



# Republika ng Pilipinas

## 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.	Project No.	Project Name	Location	Amount	Duration Cal. Days	Office	Source Fund
<b><u>Buildings – Small B</u></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 Culiati High School	Culiati	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 Bagumbuhay	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 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





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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
<b><u>Roads – Small B</u></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**  
2<sup>nd</sup> 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:

- 1 Contain the Name of Project of the contract to be quoted in capital letters;
- 2 Bear the name and address of the Contractor in capital letters;
- 3 Be addressed to the Procuring Entity's BAC.

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***

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 DALE DIAMOND P. PERRAL**  
Chairman, BAC Infra and Consultancy



Republika ng Pilipinas  
Lungsod ng Quezon  
**CITY ENGINEERING DEPARTMENT**  
5th, 6th, 7th Floors, QC Civic Center Building "B"  
Telephone Nos. 8988-4242 Local 8538



PROJECT TITLE: PROPOSED REHABILITATION OF WATERLINE SYSTEM AT CULIAT HIGH SCHOOL ✓  
LOCATION: BARANGAY CULIAT, DISTRICT 6, QUEZON CITY

**LIST OF MANPOWER**

NO	MANPOWER	QTY
1	Project Engineer	1
2	Materials Engineer	1
3	Safety Officer	1
4	Foreman	1
5	Skilled Worker	6
6	Driver	1
7	Laborer/Helper	6

Prepared by:

LEE/EFRAIM P. OCHOA  
Planning & Programming Division

Checked by:

JOCELYN A. NAONG  
Planning & Programming Division



Republika ng Pilipinas  
Lungsod ng Quezon  
**CITY ENGINEERING DEPARTMENT**  
5th, 6th, 7th Floors, QC Civic Center Building "B"  
Telephone Nos. 8988-4242 Local 8538



**PROJECT TITLE :** PROPOSED REHABILITATION OF WATERLINE SYSTEM AT CULIAT HIGH SCHOOL  
**LOCATION :** BARANGAY CULIAT, DISTRICT 6, QUEZON CITY

**LIST OF EQUIPMENT**

NO	EQUIPMENT	QTY
1	Elf truck	1
2	Scaffolding	As Needed
3	Power Tools	As Needed
4	Minor Tools	As Needed
5	Cut Off Machine	As Needed

Prepared by:  
  
**LEE EFRAIN P. OCHOA**  
Planning & Programming Division

Checked by:  
  
**JOCELYN A. NAONG**  
Planning & Programming Division





**BILL OF QUANTITIES**  
(Building Construction/Rehabilitation Project)

**PROJECT TITLE :** PROPOSED REHABILITATION OF WATERLINE SYSTEM AT CULIAT HIGH SCHOOL  
**LOCATION :** BARANGAY CULIAT, DISTRICT 6, QUEZON CITY  
**PROJECT NO. :** 22 - 004SV  
**DURATION :** Sixty (60) Calendar Days

**SCOPE OF WORKS:**

1. General Requirements include billboard, construction safety and health, cleaning, hauling and disposal of construction materials and debris, temporary facilities, and utilities.
2. Site Works include removal works, layout and staking, site clearing preparation, earthworks.
3. Civil/Structural Works include concrete works and masonry works.
4. Architectural Works includes installation of countertop tiles, painting works, and installation of doors.
5. Sanitary/Plumbing Works include roughing-ins, installation of equipment, fixtures and accessories.
6. Utility and Ancillary Works include installation of booster pump, stainless water tank and pressure tank.
7. 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
<b>I</b>	<b>GENERAL REQUIREMENTS</b>				
	Billboard	1	unit	₱	₱
	Cleaning, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Temporary Electrical and Water Facilities	90	day		
				<b>Direct Cost I</b>	<b>₱</b>
<b>II</b>	<b>SITE WORKS</b>				
	Removal Works				
	Removal of Existing CHB Walls	3	sq.m.	₱	₱
	Removal of Existing Tiles	2	sq.m.		
	Removal of Existing Concrete Flooring	21	sq.m.		
	Removal of Existing Door and Door Jambs	6	set		
	Layout and Staking	51	sq.m.		
	Site Clearing and Preparation	51	sq.m.		
	Excavation for Drainage Pipes & Roadway	8	cu.m.		
	Backfill and Compaction	8	cu.m.		
	Cleaning and Clearing for Painting Preparation	61	sq.m.		
				Subtotal	₱
	Gravel Bedding	2	cu.m.	₱	₱
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
				<b>Materials Cost II</b>	<b>₱</b>

