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हिन्दुस्तान प्रीफैब लिमिटेड

HINDUSTAN PREFAB LIMITED

(भारत सरकार का संस्थान)(A Govt. of India Enterprise)

जंगपुरा, नई दिल्ली JANGPURA, NEW DELHI - 110014 (INDIA)

"Construction of building for College of Nursing & Physiotherapy using Prefab Technology in the Campus of University of Health Sciences, Karnal at Village Kutail (Haryana)."

SCOPE OF WORK

Ph- (011) 43149800-899, Fax: (011) 26340365 E-mail:- hindprefab@gmail.com Website:www.hindprefab.in

DESIGN DATA & SPECIFICATIONS FOR PRE ENGINEERING BUILDING STRUCTURE & LGSF PANEL WORKS

Building using prefab technology for College of Nursing & College of Physiotherapy -

It is proposed to construct Building using Prefab / Pre-engineered Structures Technology for College of Nursing & College of Physiotherapy – (G+1 storied) in the campus of 'University of Health Sciences, Karnal' at village Kutail, Haryana.

The brief design data & specifications provided are as below -

DESIGN DATA -

(a) The Building shall be G+1 Structure
(b) The Building has provision of half wing for college of Physiotherapy and half wing for college for Nursing.
(c) Total Built up Area of the Building 9330 sqm (Approx).
(d) Plinth level of Building shall be + 600 mm
(e) Floor to floor height shall be 4.20 mtrs for Ground Floor and for First Floor the height from finished floor level to bottom of roof slab structure will be 4.20mtrs. The roof shall be flat roof as per the design.
(f) Type of Structure: PRE-ENGINEERED BUILDING (PEB) 'G+1' structure above plinth level. The tenderer should consider total quantity of structural steel and Light Gauge Steel for designing of structure as minimum 70 to 75 Kg per sqm of built up area.
(g) Provision of 1 no. lift for 13 passenger capacity proposed
(h) 2400 mm wide ramp proposed from ground to first floor
(i) 4 nos. Staircases have been provided from Ground to Terrace level.
(j) Provision made at GF -
-Main entrance lobby and Reception
-Multipurpose Hall for 200 pax. capacity (1 nos.)
-Faculty room 9+9 (18 nos.) + HOD room (2 nos.) + Professor room (2 nos)
-Lecture Hall for 40 nos. student capacity 2+2 (4 nos.)
-Laboratory (14 nos)
-Deptt. Library, Canteen, Conference Room , Office , Staff room , toilets
(k) Provision made at FF -
- Examination Hall for 100 student capacity
- Lecture Hall for 40 nos. student capacity 2+2 (4 nos.)
- Faculty Room 9+9 (18 nos.) + HOD Room (2 nos.) + Professor room (2 nos)
- Lecture Hall for 18 nos. student capacity 2+2 (4 nos.)
- Seminar hall (2 nos)
- Library (230 sqm.)
- Laboratory (6 nos)
- Principal,Vice Principal, HOD, Professor ,Staff, Common Room, toilets
(l) Other provisions at Terrace-
- Space for keeping OH Domestic and Fire water Tank

- Space for keeping VRV Outdoor unit/solar panel

(m) Finishing Work-

AREA	FINISH
1 - Flooring	
Main Entrance/Reception/lift/ lobby/Staircase	Mirror polished granite
Toilet / Wash Room	Ceramic Tiles Flooring- (300mmx300mm)
Offices /Faculty Room /Lecture Hall /Corridor /Library / Seminar Hall /Examination Hall	Vitrified floor tile (600x600) (800x800) (1000x1000)mm
Laboratoty	acid and alkali resistant tile
Multi purpose hall	Carpet flooring
Multi purpose hall stage	Wooden flooring
Store / Ramp / Pantry / Electrical Room / Shaft	Kota stone flooring
Under Porch	Paver blocks
2 - Dado	
Toilets	Ceramic wall tiles 2400 mm high- (600mmx300mm/450mm)
Labs (wherever required)	1.2 m. high acid and alkali resistant tile
3 - Painting	
wall (internal & external)	Acrylic emulsion paint and external textured painting.
MS railing	Epoxy paint
Steel truss	Synthetic enamel paint
4 – False Ceiling	
all area	80 % calcium silicate (tile & board)
	20 % Metal Ceiling in toilets
5 - Doors	
Door frame and shutter	1) Aluminium doors frame with flush door shutter
	2) Aluminium doors frame with partical board panelling and glass panel
6 - Windows/Ventilator/Structure Glazing	
Window / ventilator frame	Aluminium windows frame with aluminium shutter with fix and openable glass panel (all area)
7 - Railing	
Mild steel	Ramp
SS railing	Staircase / main entry ramp
8 - External / Internal Wall And Partition	
LGSF with the combination of cement fibre board and gypsum board	All area
Clay bricks	Toilet area only

SPECIFICATIONS OF PREFAB / PRE-ENGINEERED BUILDING

MAIN FRAME WORK OF STRUCTURE

1. The main frame work shall be made up of PRE-ENGINEERED STEEL STRUCTRUE to be designed conforming to all relevant IS codes

FRAME WORK OF WALLs

1. The Blocks should be made as PRE-ENGINEERED STRUCTRUE made up of factory finished custom designed cold form Light Gauge Steel Framed super structure comprising of steel wall panel, trusses, purlins etc manufactured out of minimum 0.75 mm thick steel sheet as per design requirements conforming to all relevant IS: 875- 1987, ISO 800-1984 and IS: 801- 1975.

2. The members shall have a Type II coating in accordance with ASTM B633(13) or equivalent corrosion protection of gauge 10 & 12, TPI 16 & 8 of length 20mm as per manufacture specifications.

EXTERNAL AND INTERNAL WALLs

1. External wall shall be external wall system on Light gauge steel frame work with . Outer face having 6mm thick heavy duty fiber cement board fixed on 9mm thick heavy duty fiber cement board confirming to IS 14862:2000, category IV type A (High pressure steam cured) as per standard sizes fixed with self-drilling / taping screws / fasteners @ 60cm c/c of approved make.

2. Internal wall panels on Light gauge steel frame work with 12.5mm thick gypsum plaster board conforming IS 2095:2011 fixed on 8mm thick fiber cement board conforming to IS 14862:2000 of category III type B of approved make.

3. Exterior face panels breathable vapour barrier underneath the cement fiber board as per National Building Code 2009.

4. Moisture resistant/fire resistant 6 mm thick Heavy duty fiber cement board (High pressure steam cured) conforming to IS 14862:2000 of category III type B as per standard sizes fixed with self-drilling / taping screws.

5. Thermal insulation with Resin bonded rock wool conforming to IS: 8183, density 48 kg/m3, 50 mm thick, wrapped in 200 G virgin Polythene bags placed over existing false ceilng andheld in position by criss- crossing Gl wire.

ROOFING

1. Corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint.