

# Republika ng Pilipinas



# Lungsod Quezon BIDS AND AWARDS COMMITTEE FOR INFRASTRUCTURE & CONSULTANCY 2nd Floor, Finance Building, Procurement Department, Quezon City Hall Complex, Elliptical Road, Quezon City

March 9, 2022

## Request for Quotation/ Proposal

No.	Projec t No.	Project Name	Location	Amount	Duration Cal. Days	Office	Source Fund
Buil	dings –	Small B					
1	22- 001SV	Proposed Rehabilitation of Fire Exit at Social Development Center at Barangay Payatas	Payatas	165,523.84	30	Engineering Department	Engineering Department
2	22- 002SV	Proposed Rehabilitation of Reception Area at Betty Go Belmonte Super Health Center in Barangay Holy Spirit	Holy Spirit	341,124.74	30	Engineering Department	20% Community Development Fund
3	22- 003SV	Proposed Rehabilitation of Novaliches District Hospital Covid Ward	San Bartolome	354,897.38	30	Engineering Department	Engineering Department - SB No. 1
4	22- 004SV	Proposed Rehabilitation of Waterline System at Culiat High School	Culiat	586,890.41	60	Engineering Department	Special Education Fund
5	22- 005SV	Proposed Temporary Enclosure for Crematory Machine at Baesa Crematorium	Baesa	594,910.45	30	Engineering Department	Engineering Department - SB No. 1
6	22- 006SV	Proposed Rehabilitation of Reception Area at Health Centers in Barangay Libis and Barangay Bagumbuhay (District 3)	Libis and Bagumbu hay	632,587.24	30	Engineering Department	20% Community Development Fund
7	22- 007SV	Proposed Rehabilitation of Reception Area at Health Centers in Barangay Alicia and Barangay Paltok (District 1)	Alicia and Paltok	809,220.13	30	Engineering Department	20% Community Development Fund
8	22- 008SV	Proposed Rehabilitation of of Day Care Center at Idang Street, Sitio Aguardiente	Sta. Monica	828,057.99	30	Engineering Department	Engineering Department - SB No. 1
9	22- 009SV	Proposed Upgrading of Electrical System at Sauyo High School	Tandang Sora	846,268.11	90	Engineering Department	Special Education Fund
10	22- 010SV	Proposed Rehabilitation of Reception Area at Health Centers in Barangay Apolonio Samson, Barangay Tandang Sora and Barangay Pasong Tamo (District 6)	Apolonio Samson, Tandang Sora and Pasong Tamo	851,009.93	30	Engineering Department	20% Community Development Fund



## Republika ng Pilipinas Lungsod Quezon



### BIDS AND AWARDS COMMITTEE FOR INFRASTRUCTURE & CONSULTANCY Great Green. Growing

2nd Floor, Finance Building, Procurement Department, Quezon City Hall Complex, Elliptical Road, Quezon City

11	22- 011SV	Proposed Rehabilitation of Electrical System at North Fairview Elementary School	North Fairview	856,353.23	60	Engineering Department	Special Education Fund
12	22- 012SV	Proposed Upgrading of Service Entrance at NOH Sta. Lucia Senior High School	Sta. Lucia	908,850.15	60	Engineering Department	Special Education Fund
13	22- 013SV	Proposed Construction of Terrace at Barangay Hall In Barangay Kalusugan	Kalusugan	914,528.02	60	Engineering Department	Engineering Department
14	22- 014SV	Proposed Rehabilitation of Distribution Feeder at Lagro Elementary School	Greater Lagro	933,602.51	60	Engineering Department	Special Education Fund
15	22- 015SV	Proposed Rehabilitation of Reception Area at Health Centers in Barangay Kamuning, Barangay Kaunlaran and Barangay San Vicente (District 4)	Kamuning, Kaunlaran and San Vicente	953,997.37	30	Engineering Department	20% Community Development Fund
Roa	ds – Sm	all B					
16	22- 016SV	Proposed Rehabilitation (Surface Improvement) at Lourdes Street	Novaliches Proper	933,825.43	30	Engineering Department	20% Community Development Fund

The Quezon City Government through its Bids and Awards Committee – Infra and Consultancy undertake a Small Value Procurement in accordance with **Section 53.9 of the Revised Implementing Rules and Regulations of Republic Act No. 9184**.

Please quote your best offer for the project/s described above, subject to the Terms and Conditions provided. Submit your proposal/price quotation duly signed by you or your duly authorized representative not later than **15 March 2022** on or before **10:00 A.M.,** Philippine Standard Time, together with the following documents:

- 1. PhilGEPS Platinum Certificate (3 pages)
- 2. DTI or SEC Registration Certificate
- 3. Mayor's Permit
- 4. Tax Clearance
- 5. PCAB License (Bidders with valid Philippine Contractors Accreditation Board (PCAB)
- 6. Audited Financial Statements
- 7. Net Financial Contracting Capacity (NFCC)
- 8. List of Key Construction Personnel to be assign for the project
- 9. List of Major Equipment to be used for the Project
- 10. Duly Notarized Affidavit of Undertaking of Key Personnel and Equipment
- 11. Income/Business Tax Returns
- 12. Omnibus Sworn Statement prescribed by the Government Procurement Policy Board (GPPB) duly notarized with attached Secretary's Certificate (*If a partnership, corporation, cooperative, or joint venture*). The authorized representative as identified in the Omnibus Sworn Statement shall be the signatory in the proposal/price quotation form.



### Republika ng Pilipinas Lungsod Quezon



BIDS AND AWARDS COMMITTEE FOR INFRASTRUCTURE & CONSULTANCY QUEZON CITY 2nd Floor, Finance Building, Procurement Department, Quezon City Hall Complex, Elliptical Road, Quezon City

Opening of Quotations/Proposals will be on 15 March 2022 at exactly 1:00 P.M.

#### in a **SEALED LONG BROWN ENVELOPE** shall:

Contain the Name of Project of the contract to be quoted in capital letters;

Bear the name and address of the Contractor in capital letters; Be addressed to the Procuring Entity's BAC.

3

Name of Project: IN CAPITAL LETTERS

Quezon City Local Government BIDS AND AWARDS COMMITTEE (INFRA & CONSULTANCY) 2/F Procurement Department, Finance Building Quezon City Hall Compound

#### TERMS AND CONDITIONS

- Contractor shall provide correct and accurate information required in this form.
- 2. Price quotation/proposal must be valid for a period of thirty (30) calendar days from the date of submission.
- 3. Price quotation/proposal, to be denominated in Philippine Peso shall include all taxes, duties and/or levies payable.
- 4. Quotation/Proposal exceeding the Approved Budget for the Contract (ABC) shall be rejected.
- 5. Award of contract shall be made to the lowest quotation/proposal (for infra) which complies with the minimum technical specifications and other terms and conditions stated herein.
- 6. Any interlineations, erasures or overwriting shall be valid only if they are signed or initialed by the contractor or his/her duly authorized representative/s.
- 7. The Engineering Department shall have the right to inspect and monitor the construction projects
- 8. Non-submission of eligibility documents shall mean disqualification of Quotation/Proposal.
- 9. Liquidated damages equivalent to one tenth (1/10) of one percent (1%) of the cost of the unperformed portion for every day of delay, Engineering Department shall rescind the contract once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of the contract, without prejudice to other courses of action and remedies open to it.
- 10. Failure to follow these instructions will disqualify your entire quotation/proposal.

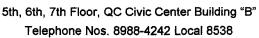
For any clarification you may contact us at 89884242 loc. 8505/8709.

ATTY. MARK DAL DIAMOND P. PERRAL Infra and Consultancy Chairman.



#### Republika ng Pilipinas Lungsod ng Quezon

#### CITY ENGINEERING DEPARTMENT





PROJECT TITLE :

PROPOSED REHABILITATION OF DAY CARE CENTER AT IDANG STREET, SITIO

**AGUARDIENTE** 

LOCATION

BARANGAY STA. MONICA, DISTRICT 5, QUEZON CITY

#### **LIST OF MANPOWER**

NO.	MANPOWER	QTY
1	Project Engineer	1
2	Materials Engineer	1
3	Safety Officer/ Safety Practitioner	refer to DOLE requirement
4	Foreman	1
5	Skilled Worker	5
6	Driver	1
7	Laborer/ Helper	5

Prepared by:

MIKKI JI. DE GRACIA

Planning & Programming Division

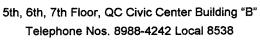
Checked by:

JOCELYN A. NAONG
Planning & Programming Division



#### Republika ng Pilipinas Lungsod ng Quezon

#### CITY ENGINEERING DEPARTMENT





PROJECT TITLE :

PROPOSED REHABILITATION OF DAY CARE CENTER AT IDANG STREET, SITIO

**AGUARDIENTE** 

**LOCATION** 

BARANGAY STA. MONICA, DISTRICT 5, QUEZON CITY

#### LIST OF EQUIPMENT

NO.	NAME OF EQUIPMENT	QTY
1	Elf Truck	1
2	Scaffolding	As Needed
3	Power Tools	As Needed
4	Minor Tools	As Needed

Prepared by:

MIKKI J DE GRACIA

Planning & Programming Division

Checked by:

JOCELYNA. NAONG
Planning & Programming Division

PROJECT TITLE: PROPOSED REHABILITATION OF DAY CARE CENTER AT IDANG STREET,

SITIO AGUARDIENTE

LOCATION : BARANGAY STA. MONICA, DISTRICT 5, QUEZON CITY

PROJECT NO. : 22 - 008SV

**DURATION**: Thirty (30) Calendar Days

#### **BREAKDOWN OF COST**

ITEM NO.	ITEM OF WORK (DESCRIPTION)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL/ STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	PLUMBING WORKS				
VI	ELECTRICAL WORKS				

		TOTAL	COST	P	
LUMP SUM BID IN WORDS :					
Contractor :					

Bid Form Page 3 of 3

#### **BILL OF QUANTITIES**

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF DAY CARE CENTER AT IDANG STREET,

SITIO AGUARDIENTE

LOCATION : BARANGAY STA. MONICA, DISTRICT 5, QUEZON CITY

PROJECT NO. : 22 - 008SV

**DURATION**: Thirty (30) Calendar Days

#### **SCOPE OF WORK:**

- 1 General Requirements include temporary facilities and utilities, billboard, scaffolding, construction safety and health, and clearing, hauling and disposal of construction materials and debris.
- 2 Site Works include layout and staking, cleaning and clearing for painting preparation, removal of doors, windows, removal of dilapidated tiles, plumbing fixtures and chipping of concrete wall for electrical works.
- 3 Civil Works include masonry works, and thermal and moisture protection.
- 4 Architectural Works include floor, wall, ceiling finishes, fabricated materials, installation of doors and windows and painting works.
- 5 Plumbing Works include installation of roughing-ins, equipment, fixtures and accessories.
- 6 Electrical Works include installation of roughing-Ins, wirings, devices, fixtures, panelboard and accessories.
- 7 All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO.	GENERAL REQUIREMENTS	QTY.	UNIT	UNIT COST	TOTAL COST
I.	GENERAL REQUIREMENTS				
	Billboard	1	piece	₱	₽
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	19	sq.m.		
	Temporary Electrical and Water Facilities	30	day		
	Temporary Enclosure Around the Construction Area (h=2.4)	26	l.m.		
				Direct Cost I	₱
II	SITE WORKS				
	Layout and Staking	40	sq.m.	₱	₽
	Site Clearing and Preparation	40	sq.m.		
	Cleaning and Clearing for Painting Preparation	182	sq.m.		
	Removal of Doors	7	set		
	Removal of Windows	12	sq.m.		
	Removal of Water Closet	1	set		
	Removal of Lavatory	1	set		
	Removal of Dilapidated Tiles	46	sq.m.		
	Chipping of concrete wall (for electrical works)	6	sq.m.		
				Direct Cost II	₽
III	CIVIL/ STRUCTURAL WORKS				
	Masonry Works				
	Plastering of CHB Walls (Electrical Works)	6	sq.m.	₱	₽
	Thermal and Moisture Protection				
	Waterproofing Works	4 . 6 . 5			
		age 1 of 6			

I	GENERAL REQUIREMENTS					
	Cementitious Capillary Type Waterproofing	5	sq.m.			
				Materials Cost III	₽	
				Labor Cost III		
				Direct Cost III	₱	
IV	ARCHITECTURAL WORKS					
	Floor Finishes					
	600mm x 600mm Non Skid Homogeneous Tiles	40	sq.m.	₱	₱	
	300mm x 300mm Non Skid Homogeneous Tiles	3	sq.m.			
	Floor Topping Preparation for Tile Works	43	sq.m.			

	GENERAL REQUIREMENTS				1	
<u> </u>						
	Wall Finishes		0~~			
	300mm x 300mm Homogeneous Tiles	8	sq.m.			
	Ceiling Finishes					
	6mm Fiber Cement Board with	40	sq.m.			
	Complete Framing and Accessories					
	12mm Thk Moisture Resistant Gypsum Board on Metal Framing	25	sq.m.			
	Fabricated Materials		-			
	Countertop with Aluminum Cover	2	l.m.			
	Under Counter Cover (Aluminum)	3	l.m.			
	Oraci Obarici Cover (Adaminani)	-	1.111.	Materials Cost	₽	
				Labor Cost	<u>'</u>	
				Direct Cost	₽	
				Direct Cost	Г	
	Installation of Doors					
	D1- 1.0m x 2.1m Panel Door	1	set	₽	₽	
	D2- 0.6m x 2.1m PVC Door with Louver	1	set	1	<del>L'</del>	
	Wooden Door Jamb	'	351			
	D1- 1.0m x 2.1m Panel Door	1	set			
		2				
	Door Knob, Lever Type  Door Hinge, Stainless Steel	6	piece			
	Installation of Windows	6	piece			
		0				
	W1-2.6m x 1.2m Steel Casement Window	2	set			
	W2-2.4m x 1.2m Steel Casement Window	1	set			
	W3-2.2m x 1.2m Steel Casement Window	1	set			
	W4-0.6m x 0.4m Awning Glass Window	1	set		_	
				Materials Cost	₱	
				Labor Cost		
				Direct Cost	₽	
	5.4.14					
	Painting Works					
	Epoxy Enamel Finish (Steel Surfaces)	4	sq.m.	₽	₱	
	Elastomeric Paint Finish (Exterior Walls)	104	sq.m.			
	Flat Latex Paint Finish (Ceiling)	64	sq.m.			
	Flat Latex Paint Finish (Interior Wall)	76	sq.m.	_		
				Materials Cost	₽	
				Labor Cost		
				Direct Cost	₱	
					<u> </u>	
				Materials Cost IV	₱	
				Labor Cost IV		
				Direct Cost IV	₱	
	DI UMBINO MORKO					
V.	PLUMBING WORKS					
	Fixtures		. **		_	
	Bidet, Heavy-Duty, Stainless Steel (Water Efficient)	1	unit	₱	₱	
	Floor Drain, 100mm x 100mm Stainless Steel	1	piece		<u> </u>	
	Hose Bibb, Heavy Duty (Water Efficient)	1	piece			
	Lavatory Faucet, Lever Type (Water Efficient)	1	unit		1	

I	GENERAL REQUIREMENTS				
	Lavatory, Wall Hung, Kiddy	1	unit		
	Water Closet, Tank Type (Water Efficient), Kiddy	1	unit		
	Hardware and Accessories				
	Angle Valve, Single-Way Stainless Steel	1	piece		
	Angle Valve, Two-Way Stainless Steel	1	piece		
	Flexible Hose	2	piece		
	Metal Door Hook	1	piece		
	Tissue Holder, Ceramic	1	piece		
	Miscellaneous				
	400cc Solvent Cement	2	can		
	All Around Sealant	1	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	2	roll		
	Waste Cloth	1	kg		
				Materials Cost V	₱
				Labor Cost V	
				Direct Cost V	₱

