



Republic of the Philippines
Department of Finance
Bureau of Customs
1099 Manila

REQUEST FOR QUOTATION

The Bureau of Customs (BOC), through its Administration Office (AO), will undertake a Small Value Procurement for **Repiping of Water and Sanitary Distribution System and Repair and Renovation of Accounting Division, Budget Division and Finance Management Division** in accordance with the Revised Implementing Rules and Regulations of Republic Act No. 9184. The details of the project are as follows:

Name of Project : **Repiping of Water and Sanitary Distribution System and Repair and Renovation of Accounting Division, Budget Division and Finance Management Division**

Location : **Accounting Division, Budget Division, Financial Management Office**

Approved Budget for the Contract: **Seven Hundred Ninety Seven Thousand Five Hundred Fifty Seven Pesos and Ten Centavos**

Specifications:

DESCRIPTION
SCOPE OF WORKS
1. Mobilization
2. Concrete and Masonry Works: a. Chipping and subsequent plastering of walls and flooring.
3. Carpentry Works a. Dismantling of all ceiling boards and frames. b. Installation of fiber cement board with complete standard metal furring support on all ceiling.
4. Painting Works a. Painting of all newly installed ceiling. b. Repainting of all interior and exterior walls. c. Waterproofing comfort rooms flooring.
5. Tiling Works a. Chipping off of existing floor and wall tiles located at all comfort rooms. b. Installation of floor and wall tiles at all comfort rooms.
6. Plumbing Works a. Dismantling and subsequent replace of existing plumbing fixtures, fittings and accessories. b. Dismantling and subsequent replace of existing water distribution and sanitary piping system. i. Supply and installation of new PPR pipes with complete standard

fittings and accessories.

- ii. Supply and installation of PVC sanitary pipes fittings and accessories as indicated on the plans.
- c. Supply and installation of new plumbing fixture and accessories.
- d. Any necessary fittings and accessories shall be provided to complete the installation.

7. Electrical Works

- a. Dismantling of existing lighting fixture, wiring devices, roughing-ins/raceways and accessories.
- b. Restoration of any unforeseen auxiliary and electrical wiring system of other circuit home run affected during demolition works.
- c. Supply and installation of complete electrical system as indicated on the plans.
- d. Supply and installation of wiring devices, switches and outlets, wall receptacles, plates and accessories.
- e. Restoration of other electrical system not shown on the drawings such as power outlets, switches, data and other control wirings.
- f. Complete testing and commissioning of all electrical lighting, power systems.

8. Demobilization

- a. Site clean-up
- b. Hauling of debris materials from project site to appropriate disposal area.
- c. Removal and hauling of tools and equipment from project site.

Interested suppliers are required to submit their valid and current Mayor's Permit, DTI/SEC Registration (for partnerships/corporations, General Information Sheet & Articles of Incorporation shall also be submitted), PHILGEPS Registration Certificate, BIR Certificate of Registration (Form 2303), Omnibus Sworn Statement, 2016 Income/Business Tax Return, and duly signed price quotation form (Annex "A").

Submission of quotation and eligibility documents is on or before July 18, 2019, 10:00 a.m., at General Services Division (GSD), Ground Floor, OCOM Building, Port Area, Manila.

Award of contract shall be made to the lowest quotation, which complies with the minimum description as stated above and other terms and conditions stated in the price quotation form.

Any interlineations, erasures or overwriting shall be valid only if they are signed or initialed by the bidder or his/her duly authorized representative/s.

The BOC reserves the right to accept or reject any or all quotations and to impose additional terms and conditions as it may deem proper.

For inquiry, you may contact us at Telefax no. 527-9757 or email us at bacsecretariat@customs.gov.ph.

