Please check our responses to inquiries

For Item A

1. Is it underground storage construction only? Because we cannot find any horizontal distribution piping.

Yes it is underground water storage only with pump connections going to different building locations (OPD, Cancer Center, ER, Main Annex and Admin Building)

2. What is the storage tank dimension or if you have any structural details?

The dimensions are provided in the plan as well as the structural details. It is part of the negotiated document to be issued to you.

Ans: H 2.1m , W 4.0m, L 7.5m

3. How many pump is required? What type and horsepower rating?

The number of pumps are given in the technical specifications which is part of the bid docs.

Ans: 6 pumps
VERTICAL MULTISTAGE PUMP.
Flow range: 23 ~ 79 GPM
Head range: 185 ~ 87 meters TDH
Suction & Discharge: 2" (50mm) X 2" (50mm)
Motor Output: 7.5kW (10 HP), 3450 RPM, 230V,

For Item B

1. Do we need to construct additional tank?

Yes. You have the freedom to design tanks as long as the system complies with DENR requirements.

2. What is the new design flowrate for the expansion and upgrading?

400 cubic meter.

3. Do you have any data and drawings of the existing treatment facility?

Yes. we can provide you however please be clarified that in this system we have to design it as new. Our existing is a different plant and located in a different location. The Category B is actually a new plant per se. But if you wish to tap to the existing as per your design so in order to maximize space you may do so.

We dont have to tap to the existing one since is catches up with other buildings.

4. What is the design flowrate of the existing treatment facility?

200 cu.m.

You can have a virtual visit of our hospital if you like. Thank you.

Sincerely,

JANE T. DELOS REYES
Engineer IV

WEST VISAYAS STATE UNIVERSITY MEDICAL CENTER
E. Lopez St., Jaro, Iloilo City
"PhilHealth Accredited Health Care Provider"
Tel No.: (033) 320 2431 | Fax No.: (033) 3202623 | Email Address: medcenter@wvsu.edu.ph

PHYSICAL PLANNING MAINTENANCE AND DEVELOPMENT OFFICE
Tel. No. (033) 320 2431 local 175

DOMESTIC WATER

Number of Beds ----------500

Number of Liters/ Bed ---------675 L

500 BEDS X 675 LITERS / BED = 337, 500 Liters/Day

337.5 cu.m / Day

Prepared by:

ALWITO L. VALDEMAR
Engineer III

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ELECTRIC CONSUMPTION
For the period from June 18 - Sept 18, 2021

Period			KWH	Amount
6/18/2021		7/18/2021	276290	1,587,245.31
7/18/2021		8/18/2021	286860	2,078,952.46
8/18/2021		9/18/2021	277340	1,582,073.40
Total			840490	**5,248,271.17**

Prepared by:

THAINE YZABELLE L. AQUINES
Administrative Aide III

Certified correct:

SYLVIA G. LUNASPE
Accountant 1V

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EXISTING SEPTIC TANK

1.0 5.70m x 2.50m x 1.80m = 25.65 cu.m.
2.0 2.40m x 1.80m x 1.80m =7.78 cu.m.
3.0 4.0m x 2.80m x 1.80m = 20.16 cu.m.
4.0 5.60m x 3.70m x 1.80m = 37.296 cu.m.
5.0 4.20m x 3.90m x 1.80m = 29.48 cu.m.
6.0 4.60m x 2.90m x 1.80m = 24.01 cu.m.
7.0 4.90m x 2.50m x 1.80m = 22.05 cu.m.
8.0 5.30m x 2.90m x 1.80m = 27.67 cu.m.
9.0 2.90m x 2.20m x 1.80m = 11.48 cu.m.
10.02.20m x 1.40m x 1.80m = 5.54 cu.m.
11.04.35m x 0.90m x 1.80m = 7.05 cu.m.
12.04.00m x 1.70m x 1.80m = 12.24 cu.m.
13.04.00m x 1.70m x 1.80m = 12.24 cu.m.
14.04.00m x 1.70m x 1.80m = 12.24 cu.m.
15.04.00m x 1.70m x 1.80m = 12.24 cu.m.
16.04.00m x 1.70m x 1.80m = 12.24 cu.m.
17.04.00m x 1.70m x 1.80m = 12.24 cu.m.
18.01.11 m x 1.70m x 1.80m = 3.394