VI.   ELECTRICAL WORKS   Roughing-ins   Roughing-ins   20mm@ PVC Pipe   70   piece   P   P   P     25mm@ IMC Pipe   1   piece	ı	GENERAL REQUIREMENTS				
20mm@ PVC Pipe	VI.	ELECTRICAL WORKS				
25mmØ IMC Pipe		Roughing-ins				
32mmØ PVC Pipe Fittings and Accessories 20mmØ PVC Locknut & Bushing 25mmØ Entrance Cap Die Cast 1 pair 25mmØ IMC Locknut & Bushing 1 pair 32mmØ PVC Adaptor 2 piece 32mmØ PVC Locknut & Bushing 1 pair 100mm x 50mm Metal Utitity box 10 piece 1100mm x 50mm Metal Junction box with cover 1100mm x 100mm x 100mm Metal Junction box with cover 1100mm x 100mm x 100mm Metal Junction box with cover 1100mm x 100mm x 10mm x		20mmØ PVC Pipe	70	piece	₽	₽
Fittings and Accessories   20mm@ PVC Adaptor   60   piece   20mm@ PVC Locknut & Bushing   60   pair   25mm@ PVC Locknut & Bushing   1   pair   25mm@ IMC Locknut & Bushing   1   pair   32mm@ PVC Adaptor   2   piece   32mm@ PVC Locknut & Bushing   2   pair   100mm x 50mm Metal Utility box   10   piece   100mm x 50mm Metal Utility box   10   piece   100mm x 100mm Metal Utility box   10   lm.   100mm x 10mm x 100mm x 10m		25mmØ IMC Pipe	1	piece		
20mm@ PVC Adaptor   60   piece   20mm@ PVC Locknut & Bushing   60   pair		32mmØ PVC Pipe	6	piece		
20mm@ PVC Locknut & Bushing   60    pair		Fittings and Accessories	<u> </u>			
25mm@ Entrance Cap Die Cast   1		20mmØ PVC Adaptor	60	piece		
25mm@ IMC Locknut & Bushing   1		20mmØ PVC Locknut & Bushing	60	pair		
32mm@PVC Adaptor   2   piece   32mm@PVC Locknut & Bushing   2   pair   100mm x 50mm Metal Utility box   10   piece   100mm x 100mm Metal Junction box with cover   16   piece		25mmØ Entrance Cap Die Cast	1	pair		
32mm@PVC Locknut & Bushing   2		25mmØ IMC Locknut & Bushing	1	pair		
100mm x 50mm Metal Utility box   10		32mmØ PVC Adaptor	2	piece		
100mm x 100mm Metal Junction box with cover   16   piece		32mmØ PVC Locknut & Bushing	2	pair		
Wires and Cables   3.5mm² THHN Wire   3 roll   3.5mm² THHN Wire   2 roll   5.5mm² THHN Wire   40 l.m.   5.5mm² THHN Wire   20 l.m.   1.4mm² THHN Wire   40 l.m.   1.4mm² THHN WIRE   1.4mm² THHN WIRE   1.4mm² THHN WIRE   1.4mm² THHN WIRE   1.4mm² T		100mm x 50mm Metal Utility box	10	piece		
3.5mm² THHN Wire   3 roll   3.5mm² TW Wire   2 roll   5.5mm² TW Wire   40 l.m.   5.5mm² TW Wire   20 l.m.   14mm² THHN Wire   40 l.m.   120mm x 600mm, 2 x 18 Watts, Troffer type   5 set   LED Pinlight, 18 Watts w/ complete fixture and accessories   LED Tube Light, 18 Watts w/ complete fixture and accessories   LED Tube Light, 18 Watts   10 piece   Wiring Devices and other fixtures   ACU outlet w/ grounding, plate & cover   1 piece   Orbit Fan 220-240V AC, w/ selector switch   2 piece   Outlet w/ grounding, plate & cover, two-gang   5 piece   Switch w/ plate & cover, two-gang   1 piece   Switch w/ plate & cover, two-gang   1 piece   Piece   Piece   Piece   Development   Piece		100mm x 100mm Metal Junction box with cover	16	piece		
3.5mm² TW Wire		Wires and Cables	†			
S.5mm² THHN Wire		3.5mm² THHN Wire	3	roll		
5.5mm² TW Wire		3.5mm² TW Wire	2	roll		
14mm² THHN Wire Lighting fixtures (Energy Efficient) 1200mm x 600mm, 2 x 18 Watts, Troffer type 5 set LED Pinlight, 18 Watts w/ complete fixture and accessories LED Tube Light, 18 Watts 10 piece Wiring Devices and other fixtures ACU outlet w/ grounding, plate & cover Orbit Fan 220-240V AC, w/ selector switch Outlet w/ grounding, plate & cover, two-gang Switch w/ plate & cover, two-gang 1 piece Switch w/ plate & cover, two-gang 1 piece Switch w/ plate & cover, two-gang Pipe Hangers & Support Horizontal layout of pipe 100 l.m. Vertical layout of pipe 3 l.m. Panelboard DP - DC 1 assy Miscellaneous & Consumables 400cc Solvent Cement 2 can Electrical Tape 1 piece GI Tie Wire Ga. 16 (for cable pulling) 1 piece Masking Tape 1 piece Pulling Lubricant 1 can Rubber Tape 1 piece		5.5mm² THHN Wire	40	l.m.		
Lighting fixtures (Energy Efficient)  1200mm x 600mm, 2 x 18 Watts, Troffer type  5 set  LED Pinlight, 18 Watts w/ complete fixture and accessories  LED Tube Light, 18 Watts  10 piece  Wiring Devices and other fixtures  ACU outlet w/ grounding, plate & cover  Orbit Fan 220-240V AC, w/ selector switch  Outlet w/ grounding, plate & cover, two-gang  Switch w/ plate & cover, one-gang  Switch w/ plate & cover, one-gang  Pipe Hangers & Support  Horizontal layout of pipe  100 I.m.  Vertical layout of pipe  3 I.m.  Panelboard  DP - DC  1 assy  Miscellaneous & Consumables  400cc Solvent Cement  Electrical Tape  Gi Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Masking Tape  1 piece  Set  2 set  2 set  2 can  Piece  Diece  10 piece  2 can  Piece  Gi Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Pulling Lubricant  1 piece  Pulling Lubricant  1 piece		5.5mm <sup>2</sup> TW Wire	20	l.m.		
1200mm x 600mm, 2 x 18 Watts, Troffer type  LED Pinlight, 18 Watts w/ complete fixture and accessories  LED Tube Light, 18 Watts  Noring Devices and other fixtures  ACU outlet w/ grounding, plate & cover  Orbit Fan 220-240V AC, w/ selector switch  Outlet w/ grounding, plate & cover, two-gang  Switch w/ plate & cover, one-gang  Switch w/ plate & cover, two-gang  Pipe Hangers & Support  Horizontal layout of pipe  100  l.m.  Vertical layout of pipe  100  l.m.  Vertical layout of pipe  110  l.m.  Panelboard  DP - DC  11  assy  Miscellaneous & Consumables  400cc Solvent Cement  Electrical Tape  Gi Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Masking Tape  Pulling Lubricant  1  piece  Set  2  set  3  set  2  set  2  set  2  set  2  set  2  set  3  set  400 piece  5  piece  10  piece  10  l.m.  10  l.m.  10  l.m.  11  sasy  12  l.m.  13  l.m.  14  l.m.  15  l.m.  16  l.m.  17  l.m.  18  l.m.  19  l.m.  19  l.m.  10  l.m.  10  l.m.  11  l.m.  11  l.m.  12  l.m.  13  l.m.  14  l.m.  15  l.m.  16  l.m.  17  l.m.  18  l.m.  19  l.m.  10  l.m.  10  l.m.  11  l.m.  11  l.m.  12  l.m.  13  l.m.  14  l.m.  15  l.m.  16  l.m.  17  l.m.  18  l.m.  19  l.m.  10  l.m.  10  l.m.  11  l.m.  11  l.m.  12  l.m.  13  l.m.  14  l.m.  15  l.m.  16  l.m.  17  l.m.  18  l.m.  19  l.m.  19  l.m.  10  l.m.  10  l.m.  11  l.m.  11  l.m.  12  l.m.  13  l.m.  14  l.m.  15  l.m.  16  l.m.  17  l.m.  18  l.m.  19  l.m.  19  l.m.  10  l.		14mm² THHN Wire	40	l.m.		
1200mm x 600mm, 2 x 18 Watts, Troffer type  LED Pinlight, 18 Watts w/ complete fixture and accessories  LED Tube Light, 18 Watts  Wiring Devices and other fixtures  ACU outlet w/ grounding, plate & cover  Orbit Fan 220-240V AC, w/ selector switch  Outlet w/ grounding, plate & cover, two-gang  Switch w/ plate & cover, one-gang  Switch w/ plate & cover, one-gang  Pipe Hangers & Support  Horizontal layout of pipe  100		Lighting fixtures (Energy Efficient)	1			
LED Pinlight, 18 Watts w/ complete fixture and accessories  LED Tube Light, 18 Watts  10 piece  Wiring Devices and other fixtures  ACU outlet w/ grounding, plate & cover  Orbit Fan 220-240V AC, w/ selector switch  Outlet w/ grounding, plate & cover, two-gang  Switch w/ plate & cover, one-gang  Switch w/ plate & cover, one-gang  Pipe Hangers & Support  Horizontal layout of pipe  100 l.m.  Vertical layout of pipe  3 l.m.  Panelboard  DP - DC  Miscellaneous & Consumables  400cc Solvent Cement  Electrical Tape  GI Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Masking Tape  Pulling Lubricant  Rubber Tape  1 piece  Set  2 set  2 set  10 piece  11 piece			5	set		
accessories  LED Tube Light, 18 Watts  Wiring Devices and other fixtures  ACU outlet w/ grounding, plate & cover  Orbit Fan 220-240V AC, w/ selector switch  Outlet w/ grounding, plate & cover, two-gang  Switch w/ plate & cover, one-gang  Switch w/ plate & cover, one-gang  Pipe Hangers & Support  Horizontal layout of pipe  100 I.m.  Vertical layout of pipe  3 I.m.  Panelboard  DP - DC  1 assy  Miscellaneous & Consumables  400cc Solvent Cement  Electrical Tape  GI Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Pulling Lubricant  Rubber Tape  1 piece		1				
Wiring Devices and other fixtures  ACU outlet w/ grounding, plate & cover  Orbit Fan 220-240V AC, w/ selector switch  Outlet w/ grounding, plate & cover, two-gang  Switch w/ plate & cover, one-gang  Switch w/ plate & cover, two-gang  Pipe Hangers & Support  Horizontal layout of pipe  100 I.m.  Vertical layout of pipe  3 I.m.  Panelboard  DP - DC  1 assy  Miscellaneous & Consumables  400cc Solvent Cement  Electrical Tape  GI Tie Wire Ga. 16 (for cable pulling)  Masking Tape  Pulling Lubricant  Rubber Tape  1 piece  1 piece  1 piece  1 piece  1 piece  Pulling Lubricant  1 can  Rubber Tape  1 piece			2	set		
ACU outlet w/ grounding, plate & cover  Orbit Fan 220-240V AC, w/ selector switch  Outlet w/ grounding, plate & cover, two-gang  Switch w/ plate & cover, one-gang  Switch w/ plate & cover, two-gang  Pipe Hangers & Support  Horizontal layout of pipe  100 I.m.  Vertical layout of pipe  3 I.m.  Panelboard  DP - DC  1 assy  Miscellaneous & Consumables  400cc Solvent Cement  Electrical Tape  GI Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Masking Tape  Pulling Lubricant  Rubber Tape  1 piece  Dece  Double Acover, two-gang  1 piece  piece  1 piece  Pulling Lubricant  1 can  Rubber Tape  1 piece		_	10	piece		
Orbit Fan 220-240V AC, w/ selector switch  Outlet w/ grounding, plate & cover, two-gang  Switch w/ plate & cover, one-gang  Switch w/ plate & cover, one-gang  Pipe Hangers & Support  Horizontal layout of pipe  100 l.m.  Vertical layout of pipe  3 l.m.  Panelboard  DP - DC  1 assy  Miscellaneous & Consumables  400cc Solvent Cement  Electrical Tape  GI Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Masking Tape  Pulling Lubricant  Rubber Tape  1 piece  piece  piece  piece  piece  piece  piece  piece  piece  pulling Lubricant  n piece  pulling Lubricant  piece  piece  piece		_				
Outlet w/ grounding, plate & cover, two-gang  Switch w/ plate & cover, one-gang  Switch w/ plate & cover, two-gang  Diece  Pipe Hangers & Support  Horizontal layout of pipe  100 I.m.  Vertical layout of pipe  3 I.m.  Panelboard  DP - DC  1 assy  Miscellaneous & Consumables  400cc Solvent Cement  Electrical Tape  GI Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Pulling Lubricant  Rubber Tape  1 piece  Switch w/ plate & cover, two-gang  1 piece  piece  1 piece  1 piece  1 piece			1	piece		
Switch w/ plate & cover, one-gang 1 piece Switch w/ plate & cover, two-gang 1 piece Pipe Hangers & Support 100 l.m.  Horizontal layout of pipe 3 l.m.  Vertical layout of pipe 3 l.m.  Panelboard 1 assy 1 miscellaneous & Consumables 2 can 2 lelectrical Tape 1 piece 3 lectrical Tape 1 piece 3 lectrical Tape 1 piece 1 lectrical Tape 1 lectrical Tape 1 piece 1 lectrical Tape 1 lectrica		,	2	piece		
Switch w/ plate & cover, two-gang 1 piece Pipe Hangers & Support Horizontal layout of pipe 100 l.m. Vertical layout of pipe 3 l.m.  Panelboard DP - DC 1 assy Miscellaneous & Consumables 400cc Solvent Cement 2 can Electrical Tape 1 piece GI Tie Wire Ga. 16 (for cable pulling) 1 kg Hacksaw Blade 1 piece Masking Tape 1 piece Pulling Lubricant 1 can Rubber Tape 1 piece			5	piece		
Pipe Hangers & Support  Horizontal layout of pipe  100 I.m.  Vertical layout of pipe  3 I.m.  Panelboard  DP - DC  1 assy  Miscellaneous & Consumables  400cc Solvent Cement  Electrical Tape  GI Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Masking Tape  Pulling Lubricant  Rubber Tape  1 piece  1 piece  1 piece			1	piece		
Horizontal layout of pipe  100 I.m.  Vertical layout of pipe 3 I.m.  Panelboard  DP - DC 1 assy  Miscellaneous & Consumables  400cc Solvent Cement 2 can  Electrical Tape 1 piece  GI Tie Wire Ga. 16 (for cable pulling) 1 kg  Hacksaw Blade 1 piece  Masking Tape 1 piece  Pulling Lubricant 1 can  Rubber Tape 1 piece			1	piece		
Vertical layout of pipe         3         I.m.           Panelboard		1.				
Panelboard  DP - DC  1 assy  Miscellaneous & Consumables  400cc Solvent Cement  Electrical Tape  GI Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Masking Tape  Pulling Lubricant  Rubber Tape  1 assy  1 piece			100	l.m.		
DP - DC         1         assy           Miscellaneous & Consumables         2         can           400cc Solvent Cement         2         can           Electrical Tape         1         piece           GI Tie Wire Ga. 16 (for cable pulling)         1         kg           Hacksaw Blade         1         piece           Masking Tape         1         piece           Pulling Lubricant         1         can           Rubber Tape         1         piece			3	l.m.		
Miscellaneous & Consumables  400cc Solvent Cement 2 can  Electrical Tape 1 piece GI Tie Wire Ga. 16 (for cable pulling) 1 kg Hacksaw Blade 1 piece Masking Tape 1 piece Pulling Lubricant 1 can Rubber Tape 1 piece						
400cc Solvent Cement         2         can           Electrical Tape         1         piece           GI Tie Wire Ga. 16 (for cable pulling)         1         kg           Hacksaw Blade         1         piece           Masking Tape         1         piece           Pulling Lubricant         1         can           Rubber Tape         1         piece		DP - DC	1	assy		
Electrical Tape  GI Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Masking Tape  Pulling Lubricant  Rubber Tape  1 piece  1 piece  1 can  Rubber Tape  1 piece						
GI Tie Wire Ga. 16 (for cable pulling)  Hacksaw Blade  Masking Tape  Pulling Lubricant  Rubber Tape  1 kg  piece  1 piece  2 can  Rubber Tape  1 piece		400cc Solvent Cement	2	can		
Hacksaw Blade 1 piece  Masking Tape 1 piece  Pulling Lubricant 1 can  Rubber Tape 1 piece		Electrical Tape	1	piece		
Masking Tape 1 piece Pulling Lubricant 1 can Rubber Tape 1 piece		GI Tie Wire Ga. 16 (for cable pulling)	1	kg		
Pulling Lubricant 1 can Rubber Tape 1 piece		Hacksaw Blade	1	piece		
Rubber Tape 1 piece		Masking Tape	1	piece		
		Pulling Lubricant	1	can		
Torch w/ Butane 2 set		Rubber Tape	1	piece		
		Torch w/ Butane	2	set		
Materials Cost VI ₱					Materials Cost VI	₱
Labor Cost VI					Labor Cost VI	
Direct Cost VI ₱					Direct Cost VI	₱

I	GENERAL REQUIREMENTS		

#### **SUMMARY**

ITEM NO	WORK DESCRIPTION AND S	TOTAL COST	
         V    V	GENERAL REQUIREMENTS SITE WORKS CIVIL/ STRUCTURAL WORKS ARCHITECTURAL WORKS PLUMBING WORKS ELECTRICAL WORKS	710	
NOT •	Strictly enforce health protocols relative to the latest applicable DPWH memorandum	TOTAL DIRECT COST Overhead, Contingencies and Miscellaneous and Consumables Expenses (OCM) Profit VAT	
		TOTAL ESTIMATED COST	₽



# Republic of the Philippines Quezon City

#### CITY ENGINEERING DEPARTMENT



Civic Center Building B, Quezon City Hall Compound, Elliptical Road Diliman, Central 1100 Quezon City Trunk line: +63 2 8988 4242

# TECHNICAL SPECIFICATIONS QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE: PROPOSED REHABILITATION OF DAY CARE CENTER AT IDANG STREET,

SITIO AGUARDIENTE

LOCATION: BARANGAY STA. MONICA, DISTRICT 5, QUEZON CITY

#### I. GENERAL REQUIREMENTS

- a. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and standards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- b. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- c. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- e. Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- f. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- g. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- h. Mobilization and Demobilization (if applicable)
  - i. Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
  - ii. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.

 Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.

#### j. Temporary Facilities and Utilities

- All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
- ii. Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.
- iii. Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- iv. Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages.
- v. Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- vi. Upon completion of the work, the temporary facilities shall be demolished, hauled-out and disposed properly.
- k. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
  - i. A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical duties.
  - ii. The medical room shall be provided in waterproof; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
  - iii. The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site.
  - iv. Additional safety precautions shall be provided in the observance of pandemic. Protocols set-forth by the government shall be strictly followed.
- I. Necessary protections to the adjacent property shall be provided to avoid untoward incidents / accidents.
- m. Final cleaning of the work shall be employed prior to the final inspection for certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

#### II. SITE WORKS

- A. All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing to work.
- B. Removal / demolition of existing structures shall be done in accordance to safety procedures.
- C. All excavations shall be made to grade as indicated in the plans. Whenever water is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.
- D. All backfills shall be placed in layers not exceeding to 150mm in thickness and each layer shall be thoroughly compacted wetting, tamping and rolling.