Very truly yours,


ATTY. FRANCIS T. TOLIBAS
Acting Chief, General Services Division

Annex "A"

PRICE QUOTATION FORM

Date:

The Bids and Awards Committee
Bureau of Customs
Port Area, Manila

Sir/Madam:

After having carefully read and accepted the terms and conditions in the Request for Quotation, hereunder is our quotation/s for the items as follows:

DESCRIPTION	QUANTITY		UNIT PRICE	TOTAL PRICE
	Unit	UM		
A. Mobilization	1.00	lot		
B. Demolition/Chipping Works	1.00	lot		
C. Carpentry Works Ceiling				
4.5mm thk x 4'x88' flexboard	132.00	shts		
0.40 mm thk x 19 mm x 25mm x 5m furring channel	82.00	pcs.		
1.00mm thk x 12mm x 38mm x 5m carrying channel	71.00	pcs		
Wall angle (12' G.I)	46.00	pcs.		
Steel angle	158.00	pcs.		
w-clips	573.00	pcs.		
suspension cli & rod joiner	333.00	Set		
concrete nail	5.00	Kgs.		
blind rivets 1/8" x 1/2"	590.00	Pcs		
ficem screw 7x25	800.00	Pcs		
consumables	1.00	lot		
consumables	1.00	lot		
D. Masonry Works				
Wash sand	2.00	cu.m.		
Plastering Sand	28.00	bags		
Portland Cement	98.00	bags		
E. Tiling Works				
600mm x 600mm Ceramic Tiles	138.00	pcs.		
300mm x 300mm Ceramic floor tiles	238.00	pcs.		
	118.00	pcs.		

300mm X 200mm ceramic wall tiles	5.00	bags		
Tile adhesive, 25 kgs.	4.00	pcs		
Tile griut, 5kgs.	38.00	pcs		
Tile trim consumables	1	lot		
F. Plumbing Works				
PVC Pipe 1"	130.00	length		
PVC Pipe Coupling 1"	20.00	pcs.		
PV Pipe tee 1"	10.00	pcs.		
PVC Pipe Elbow 1"	10.00	pcs.		
Gate valve 1"	4.00	pcs.		
Gate valve 1/2"	6.00	pcs.		
Gate valve 3/4"	6.00	pcs.		
PVC Pipe 1/2	40.00	Length		
PVC Pipe 3/4 "	30.00	length		
PVC Pipe 1"	10.00	length		
Union Patente 1/2"	8.00	pcs.		
Union Patente 3/4"	8.00	pcs.		
Union Patente 1"	8.00	pcs.		
Coupling	12.00	pcs.		
PVC Adaptors 1/2	12.00	pcs.		
Pvc Adaptors 3/4"	14.00	pcs.		
PVC Adaptors 1"	6.00	pcs.		
Lavatory Faucet	4.00	pcs.		
Stainer	4.00	pcs.		
PVC Coupling 1/2"	14.00	pcs.		
PVC Coupling 3/4"	22.00	pcs.		
PVC Coupling 1"	15.00	pcs.		
PVC Sanitary pipes 4"	4.00	length		
PVC Elbow 90deg	2.00	pcs.		
PVC Elbow 45deg	5.00	pcs.		
PVC Wye	5.00	pcs.		
PV Solvent Cement	2.00	pcs.		
Water Closet W/ accessories	2.00	set		
Lavatory	1.00	set		
Face Mirror	1.00	pcs.		
Consumables	1	lot		
G. Painting Works				
Flat Latex	4	tins		
Semi-Gloss Latex	4	tins		
QDE	2	tins		
Flat Wall Enamel	2	tins		
T.T Color	1	lot		

T.C Color	1	lot		
Rugs	20	kls		
Paint an Roller Brush	1	lot		
Sand Paper	1	lot		
Paint Thinner	12	gals		
Lacquer Thinner	12	gals		
Mesh Tape	100	rolls		
Polituff	4	gals		
Wood Glue	4	gals		
Lacquer Primer	8	gals		
Lacquer Puty	8	gals		
consumables	1	lot		
H. Electrical Works				
Plastic Flexible 1/2"	4	rolls		
PVC Flexible 3/4"	4	rolls		
PVC Pipe 1/2"	24	pcs		
THHN Wire #12	4	rolls		
THHN Wire #14	4	rolls		
Utility box	20	pcs		
Octagon Box	30	pcs		
Lighting Fixture	24	pcs		
PVC Tape	20	rolls		
Red Oxide	20	rolls		
Wiring Devices	1	lot		
consumables	1	lot		

Total amount in words:

The above-quoted prices are inclusive of all costs and applicable taxes.

Very truly yours,

Name/ Signature of Representative

Name of Company



RA 8596 SEC. 33
 Quantity of Work, shall refer to the total number of units of work to be performed, including the work to be done in connection with the design, construction, installation, maintenance, repair, and renovation of the project, and shall include the work to be done in connection with the design, construction, installation, maintenance, repair, and renovation of the project, and shall include the work to be done in connection with the design, construction, installation, maintenance, repair, and renovation of the project.

CHECKED BY:
ATTY. FRANCIS T. LOPEZ, CE
 ACTING CHIEF, GENERAL SERVICE DIVISION

RECOMMENDING APPROVAL:
DONATO B. SAN JUAN
 DEPUTY COMMISSIONER, IAS

APPROVED BY:
REV. LEONARDO B. GUERRERO
 COMMISSIONER, BGC

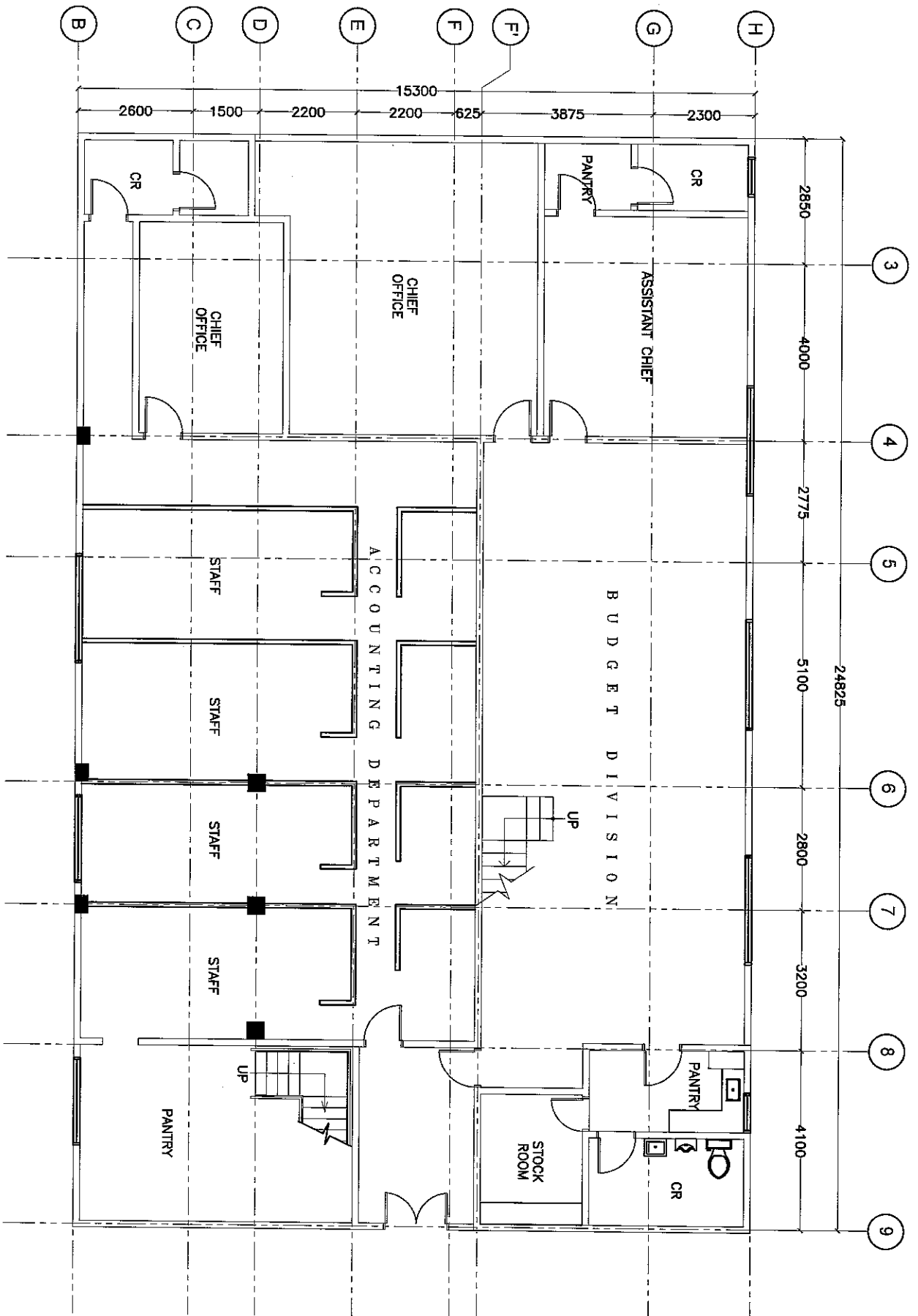
PROJECT TITLE:
 REPAIRING OF WATER AND SANITARY DISTRIBUTION SYSTEM AND REPAIR AND RENOVATION OF ACCOUNTING DIVISION, BUDGET DIVISION AND FINANCE MANAGEMENT OFFICE