19. 7.60 m x 2.0 m x 2.125 m = 32.30

20 . 7.60 m x 2.0 m x 2.125 m = 32.30

21. 5.30 m X 3.2m X 2.2m = 37.312

Prepared by:

JANE T. DELOS REYES
Head PPMDO/ Engineer IV

8.0 EVALUATION & RECOMMENDATIONS

Field Result Along X_1-X_2 (For Boreholes 4 to 10)

The result of the subsurface investigation from the seven boreholes (from boreholes 4 to 10) shows that the subsurface condition consists predominantly with medium stiff to very stiff clay soil layer from ground surface down to a depth of 5.55 meters (18.20 feet) depth. Then it is followed by dense to very dense sandy soil profile from 5.55 meters (18.20 feet) depth down to 25.00 meters (82 feet) depth. Groundwater table was determined varying from depths 5.55 meters (18.20 feet) depth to 7.05 meters (23.10 feet) depth.

Field Result Along X_3-X_4 (For Boreholes 1 to 3 and Boreholes 11 to 15)

The result of the subsurface investigation from the eight boreholes (from boreholes 1 to 3 and boreholes 11 to 15) shows that the subsurface condition consists predominantly with stiff to very stiff clay soil layer with some areas with loose sandy soil layer from ground surface down to a depth of 5.55 meters (18.20 feet) depth. Then it is followed by medium dense to very dense sandy soil profile from 5.55 meters (18.20 feet) depth down to 25.00 meters (82 feet) depth. Groundwater table was determined varying from depths 5.55 meters (18.20 feet) depth to 7.05 meters (23.10 feet) depth.

In the determination of the Ultimate and Allowable Soil Bearing Pressure, Terzaghi's Bearing Capacity Equation is used which is $q_u = cN_c + qN_q + (1/2)\gamma BN_\gamma$. Analyzing the foundation to be shallow in a form of isolated footing, combined footing or strip footing, the angle of internal friction used are, $\Phi = 0^0$ for clay soils with $N_c = 5.14$ and $N_q = 1.00$, $\Phi = 20^0$ for medium dense and dense sandy soils, with $N_q = 6.40$ and $N_\gamma = 5.39$, $\Phi = 25^0$ for very dense sand, with $N_q = 10.66$ and $N_\gamma = 10.88$. In the determination of the Allowable Soil Bearing Pressure, a Factor of safety

of 3.0 is used for all soils. Table below shows the Allowable Soil Bearing Pressure from the fifteen boreholes.

Allowable Soil Bearing Pressures Along X1-X2 (For Boreholes 4 to 10)

Allowable Soil Bearing Pressures from 1.5m (5 ft) to 25.00m (82 ft) depth from Boreholes 4 to 10	
Depth	Allowable soil bearing pressure (q_a)
1.50 meter (5 feet)	96.17 KPa (2003.54 psf)
3.00 meter (10 feet)	133.51 KPa (2781.40 psf)
4.50 meter (15 feet)	137.36 KPa (2861.66 psf)
6.00 meter (20 feet)	179.48 KPa (3739.08 psf)
7.50 meter (25 feet)	201.93 KPa (4206.90 psf)
9.00 meter (30 feet)	247.51 KPa (5156.53 psf)
12.00 meter (40 feet)	450.42 KPa (9383.76 psf)
15.00 meter (50 feet)	527.50 KPa (10989.51 psf)
18.00 meter (60 feet)	604.57 KPa (12595.00 psf)
25.00 meter (82 feet)	774.14 KPa (16127.92 psf)

Allowable Soil Bearing Pressures Along X_3-X_4 (For Boreholes 1 to 3 and Boreholes 11 to 15)

