



**VISAYAS**  
STATE UNIVERSITY



DEPARTMENT OF  
**CIVIL ENGINEERING**

29 August 2024

**Dr. Prose Ivy G. Yepes**  
University President  
Visayas State University

Through:

**Dr. Rotacio S. Gravoso**  
VP for Academic Affairs

**Dr. Elwin Jay V. Yu**  
VP for Administration and Finance

Dear **Dr. Yepes**:

Greetings!

The VSU Department of Civil Engineering is committed to continuously enhancing the quality of education and research in line with the standards set by the Commission on Higher Education (CHED). As part of our ongoing efforts to secure the Certificate of Program Compliance (COPC) for our Bachelor of Science in Civil Engineering (BSCE) program, we aim to ensure that our facilities meet the requirements outlined in CMO No. 92, Series of 2017.

To achieve this, we have identified several necessary laboratory equipment, materials/tools, software, and calibration services for full compliance with CHED's standards. We kindly request your assistance in facilitating the procurement of these items to ensure that our program meets the highest educational standards and provides our students with the best possible learning environment.


Attached to this letter is a detailed list of the necessary equipment, materials, software, and services, along with their estimated costs and descriptions. We respectfully seek your approval and support for the allocation of funds to acquire these items.

Thank you very much for your attention to this matter.

Very truly yours,

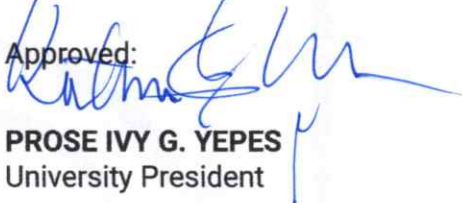
  
**EPIFANIA G. LORETO**  
Head, VSU Department of Civil Engineering

Recommending Approval:

  
**ROTACIO S. GRAVOSO**  
Vice President for Academic Affairs

  
**ELWIN JAY V. YU**  
VP for Administration and Finance

Approved:

  
**PROSE IVY G. YEPES**  
University President

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**FM-VSU-03**  
V03 06-06-2024  
No. CET.CE C24-174

*Funds available a) Comp. Software  
CSTP PY)  
b) Tools - ch. to Lab share  
c) Calibration - ch. PPD*

*Letam-anan  
8/29/24*

**A. Laboratory Equipment**

Item	Name of Equipment	Quantity	Unit	Estimated Price	Total Amount
1	Universal Soil Sample Splitter Meets Specifications: AASHTO T 248, ASTM C702/702M	1	set	100,000.00	100,000.00
2	Sand Cone Apparatus (FDT) Follows AASHTO T 191, ASTM D1556/1556M Accessories: In-place Density Accessories Kit Density Jar and Plate Enough amount of Test Sand	2	sets	25,000.00	50,000.00
3	Rubber Balloon Apparatus (FDT) Following ASTM D2167 Inclusions: Balloon Density Apparatus Double-graduated cylinder Baseplate Pressure/vacuum pump assembly with quick-coupler Pressure gauge (12) Rubber balloons	1	set	50,000.00	50,000.00
4	Soil Drilling Equipment Set	1	set	400,000.00	400,000.00
5	Standard Penetration Set (ASTM D1586-08) Accessories: Hammer weight drill rod probe head Split-spoon Sampler	1	set	200,000.00	200,000.00
6	Liquid Limit Apparatus Following ASTM D4318, AASHTO T89, AASHTO T90	3	sets	25,000.00	75,000.00
7	Field Vane Shear Apparatus Following ASTM D2573 Standard 0 to 260kPa (0 to 2.6 ton/sq. ft.) capacity  Four different-sized vanes are included with the set (16 x 32, 20 x 40, 25.4 x 50.8mm, and 50.8 x 101.6mm).	1	set	100,000.00	100,000.00
8	Digital Direct Shear Apparatus Specifications: ASTM D3080 compliance Direct/residual shear apparatus, utilizes pneumatic loading to apply vertical loads to a soil sample	1	set	750,000.00	750,000.00
9	Constant Head Permeability Apparatus Specifications: Test Sets come in sizes ranging from 2.5–9.0in (6.3–22.8mm) in diameter to accommodate granular soil permeability testing of a wide range of particle top sizes.	3	sets	40,000.00	120,000.00



