



TECHNICAL SPECIFICATIONS

Project Title: CONSTRUCTION OF NEW PAGASA SYNOPTIC BUILDING,
POWERHOUSE AND OBSERVER'S QUARTER.

Project Location: Different Location

Synoptic Station Building, Observer's Quarters and Powerhouse

- I. Mobilization and Demobilization
- II. Permits and Other Fees
- III. Temporary Facilities for PAGASA Monitoring Engineer
- IV. Occupational Health and Safety Program.
 - Basic P.P.E. for workers at site good for 90 C.D.
- V. Construction Survey
 - Conduct necessary field survey and investigation which may include topographic survey and other surveys shall be carried out in accordance with the design guidelines, criteria and standards adopted by the agency.
- VI. Project Billboard/Signage
- VII. Earthworks
 - Clearing, grubbing cutting of trees etc.
 - Stripping
 - Foundation Excavation, Common, Rock
 - Backfilling
- VIII. Soil Poisoning
- IX. Concrete Works
 - All structural members, footings, beams, columns, slabs, stairs, porch, ramps and concrete perimeter path walk, path walk from main entrance to main gate, path walk for weather instruments.
 - Concrete shall be shall be 3000 psi.
 - Steel shall have $f_y = 414\text{MPa}$ (main bars), $f_y = 276\text{MPa}$ (ties)
 - Tie wire shall be #16 G.I.
 - Gravel shall be $\frac{3}{4}$ " in size and sand shall be free from unsuitable materials.
 - Water shall be clean and potable.
- X. Masonry Works, Mortar and Plastering Works

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- All CHB walls shall be 700psi. Exterior 150mm., Interior 100mm.
- Mortar and plaster shall be Class A mix.

XI. Roofing Works and Trusses

- The roof shall be long span pre-painted rib type and has gauge 24, thickness = 0.6mm.
- Ridge roll shall be gauge 24 (0.6mm.).
- Trusses shall be composed of angle bars, purlins, flat bars, round bars and turn buckles.
- Gutter shall be stainless to avoid corrosion. (for quarters and powerhouse)
- Flashing shall be galvanized gauge 24.
- Hipped roll shall be galvanized gauge 24.
- All steel works shall be primed with red oxide.

XII. Ceiling Works

- The ceiling shall be made of fiber cement board t = 6mm., on good lumber framing or metal furring.

XIII. Kitchen and Counter Cabinets

- Shall be made of aluminum for the counter cabinet and 3/4" thick marine plywood for the overhead cabinet.

XIV. Doors and Windows

Doors

Location	Specifications
Main Entrance Door	2-sets, Tanguile panel door (0.90 m x 2.10m) including door jamb <i>complete with lockset and other door accessories.</i>
Rear Exit Door	1-set, Tanguile panel door (0.80 m x 2.10m) including door jamb <i>complete with lockset and other door accessories.</i>
Radio Room Door	1-set, Tanguile panel door w/ 3 mm thick glass pane upper portion and lumber at lower portion (0.70m x 2.10 m) and yakal door jamb <i>complete with lockset and other door accessories</i>
Comfort Room Door	2-sets, plastic door (0.65m x 2.10m) <i>complete with lockset and other door accessories.</i>
Observer's Quarter Door	2-sets, Flush door (0.80 m x 2.10m) including door jamb <i>complete with</i>



	<i>lockset and other door accessories.</i>
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Windows

Location	Specifications
Steel Casement Window	2-sets, Steel casement window w/3mm thick clear glass cover w/12mm sq. bar protective grills (2.10m x 1.30m) <i>complete with lockset and other window accessories with steel grille square bar</i>
Steel Casement Window	4-sets, Steel casement window w/3mm thick clear glass cover w/12mm sq. bar protective grills (1.40m x 1.30m) <i>complete with lockset and other window accessories with steel grille square bar</i>
Steel Casement Window	2-sets, Steel casement window w/3mm thick clear glass cover w/12mm sq. bar protective grills (0.70m x 1.30m) <i>complete with lockset and other window accessories with steel grille square bar</i>
Steel Casement Window	1-set, Steel casement window w/3mm thick clear glass cover w/12mm sq. bar protective grills (0.70m x 0.50m) <i>complete with lockset and other window accessories with steel grille square bar</i>
Steel Casement Window (Quarters)	2-sets, Steel casement window w/3mm thick clear glass cover w/12mm sq. bar protective grills (0.80m x 1.10m) <i>complete with lockset and other window accessories with steel grille square bar</i>
Steel Casement Window (Quarters)	2-sets, Steel casement window w/3mm thick clear glass cover w/12mm sq. bar protective grills (0.80m x 0.70m) <i>complete with lockset and other window accessories with steel grille square bar</i>

XV. Electrical Works

- Panel Board.
- Wires, Electrical and Wiring devices.
- Lighting fixtures and lamps including Perimeter Fence Lighting.
- Pipes, Fittings, and boxes
- Concrete service entrance post and other miscellaneous materials.