Allowable Soil Bearing Pressures from 1.5m (5 ft) to 25.00m (82 ft) depth from Boreholes 1 to 3 and Boreholes 11 to 15	
Depth	Allowable soil bearing pressure (q_a)
1.50 meter (5 feet)	95.49 KPa (1989.38 psf)
3.00 meter (10 feet)	134.85 KPa (2809.33 psf)
4.50 meter (15 feet)	172.11 KPa (3585.58 psf)
6.00 meter (20 feet)	180.93 KPa (3769.40 psf)
7.50 meter (25 feet)	202.22 KPa (4212.96 psf)
9.00 meter (30 feet)	375.26 KPa (7818.01 psf)
12.00 meter (40 feet)	451.42 KPa (9404.57 psf)
15.00 meter (50 feet)	527.57 KPa (10991.13 psf)
18.00 meter (60 feet)	604.10 KPa (12585.46 psf)
25.00 meter (82 feet)	771.27 KPa (16068.14 psf)

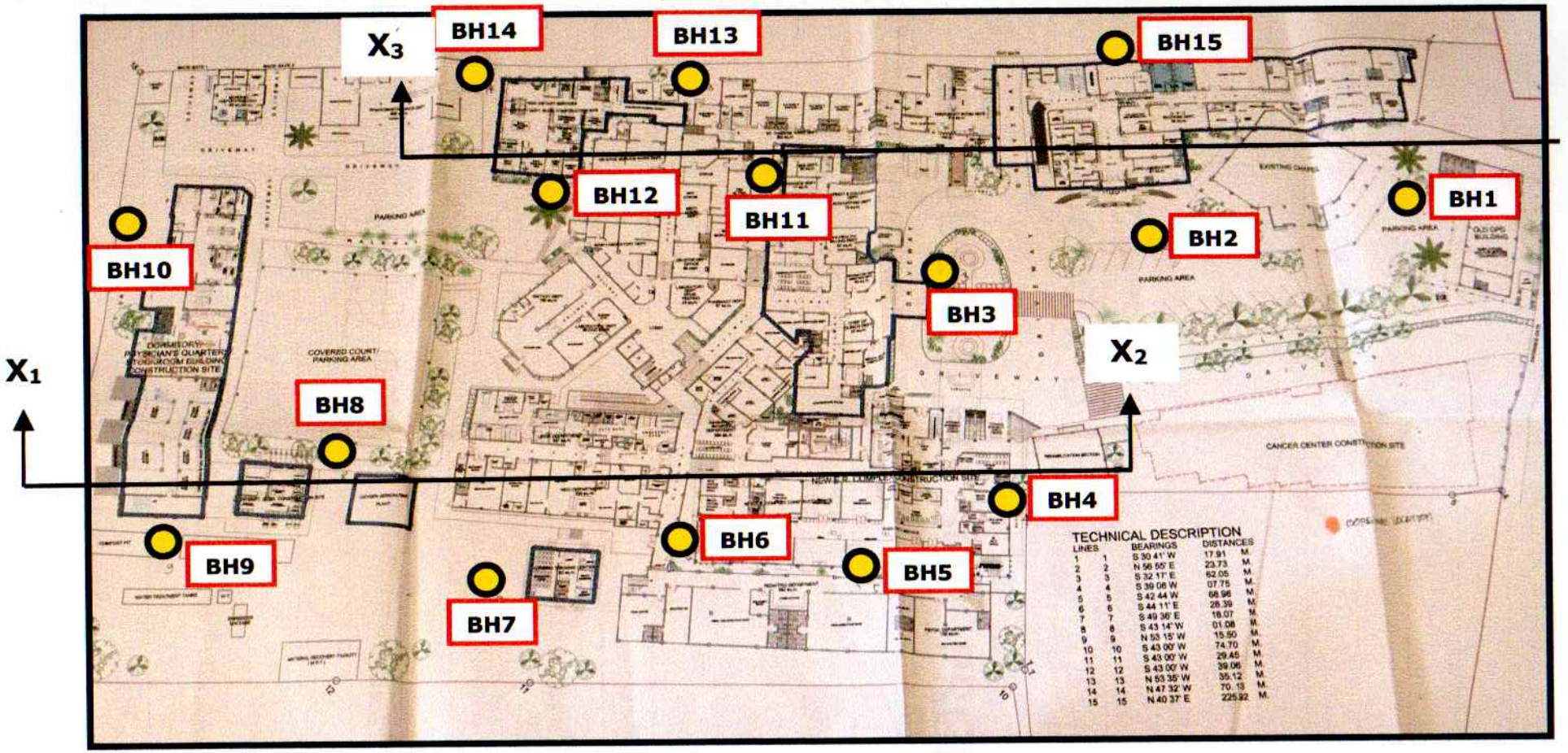
From these result, it is indeed that shallow foundation in a form of square or rectangular footing, combined footing, strip footing and mat foundation is feasible. Table below shows the number of storeys of buildings with the recommended allowable soil bearing pressures as well as its recommended founding depth.

Number of Storeys of Buildings	Recommended Allowable Soil Bearing Pressure	Recommended Foundation Depth
1-Storey Building	96.00 KPa (2000 psf)	1.50m (5.00 feet)
2-Storey Building	110.00 KPa (2292 psf)	1.82m (6.00 feet)
3-Storey Building	120.00 KPa (2500 psf)	2.13m (7.00 feet)
4-Storey Building	125.00 KPa (2604 psf)	2.44m (8.00 feet)
5-Storey Building	130.00 KPa (2708 psf)	3.00m (10.00 feet)
6-Storey Building	130.00 KPa (2708 psf)	3.00m (10.00 feet)
7-Storey Building	150.00 KPa (3125 psf)	3.66m (12.00 feet)
8-Storey Building	150.00 KPa (3125 psf)	3.66m (12.00 feet)

It is also recommended that tie beams be provided to strengthen the foundation.

Erwin L. Rizardo, M. Eng'g.
Civil/Geotechnical Engineer PICE

Engr. Makev Eric Yturralde (Gen. Manager)
Civil / Structural Engineer PICE / M.ASEP/ISSEP -I.StructS No.-031
PICE Accredited Specialist in Structural Engineering-member certificate number StE 163



BOREHOLE LOCATION PLAN

NOT DRAWN TO SCALE

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I L O I L O C I T Y

A R C H I T E C T U R A L

P E R S P E C T I V E

SCALE NTS

WEST VISAYAS STATE UNIVERSITY MEDICAL CENTER E. LOPEZ ST., JARO, ILOILO CITY, PHILIPPINES TEL. NO: (033) 3202431; FAX NO: (033) 3202623 E-MAIL ADDRESS: univhosp@iloilo.net	WVSUMC - PPMDO OFFICE:	PRC NO:	PROJECT TITLE:	RECOMMENDING APPROVAL:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENTS:	DESIGNED BY:	SHEET NO:
		TIN:	PROPOSED UNDERGROUND STORAGE, HORIZONTAL & VERTICAL DISTRIBUTION OF WATER SUPPLY SYSTEM					CHECKED BY:	A 1
		PTR NO:		JANE T. DELOS REYES,C.E.	DAVE ENDEL R. GELITO, III, M.D., M.M., FPCS, FPSGS, FPALES	JOSELITO F. VILLARUZ, MD,Ph.D., FPPS	AS SHOWN	DRAWN/CADD BY: S. E. BLANCA	
		DATE / PLACE:	LOCATION: WVSUMC, E. LOPEZ ST., JARO, ILOILO CITY	ENGINEER IV, HEAD - PHYSICAL PLANNING, MAINTENANCE DEVELOPMENT OFFICE	OIC - MEDICAL CENTER CHIEF	SUC PRESIDENT IV WVSU		DATE / PLACE:	1 3