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Labor Cost II	
				Direct Cost II	₱



ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
<b>III</b>	<b>CIVIL WORKS / STRUCTURAL WORKS</b>				
	Masonry Works				
	150mm CHB Laying including Mortar, Reinforcement and Two-Face Plastering	4	sq.m.	₱	₱
	Plastering of Door and Window Opening	3	sq.m.		
	Restoration of Concrete (Floor)	22	sq.m.		
				<b>Materials Cost III</b>	₱
				<b>Labor Cost III</b>	
				<b>Direct Cost III</b>	₱
<b>IV</b>	<b>ARCHITECTURAL WORKS</b>				
	Countertop Finishes				
	600mm x 600mm Homogeneous Tiles	2	sq.m.	₱	₱
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	Doors				
	D1 - (1.0m x 1.8m) Panel Door	2	set	₱	₱
	D2 - (0.7m x 1.7m) Wooden Flush Door	4	set		
	Door Jambs				
	D1 - (1.0m x 1.8m) Panel Door	2	set		
	D2 - (0.7m x 1.7m) Wooden Flush Door	4	set		
	Hardware and Accessories				
	Door Hinge, Heavy Duty, Stainless	18	piece		
	Door Knob, Lever Type, Stainless	6	piece		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Painting Works				
	Elastomeric Paint Finish (Exterior Walls)	42	sq.m.	₱	₱
	Latex Paint Finish				
	Interior Walls	23	sq.m.		
	Doors	7	sq.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
				<b>Materials Cost IV</b>	₱
				<b>Labor Cost IV</b>	
				<b>Direct Cost IV</b>	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
<b>V</b>	<b>SANITARY / PLUMBING WORKS</b>				
	Sewer Line / Storm Drainage System				
	PVC Roughing-Ins				
	50mm Ø PVC Pipe with Hub	2	piece	₱	₱
	50mm Ø x 50mm Ø Wye	1	piece		
	50mm Ø PVC Cleanout	2	piece		
	50mm Ø PVC P-Trap	1	piece		
	Waterline System				
	PPR Roughing-Ins				
	20mm Ø PPR Pipe	6	piece		
	25mm Ø PPR Pipe	4	piece		
	40mm Ø PPR Pipe	27	piece		
	25mm Ø x 25mm Ø Equal Tee	2	piece		
	40mm Ø x 25mm Ø Unequal Tee	2	piece		
	25mm Ø x 20mm Ø Female Threaded Tee	10	piece		
	40mm Ø Male Adaptor	2	piece		
	25mm Ø End Cap	10	piece		
	20mm Ø x 20mm Ø PPR 90° Elbow	15	piece		
	25mm Ø x 25mm Ø PPR 90° Elbow	4	piece		
	40mm Ø x 40mm Ø PPR 90° Elbow	15	piece		
	40mm Ø Union Patente	2	piece		
	20mm Ø PPR Coupling	12	piece		
	25mm Ø PPR Coupling	6	piece		
	40mm Ø PPR Coupling	35	piece		
	25mm Ø x 20mm Ø PPR Reducer	2	piece		
	40mm Ø x 25mm Ø PPR Reducer	2	piece		
	Valves and Appurtenances				
	20mm Ø PPR Gate Valve	2	piece		
	40mm Ø PPR Gate Valve	3	piece		
	40mm Ø PPR Check Valve	2	piece		
	40mm Ø Water Meter	1	piece		
	Pipe Hangers and Supports				
	For Horizontal Pipes (2m Interval)	7	l.m.		
	Fixtures				
	Floor Drain, 100mm x 100mm, Stainless	10	piece		
	Grease Trap, 5GPM, Stainless	1	piece		
	Hose Bibb, Lever-type Heavy Duty Stainless Steel (Water Efficient)	5	piece		
	Accessories & Hardwares				
	Facial Mirror, 6mm thk	2	sq.m.		
	Soap Dispenser, Stainless	2	piece		
	Tissue Holder, Stainless	2	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	All-Around Sealant	1	can		
	Hacksaw Blade	2	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Teflon Tape	15	roll		
	Waste Cloth	1	kg		
				<b>Materials Cost V</b>	<b>₱</b>
				<b>Labor Cost V</b>	
				<b>Direct Cost V</b>	<b>₱</b>

