12 @ 800 MM
10 IN. (250 MM)	#12 @ 1000 MM	#12 @ 1000 MM

5. REINFORCING BARS SHALL BE LAP YIELD A MINIMUM OF 40 BAR DIAMETERS AT SPLICE, DOWELS FROM FOOTING OR SLABS SHALL EXTEND INTO THE BLOCKWALL A MINIMUM OF 40 BAR DIAMETERS AND DOWELS TO MATCH.
6. ALL CELLS CONTAINING REINFORCING BARS OR INSERTS SHALL BE SOLIDLY FILLED WITH CONCRETE GROUT (AS PER ITB SPECIFICATIONS).

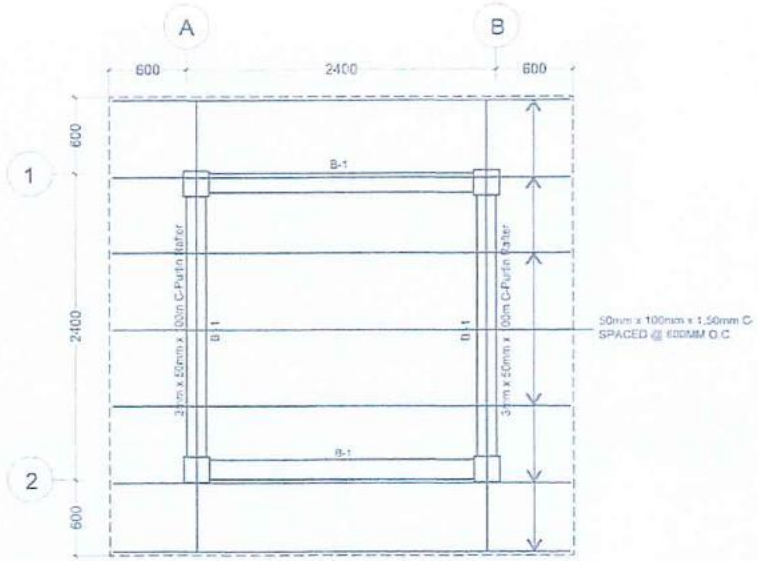
D. FOUNDATION

1. SOIL BEARING CAPACITY 100 KPA
   a. PILE CAPACITY 140 TONS
   b. BOTTOM OF FOOTINGS SHOULD BE SOLID GROUND ACTUAL DEPTH TO BE APPROVED BY THE ENGINEER.
   c. SOIL BEARING CAPACITY SHALL BE INCREASED BY 33% WHEN COMBINATION WITH SEISMIC OR WIND LOAD.
2. ALL COLUMN FOOTINGS SHALL REST ON 6" THICK WELL COMPACTED GRAVEL BASE COURSE.
3. BACKFILL SHALL BE PLACED IN 0.20m LAYERS AND EACH LAYER SHALL BE WELL COMPACTED TO 95% MAXIMUM DRY DENSITY.
4. WHERE LOOSE/SOFT MATERIAL IS ENCOUNTERED AT DEPTH OF EMBEDMENT, EXCAVATE TO FIRM LAYER OR TO A MAXIMUM OF 0.15m AND REPLACE LOOSE/SOFT MATERIALS UNDERNEATH THE FOOTING WITHIN FOOTING AREA PLUS 1/2 OF THE DEPTH EXCAVATED SOFT MATERIAL ON ALL SIDES WITH SELECTED SAND/GRAVEL BACKFILL MATERIALS COMPACTED AS DESIRED BY THE ENGINEER.

CIVIL/STRUCTURAL ENGINEER	PROJECT TITLE	DRAWN BY:	REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET #
	WATER DRILLING WITH PUMPHOUSE AT SLSU PIIS	ENGR. JOE MARINO P. ABUTAL ASSISTANT PLANNING ENGINEER	ENGR. JOEL S. MORALES CHIEF DEVELOPMENT PLANNER II	ENGR. MELISSA A. MAKIPAGAY DIRECTOR, PROJECT MANAGEMENT OFFICE	DR. FREDERICK T. VILLA UNIVERSITY PRESIDENT	GENERAL NOTES	S-1



1 S-2 FOUNDATION PLAN
SCALE 1:40

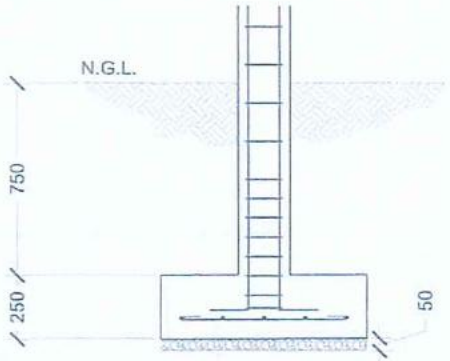


2 S-2 FRAMING PLAN
SCALE : 1:40

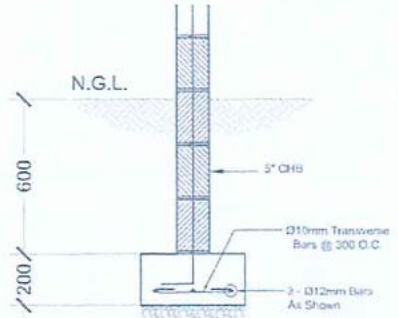
COLUMN & BEAM DETAIL		
LEVEL	C-1	B-1
FOUNDATION LEVEL TO TOP OF ROOF BEAM	200 / 200 MAIN BAR : 4 - Ø 12mm TIES : Ø 10mm 1@50mm, 5@75mm, REST @150mm on CENTER	150 / 200 MAIN BAR : 4 - Ø 12mm TIES : Ø 10mm 1@50mm, 6@75mm, REST @150mm on CENTER

FOOTING SCHEDULE			
MARK	SIZE (L x W x D)	DEPTH OF FOOTING	REINFORCEMENTS # OF BARS
F-1	800 x 800 x 250	1000	5 - Ø12mm both ways

3 S-2 COLUMN, BEAM, FTG. SCHED.
SCALE : 1:20

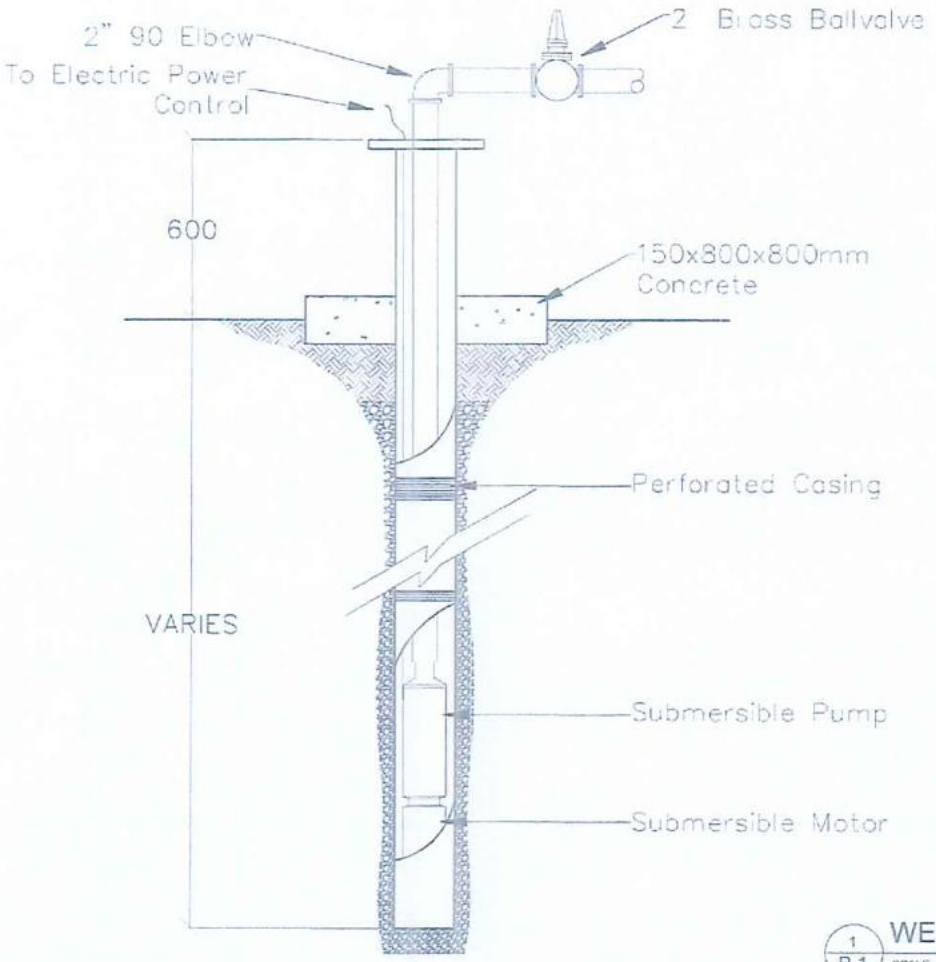


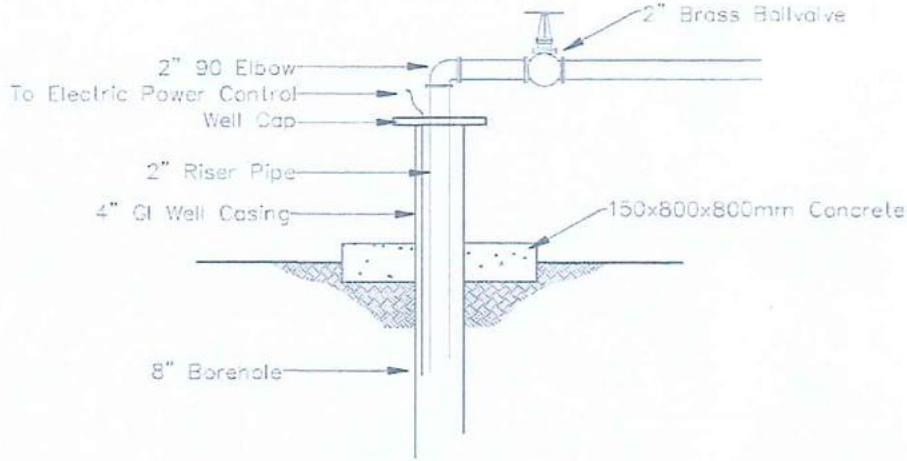
4 S-2 COLUMN FOOTING DET.
SCALE : 1:20



5 S-2 WALL FOOTING DET.
SCALE : 1:20

CIVIL/STRUCTURAL ENGINEER	PROJECT TITLE	DRAWN BY	REVIEWED BY	RECOMMENDING APPROVAL	APPROVED BY	SHEET CONTENT	SHEET #
	WATER DRILLING WITH PUMPHOUSE AT SLSU PIIS	ENGR. JOE MARINO P. ABUTAL	ENGR. JOEL C. MORALES	ENGR. MELVIN A. MAKIPAGAY	DR. FREDERICK T. VILLA	FOUNDATION PLAN FRAMING PLAN COLUMN, BEAM, FTG. SCHEDULE COLUMN FOOTING DETAIL WALL FOOTING DETAIL	S-2





NOTE:
THE SPECIFICATION OF SUBMERSIBLE PUMP WILL BE DETERMINED BASE ON THE STATIC WATER LEVEL OF THE WELL AND THE RESULT OF PUMPING TEST

RECOMMENDED DEPTH BASED ON GEO-WATER SCAN IS 59.0M TO 80.0M

1/P-1 WELL DETAILS
SCALE: NTS

CIVIL/STRUCTURAL ENGINEER:	PROJECT TITLE:	DRAWN BY:	REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET #
	WATER DRILLING WITH PUMPHOUSE AT SLSU PIIS	ENGR. JOE MUCHO P. ABUTAL, ASSISTANT PUMPING ENGINEER	ENGR. JOELLE S. MORALES	ENGR. MELVIN A. MAKIPAGAY	DR. FREDERICK T. VILLA	DETAILS OF WELL	P-1