OWNER:
BUREAU OF CUSTOMS

SHEET CONTENT:
 AS SHOWN

DRAWN BY:
GENEVA S. GARCIA
 ARCHITECT

SHEET NO.:
A-00
 DATE:
JUNE 7, 2019



BUREAU OF CUSTOMS
GENERAL SERVICES DIVISION
Building and Maintenance Section

Project Title: Repiping of Water and Sanitary Distribution System and Repair and Renovation of Accounting Division, Budget Division and Finance Management Office
Location: 2nd Floor OCOM Building

A. GENERAL CONDITIONS

DESCRIPTION OF THE PROJECT

Complete all works for the **Repiping of Water and Sanitary Distribution System and Repair and Renovation of Accounting Division, Budget Division and Finance Management Office**, including supply of all materials, equipment, and systems, as well as performance of all necessary labor and processes, in accordance with the plans, specifications, the Bidding Documents, the Terms of References and other related contract documents.

The contractor is not limited to the scope of works listed. They should verify all plans and actual conditions for the necessity of work. If the actual situation calls for demolition, removal and relocation he shall include such and all concomitant works to finish as part of the scope of work.

Any discrepancies found between the drawings and specifications and the site conditions or any errors or omission in the drawings or specification should be clarified with Architect/Consultant/Engineer.

Should the contractor fails to verify or clarify discrepancies, errors, conflict or omission in the drawings and specifications, it shall be deemed that the contractor have included in the preparation of his bid the necessary works, materials or items needed to satisfy the general scope of works.

B. SCOPE OF WORKS

1. Mobilization

2. Concrete and Masonry Works:

- a. Chipping and subsequent plastering of walls and flooring.

3. Carpentry Works

- a. Dismantling of all ceiling boards and frames.
- b. Installation of fiber cement board with complete standard metal furring support on all ceiling.

4. Painting Works

- a. Painting of all newly installed ceiling.
- b. Repainting of all interior and exterior walls.
- c. Waterproofing comfort rooms flooring.

5. Tiling Works

- a. Chipping off of existing floor and wall tiles located at all comfort rooms.
- b. Installation of floor and wall tiles at all comfort rooms.

6. Plumbing Works

- a. Dismantling and subsequent replace of existing plumbing fixtures, fittings and accessories.

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Building and Maintenance Section

- b. Dismantling and subsequent replace of existing water distribution and sanitary piping system.
 - i. Supply and installation of new PPR pipes with complete standard fittings and accessories.
 - ii. Supply and installation of PVC sanitary pipes fittings and accessories as indicated on the plans.
- c. Supply and installation of new plumbing fixture and accessories.
- d. Any necessary fittings and accessories shall be provided to complete the installation.

7. Electrical Works

- a. Dismantling of existing lighting fixture, wiring devices, roughing-ins/raceways and accessories.
- b. Restoration of any unforeseen auxiliary and electrical wiring system of other circuit home run affected during demolition works.
- c. Supply and installation of complete electrical system as indicated on the plans.
- d. Supply and installation of wiring devices, switches and outlets, wall receptacles, plates and accessories.
- e. Restoration of other electrical system not shown on the drawings such as power outlets, switches, data and other control wirings.
- f. Complete testing and commissioning of all electrical lighting, power systems.

