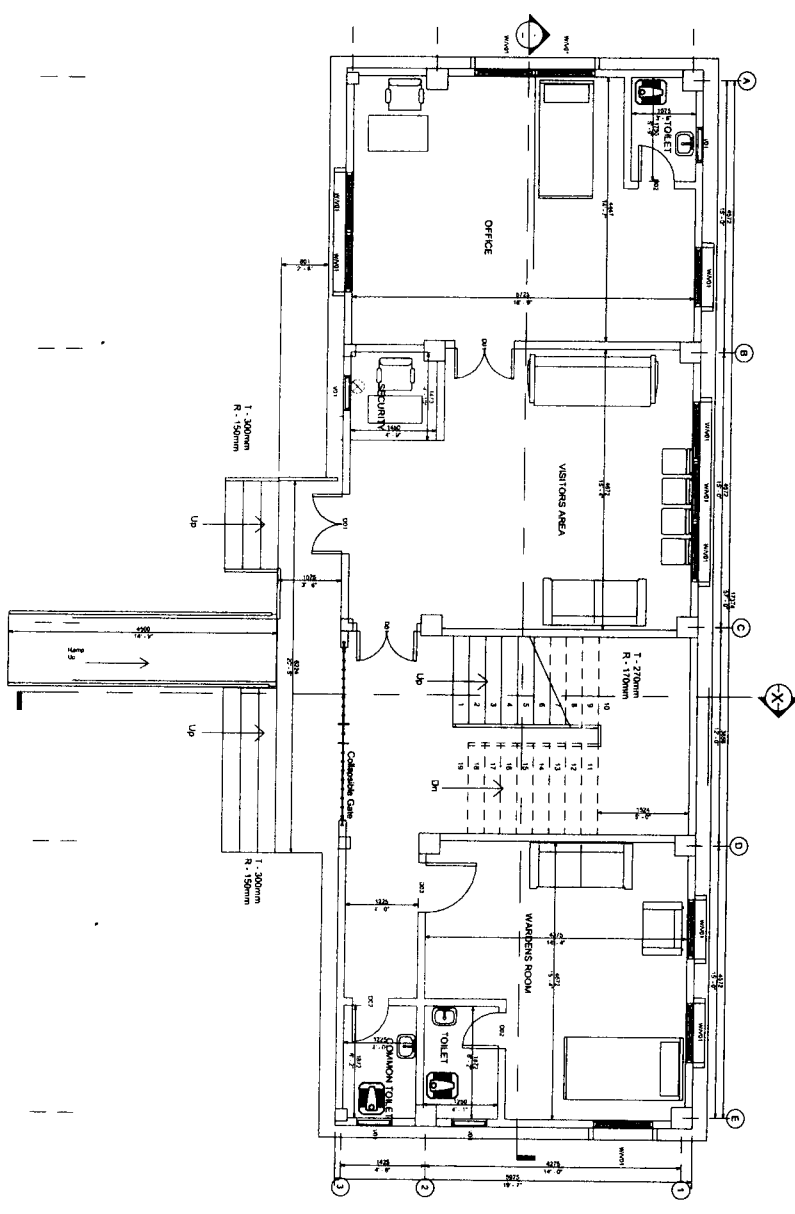


CONSTRUCTION OF
CHANMARI GIRLS HOSTEL (50 Capacity)
AT LAWNGTLAI DISTRICT



Up

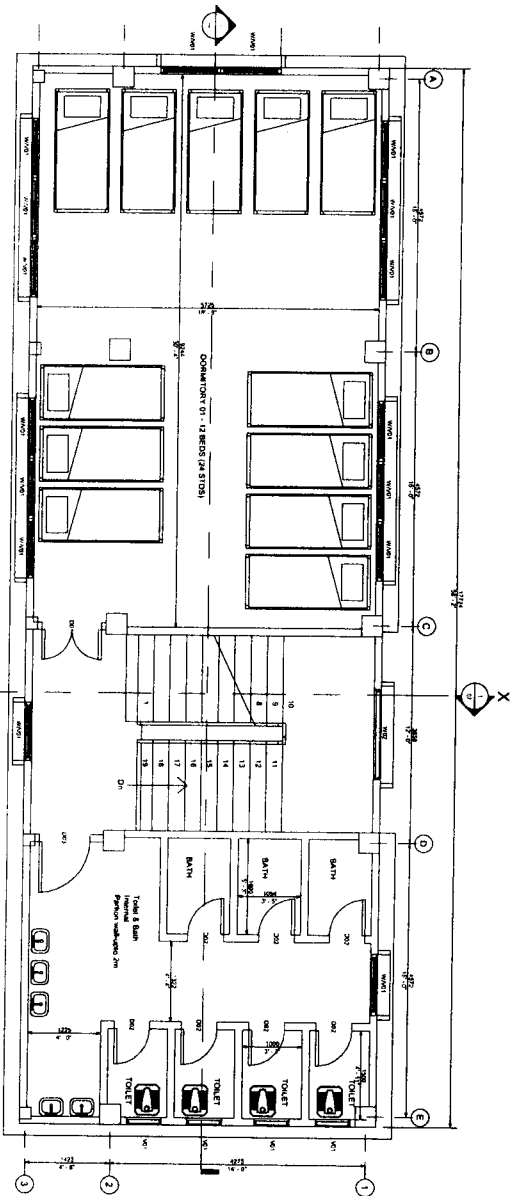
Project No: 1000X2000mm
 Date: 10/10/2023
 Scale: 1:75

Project:
 CONSTRUCTION OF CHANMARI GIRLS HOSTEL (50 CAPACITY) -
 LAWNGTLAI DISTRICT

W/W01	-	1000X1828.8mm
W02	-	1524X1200mm
V01	-	600X500mm
D01	-	1000X2000mm
D02	-	600X2000mm
D03	-	1000X2000mm

Sheet name: GROUND FLOOR
 Sheet No: 01
 Scale: 1 : 75

ENGINEERING CELL
 STATE PROJECT OFFICE
 SAMAGRA SHIKSHA
 MIZORAM



Project:
**CONSTRUCTION OF CHANMARI GIRLS HOSTEL (50 CAPACITY) -
 LAWNGTLAI DISTRICT**

W/VV01 -	1000X1828.8mm
W02 -	1524X1200mm
V01 -	600X500mm
D01 -	1000X2000mm
D02 -	600X2000mm
D03 -	1000X2000mm