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
VI	<b>UTILITIES AND ANCILLARY WORKS</b>				
	Equipments & Accessories				
	Pumps, Water Tanks & Pressure Tank				
	Booster Pump				
	Centrifugally end-section, cast-iron construction, hard plastic impeller, double mechanical seal with a capacity of 35.0 GPM against 110 FT. TDH, close coupled to a 2.0 HP, 220V, 3Ø, 60 Hz, high efficient motor complete with magnetic starter and other accessories for and or alternate operation and parallel operation needed.	1	set	₱	₱
	Stainless Water Tank				
	Stainless steel construction, 1/4" thick with a capacity of 3,000 Liters, complete with manhole ladder rung, saddle strap, inlet port, outlet port, vent, drain port and manhole cover. Vertically installed.	1	set		
	Pressure Tank				
	Stainless steel, Ga #14, 110 Gallons capacity, complete with inlet port, outlet port, drain port, pressure gauge, and pressure switch set at 20/40 psi cut-in/cut-off pressure & other accessories to complete system.	1	set		
				<b>Material Cost VI</b>	₱
				<b>Labor Cost VI</b>	
				<b>Direct Cost VI</b>	₱

### SUMMARY

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	TOTAL COST
I	GENERAL REQUIREMENTS	₱
II	SITE WORKS	
III	CIVIL WORKS / STRUCTURAL WORKS	
IV	ARCHITECTURAL WORKS	
V	SANITARY / PLUMBING WORKS	
VI	UTILITIES AND ANCILLARY WORKS	
<b>Note:</b> Strictly enforce health protocol relative to the latest applicable DPWH Memorandum.	<b>TOTAL DIRECT COST</b> Overhead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT	₱
	<b>TOTAL ESTIMATED COST</b>	₱



*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 WATERLINE SYSTEM  
AT CULIAT HIGH SCHOOL /**

**LOCATION : BARANGAY CULIAT, DISTRICT 6, 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.
- 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. 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.
- k. Necessary protections to the adjacent property shall be provided to avoid untoward incidents / accidents.
- l. 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.
- E. Excavation shall be shored and braced by members of suitable sizes where necessary to prevent danger to persons, injurious caving or erosions. Shoring bracing and sheathing shall be removed, as the excavations are backfilled, in a manner such as to prevent injurious caving. The contractor shall keep all excavations free from water while construction is in progress.

## **III. CIVIL / STRUCTURAL WORKS**

### **A. 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**

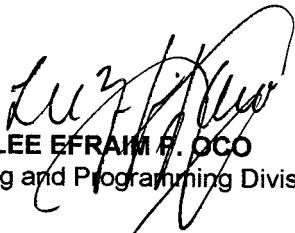
- a. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- b. Application shall be as per paint Manufacturer's specification and recommendation.
- c. Provide all drop cloth and other covering requisite for protection 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. 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.
- I. 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 re-tested 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.

