

## Republika ng Pilipinas Lungsod Quezon



Lungsod Quezon BIDS AND AWARDS COMMITTEE FOR INFRASTRUCTURE & CONSULTANCY 2<sup>nd</sup> 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 2<sup>nd</sup> 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: 1
  - Bear the name and address of the Contractor in capital letters; Be addressed to the Procuring Entity's BAC.

Name of Project: IN CAPITAL LETTERS

2 3

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

## **TERMS AND CONDITIONS**

- 1. 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. BAC



Republika ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT 5th, 6th 7th Floor, QC Civic Center Building "B" Telephone Nos. 8988-4242 Local 8538



I

PROJECT TITLE : PROPOSED CONSTRUCTION OF TERRACE AT BARANGAY HALL IN BARANGAY KALUSUGAN ~ LOCATION : BARANGAY KALUSUGAN, DISTRICT 4, QUEZON CITY\_

## LIST OF MANPOWER

No.	MANPOWER	QTY.
	Project Engineer	1
	Materials Engineer	1
	Safety Officer/Practitioner	Refer to DOLE Requirements
4	Foreman	1
5	Skilled Worker	5
6	Driver	1
7	Laborer	3

Prepared by:

CRISTAL MAE B. LORENZO Planning & Programming Division Checked by:

JOCELYNA. NAONG Planning & Programming Division



Republika ng Pilipinas Lungsod ng Quezon

CIVIL ENGINEERING DEPARTMENT 5th, 6th 7th Floor, QC Civic Center Building "B"

Telephone Nos. 8988-4242 Local 8538



PROJECT TITLE : PROPOSED CONSTRUCTION OF TERRACE AT BARANGAY HALL IN BARANGAY KALUSUGAN / LOCATION : BARANGAY KALUSUGAN, DISTRICT 4, 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:

CRISTAL MAE BI LORENZO Planning & Programming Division Checked by:

JOCELYN A.MAONG Planning & Programming Division

PROJECT TITLE: PROPOSED CONSTRUCTION OF TERRACE AT BARANGAY HALL IN BARANGAY KALUSUGAN

LOCATION : BARANGAY KALUSUGAN, DISTRICT 4, QUEZON CITY

PROJECT NO. : 22 - 013SV

DURATION : Sixty (60) Calendar Days

## BREAKDOWN OF COST

Item No.	Item of Work (Description)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
Ι	GENERAL REQUIREMENTS				
П	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
VII	MECHANICAL WORKS				

TOTAL COST P

LUMP SUM BID IN WORDS : \_\_\_\_\_

Contractor : \_\_\_\_\_

Page 3 of 3 Bid Form

### BILL OF QUANTITIES

#### (Building Construction/Rehabilitation Project)

PROJECT TITLE : PROPOSED CONSTRUCTION OF TERRACE AT BARANGAY HALL IN BARANGAY KALUSUGAN

LOCATION : BARANGAY KALUSUGAN, DISTRICT 4, QUEZON CITY

PROJECT NO. : 22 - 013SV

#### DURATION : Sixty (60) Calendar Days

#### SCOPE OF WORK :

- General Requirements include temporary enclosure, billboard, scaffolding, construction safety and health, and clearing, hauling and disposal of construction materials and debris.
- II Site Works include removal works, clearing and cleaning for painting preparation, layout and staking, site clearing and preparation, and earthworks.
- III Civil / Structural Works include concrete works, masonry works, moisture protection, metal works and roofing works.
- IV Architectural Works include floor finishes, ceiling finishes, painting works, and installation of doors and windows.
- V Sanitary/Plumbing Works include installation of roughing-ins, equipment, fixtures and accessories.
- VI Electrical Works include installation of roughing-ins, wirings, fixtures, and accessories
- VII Mechanical Works include relocation of air-conditioning unit and accessories.
- VIII All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS				
	Billboard	1	unit	₽	₽
	Clearing, Hauling and Disposal of Construction Materials and Debris	5	t.l.		
	Construction Safety and Health	1	unit		
	Scafffolding (Rental)	22	sq.m.		
	Temporary Enclosure Around the Construction Area (h= 2.4m)	8	l.m.		
				DIRECT COST I	₽
Ш	SITE WORKS				
	Removal Works				
	Removal of CHB Wall	18	sq.m.	₽	₽
	Removal of Tiles	33	sq.m.		
	Removal of Ceiling	5	sq.m.		
	Removal of Countertop	5	l.m.		
	Removal of G.I. Roofing	33	sq.m.		
	Removal of Doors	3	set		
	Removal of Windows	2	sq.m.		
	Removal of Water Closet	2	set		
	Removal of Lavatory	2	set		
	Removal of Kitchen Sink	1	set		
	Layout and Staking	14	sq.m.		
	Site Clearing and Preparation	14	sq.m.		
	Excavation for Structures Page 1 c	fg 6	cu.m.		

ITEM NO	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Subtotal	₱
	Gravel Bedding	2	cu.m.	₽	₽
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Pool/fill and Composition	4	cu.m.	<b>_</b>	<b>_</b>
	Backfill and Compaction	4	cu.m.	₽ Subtotal	P
				Subiolai	₽
				MATERIALS COST II	₽
				LABOR COST II	r
				DIRECT COST II	₽
Ш	CIVIL / STRUCTURAL WORKS				
	Concrete Works				
	On-Site Mix Concrete, 28MPa, 3/4" Gravel @ 28 Days				
	Column Footing	2	cu.m.	₽	₽
	Column	3	cu.m.		
	Beam	3	cu.m.		
	Suspended Slab	2	cu.m.		
	Slab on Fill	2	cu.m.		

ITEM NO	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Reinforcing Steel Bars				
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire	# 16			
	10mm Ø Reinforcing Steel Bar				
	Beam	126	kg		
	Column	316	kg		
	Slab on Fill	20	kg		
	Suspended Slab	203	kg		
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire	# 16			
	16mm Ø Reinforcing Steel Bar				
	Beam	146	kg		
	Column	377	kg		
	Column Footing	149	kg		
	Formworks				
	Beam	14	sq.m.		
	Column	17	sq.m.		
	Column Footing	3	sq.m.		
	Suspended Slab	7	sq.m.		
	Scaffolding and Shoring				
	Beam	30	l.m.		
	Column	19	l.m.		
	Suspended Slab	14	sq.m.		
	Masonry Works				
	100mm CHB Wall Laying, Including Mortar,	16	sq.m.		
	Reinforcement and Two-Face Plastering		-		
	Plastering of Door and Window Openings	2	l.m.		
	Moisture Protection				
	Cementitious Capillary-Type Waterproofing	25	sq.m.		
	Flexible-Type Waterproofing	15	sq.m.		
	Metal Works				
	Roof Framing				
	50mm x 100mm x 1.2mm C-Purlin	32	kg		
	38mm x 38mm x 6mm Angle Bar	102	kg		
	50mm x 100mm x 6mm Gusset Plate	1	kg		
	10mmØ Sagrod	6	kg		
	18mmØ Dyna Bolt	9	piece		
	Railings				
	50mm x 50mm x 2mm Tubular Bar	52	kg		
	25mm Square Bar	346	kg		
	Miscellaneous and Consumables				
	Acetylene Tank (Refill)	1	tank		
	Assorted Metal Drill Bit	10	piece		
	Cut Off Blade	2	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	2	tank		
	Welding Rod	1	box		
	Roofing Works Page 3				

ITEM NO	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Pre-painted G.I. Rib Type Roofing	15	sq.m.		
	Pre-painted G.I. End Flashing	12	l.m.		
	Tekscrew	997	piece		
	Blind Rivets	80	sq.m.		
	All Purpose Sealant	5	can		
	Silicon Sealant	5	tube		
			N	ATERIALS COST III	₽
				LABOR COST III	
				DIRECT COST III	₽
IV	ARCHITECTURAL WORKS				
	Floor Finishes				
	400mm x 400mm Non-Skid Homogeneous Floor Tiles	6	sq.m.	₽	₽
	Floor Topping for Preparation of Tile Works	6	sq.m.		
	Plain Cement Finish	49	sq.m.		
	Ceiling Finishes				
	6mm Thick Fiber Cement Board including Metal Framing	6	sq.m.		
	Wall Finishes				
	400mm x 400mm Non-Skid Homogeneous Floor Tiles	12	sq.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Installation of Doors				
	D1 - (0.6m X 2.1m) Wooden Flush Door	2	set	₽	₽
	D2 - (1.4m X 2.1m) Aluminum Frame Powder Coated Sliding Door with 6mm Thick Tempered Glass	1	set		
	Door Jamb				
	D1 - (0.6m X 2.1m) Wooden Flush Door	2	set		
	Hardware and Accessories				
	Door Hinges, Heavy Duty, Stainless	6	set		
	Door Knob, Lever Type, Stainless	2	set		

ITEM NO	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Installation of Windows W1 - (0.4m x 0.4m) Aluminum Frame Powder-Coated Awning Window with 6mm Thick Tempered Glass	2	set		
				Materials Cost	₽
				Labor Cost	
				Subtotal	P
	Painting Works				
	Elastomeric Paint Finish (Exterior Wall)	36	sq.m.	₽	₽
	Epoxy Enamel Paint Finish (Metal Surfaces)	8	sq.m.		
	Flat Latex Paint Finish				
	Interior Wall	24	sq.m.		
	Ceiling Board	6	sq.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
			N	LABOR COST IV	P
				DIRECT COST IV	₽
V	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	100mm Ø, PVC Pipe with Hub	3	piece	₽	₽
	75mm Ø, PVC Pipe with Hub	1	piece		
	50mm Ø, PVC Pipe with Hub	13	piece		
	100mm Ø x 100mm Ø, Wye	4	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 50mm Ø, Wye	10	piece		
	75mm Ø x 50mm Ø, Tee	10	piece		
	50mm Ø, 1/4 Bend	20	piece		
	100mm Ø, 1/8 Bend	8	piece		
	75mm Ø, 1/8 Bend	4	piece		
	50mm Ø, 1/8 Bend	18	piece		
	Cleanout 100mm Ø	4	piece		
	50mm Ø, P-Trap	6	piece		
	32mm Ø, P-Trap	2	piece		
	Coupling 100mm Ø	2	piece		
	Coupling 50mm Ø	8	piece		
	Waterline System				
	50mm Ø, PPR Pipe	2	piece		
	20mm Ø, PPR Pipe	2	piece		
	20mm Ø, Tee Equal	6	piece		
	20mm Ø, End Cap	5	piece		
	20mm Ø, 90 Deg Elbow	13	piece		
	· · · · · · · · · · · · · · · · · · ·	-	piece	t	

ITEM NO	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	25mm Ø x 15mm Ø, Female Thread Tee	5	piece		
	50mm Ø, Coupling	2	piece		
	20mm Ø, Coupling	2	piece		
	Valves and Appurtenances				
	20mm Ø, Gate Valve PPR	3	piece		
	Fixtures				
	Bidet, Heavy-Duty, Stainless with Complete Accessories (Water Efficient)	2	set		
	Floor Drain, 100mm x 100mm Stainless Steel	6	piece		
	Hose Bibb, Lever Type, Heavy Duty, Stainless Steel (Water Efficient)	3	piece		
	Lavatory Wall Hung	2	set		
	Water Closet, Tank Type (Water Efficient)	2	set		
	Pipe Hangers and Supports				
	For Horizontal Pipes less than 50mmØ (2m interval)	9	l.m.		
	For Horizontal Pipes greater than 50mmØ (1m interval)	14	l.m.		
	For Vertical Pipes greater than 50mmØ (1m interval)	3	l.m.		
	Hardware and Accessories				
	Angle Valve, Single-Way Stainless	2	piece		
	Angle Valve, Two-Way Stainless	2	piece		
	Flexible Hose, Stainless	4	piece		
	Miscellaneous and Consumables				
	400cc Solvent Cement	1	can		
	All-Around Sealant	1	can		
	Concrete Drill Bit	3	piece		
	Hacksaw Blade	4	piece		
	Teflon Tape	3	roll		
	Waste Cloth	2	kg		
			N	ATERIALS COST V	₽
				LABOR COST V	
				DIRECT COST V	₽

ITEM NO	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
VI	ELECTRICAL WORKS				
	Roughing-ins				
	20mmØ PVC Pipe	1	piece	₽	₽
	Fittings and Accessories				
	20mmØ PVC Adaptor	21	piece		
	20mmØ PVC Flexible Tube	5	l.m.		
	20mmØ PVC Locknut	21	pair		
	100mm x 100mm PVC Junction Box with Cover	4	piece		
	50mm x 100mm PVC Utility Box	3	piece		
	Wires and Cables				
	3.5mm <sup>2</sup> THHN Wire	40	l.m.		
	5.5mm <sup>2</sup> THHN Wire	32	l.m.		
	3.5mm <sup>2</sup> TW Wire	31	l.m.		
	Lighting Fixtures (Energy Efficient)				
	100mm Ø Round Recessed Pinlight (Case Only)	2	piece		
	100mm Ø Round Surface-Mounted Pinlight (Case Only)	2	piece		
	100mm Ø Round Pinlight LED 9W	4	piece		
	Wiring Devices and Other Fixtures		P.000		
	Switch With Plate and Cover, One-Gang	3	piece		
	Panelboard		piece		
	Enclosed Circuit Breaker (ECB)	1	assy		
	Main: 30AT, 2P, 220V				
	Enclosure: NEMA 3R				
	Pipe Hangers and Supports				
	Horizontal Layout of Pipe	10	l.m.		
	Miscellaneous and Consumables	10	1.111.		
	400cc Solvent Cement	1	can		
	Electrical Tape	1	roll		
	G.I. Tie Wire Ga. 16 (for Wire/Cable Pulling)				
	Hacksaw Blade	1	kg		
			piece		
	Masking Tape Rubber Tape	1	roll		
		1	roll		
	Torch With Butane	1	set		
			N		₽
				LABOR COST VI	
				DIRECT COST VI	₽
VII	MECHANICAL WORKS				
	Airconditioning System				
	Refrigerant Pipe System				
	Roughing-Ins				
	6.35mm Ø Copper Coil Tubing	9	I.m.	₽	₽
	9.52mm Ø Copper Coil Tubing	9	l.m.		
	Insulation				
	6.35mm Ø x 20mm Thick Rubber Foam Insulation	9	I.m.		
	9.52mm Ø x 20mm Thick Rubber Foam Insulationer 7 o	f 0 9	l.m.		

ITEM NO	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Condensate Water Drainage System				
	Roughing-Ins				
	25mm Ø x 3m uPVC Pipe	3	piece		
	25mm Ø uPVC Elbow	3	piece		
	Insulation				
	25mmØ x 12mm Thick Rubber Foam Insulation	9	l.m.		
	Pipe Hangers and Supports				
	ACCU Support	1	unit		
	Condensate Water Drainage System Support	9	l.m.		
	Refrigerant Pipe System Support	9	l.m.		
	Vibration Isolator	4	рс		
	Miscellaneous and Consumables				
	25mm x 50m Polyethylene Tape	1	roll		
	400cc Solvent Cement	2	can		
	50mm x 10m Duct Tape	1	roll		
	Brazing Rod (10pcs/box)	1	box		
	Waste Cloth	2	kg		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Relocation of Air Cooled Condensing Unit	1	unit		
				Subtotal	₽
					_
			M		₽
				DIRECT COST VII	P

NO NO NOR DESCRIPTION and SCOPE OF WORKS QTY UNIT UNIT UNIT COST TOTAL COST	ITEM NO	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
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#### SUMMARY

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS		TOTAL COST
     V V  V	GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS MECHANICAL WORKS		₽
NOTE: Overhead, C • Strictly enforce Health Protocols relative to the latest applicable DPWH Memorandum		TOTAL DIRECT COST tingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	P

Republic of the Philippines

Quezon City



CITY ENGINEERING DEPARTMENT



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

# **TECHNICAL SPECIFICATIONS**

### PROJECT TITLE: PROPOSED CONSTRUCTION OF TERRACE AT BARANGAY HALL IN BARANGAY KALUSUGAN /

LOCATION:

BARANGAY KALUSUGAN, DISTRICT 4, QUEZON CITY /

#### L 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.

- i. 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
  - i. 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 ¼" 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.
- ii. 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
  - i. 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.

#### C. ROOFING WORKS

- a. The roof shall be covered with Ga. 24 pre-painted G.I. rib-type roofing sheets as shown on the plans. The roofing shall be secured to the purlins with min. 2 ½" max. 3" long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.I. rib-type roofing sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- b. The roof shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purlins with min. 2 ½" max. 3" long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonate sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- c. All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Flashing to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners.

#### D. WATERPROOFING

a. Waterproofing:

Furnish all labor, materials, equipment, plant and other facilities required to complete all waterproofing work as shown on the drawings and herein specified. All applications shall be strictly performed by an approved waterproofing Contractor.

b. Testing:

Test waterproofed area by seventy-two (72) hours and check for any seepages.

Note: Thickness should be as per Manufacturers Specifications and Installation depending on the Areas to be applied with.

#### 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 & WINDOWS

All doors and windows 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. MECHANICAL WORKS

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- 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/SEL7.
- 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:
    - i. 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.

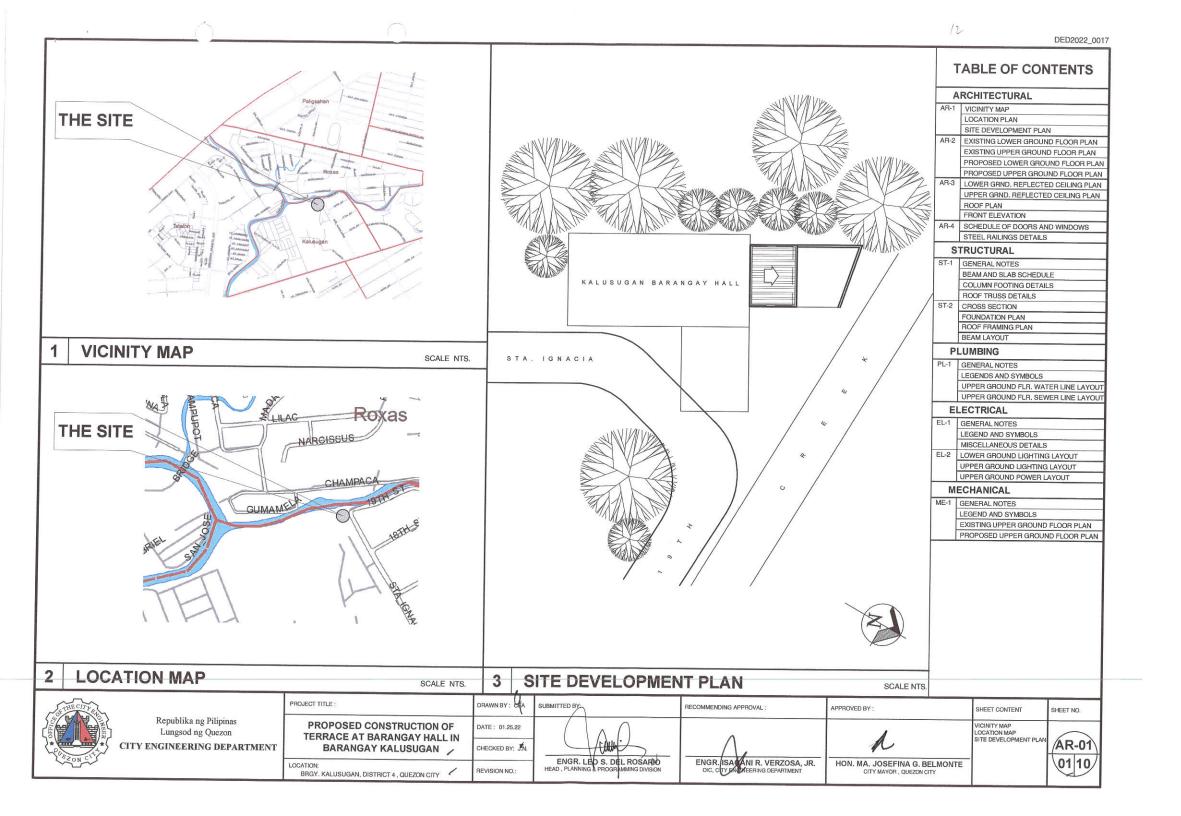
- F.4.2 Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
- F.4.3 Neutral Bus: 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

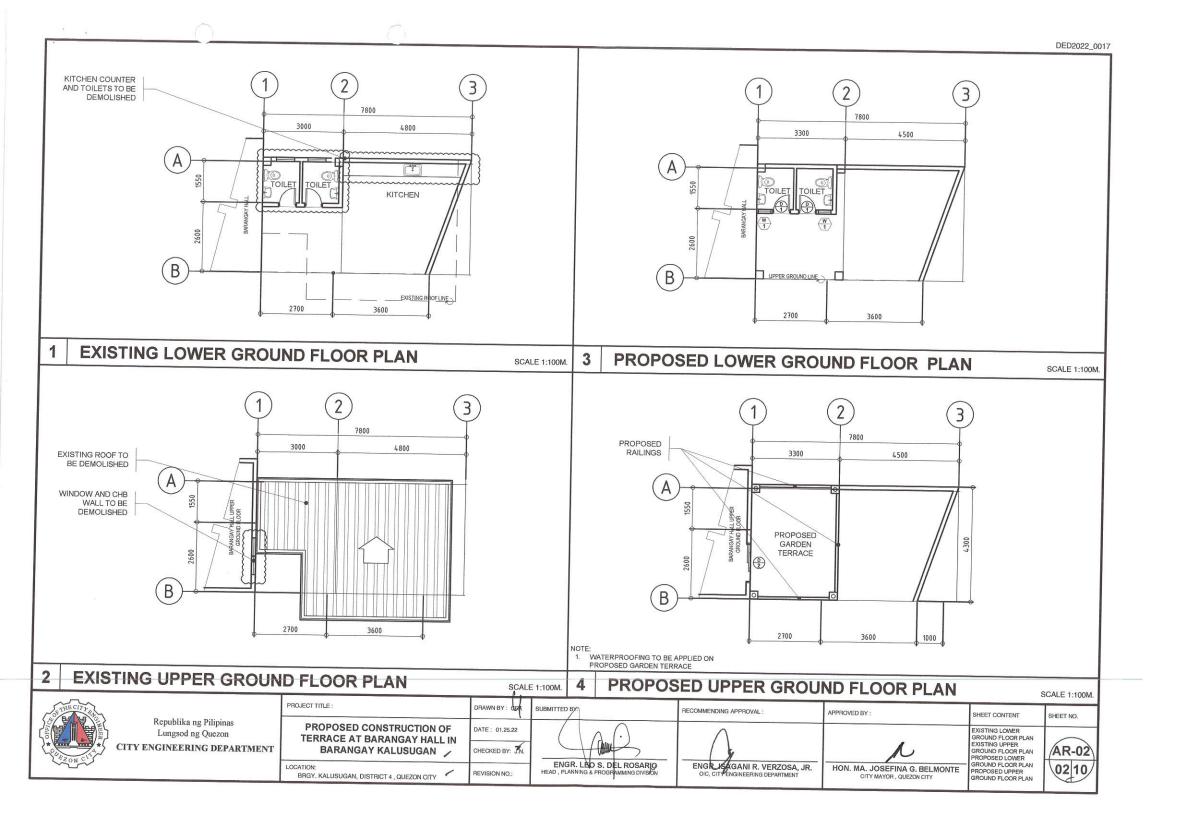
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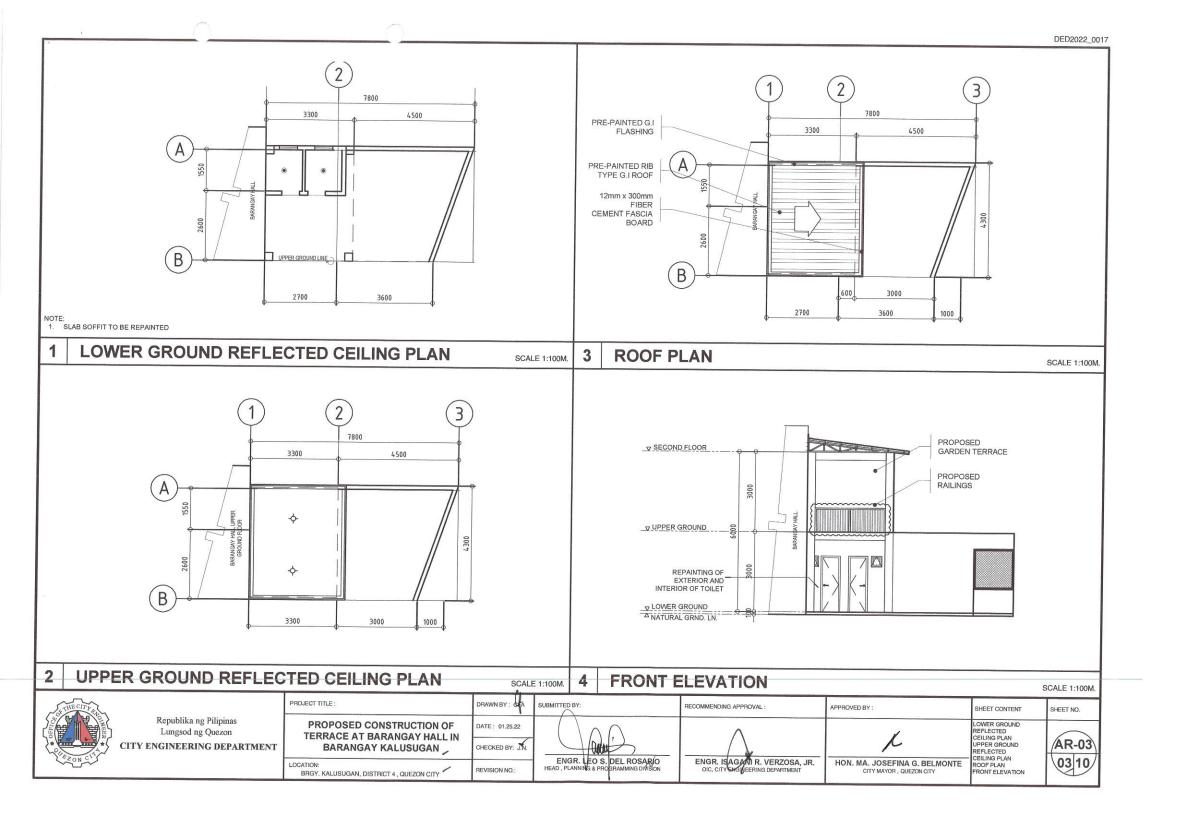
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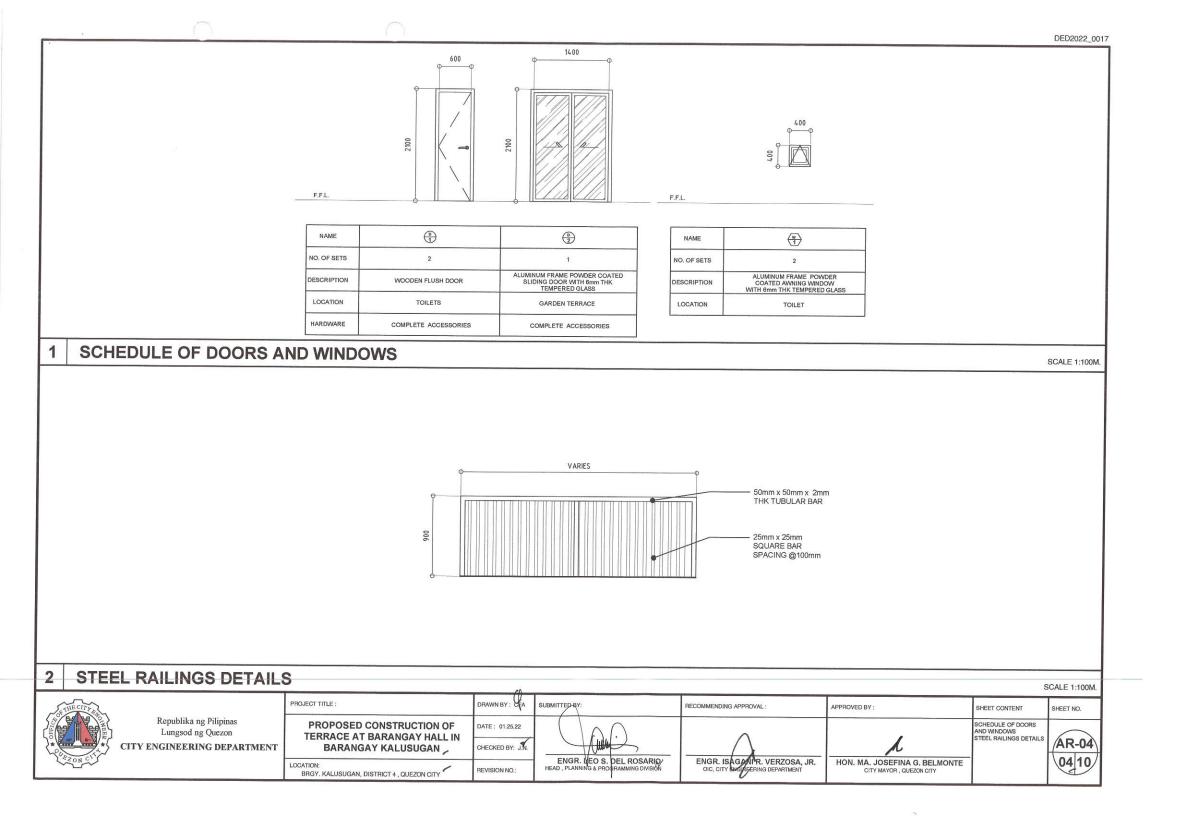
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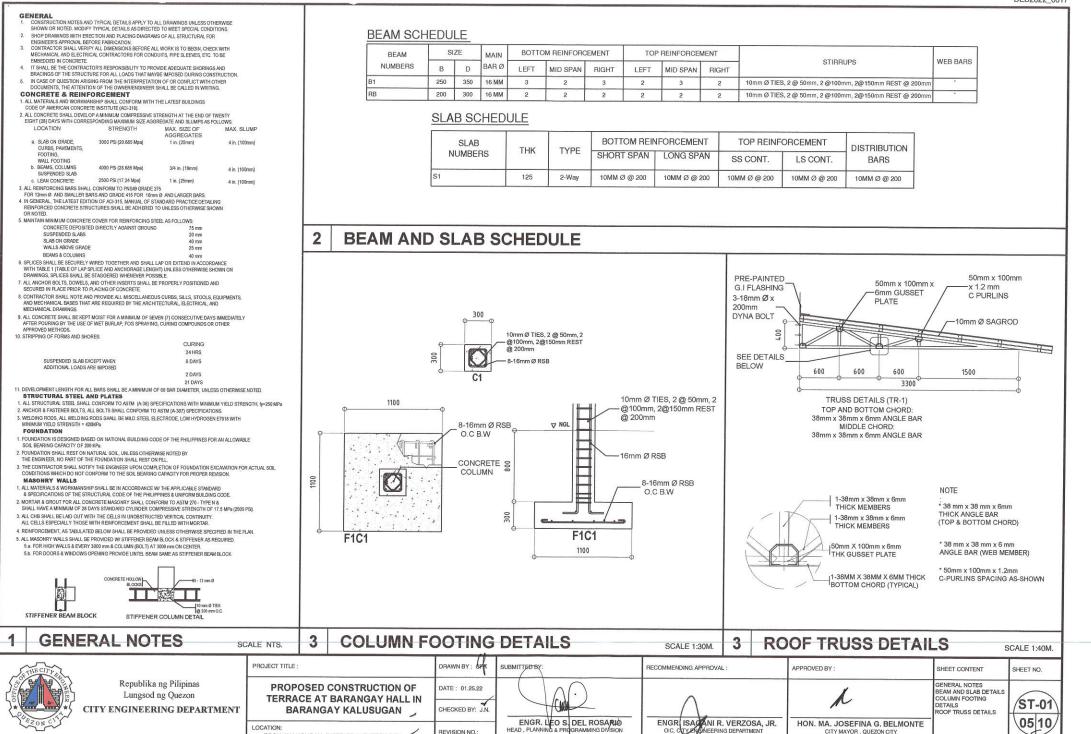
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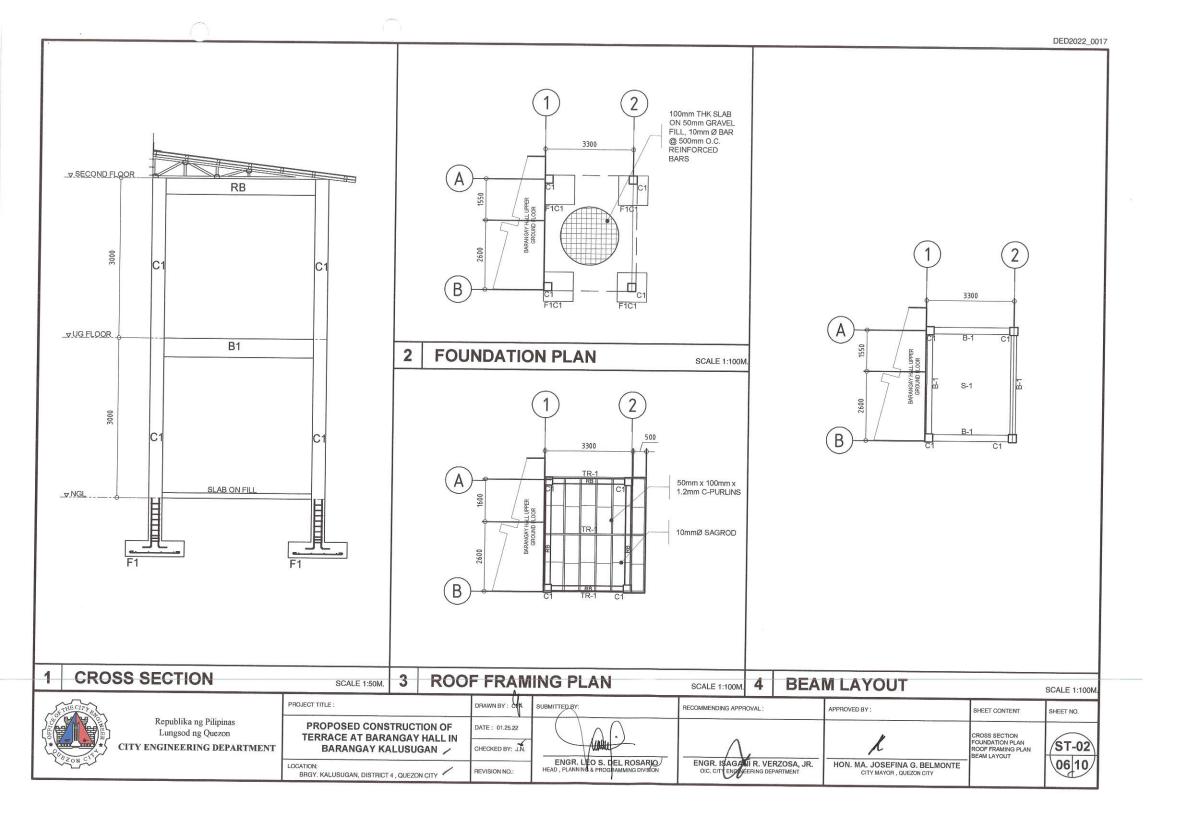