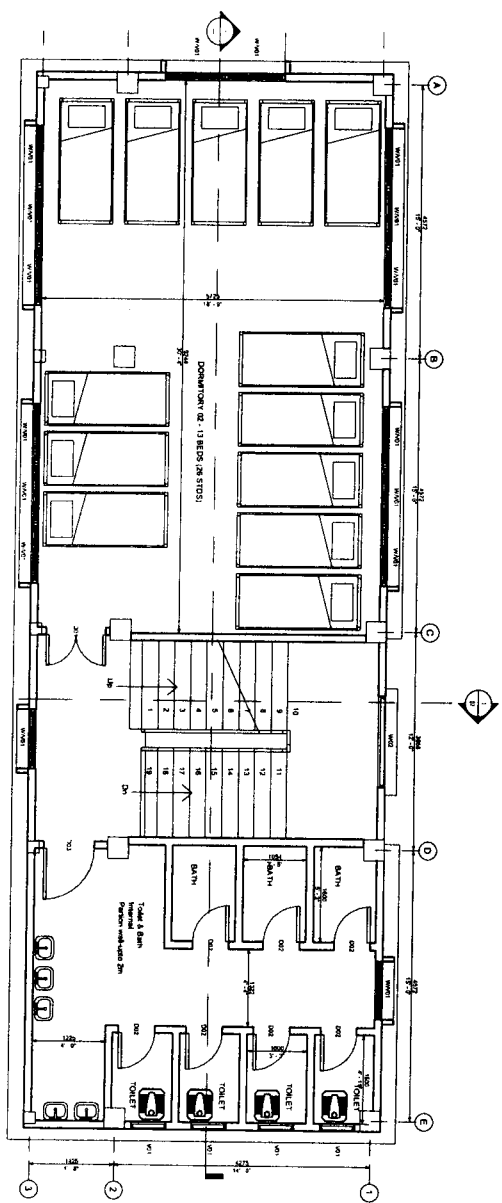
Sheet name: **SECOND FLOOR**

Sheet No: **03**

Scale: **1 : 75**

**ENGINEERING CELL
 STATE PROJECT OFFICE
 SAMAGRA SHIKSHA
 MIZORAM**

Prepared by: *[Signature]*
 Checked by: *[Signature]*
 Date: 2024



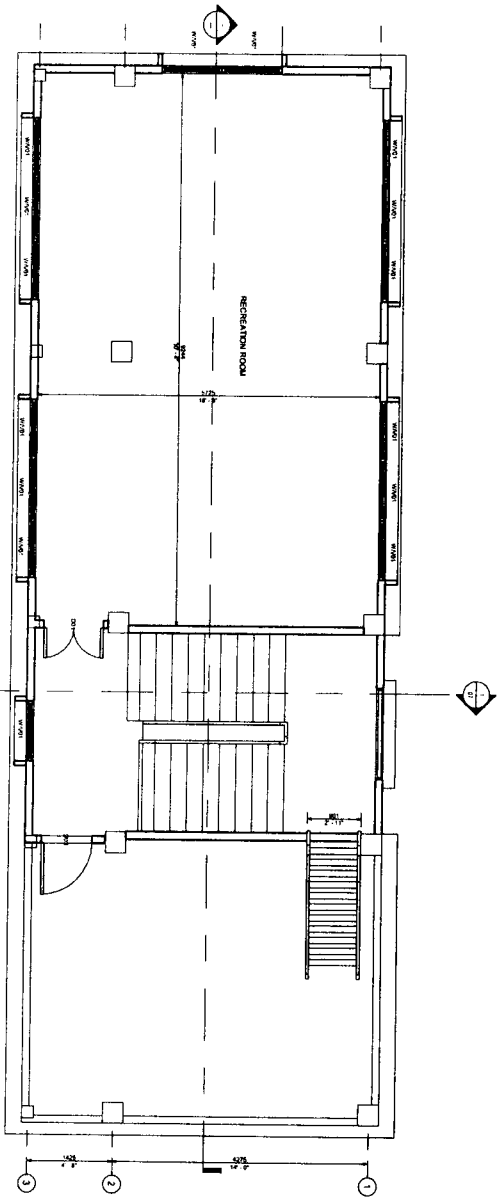
Project Officer
 State Project Office
 Samagura Shiksha
 Mizoram

Project:
**CONSTRUCTION OF CHANMARI GIRLS HOSTEL (50 CAPACITY) -
 LAWNGTLAI DISTRICT**

W/V01 -	1000X1828.8mm
W02 -	1524X1200mm
V01 -	600X500mm
D01 -	1000X2000mm
D02 -	600X2000mm
D03 -	1000X2000mm

Sheet name: **THIRD FLOOR**
 Sheet No: **04**
 Scale: **1 : 75**

**ENGINEERING CELL
 STATE PROJECT OFFICE
 SAMAGURA SHIKSHA
 MIZORAM**



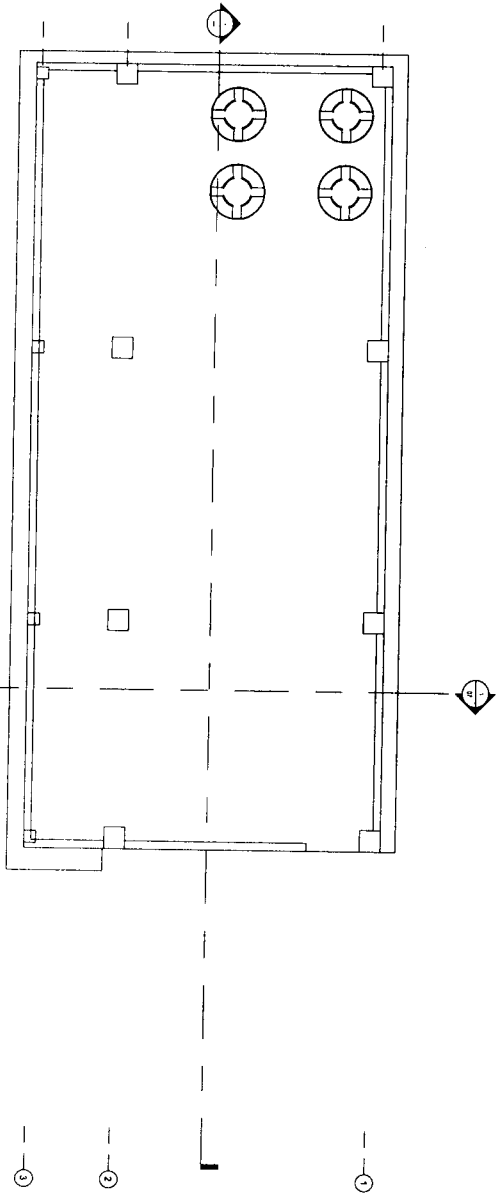
Program Director
 Chief Engineer
 Samagra Mizoram