  
**LEE EFRAIM H. OCHOA**  
Planning and Programming Division

  
**JOCELYN A. NAONG**  
Planning and Programming Division

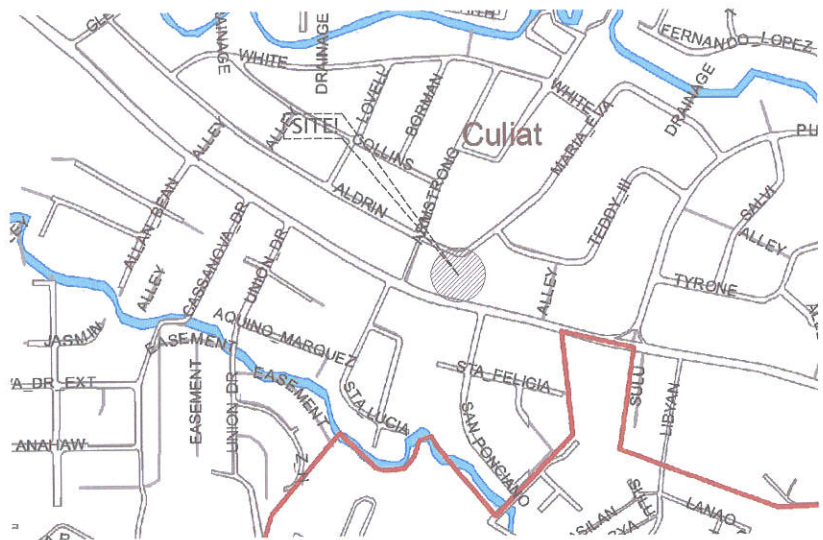
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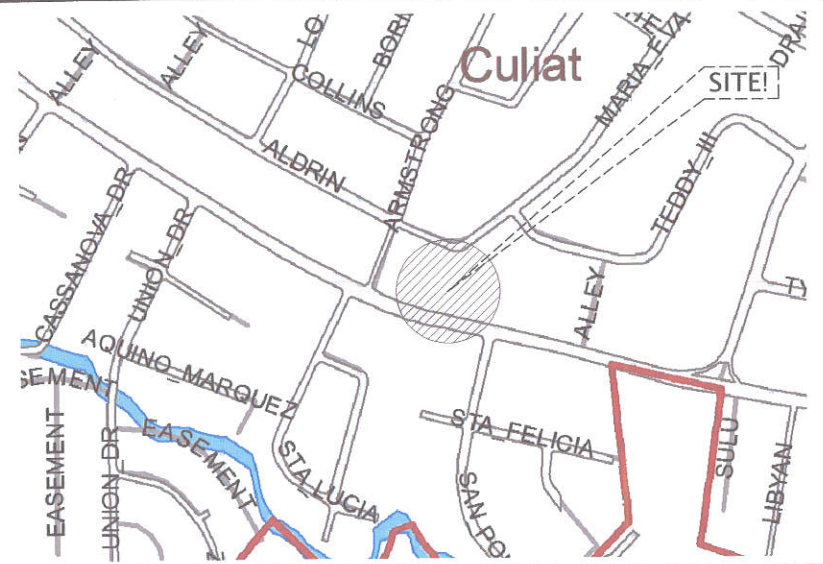
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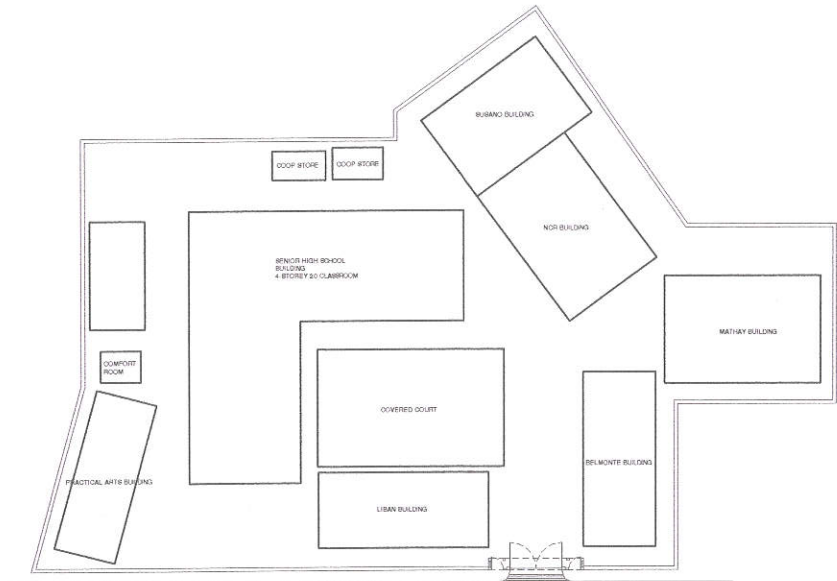