8. Demobilization

- a. Site clean-up
- b. Hauling of debris materials from project site to appropriate disposal area.
- c. Removal and hauling of tools and equipment from project site.

C. SPECIFICATIONS

All drawings, small scale and detail drawings are intended to collaborate with the specifications and to form part thereof, where figures are given, they are to be followed in preference to measurement by scale. Anything shown in the drawings and not mentioned in the specifications or vice-versa or anything not expressly set forth in either but which is reasonably implied shall be furnished and installed as thought specifically shown in mentioned both.

1. Concrete and Masonry Works:

The scope of work under this section consists of furnishing of all materials, labor, tools, equipment, and performance of all operations relative to the fabrication, delivery to the site.

- a. Delivery, storage and handling of materials.
 - i. All materials shall be so delivered, stored and handled as to prevent the inclusion of foreign materials and the damage of the materials by water or breakage.
 - ii. Packed materials shall be so delivered and stored in the original packages until ready for use.
 - iii. Packages showing evidence of water or other damages shall be rejected.
- b. Water
 - i. Water to be use in mixing concrete shall be free from oil, alkali and organic matter on other deleterious substance and shall be reasonably clear and clean. The use of brackish water is not allowed.

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- c. Portland/Pozzoland Cement
 - i. Portland /Pozzolan cement shall be, of any standard commercial brand in standard 40kgs
- d. Fine Aggregates
 - i. Fine aggregates or sand used in composition of concrete shall be clean, strong and uncoated grains, free from injurious amount of dust, lumps or flaky particles and shall not contain more than 5% clay.
- e. Coarse Aggregates
 - i. Coarse aggregates or gravel shall be well graded as top size ranging from 6mm up to the size, which readily pass between all reinforcing bars and between reinforcement and forms.
- f. Metal Reinforcement
 - i. Reinforcing bars shall be standard commercial, deformed steel such as steel or other locally available equivalent.
 - ii. Steel bars shall be free from dust scales, splices in bars shall be made at the critical points of maximum stresses.
 - iii. Tie wire shall be standard commercial G.I. wire gauge no. 16.
- g. Concrete Hollow Blocks
 - i. Where the use of CHB is indicated, they shall be true to size without cracks or spurs or other defects which may impair their strength or durability. They shall have three cones.
 - ii. All concrete hollow blocks shall be a product of a reputable manufacturer.
- h. Execution
 - i. Construct form sufficiently tight to prevent leakage securely braced to prevent displacement and to support construction loads, forms shall not be removed until concrete is set.
- i. Concrete Mixer
 - i. Use of Concrete Mixer
 - 1. Class "A" concrete-(20Mpa concrete) for all columns, footings, beams, stiffener, slabs mixture (1:2:4)
 - 2. Class "B" concrete-(17.5Mpa concrete) for all wall footing, slabs and stairs on fill and CHB fillers mixtures (1:3:5)
 - 3. Class "A" mortars-1:3 by volume for all plastering works.

2. Carpentry Works

The scope of work under this section consists of furnishing of all materials, labor, tools, equipment, and performance of all operations relative to the fabrication, delivery to the site, and installation of all ceiling as shown on plans.

- a. Ceiling works
 - Ceiling works shall utilize fiber cement boards with complete standard metal furring supports. Manholes shall be provided.

3. Painting Works

Application of Plastered Paint Finish on all interior and exterior walls/partitions, ceiling and concrete fences within the scope of the interior and exterior renovation works unless otherwise indicated in the plans and specifications.

- a. Concrete surfaces
- b. Latex paint shall be used and preparation and application must be according to the manufacturer's instructions.
- c. Dry walls
- d. Latex paint shall be used and preparation and application must be according to the manufacturer's instructions.