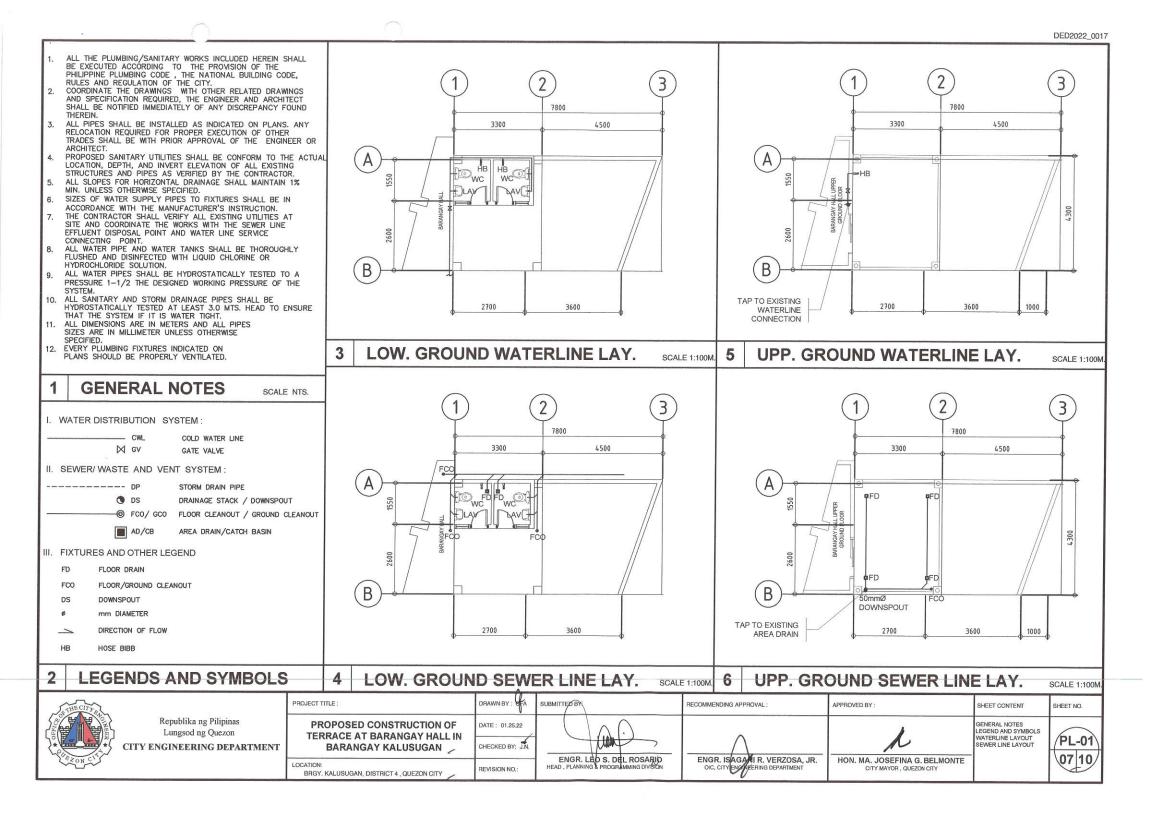






BRGY, KALUSUGAN, DISTRICT 4, QUEZON CITY





- ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE. UTILITY COMPANY 2. THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH THE OWNER THROUGH THE ENGINEERS, FINAL CIRCUIT LINE 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. CIRCUIT HOMERUN TAP TO 6. PROVIDE GROUND FAULT CURRENT INTERRUPTER CIRCUIT BREAKER FOR LOADS MARKED "GFCI" ON THE PLAN. 7. ALL METALLIC CONDUITS, CABINETS AND EQUIPMENT SHALL BE PROPERLY GROUNDED AND BONDED. FCB
  - 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.

ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE. THE LAWS AND

- 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:

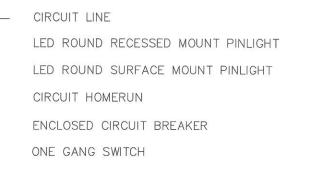
LINE 1 - RED	
LINE 2 - YELLOW	
NEUTRAL - WHITE	
GROUND - GREEN	

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

MAXIMUM WIDTH OF THE WIDEST SURFACE STEEL

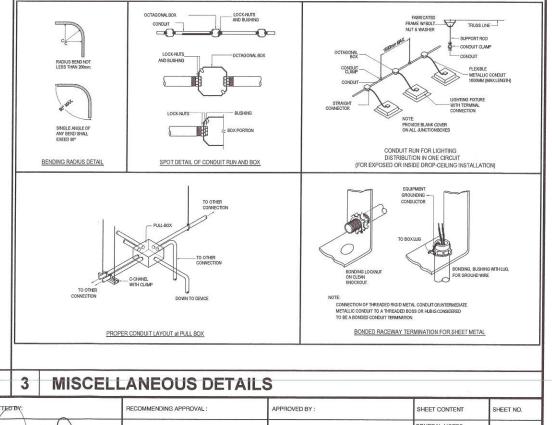
UP TO INCLUDING 152.40 MM	GA 16 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT
OVER 152.40 MM BUT NOT OVER 457.30	GA 14 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT
OVER 457.30 MM BUT NOT OVER 762 MM	GA 12 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT
OVER 762 MM	GA 10 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT

- 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 FINISHED
- 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.



#### 2 LEGENDS AND SYMBOLS

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**GENERAL NOTES** SHA PROJECT TITLE DRAWN BY : SUBMITTED GENERAL NOTES Republika ng Pilipinas PROPOSED CONSTRUCTION OF DATE: 01.25.22 LEGEND AND Lungsod ng Quezon TERRACE AT BARANGAY HALL IN SYMBOLS EL-01 MISCELLANEOUS DETAILS CITY ENGINEERING DEPARTMENT BARANGAY KALUSUGAN CHECKED BY: J.N 08 10 ENGR. ISACANI R. VERZOSA, JR. OIC, CITY PEGINEERING DEPARTMENT ENGR. LEO S. DEL ROSARIO HON. MA. JOSEFINA G. BELMONTE LOCATION: HEAD , PLANNING & PROGRAMMING DIVISION REVISION NO .: CITY MAYOR , QUEZON CITY BRGY. KALUSUGAN, DISTRICT 4, QUEZON CITY