10	Multi-Purpose Teaching Flume	1	set	2,500,000.00	2,500,000.00
11	Accessory: Sluice Gate	1	set	100,000.00	100,000.00
12	Accessory: Radial Gate	1	set	110,000.00	110,000.00
13	Accessory: Broad Crested Weir	1	set	75,000.00	75,000.00
14	Accessory: Crump Weir	1	set	25,000.00	25,000.00
15	Accessory: Siphon Weir	1	set	262,000.00	262,000.00
16	Accessory: Ogee-Crested Weir with 2 weir Outlets	1	set	90,000.00	90,000.00
17	Accessory: Toe Blocks, 4 models, Elements for Energy Dissipation	1	set	70,000.00	70,000.00
18	Accessory: Level Gauge	1	set	70,000.00	70,000.00
19	Accessory: Pitot-Static Tube	1	set	87,000.00	87,000.00
20	Water Hammer in Pipes	1	set	1,200,000.00	1,200,000.00
21	Seepage Tank Apparatus	1	set	1,500,000.00	1,500,000.00
22	Pipe Networks	1	set	1,000,000.00	1,000,000.00
23	Metacentric Height Apparatus	2	sets	200,000.00	400,000.00
24	Hydrostatic Pressure Apparatus	2	sets	150,000.00	300,000.00
25	Digital Balance, 3 kg. cap., 0.01 g acc.	1	set	50,000.00	50,000.00
26	Air Content Meter Kit: Meets ASTM C213 specifications	1	set	40,000.00	40,000.00
27	Chace Air Indicator Kit: Meets AASHTO T199 specifications	4	set	4,000.00	16,000.00
28	Concrete Cylinder Capping Kit : Includes: Cylinder carrier and capper, Melting Pot, Capping Compound, Ladle. (meets ASTM C192 specifications)	1	set	7,500.00	7,500.00
29	Vicat apparatus (set) (meets ASTM C191 and AASHTO T131 specifications)	2	set	10,000.00	20,000.00
30	Bitumen Penetration Apparatus (meets ASTM D5 specification)	1	set	60,000.00	60,000.00
31	Los Angeles Abrasion Testing Machine Specifications: Compliant to ASTM C131, ASTM C535, AASHTO T96 Standards Power Supply: 220V 60Hz Accessories: 12 Abrasive Charge Balls, Sound Enclosure Box, and Materials Catch Pan	1	set	800,000.00	800,000.00
<b>Sub-total (Php)</b>					<b>10,627,500.00</b>

#### B. Tools/Materials

	Name of Equipment	Quantity	Unit	Estimated Price	Total Amount
1	Vernier Caliper	5	pcs	15,000.00	75,000.00
2	Thin-walled sampler, 2" diameter	5	pcs	5,000.00	25,000.00
3	Soil Lathe (Trimmers) (Hand-operated, the height is adjustable up to	1	pcs	20,000.00	20,000.00

	230 mm, and it accepts samples from Ø 38 to 110 mm.)				
4	Milter box (Soil) Specimen Size: 1.5in (38.1mm) Meets requirements of AASHTO T 296, ASTM D2850, ASTM D4767, ASTM D5084	1	pcs	20,000.00	20,000.00
5	Drying Aluminum Pan	5	pcs	450.00	2,250.00
6	Compaction Mold, Standard Following AASHTO T 134	3	pcs	10,000.00	30,000.00
7	Expansion, apparatus (Tripod w/ dial gage) Meets Standard(s): AASHTO T 193, ASTM D1883	3	sets	12,000.00	36,000.00
8	Surcharge Weights (Standard CBR Accessories)	1	set	10,000.00	10,000.00
9	Wide Mouth Glass Jar with cap (1500 mL): Heat Resistant (Autoclavable) Borosilicate Glass, Polypropylene Screw Cap	6	set	2,500.00	15,000.00
10	Wire Density Basket D = 20 cm; H = 20 cm Meets ASTM C127 specifications	2	pcs	3,500.00	7,000.00
11	Chace Air Indicator Kit: Meets AASHTO T199 specifications	4	set	4,000.00	16,000.00
12	Steel Beam Molds for Concrete Beam Testing Size: 6"x6"x21" Following standards AASHTO R 39 , AASHTO T 23 , AASHTO T 97 , ASTM C192/192M , ASTM C31/31M , ASTM C403/403M , ASTM C78/78M	6	pcs	10,000.00	60,000.00
13	13" Plater's Brush: Stainless Steel Wire	2	pcs	300.00	600.00
14	Utility Pail with Handle: HDPE, 12 Liters	4	pcs	250.00	1,000.00
15	Mixing Tray for Concrete: 48 x 48 inch, at least 2 mm steel plate	2	pcs	5,000.00	10,000.00
16	Trowel	5	pcs	300	1,500.00
17	Wood Float	5	pcs	300	1,500.00
18	Capping Retainers for Concrete Cylinder: 6 inch, stainless steel, 2 piece set (meets ASTM C1231 and AASHTO T22 specifications)	1	set	10,000.00	10,000.00
19	Neoprene pad (for concrete testing): 6 inch (meets meet ASTM C1231 and AASHTO T22 specifications)	12	pcs	400.00	4,800.00
20	250 mL graduated Cylinder: Polypropylene (meets ASTM standards)	10	pcs	800.00	8,000.00
21	Laboratory Weights (1000 g, 8 pcs set): Stainless steel or chrome-plated	3	set	1,000.00	3,000.00
<b>Sub-total (Php)</b>				<b>356,650.00</b>	