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- e. Wooden and metal surfaces
- f. Enamel paints shall be used and preparation and application must be according to the manufacturer's instructions.
- g. Traffic paint
- h. Chlorinated rubber based, semi gloss traffic paint shall be used on parking lanes and Alkyd based, traffic paint shall be used on curbs and gutters. Preparation and application must be according to the manufacturer's instructions.
- i. Waterproofing and sealants
- j. Waterproofing at all roof slab, parapet, concrete canopies, and comfort rooms shall use rubber based waterproofing membrane and concrete primer and sealer for primer. All windows shall be applied with sealants.
- k. All paint materials shall meet the requirements of the specifications by the standardization committee on supplies and shall be delivered on the job in the original containing, with labels intact and seal unbroken.
- l. Tinting colors for all paints shall be colors in oil, ground and pure in linseed oil, and for the highest grade obtainable.
- m. Color pigments shall be used to produce the exact shades paint, which shall conform to the approved color scheme of the building.

4. Tiling Works

The scope of work under this section consists of furnishing of all materials, labor, tools, equipment, and performance of all operations relative to the fabrication, delivery to the site, and installation of all tiles on all comfort rooms as shown on the Plans.

- a. Comfort rooms shall only be retiled using 300mm x 300mm ceramic floor tiles and 300mm x 200mm ceramic wall tiles.
- b. The tiles and their accessories shall be free from imperfection that affects their quality, appearance and strength. The tile should be thoroughly soaked in water before installation.
- c. Wall to be finished with glazed tiles or elsewhere indicated as such in the drawings, shall be chipped off, cleaned thoroughly with wire brush, washed with clean water and painted up solid with 1:2 cement mortars.

5. Plumbing Works

- a. All works, comply with the requirement and provision of the national plumbing code of the Philippines.
- b. All fixtures shall be separately trapped. The traps shall be placed as near as possible to the fixtures.
- c. No fixtures shall be double trapped.
- d. Horizontal waste lines shall be secured by hook to the building frames or embedded in concrete whenever necessary.
- e. Horizontal waste line receiving the discharge from two or more fixtures shall be provided with vents connected to the station at least 1.20m from floor level.
- f. Connection of the water closet shall be made to soil pipe by means of charges and asbestos packing without the use of water, cement.
- g. Waste pipe potable water line pipes shall be extended to all the fixtures outlets and equipment from the gate valve near the riser.
- h. Provide and installed complete floor drain shown on plan, brass or nickel plated 4"x4" with waste line, P-trap and vents.

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- i. All pipes, fitting traps, fixture, appurtenances and devices of plumbing and drainage system shall be inspected and approved by the engineer to ensure compliance with all requirements of all codes and regulation referred in these specifications.
- j. Use 30X30cm non-skid tile for flooring and 20x30cm glazed wall tiles and partitions.
- k. Wall to be finished with glazed tiles or elsewhere indicated as such in the drawings, shall be chipped off, cleaned thoroughly with wire brush, washed with clean water and painted up solid with 1:2 cement mortar before applying wainscoting.
- l. The tiles and their accessories shall be free from imperfection that affects their quality, appearance and strength. The tile should be thoroughly soaked in water before installation. All tiles for wainscoting shall be set to correct grades and level true to lines, laid even and shall be set truly vertical in accordance with the details shown on the drawing the tiles shall be firmly laid on 1:2 cement paste.

6. Electrical Works

- a. Quality Assurance - All materials to be used shall be new and shall conform with the reference codes and standards. Use of materials shall be further be governed by other requirements, impose on other sections of these specifications. Materials shall be subject to test necessary their fitness if so requires.
- b. Alternate Materials - use of any material, not specified in these specifications may be allowed provided such alternate has been approved agency in accordance with generally accepted standards.
- c. Identification of Materials - Each length of pipe, fitting, box, fixture and device used in the electrical system shall have cast, stamped or indelibly marked on it the manufacturer's trademark or name, the weight, type and classes or product when so required by the standards mentioned above.
- d. Conduit Pipe
 - i. Conduit shall be hot-dip galvanized mild steel IMC pipe (standard IMC pipe with inside wall epoxy coating) or polyethylene coated (PE Coated) IMC in 3.0 M length. UL listed. Fittings shall be threaded type as required.
 - ii. Stainless Conduit Pipe/ PE Coated IMC Pipe — All exposed & embedded conduit pipes for power, control circuits, feeders & sub-feeders inside anodizing and/or corrosive areas to be installed by the electrical, mechanical, process and fit-out contractors for the refrigeration systems shall comply with this requirement. Likewise, all installation hardware and materials including clamps, hangers and bolts shall be of the same material as the required stainless conduit pipe or PE Coated IMC pipe.
 - iii. Metallic conduits for interior and exterior systems shall be standard weight, mild steel, hot-dip galvanized with an interior coating. PVC non-metallic embedded in the concrete slabs, concrete walls and partitions shall be approved of manufacturing standard.
 - iv. Schedule 40 PVC is acceptable in installations embedded in the concrete wall partitions or concrete slab, no installation of PVC in any exposed layout.