1 VICINITY MAP

NOT TO SCALE:



2 LOCATION MAP



3 SITE DEVELOPMENT PLAN

NOT TO SCALE:



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE :  
**PROPOSED REHABILITATION OF  
WATER SUPPLY SYSTEM AT  
CULIAT HIGH SCHOOL**  
BARANGAY CULIAT, DISTRICT 6, QUEZON CITY

DRAWN BY : mmf  
DATE : JULY 28, 2021  
CHECKED BY : *[Signature]*  
REVISION NO.:

SUBMITTED BY : *[Signature]*  
ENGR. LEO S. DEL ROSARIO  
HEAD, PLANNING & PROGRAMMING DIVISION

RECOMMENDING APPROVAL : *[Signature]*  
ENGR. ISAGANI R. VERZOSA, JR.  
CITY ENGINEERING DEPARTMENT

APPROVED BY : *[Signature]*  
HON. JOSEFINA G. BELMONTE  
CITY MAYOR

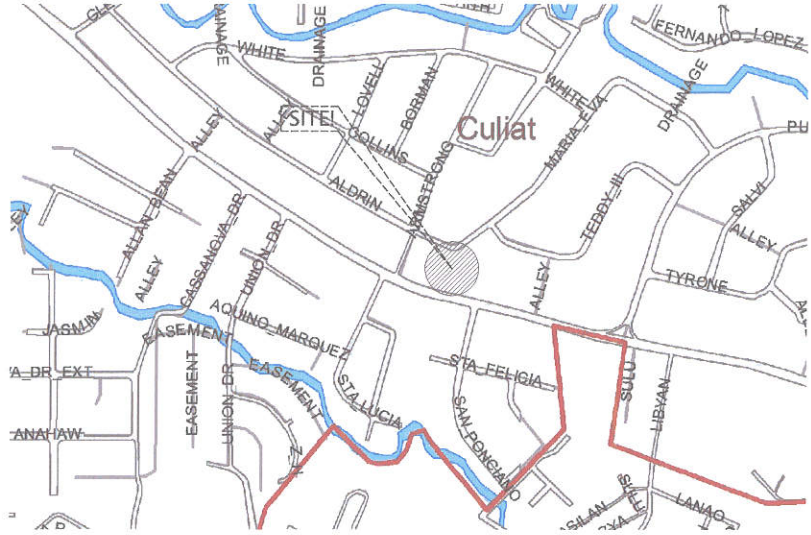
SHEET CONTENT  
SITE DEV'T. PLAN  
VICINITY MAP  
LOCATION MAP

SHEET NO.  
**AR-1**  
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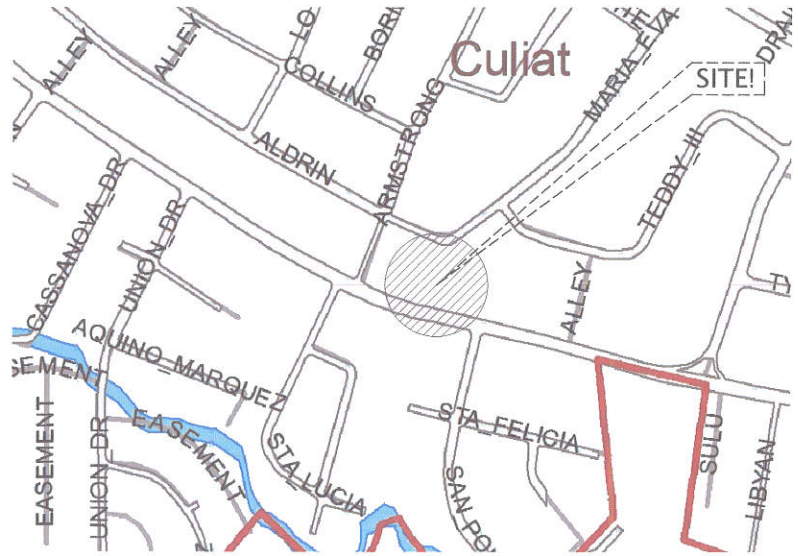
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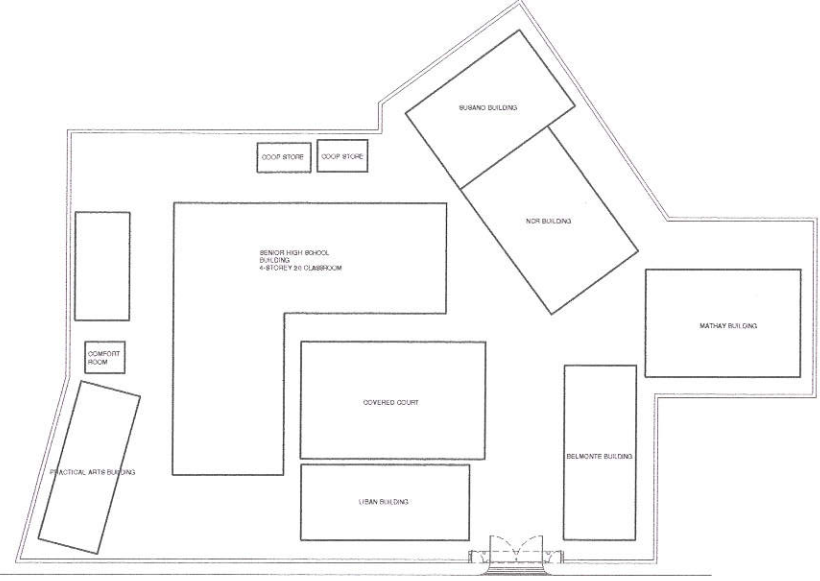


1 VICINITY MAP

NOT TO SCALE:



2 LOCATION MAP



3 SITE DEVELOPMENT PLAN

NOT TO SCALE:



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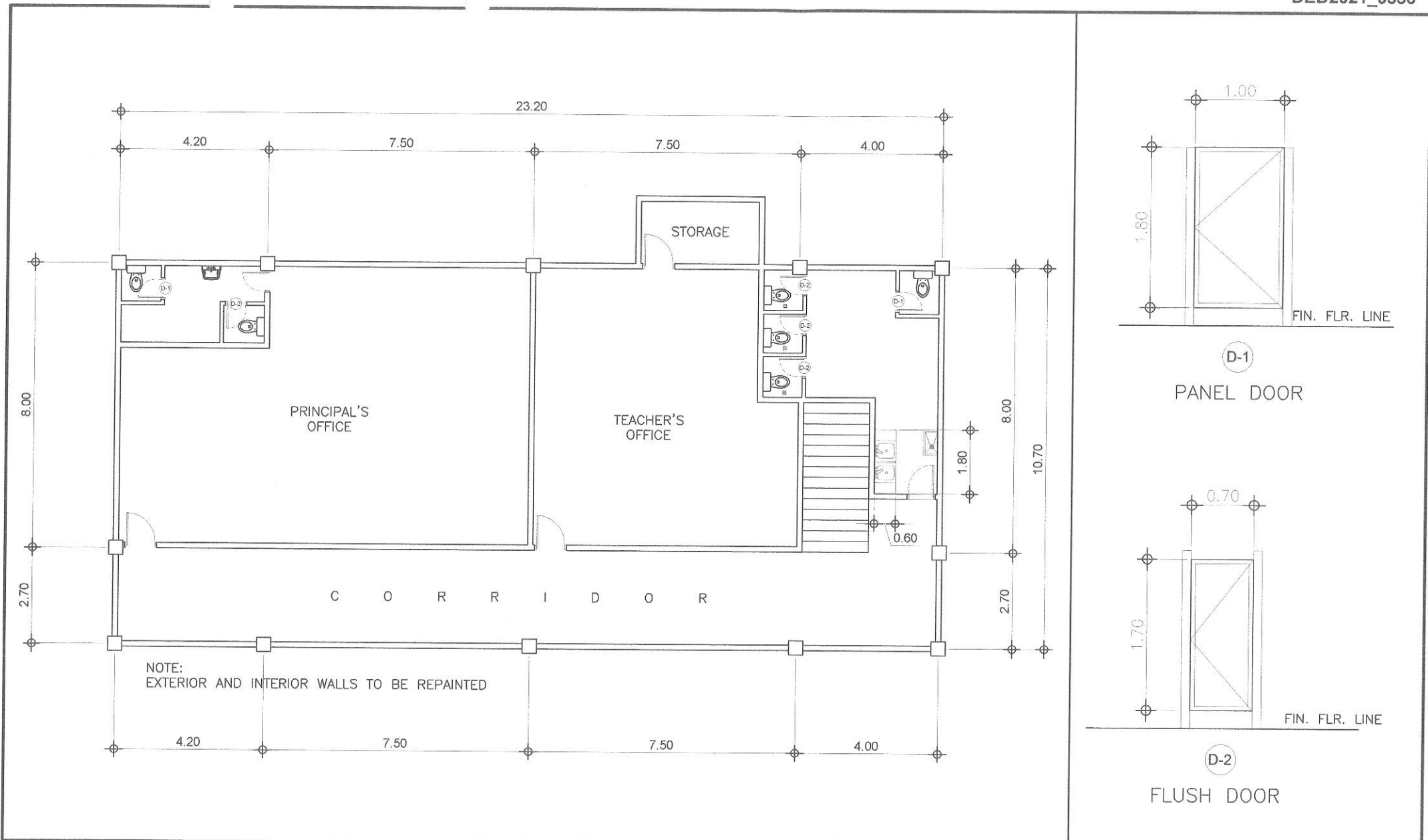
SUBMITTED BY :  
ENGR. LEO S. DEL ROSARIO  
HEAD, PLANNING & PROGRAMMING DIVISION





RECOMMENDING APPROVAL :  
ENGR. ISAGANI R. VERZOSA, JR.  
CITY ENGINEERING DEPARTMENT

APPROVED BY :  
HON. JOSEFINA G. BELMONTE  
CITY MAYOR

SHEET CONTENT  
SITE DEV'T. PLAN  
VICINITY MAP  
LOCATION MAP

SHEET NO.  
**AR-1**  
1/4



1 GROUND FLOOR PLAN ( S.B. BUILDING )				2 SCHEDULE OF DOORS			
SCALE 1:100m.		SCALE 1:40m.					
 <div>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</div>	PROJECT TITLE :		DRAWN BY : <i>mm</i>	SUBMITTED BY :	RECOMMENDING APPROVAL :	APPROVED BY :	SHEET CONTENT
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	BARANGAY CULIAT, DISTRICT 6, QUEZON CITY		CHECKED BY : <i>JFB</i>				
	REVISION NO.:						
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