**C. Software Licenses**

	Name of Software	Purpose	Terms of Subscription	Estimated Price	Total Amount
1	Bentley <a href="#">STAAD.Pro</a> , RCD, STAAD Foundation Advanced, RAM Connection	STRUCTURAL ENGINEERING: Structural Engineering Analysis and Design	Annual Student License for 30-seats	200,000.00	200,000.00
2	Bentley Synchro 4D	CONSTRUCTION ENGINEERING AND MANAGEMENT: For project management with 4D scheduling and simulation, model- based QTO, and construction modelling	Annual Student License for 30-seats		
3	Bentley Plaxis 2D and 3D LE	GEOTECHNICAL ENGINEERING: Comprehensive FEM slope stability analysis for 2D and 3D	Annual Student License for 30-seats		
4	Bentley OpenFlows WaterGEMS and SewerGEMS	WATER RESOURCES ENGINEERING: Analysis, design, and operation of water distribution system, sanitary and combined sewer system	Annual Student License for 30-seats		
5	Bentley OpenRoads Designer	TRANSPORTATION ENGINEERING: Design projects such as roadways, interchanges, roundabouts, land development and more	Annual Student License for 30-seats		
Sub-total (Php)					200,000.00

**D. Calibration and Maintenance**

	Name of Equipment	Quantity	Unit	Estimated Price	Total Amount
1	Triplex Mid-pressure Triaxial Machine Model: WG-1B; Brand: YF	1	set	40,000.00	40,000.00
2	Digital Direct Shear Apparatus (Repair) Model: STZJY-6; Brand: YF	1	set	180,000.00	180,000.00
3	30KN Medium Pressure Triaxial Test Set Model: STSZ-2; Brand: YF	1	set	30,000.00	30,000.00
4	CBR Apparatus Model: STCBR-1; Brand: YF	1	set	30,000.00	30,000.00
5	Digital Balance Model: PS1000.R2; Brand: RADWAG ; SN: 445115	1	pc	5,000.00	5,000.00
6	Digital Balance Model: SW-1S; Brand: NUTEX ; SN: 160952363	1	pc	5,000.00	5,000.00

7	Hydrometer 152H	5	pcs	25,000.00	25,000.00
8	Computer Display Type Hydraulic Universal Testing Machine (UTM)	1	set	50,000.00	50,000.00
<b>Sub-total (Php)</b>					<b>365,000.00</b>

<b>Summary of Request</b>		
	<b>Items</b>	<b>Amount</b>
A	Laboratory Equipment	10,627,500.00
B	Tools/Materials	356,650.00 ✓
C	Software Licenses	200,000.00 ✓
D	Calibration and Maintenance	365,000.00 ✓
<b>Grand Total (Php)</b>		<b>11,549,150.00</b>

**Vision:** A globally competitive university for science, technology, and environmental conservation.  
**Mission:** Development of a highly competitive human resource, cutting-edge scientific knowledge and innovative technologies for sustainable communities and environment.