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- v. No conduit shall be used in any system smaller than 15mm dia. Electric trade size, nor shall have more than four 90-degree bends in any one run and when necessary, pull boxes gauge 16 shall be provided as directed. Location and sizes of pull boxes shall be cleared to the engineer prior to fabrication and installation.
 - vi. No wires shall be pulled into any conduit unless the conduit system is complete in all details. In the case of concealed work, no wires shall be pulled until all rough plastering or masonry has been completed and in the case of exposed work, until the conduit has been completed in every detail.
 - vii. The ends of all conduits shall be tightly plugged to include plaster, dust and moisture while the project is in the process of construction.
- e. Polyvinyl Chloride Conduit (PVC)
- i. Conduit shall be polyvinyl chloride, schedule 40, 3.0 M length. Fittings shall be slip-on type with threaded end adapter.
 - ii. Application – Power Service Entrance, primary and secondary feeder roughing-ins in duct-bank from transformer secondary terminal to low voltage switchgears and from low voltage switchgear to dry warehouse electrical room.
- f. Flexible Conduit
- i. Flexible conduit shall be hot-dip galvanized mild steel. This requirement covers installation on indoor electrical rooms and equipment rooms where possible damping or presence of liquids are ruled out.
 - ii. Liquid-tight flexible metallic conduit shall be UL listed to be coupled with liquid-tight die cast metal conduit connectors.
 - iii. Applications: Liquid-tight flexible conduit shall be used on all wet or damped areas and control gear areas of installations where liquids materials and dusts are prevalent.
- g. Wires and Cables
- i. All wires shall be copper, soft-drawn and annealed, shall be of 99% conductivity, shall be smooth and true and of the cylindrical form and shall be within +/-1% variation of the actual size called for.
 - ii. Wires and cables shall be plastic insulated for 600 volts working pressure, type THHN/THWN unless otherwise noted.
 - iii. All wires and cables shall be color coded, color-coding of wires are as follows:
 - (a) Line 1 – red
 - (b) Line 2 – yellow
 - (c) Line 3 – blue
 - iv. Minimum size of branch circuit wire shall be 3.5 mm² THW or THWN for power and lighting system with 2.0mm² THW minimum ground wire.

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- v. Wires 2.5 mm² and smaller shall be solid or stranded and 3.5 mm² and bigger shall be stranded.

h. Conduits & Cable Supports

- i. All conduits and suspended electrical gears and equipment shall be supported by using NEMA Rated and Approved channel support systems. All support system shall be properly sized and installed as per code requirements.
- ii. The channel support systems including its mounting and hanger accessories shall be hot-dipped galvanized finished.
- iii. Cable ladders and wire-way shall be NEMA rated and approved. It shall be hot-dipped galvanized finished. Hangers and support system for cable ladders & wire-way shall be approved brand conforming to NEMA rating & standards.
- iv. All conduits and cable support systems inside the building areas shall be of stainless materials including installation accessories including bolts & nuts.

i. Outlet Boxes and Covers

- i. Outlet boxes and covers shall be cast hot-dip galvanized steel. Thickness of the outlet boxes and covers shall be code gage and no less than gage #16. Boxes shall be deep type unless otherwise noted. This should be conformed and be used on all dry areas of installations.
- ii. Stainless steel outlet boxes and covers shall be required on all exposed or hazardous location and wet meas.

i. Junction and Pull Boxes

- i. Junction and pull boxes, per code gauge steel, shall be provided as indicated or as required for facilitating the pulling of wires and cables. Pull boxes in finished places shall be located and installed with the permission of and to the satisfaction of the architect and engineer. Sizes shall be subject to the approval of the engineer.
- ii. Pull boxes shall be fabricated with hinged type, demountable and lockable covers if necessary. Knockouts shall be maintained for straight pull installation along two opposite side of the box only.
- iii. Pull boxes for straight pulls shall have the length of the box not less than forty-eight times the outside diameter of the largest non-shielded conductor or cable.

k. Switches

- i. Switches shall be flush mounted and rated at 15 Amps, 250 volts, one way, three-way as required.