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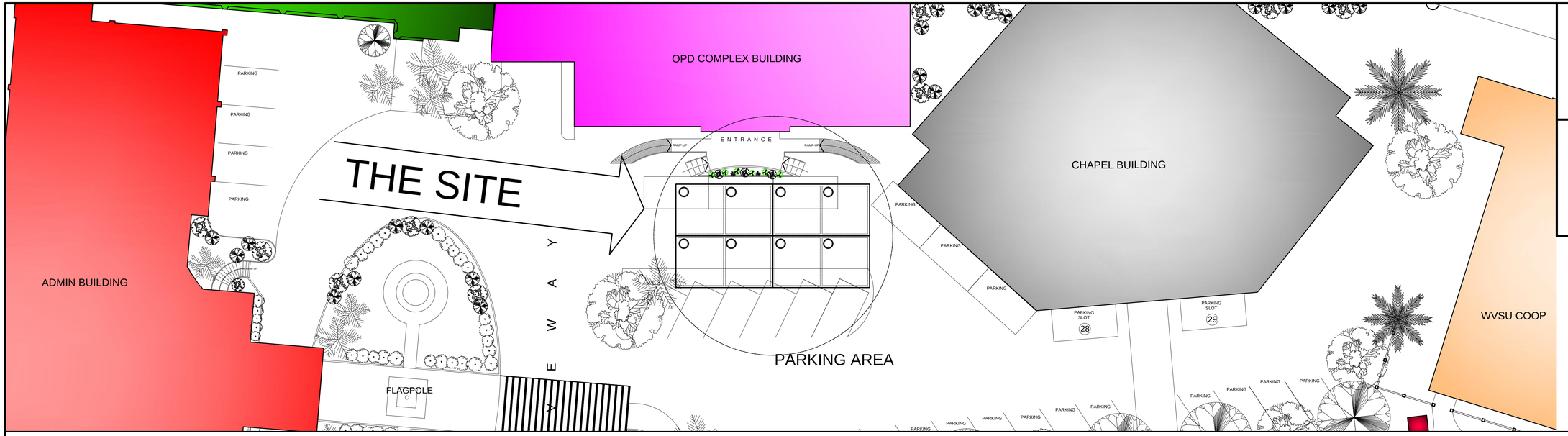
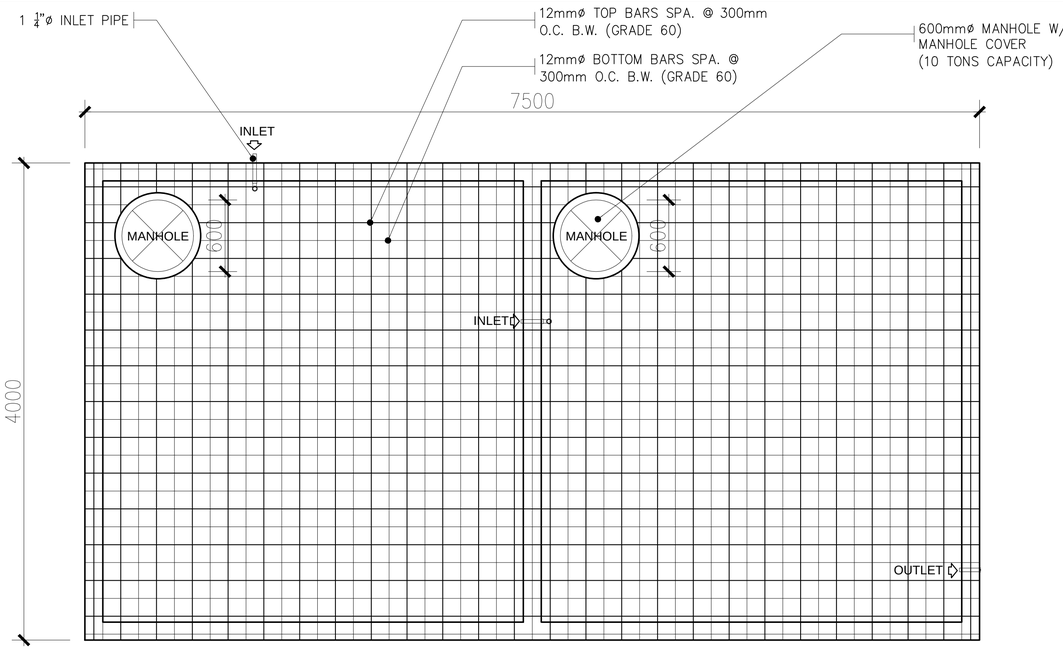
I L O I L O C I T Y