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- Concrete shall be shall be 3000 psi.
- Steel shall have $f_y = 414\text{MPa}$ (main bars), $f_y = 276\text{MPa}$ (ties)
- Tie wire shall be #16 G.I.
- Gravel shall be $\frac{3}{4}$ " in size and sand shall be free from unsuitable materials.
- Water shall be clean and potable.

Note: Coordinate with the Electrical/Mechanical Unit of PAGASA

XVI. Sanitary and Plumbing works

- Waste, Downspout and vent line piping system.
 - All waste and vent pipes shall be uPVC Series 1000.
- Cold water line piping system.
 - Shall be uPVC Pipe Series 8 and shall conform with PNS 65:1993 Specification for uPVC Pipes for Potable Water Supply.
- Plumbing Fixtures.
 - All plumbing fixtures shall be made of vitreous china complete with fittings.
- Catch Basin, drain pipes and concrete canal.
 - Concrete shall be shall be 3000 psi.
 - Steel shall have $f_y = 414\text{MPa}$ (main bars), $f_y = 276\text{MPa}$ (ties)
 - Tie wire shall be #16 G.I.
 - Gravel shall be $\frac{3}{4}$ " in size and sand shall be free from unsuitable materials.
 - Water shall be clean and potable.
- Septic Tank.
 - The septic tank shall requirements shall conform with the requirements of the Revised National Plumbing Code of the Philippines and Sanitary Code of the Philippines.
- Bathroom and toilet accessories
 - Shower head and fitting shall be movable and shall be stainless steel of type.
 - Grab bars shall be made of stainless steel pipe and mounting flange.
 - Floor Drains shall be made of stainless steel beehive type, measuring 100mm. x 100mm. and provide with detachable stainless strainer, expanded metal lath type.

XVII. Painting works

- 3 coats for all painting works steel, wood and concrete.

XVIII. Tile Works and other floor finishes

- Floor Tiles (Office and Quarters) – shall be 600mm. x 600mm., vitrified floor tiles, porcelain or natural clay with cushioned edges.
- Floor Tiles (Office C.R. and Quarters C.R.) – shall be 600mm. x 600mm., (non-skid) vitrified floor tiles, porcelain or natural clay with cushioned edges.

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- Wall Tile (Office C.R. and Quarters C.R.) – shall be 600mm. x 600mm., vitrified floor tiles, porcelain or natural clay with cushioned edges.
- Kitchen Counter shall be made of granite slab.
- Powerhouse (Genset house) shall be cement floor finish

XIX. Waterproofing of Concrete Gutter and entrance canopy

- Cement-base waterproofing powder mix shall be cement-base, aggregate type, heavy duty, water-proof coating reinforced concrete surface and masonry exposed to water.
- Water shall be clean, clear and potable.

XX. Flagpole

- Pole
 - the pole shall be stainless steel 304 (frosted) with a minimum height of 20’.
 - The base plate shall be anchored using galvanized steel.
 - Anchor bolts will be secured in foundation utilizing 3000psi concrete.
- Flag
 - The flag specifications shall conform with R.A. No. 8491 *An Act Prescribing the code of the National Flag, Anthem, Motto, Coat-Of-Arms and other heraldic items and devices of the Philippines.*

XXI. Construction of Plant Box, Perimeter path walk, path walk from main entrance to main gate, path walk to weather instruments and PWD ramp.

- Plant box
 - shall be made of 6” thick CHB plastered smooth cement finish.
 - 3 coats painted with elastomeric paint.
 - Plants shall also be provided.
- Perimeter path walk, path walk from main entrance to main gate, path walk to weather instruments.
 - shall be smooth cement finish with a thickness of 100mm. from natural grade line.
 - Concrete shall be class b mix.
- PWD ramp
 - Ramp shall conform with the Batas Pambansa Bilang 344.
 - Railings for ramps shall be stainless steel (SS304-frosted).
 - Ramp shall consist of 20mm. thick groove to provide grip on the wheel chair of PWD.

XXII. Perimeter Fence

- Refer to conceptual drawing provided by PAGASA.

XXIII. Observer’s Quarters and Powerhouse

- Refer to conceptual drawing provided by PAGASA



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- Powerhouse
 - Main Door of Powerhouse shall be made of steel with steel louver.
 - For ventilation the Powerhouse shall be ventilated with steel louver.
 - Powerhouse roof shall be concrete slab, and shall be able to support a 1200 Liters of stainless steel tank.
 - The shall be SS304.

XXIV. Water Connection, and Water Supply System

- Water connection, processing fee and shall be bore by the winning bidder if the site has local water utilities provider.
- If local water utilities provider is not present at the location, deep well shall be consider or other water system that is applicable to the site.

XXV. Formworks fabrication and Installation

- Formworks and false works shall be durable and can withstand the loads of concrete.

Prepared by:

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