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- ii. Switches shall be quiet type, spring loaded and the cover plates shall be subject to the approval of the Architect and the Engineer.

I. Receptacles

- i. Receptacles shall be duplex, flush mounted and rated at 10 Amps., 250 volts, parallel or tandem slots with grounding slots as required. All 110 volts receptacle outlets shall be rated 15 Amps, 120 volts. 220 volts receptacle outlets shall be distinct from the 110 volts receptacle outlets in terms of configurations and shall be provided with markings.
- ii. Cover plates shall be subject to the approval of the Architect and the Engineer. **Stainless steel cover plate shall be required on all wet or damped area.**
- iii. All receptacle outlets with GFCI shall be rated for 250 volts application with a sensitivity setting of 300 milliamps.

m. Individual Breaker and Switches

- i. Provide individual circuit breakers and disconnect switches when indicated on the plans. Voltage rating shall be suitable in each case of service application.
- ii. Enclosure for indoor application shall be NEMA-1, and for outdoor application shall be NEMA 3R unless otherwise indicated on the plans.
- iii. Circuit breakers shall consist of quick-make, quick-break type entirely trip free operating mechanism contacts with arc interrupter and thermal magnetic trip used for each pole and enclosed in molded phenolic case. The thermal magnetic trip shall be provide time delay overload protection and instantaneous short circuit protection and shall operate internal common trip bar which will open all poles in case of overload or short circuit in any one pole. Circuit breaker shall be trip indicating with the trip position of breaker midway between "ON" and "OFF" positions.
- iv. Only one single brand of circuit breaker shall be used on the entire project requirements.
- v. Minimum interrupting capacities of each circuit breaker are 10kaic; application of circuit breakers shall be approved for the intended load per panel board schedule.
- vi. Safety and disconnect switches shall be non-fusible and of sizes indicated on the plans and shall be normal duty type, except as noted otherwise. Enclosure shall be NEMA-1 for indoor use and NEMA3R for outdoor use.


n. Circuit Breakers

- i. Circuit breaker shall be thermal magnetic type with quick make, quick break trip free operating mechanism with contacts.
- ii. Circuit breaker shall be molded case bolt-on type complying with NEMA and UL or IEC standards.
- iii. All main circuit breaker shall be bolt-on, molded case and industrial type circuit breaker located at center complying with NEMA and UL standards.
- iv. The thermal magnetic trip unit shall provide time-delayed for overload protection and instantaneous for short circuit in any on pole.

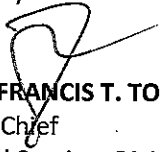
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- v. Multi-pole breaker shall operate on a common internal trip which will open all poles in case of overload or short circuit in any on pole.
- vi. Breaker minimum interrupting capacity shall be as specified in plans.
- vii. Circuit breakers with GFCI are to be rated for the voltage applied and with sensitivity setting of 300 milliamps.
- viii. All feeder circuit breakers of the main switchgear (LVSG) shall be Draw-out type unless otherwise specified or indicated, but should have shunt trip mechanism and accessories for future additional protection relays that should be field mountable.

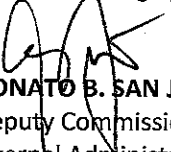
Prepared by:


GARY E. AGUILAR
Technical Staff
General Services Division

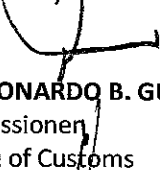
Noted by:


ATTY. FRANCIS T. TOLIBAS
Acting Chief
General Services Division

Recommending approval:


DONATO B. SAN JUAN
Deputy Commissioner
Internal Administration Group

Approved by:


REY LEONARDO B. GUERRERO
Commissioner
Bureau of Customs