#### III. CIVIL / STRUCTURAL WORKS

#### A. CONCRETE WORK

- a. Delivery, Storage, and Handling: All materials shall be so delivered, stored, and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.
- b. Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.

#### c. Materials

- i. Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C 150).
- ii. Water used in mixing concrete shall be clean and free from other injurious amounts of oils, acids, alkaline, organic materials or other substances that may be deleterious to concrete or steel.
- iii. Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates". Sand particle shall be course, sharp, clean free from salt, dust, loam, dirt and all foreign matters.
- iv. Coarse aggregates shall be either natural gravel or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor larger than three fourths (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms.

#### d. Proportioning and Mixing

i. Proportioning and mixing of concrete shall conform to the requirements for Item 405 of the standard specification with the following proportions:

Cement : Sand : Gravel

• Class "A" - 1 : 2 : 3

• Class "B" - 1:2:4

• Class "C" - 1: 2 1/2

- ii. Concrete mixture to be used for concrete shall conform with the structural requirements.
- iii. Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates.

#### e. Forms

- i. General Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be ½" waterproof plywood and form lumber.
- ii. Cleaning of Forms before placing the concrete, the contact surfaces of the formed hall be cleaned of encrustations of mortar, the grout or other foreign material

iii. Removal of Forms – forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

#### f. Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from loose, flaky rust and scale, oil grease, clay and other coating and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discoloration or deterioration of the concrete.

#### g. Conveying and Placing Concrete:

- i. Conveying concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.
- ii. Placing concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.
- iii. Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
- iv. Consolidation of Concrete concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- v. Placing Concrete through reinforcement In placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult, a layer of mortar of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

#### h. Curing

- i. General All concrete shall be moist cured for a period not less than seven (7) consecutive days by an approved method or combination applicable to local conditions.
- Moist Curing The surface of the concrete shall be kept continuously wet by covering with burlap plastic or other approved materials thoroughly saturated with water and keeping the covering spraying or intermittent hosing.

#### i. Finishing

 Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.

ii. Concrete Slabs on Fill. The concrete slabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of the overlaying slab except when indicated.

#### **B. MASONRY**

- a. Masonry Units (CHB):
  - i. 100mm thick for all interior walls and exterior walls unless otherwise indicated.
  - ii. Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.
  - iii. Where full height walls are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide stiffener columns & lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height & other considerations.

#### b. Sand:

S-1, washed, clean and greenish in color.

#### c. Mortar:

One part "Portland" cement and two parts sand and water but not more than three parts sand and water.

#### d. Plaster bond:

Apply plaster bond to all wall area.

#### IV. ARCHITECTURAL WORKS

#### A. TILE WORKS

- a. Both broken and unbroken old tiles must be chip-off
- b. Surface should be smoothen & clean.
- c. Ceramic tiles shall be soaked in clean water prior to installation.
- d. Lay the tiles true to profile as specified in the plan.

#### **B. FABRICATED DOORS**

All doors must be in approved quality as specified in the plan and program of works.

#### C. PAINTING WORKS

- a. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- b. Application shall be as per paint Manufacturer's specification and recommendation.
- c. Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
- d. All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.
- e. All surfaces including masonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.

- f. All exposed finish hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- g. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

#### V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:
  - B.1 Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
  - B.2 Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
  - B.3 Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
  - B.4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E. Install equipment in strict accordance with manufacturers written recommendations.
- F. Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.

- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- O. Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be retested at the appropriate test pressure.
- T. The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEI 7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Z. Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC.Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

#### VI. ELECTRICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

#### F. PANELBOARDS

- F.1 Fabricate and test panelboards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively.
- F.2 Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.
  - F.2.1 Rated for environmental conditions at installed location.
    - i. Indoor Dry and Clean Locations: NEMA 250, Type 1.
    - ii. Outdoor Locations: NEMA 250, Type 3R.
    - iii. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
    - iv. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
    - v. Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA 250, Type 5 or Type 12.
  - F.2.2 Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box.
  - F.2.3 Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover.
  - F.2.4 Skirt for Surface-Mounted Panelboards: Same gage and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.
  - F.2.5 Gutter Extension and Barrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections.

#### F.2.6 Finishes:

- Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
- ii. Back Boxes: Galvanized steel Same finish as panels and trim.

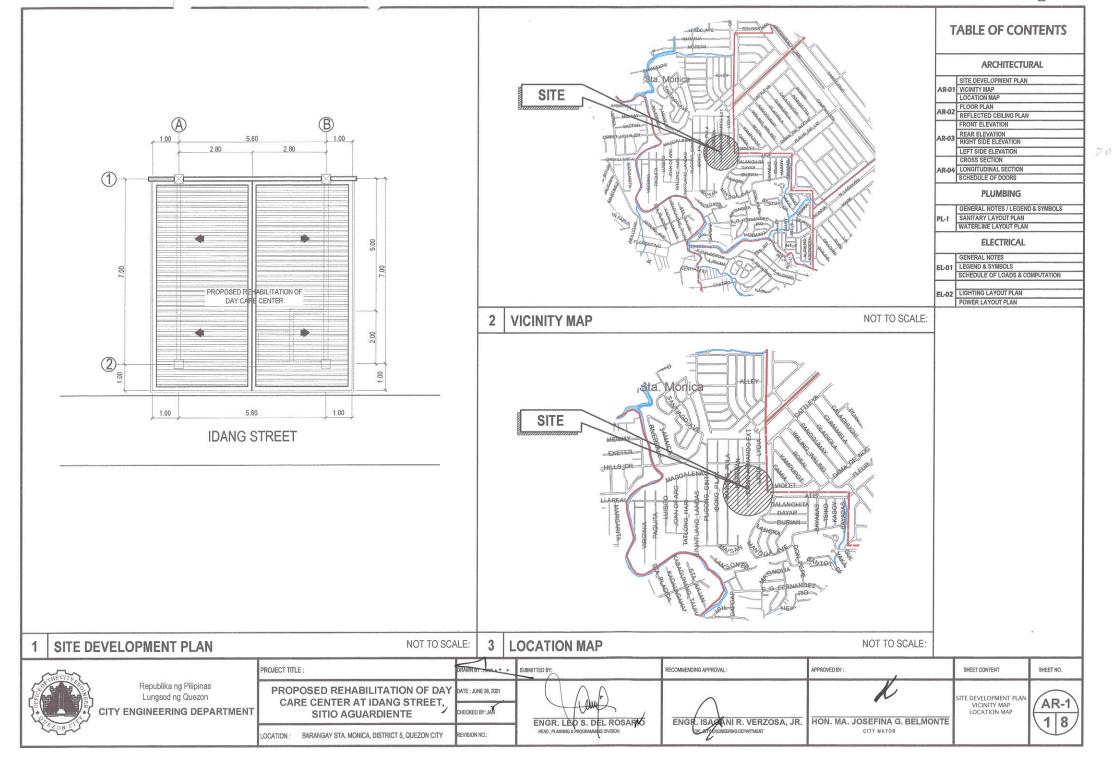
- iii. Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
- F.2.7 Directory Card: Inside panelboard door, mounted in transparent card holder metal frame with transparent protective cover.
- F.3 Incoming Mains Location: Top or Bottom.
- F.4 Phase, Neutral, and Ground Buses:
  - F.4.1 Material: Hard-drawn copper, 98 percent conductivity.
  - F.4.2 Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
  - F.4.3 Neutral Bus: 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

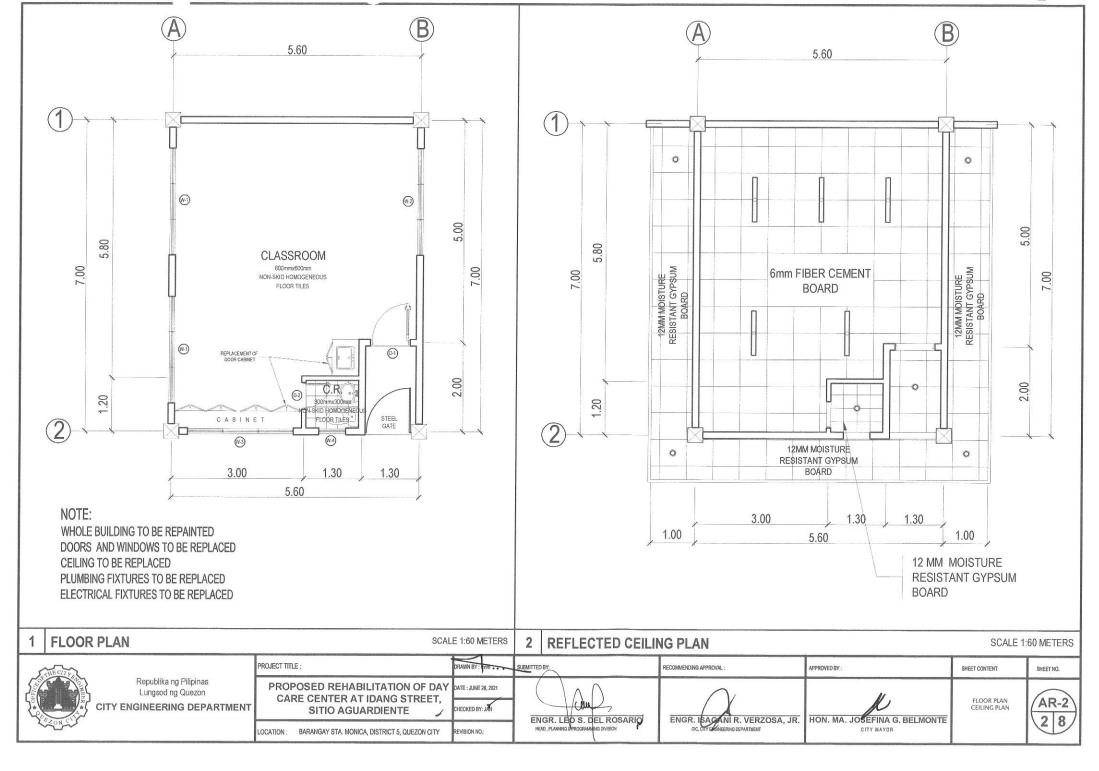
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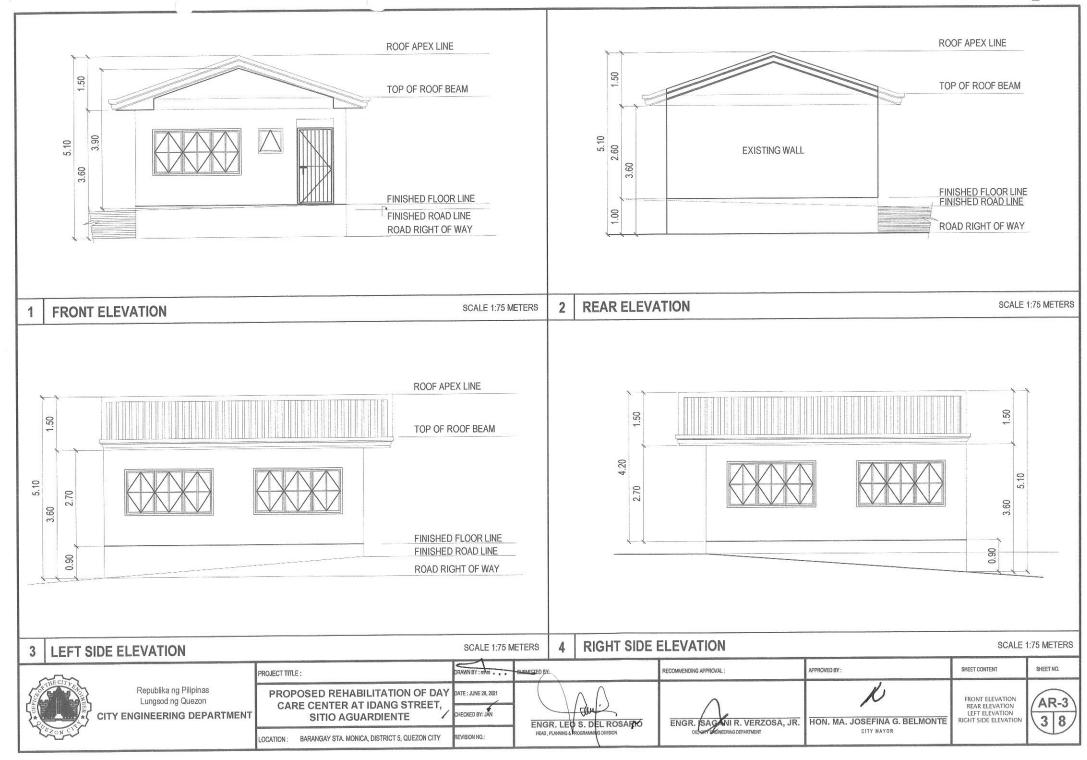
Planning and Programming Division

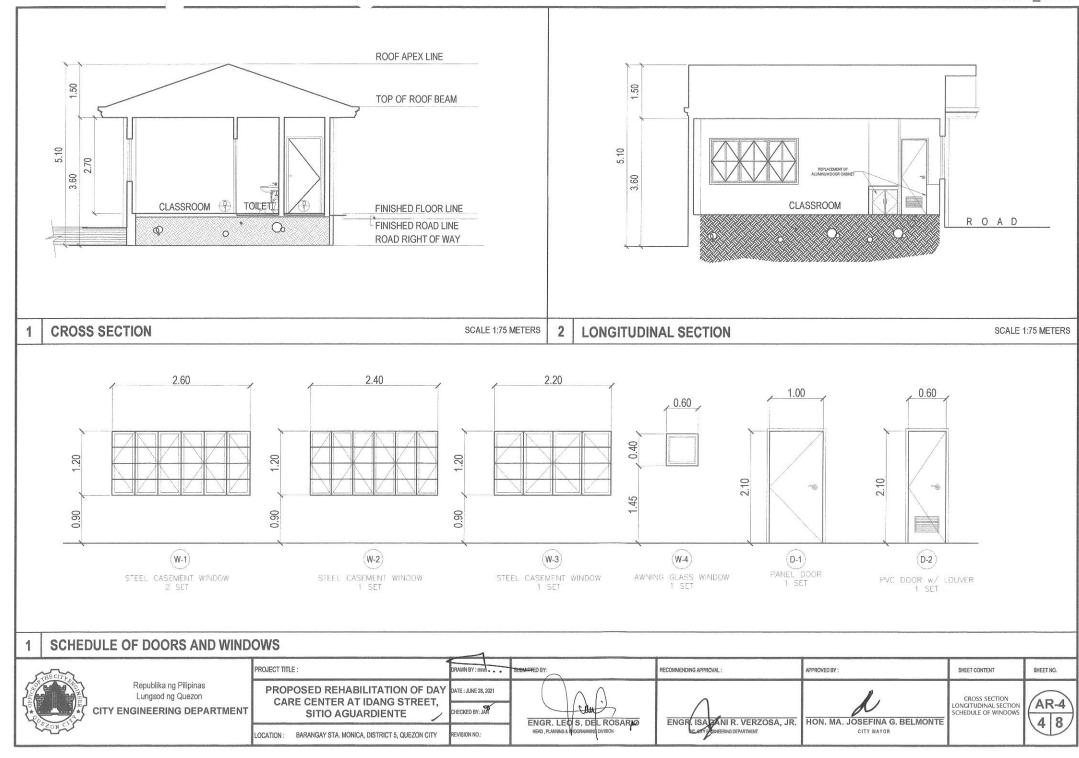
DCELYN A. NAONG

Planning and Programming Division









- ALL PLUMBING WORKS SHALL BE EXECUTED IN ACCORDANCE WITH THE LATEST PROVISION OF THE PHILIPPINE
  PLUMBING CODE, THE UNIFORM PLUMBING CODE, THE NATIONAL BUILDING CODE, AND THE RULES AND
  REGULATIONS OF
  THE QUEZON CITY.
- ALL SLOPES FOR SANITARY AND STORM DRAINAGE LINES SHALL MAINTAIN A ONE PERCENT (0.01) AND ONE-HALF (0.005) MINIMUM RESPECTIVELY UNLESS OTHERWISE SPECIFIED.
- 3. PROPOSED SANITARY UTILITIES SHALL CONFORM TO ACTUAL LOCATION, DEPTH AND INVERT ELEVATION OF ALL EXISTING PIPES & STRUCTURES.
- ALL WATER SUPPLY PIPES & DRAIN SIZES OF FIXTURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- TESTING OF SANITARY AND WATERLINES SHALL CONFORM TO THE LATEST REQUIREMENTS OF PHILIPPINE PLUMBING CODE AND UNIFORM PLUMBING CODE.
- 6. ALL PIPES SIZES AND DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
- 7. WATERLINE SHALL BE PPR TYPE OR FUSION WELD TYPE.
- SOIL PIPE, WASTE & VENT SHALL BE PVC SANIMOLD EXTRA OR APPROVED EQUAL. STORM DRAINAGE LINE 200mm Ø AND BELOW SHALL BE POLYVINYL CHLORIDE. 250mm Ø & ABOVE SHALL BE REINFORCED CONCRETE PIPE.
- 9. GATE VALVE SHALL BE PPR TYPE.
- 10. WATER METER SHALL BE ANY BRAND APPROVE BY MWSS.
- 11. ROOF DRAIN SHALL BE ASA 10-12, PIPE SIZE 4" Ø BY ASA METAL OR APPROVED EQUAL.
- 12. WATER CLOSETS SHALL BE VITREOUS CHINA, FREE STANDING TOILET COMBINATION, ROUND FRONT BOTTOM OUTLET SIPHON VORTEX OR WASH-DOWN BOWL WITH EXTENDED REAR SELF AND CLOSE COUPLED TANK WITH COVER COMPLETE WITH FITTING AND MOUNTING ACCESSORIES.
- 13. LAVATORY SHALL BE VITREOUS CHINA, WALL HUNG WITH REAR OVERFLOW AND CAST IN SOAP DISHES, POCKET HANGER WITH INTEGRAL CHINA BRACKET, COMPLETE WITH TWIN FAUCETS, SUPPLY PIPES, P-TRAP AND MOUNTING ACCESSORIES
- 14. WHERE INDICATED ON PLANS, THE COUNTER TOP MODEL MAKE AND COLOR SHALL BE APPROVED BY THE DESIGNING ARCHITECT.
- 15. URINAL SHALL BE VITREOUS CHINA, WALL HUNG WASH-OUT URINAL WITH EXTENDED SHIELDS AND INTEGRAL FLUSH SPREADER, CONCEALED WALL HANGER POCKETS, 19mm TOP SPUD COMPLETE FITTING AND MOUNTING ACCESSORIES. MODEL MAKE AND COLOR SHALL BE APPROVED BY THE DESIGNING ARCHITECT.
- 16. GRAB BARS SHALL BE MADE OF TUBULAR STAINLESS STEEL PIPE PROVIDED WITH SAFETY GRIP AND MOUNTING FLANGE.
- 17. FLOOR DRAINS SHALL BE MADE OF STAINLESS BEEHIVE TYPE, MEASURING 10cm x 10cm AND PROVIDED WITH DETACHABLE STAINLESS STRAINER, EXPANDED METAL LATH TYPE.
- 18. SOAP HOLDER SHALL BE VITREOUS CHINA WALL MOUNTED. COLOR SHALL RECONCILE WITH ADJACENT TILE WORKS.
- TOILET PAPER HOLDERS SHALL BE VITREOUS CHINA WALL MOUNTED. COLOR SHALL RECONCILE WITH THE ADJACENT FIXTURE AND FACING TILES.
- 20. FAUCETS SHALL BE MADE OF STAINLESS STEEL FOR INTERIOR USE.
- 21. HOSE BIB SHALL BE MADE OF BRONZE CAST FINISH.

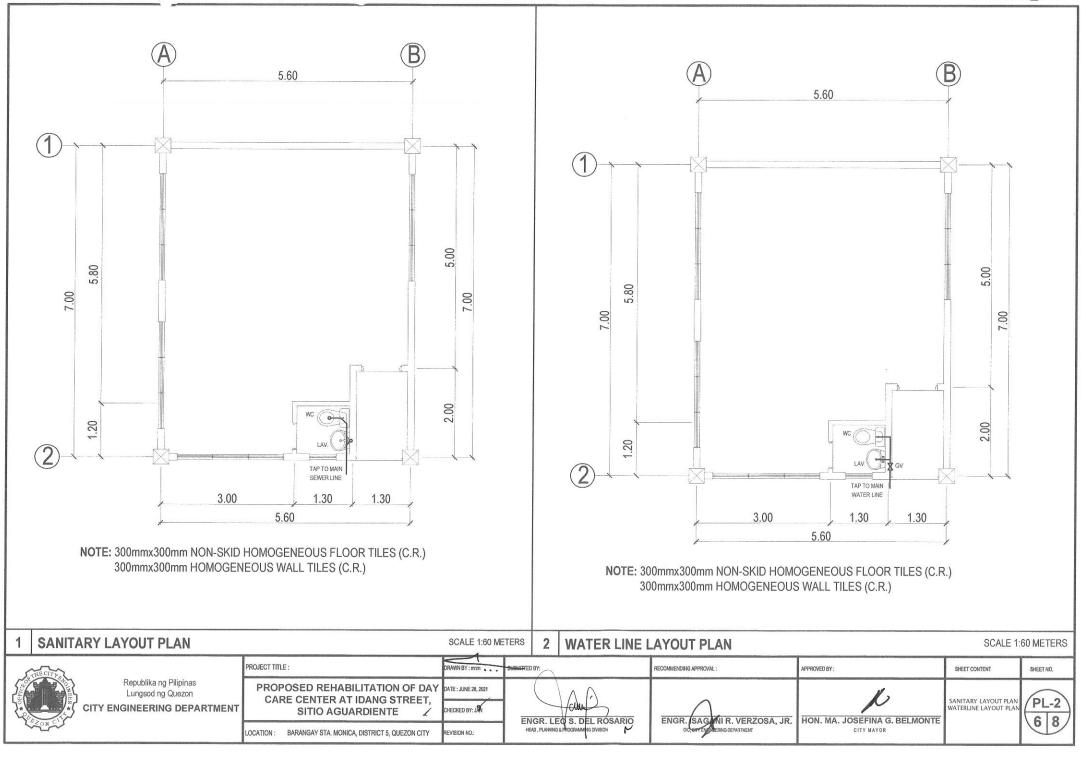
#### I. WATER DISTRIBUTION SYSTEM:

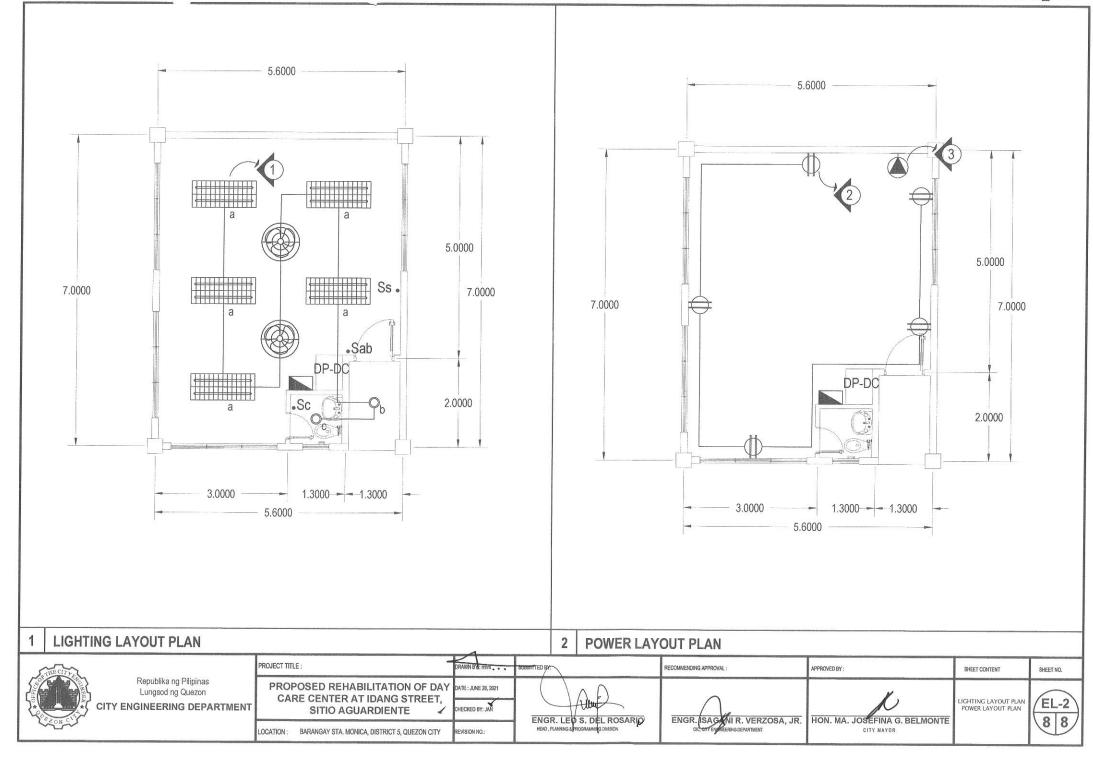
	COLD WATER LINE
CWR	COLD WATER RISER
∭ GV	GATE VALVE
✓ cv	- CHECK VALVE
₩M	- WATER METER

#### II. SEWER/WASTE AND VENT SYSTEM:

SP/WP	SOIL PIPE / WASTE PIPE
VP/VAC	VENT PIPE / VENT AT CEILING
DP	STORM DRAIN PIPE
	FLOOR CLEANOUT / GROUND CLEANOUT
I cco	CEILING CLEAN-OUT
O DS	DRAINAGE STACK / DOWNSPOUT
O VSTR	VENT STACK/EXTENDED THROUGH ROOF
<b>⊙</b> ss	SOIL STACK
☐ FD	FLOOR DRAIN
СВ	CATCH BASIN
AD	AREA DRAIN
4	STALL TYPE URINAL
GT o	GREASE TRAP

**GENERAL NOTES LEGEND AND SYMBOLS** NOT TO SCALE: NOT TO SCALE: PROJECT TITLE : UBMITTED, BY: RECOMMENDING APPROVAL APPROVED BY : SHEET CONTENT SHEET NO Republika ng Pilipinas PROPOSED REHABILITATION OF DAY DATE: JUNE 28, 2021 Lungsod ng Quezon CARE CENTER AT IDANG STREET. **GENERAL NOTES** PL-1 CITY ENGINEERING DEPARTMENT CHECKED BY: JRV SITIO AGUARDIENTE LEGEND AND ENGR. LEO S. DEL ROSARIO ENGR. ISASANI R. VERZOSA, JR. HON. MA. JOSEFINA G. BELMONTE 5 8 SYMBOLS HEAD , PLANNING & PROGRAMMING DIVISION CIC, CIT ENGINEERING DEPARTMENT LOCATION: BARANGAY STA. MONICA, DISTRICT 5, QUEZON CITY REVISION NO .:





- ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE LAWS AND ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE UTILITY COMPANY.
- THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH THE OWNER THROUGH THE ENGINEERS, FINAL CERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETION OF WORK.
- 3. ALL EMBEDDED BRANCH CIRCUITS SHALL BE PVC CONDUITS AND FOR EXPOSED INSTALLATION SHALL BE IMC SUPPORTED BY CONDUIT CLAMPS EVERY 700 MILIMETERS
- 4. PULL BOXES SHALL BE PROVIDED BY THE CONTRACTOR WHENEVER NECESSARY TO FACILITATE WIRE PULLING EVEN IF THESE ARE NOT INDICATED ON THE PLANS. SIZING OF ALL PULLBOXES SHALL BE COMPUTED BASED ON THE CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION, LOCATION OF PULLBOXES SHALL BE APPROVED BY THE ARCHITECT/ENGINEER AND MUST BE REFLECTED ON THE "AS-BUILT" PLAN.
- 5. ALL POWER OUTLETS AND SWITCHES SHALL BE GROUNDING TYPE WITH PARALLEL SLOTS FOR 230 V.
- PROVIDE GROUND FAULT CURRENT INTERRUPTER CIRCUIT BREAKER FOR LOADS MARKED "GFCI" ON THE PLAN.
- ALL METALLIC CONDUITS, CABINETS AND EQUIPMENT SHALL BE PROPERLY GROUNDED AND BONDED.
- 8. UNLESS OTHERWISE NOTED, MOUNTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS:

RECEPTACLE OUTLET - 300 MM AFF, 150MM ABOVE WORKING COUNTER.

TELEPHONE OUTLET - 300 MM AFF

CATV OUTLET - 300 MM AFF

LIGHTING SWITCH - 1400 MM AFF

PANELBOARD - 1600 MM AFF

- 9. REFER TO MECHANICAL, PLUMBING ANF FIRE PROTECTION DRAWINGS FOR RATINGS AND LOCATIONS OF EQUIPMENT AS WELL AS THEIR CONTROL SEQUENCES AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE SECTIONS.
- 10. ALL MATERIALS TO BE USED SHALL BE OF THE BEST QUALITY, BRAND NEW AS SPECIFIED.
- 11. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PRESENT GENERAL LAYOUT AND BROAD OUTLINE/DESCRIPTION OF THE PROJECT BUT DO NOT NECESSARILY INDICATE/DESCRIBED ACTUAL LOCATIONS, LEVEL AND DISTANCES OF THE EQUIPMENT. THE CONTRACTOR IS HEREBY REQUIRED TO MAKE SUCH ADJUSTMENT AT THE JOBSITE AS LOCATION, DISTANCES AND LEVELS ARE GOVERNED BY ACTUAL FIELD CONDITIONS.
- 12. ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION DECISION.
- 13. ALL LIGHTING AND CONVENIENCE OUTLET CIRCUITS SHALL BE 3.5 SQ. MM. THWN-2 COPPER WIRE UNLESS OTHERWISE NOTED. MINIMUM SIZE OF WIRE SHALL BE 3.5 SQ. MM. COPPER WIRE. ALL WIRES AND CABLES SHALL BE COLOR CODED AS FOLLOWS:

LINE 1 - RED

LINE 2 - YELLOW

NEUTRAL - WHITE

GROUND - GREEN

14. BOXES, WIRE, GUTTERS, ENCLOSURE SHALL BE FABRICATED FROM STEEL WITH THICKNESS AS FOLLOWS:

MAXIMUM WIDTH OF THE WIDEST SURFACE STEEL

UP TO INCLUDING 152,40 MM

GA 16 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT GA 14 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT

OVER 152.40 MM BUT NOT OVER 457.30

GA 12 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT

OVER 457.30 MM BUT NOT OVER 762 MM

OVER 762 MM

GA 10 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT

- 15. ALL ELECTRICAL WORKS HEREIN SHALL BE EXECUTED BY EXPERIENCED MEN UNDER THE DIRECT SUPERVISION OF A FULL-TIME LICENSED ELECTRICAL ENGINEER AND A DULY ACCREDITED ELECTRICAL CONTRACTOR BY PCAB. WORKS SHALL BE NEATLY PLACED, SECURELY FASTENED AND PROPERLY
- 16. TYPE OF SERVICE ENTRANCE SHALL BE SINGLE-PHASE. TWO-WIRE PLUS GROUND. . 60 HERTZ 230V AC NOMINAL
- 17. CONDUITS IN NO CASE SHALL THERE BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS IN ANY ONE RUN. ALL CONDUIT BENDS SHALL BE FIELD MADE BY USING HYDRAULIC BENDERS. MINIMUM BENDING RADIUS MUST BE IN ACCORDANCE TO THE CODE REQUIREMENTS.
- 18. UPON COMPLETION OF ELECTRICAL CONSTRUCTION WORK, INSULATION RESISTANCE TEST AND FUNCTIONALITY TEST SHALL BE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS ON FORMS APPROVED BY THE QUEZON CITY ENGINEERING DEPARTMENT REPRESENTATIVE. THE GROUND RESISTANCE FOR ELECTRICAL SYSTEMS SHALL NOT BE MORE THAN 5 OHMS, COMMUNICATION GROUNDING RESISTANCE SHALL NOT EXCEED 2 OHMS.

	CIRCUIT LINE		LED TROFFER TYPE LIGHTING
0	DUPLEX OUTLET	0	LED PINLIGHT
	ACU OUTLET	•	CIRCUIT HOMERUN
Sab	TWO GANG SWITCH		PANELBOARD
Sc	ONE GANG SWITCH		ORBIT FAN
Ss	SELECTOR SWITCH		

#### **LEGEND & SYMBOLS**

MAIN: 60 AT, 2P IN NEMA 1 ENCLOSURE

PANEL:	JP-DC	
LOCATION: DAY	CARE CENTER (TAP TO THE EXISTING SUP	2

CKT NO.	LOAD DESCRIPTION	VOLTS	VOLT AMPERE	AMPERE	CIRCUIT BREAKER	SIZE OF	
						WIRES	CONDUITS
1	10 - LIGHTING OUTLET, 2 - ORBIT FAN	230	1300	5.65	20 AT 2P, BOLT ON	2 - 3.5mm² THHN WIRE & 1-3.5mm² TW (G) WIRE	IN 20mm Ø ( ½) PVC
2	5 - DUPLEX C.O.	230	900	3.91	20 AT 2P, BOLT ON	2 - 3.5mm² THHN WIRE & 1-3.5mm² TW (G) WIRE	IN 20mm Ø (½) PVC
3	1 - ACU OUTLET	230	3910	17	30 AT 2P, BOLT ON	2 - 5.5mm² THHN WIRE & 1-3.5mm² TW (G) WIRE	IN 20mm Ø (½) PVC
1	SPARE				30 AT 2P, BOLT ON		
2	SPARE				30 AT 2P, BOLT ON		
TOTAL			6110	26.57			

#### COMPUTATION

 $IT = (6110/230 \text{ V}) + (17 \times 25\%)$ 

IT = 30.82 AMPERES

OVER CURRENT PROTECTION: USE: 60 AT, 2P CB BOLT-ON

USE: 2 - 14mm2 THHN WIRE & 1 - 5.5mm2 TW GROUND WIRE IN 32mmØ PVC PIPE

#### **GENERAL NOTES**



Republika ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT

PROJECT TITLE :

PROPOSED REHABILITATION OF DAY DATE: JUNE 28, 2021 CARE CENTER AT IDANG STREET, SITIO AGUARDIENTE

LOCATION: BARANGAY STA. MONICA, DISTRICT 5, QUEZON CITY

SHOWITHED BY

DRAWN BY: mnm . . .

CHECKED BY: JAN

REVISION NO.:

ENGR. LEOS. DEL ROSARIO

SCHEDULE OF LOADS & COMPUTATION

RECOMMENDING APPROVAL

APPROVED BY

ENGR. ISAM NI R. VERZOSA, JR. HON. MA. JOSEFINA G. BELMONTE CITY MAYOR

LEGEND & SYMBOLS SCHEDULE OF LOADS & COMPUTATION

SHEET CONTENT



SHEET NO.

NTS