A R C H I T E C T U R A L



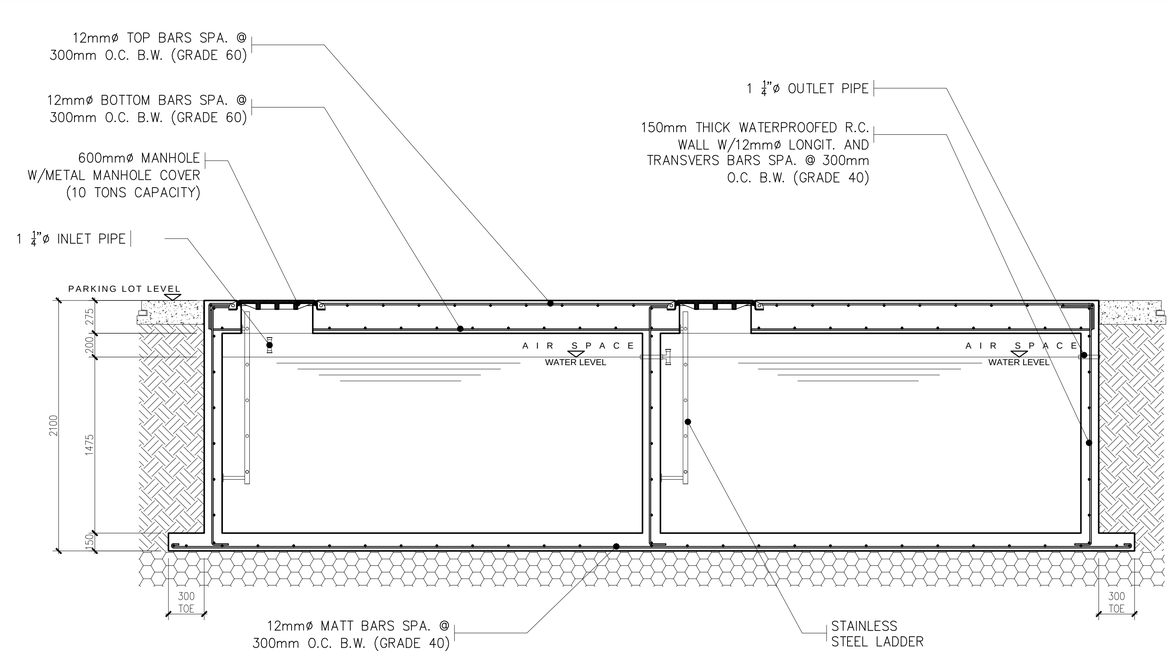
SITE DEVELOPMENT PLAN

SCALE NTS



PROPOSED PLAN

SCALE 1:25M



SECTION DETAIL

SCALE 1:25M

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		DATE / PLACE:	LOCATION: WVSUMC, E. LOPEZ ST., JARO, ILOILO CITY	ENGINEER IV, HEAD - PHYSICAL PLANNING, MAINTENANCE DEVELOPMENT OFFICE	OIC - MEDICAL CENTER CHIEF	SUC PRESIDENT IV WVSU		DATE / PLACE:	

3rd Quarter

WEST VISAYAS STATE UNIVERSITY MEDICAL CENTER
E. Lopez St., Jaro, Iloilo City
"PhilHealth Accredited Health Care Provider"
Tel No.: (033) 320 2431 | Fax No.: (033) 3202523 | Email Address: medcenter@wvsu.edu.ph

WATER CONSUMPTION
For the period from June 11 - September 13, 2021

Period			cu.m. Consumption	Amount
6/11/2021	-	7/13/2021	1649	131,400.00
6/11/2021	-	7/13/2021	284	28,920.00
6/11/2021	-	7/13/2021	25978	105,240.00
6/11/2021	-	7/13/2021	4159	345,320.00
7/13/2021	-	8/12/2021	1481	132,115.20
7/13/2021	-	8/12/2021	305	34,272.00
7/13/2021	-	8/12/2021	1307	124,051.20
7/13/2021	-	8/12/2021	3909	364,358.40
8/12/2021	-	9/13/2021	1197	106,668.80
8/12/2021	-	9/13/2021	391	41,977.60
8/12/2021	-	9/13/2021	1212	115,539.20
8/12/2021	-	9/13/2021	3295	309,344.00
		Total	45167	1,839,206.40

15,052.666 / month
31
= 485.666

Prepared by:

THAINE YZABELLE L. AQUINES
Administrative Aide III

Certified correct:

SYLVIA G. LUNASPE
Accountant 1V


BACK GATE 1
BACK GATE 2
EXIT GATE
ENTRANCE GATE
TRASH BIN
GUARD
MORGUE / HISTOPATHOLOGY
83 sq.m.
AUTOPSY ROOM
EMBALMING ROOM
DRIVEWAY
PARKING AREA
NEW DIETARY SERVICES BLDG.
FOOD SERVICE EXCLUSIVE DELIVERY
FUTURE LABORATORY EXTENSION
MAIN LABORATORY DEPT.
OB-GYNE DEPT. OFFICE
39 sq.m.
LABORATORY DEPT. BLOOD TESTING
45 sq.m.
NBCV NEWBORN HEARING TEST
LACTATION ROOM
HALLWAY
LOBBY
SERVICE WAIT
MEDICAL RECORDS DEPARTMENT
NURSES LOUNGE
BLOOD BANK
ELECTRICAL ROOM
CASHIER DEPT.
47 sq.m.
BILLING DEPT.
32 sq.m.
FINANCE DEPT.
17 sq.m.
MIS DEPT.
30 sq.m.
CREDIT & COLLECTION DEPT.
ACCOUNTING DEPT.
73 sq.m.
PHILHEALTH/ BILLING DEPT.
67 sq.m.
INFORMATION DEPT./ ADMITTING DEPT.
30 sq.m.
FOYER
LOBBY
CHIEF OF CLINICS DEPT.
24 sq.m.
MEDICAL CENTER CHIEF'S OFFICE
INTERNAL AUDIT SERVICES DEPT.
CONFERENCE ROOM
DIAGNOSTIC IMAGING DEPARTMENT
384 sq.m.
CT-SCAN
MRI
PHARMACY
NEW E.R. COMPLEX
COVID EMERGENCY ROOM
SECURITY
N-TRIAGE AREA
SAN ROQUE COVID WARD / OUT-PATIENT DEPARTMENT
OPD LABORATORY DEPT.
EXISTING CHAPEL
TB DOTS CENTER
18 sq.m.
COOP STORAGE
OLD OPD BUILDING
EMPLOYEES MULTIPURPOSE COOPERATIVE
LATCH
PARKING AREA
MOLECULAR LAB
COVERED COURT/ PARKING AREA
SUPPLY WAREHOUSE
STOCK ROOM 1
STOCK ROOM 2
STOCK ROOM 3
STOCK ROOM 4
STOCK ROOM 5
STOCK ROOM 6
STOCK ROOM 7
STOCK ROOM 8
STOCK ROOM 9
STOCK ROOM 10
STOCK ROOM 11
STOCK ROOM 12
STOCK ROOM 13
STOCK ROOM

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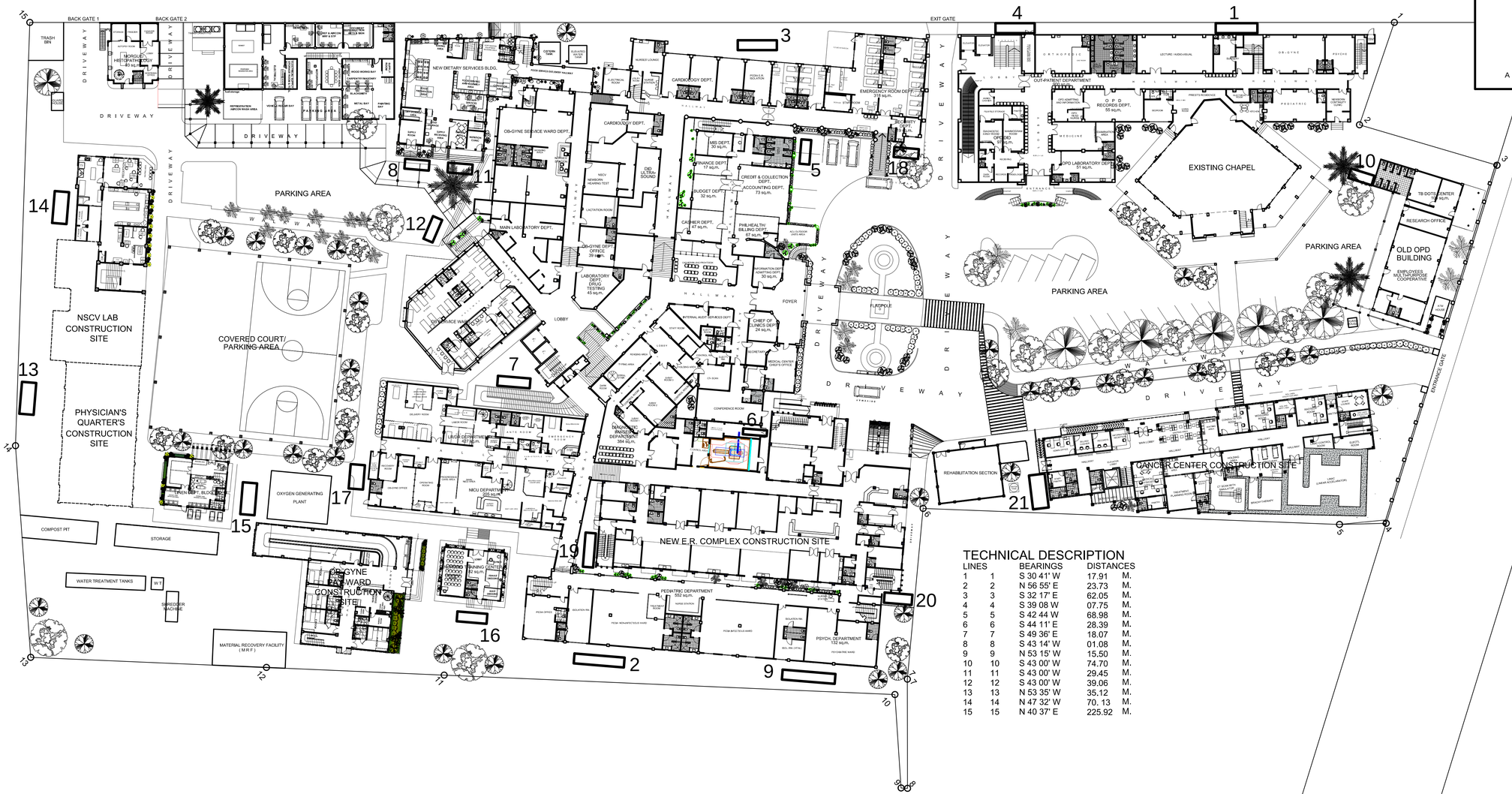

TECHNICAL DESCRIPTION

LINES		BEARINGS	DISTANCES
1	1	S 30 41' W	17.91 M.
2	2	N 56 55' E	23.73 M.
3	3	S 32 17' E	62.05 M.
4	4	S 39 08 W	07.75 M.
5	5	S 42 44 W	68.98 M.
6	6	S 44 11' E	28.39 M.
7	7	S 49 36' E	18.07 M.
8	8	S 43 14' W	01.08 M.
9	9	N 53 15' W	15.50 M.
10	10	S 43 00' W	74.70 M.
11	11	S 43 00' W	29.45 M.
12	12	S 43 00' W	39.06 M.
13	13	N 53 35' W	35.12 M.
14	14	N 47 32' W	70. 13 M.
15	15	N 40 37' E	225.92 M.

EXISTING SITE DEVELOPMENT PLAN

a / A-1 SCALE 1:350M

WEST VISAYAS STATE UNIVERSITY MEDICAL CENTER E. LOPEZ ST., JARO, ILOILO CITY, PHILIPPINES TEL. NO: (033) 3202431; FAX NO: (033) 3202623 E-MAIL ADDRESS: univhospi@iloilo.net	WVSUMC - PPMDO OFFICE:	PRC NO:	PROJECT TITLE:	APPROVED BY:	SHEET CONTENTS:	DESIGNED BY:	SHEET NO:
		TIN:	SEPTIC VAULT LOCATION PLAN OF WVSUMC			CHECKED BY:	A -
		PTR NO:		JANE T. DELOS REYES,C.E.		DRAWN/CADD BY: S. E. BLANCA	
		DATE / PLACE:	LOCATION: WVSUMC, E. LOPEZ ST., JARO, ILOILO CITY	ENGINEER IV, HEAD - PHYSICAL PLANNING, MAINTENANCE DEVELOPMENT OFFICE		DATE / PLACE:	1 -