Project:
 CONSTRUCTION OF CHANNARI GIRLS HOSTEL (50 CAPACITY) -
 LAWNGTLAI DISTRICT

W/V/01 -	1000X1828.8mm
W02 -	1524X1200mm
V01 -	600X500mm
D01 -	1000X2000mm
D02 -	600X2000mm
D03 -	1000X2000mm

Sheet name: FOURTH FLOOR
 Sheet No: 05
 Scale: 1 : 75

ENGINEERING CELL,
 STATE PROJECT OFFICE
 SAMAGRA SHIKSHA
 MIZORAM



Prepared by: *[Signature]*
 Checked by: *[Signature]*
 Date: 10/11/2017
 Samagra Shiksha, Mizoram

Project:

CONSTRUCTION OF CHANMARI GIRLS HOSTEL (50 CAPACITY) -
LAWNGTLAI DISTRICT

Sheet name: ROOF LEVEL

Sheet No:

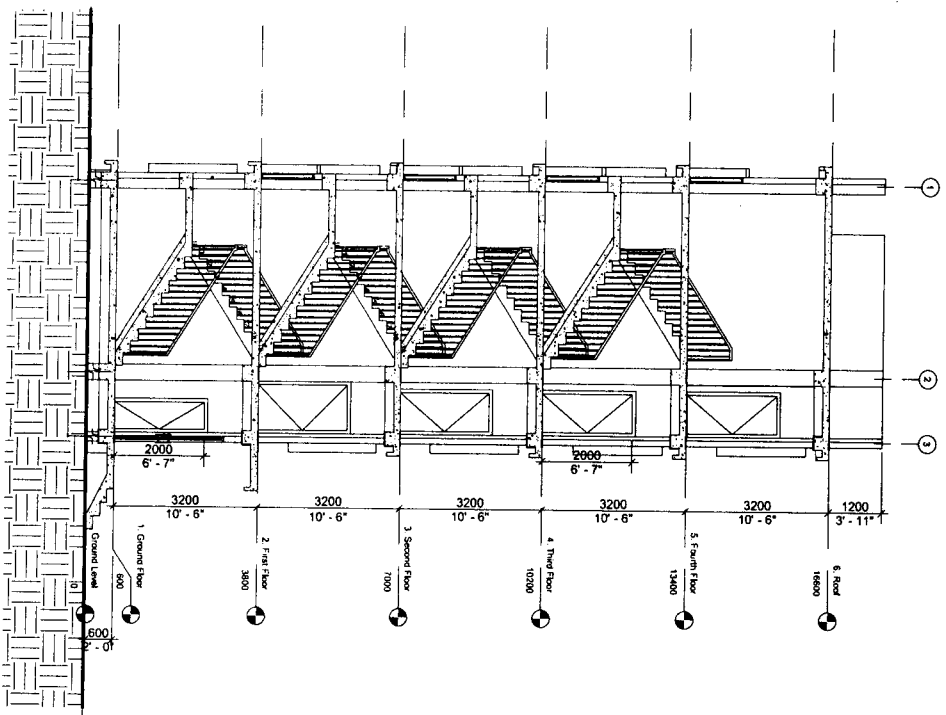
06

Scale:

1 : 75

ENGINEERING CELL
 STATE PROJECT OFFICE
 SAMAGRA SHIKSHA
 MIZORAM

Project:
 CONSTRUCTION OF CHANMARI GIRLS HOSTEL (50 CAPACITY) -
 LAWNGTLAI DISTRICT



Samagra Shiksha, Mizoram
 The Chief Engineer
 Mizoram
 (Signature)

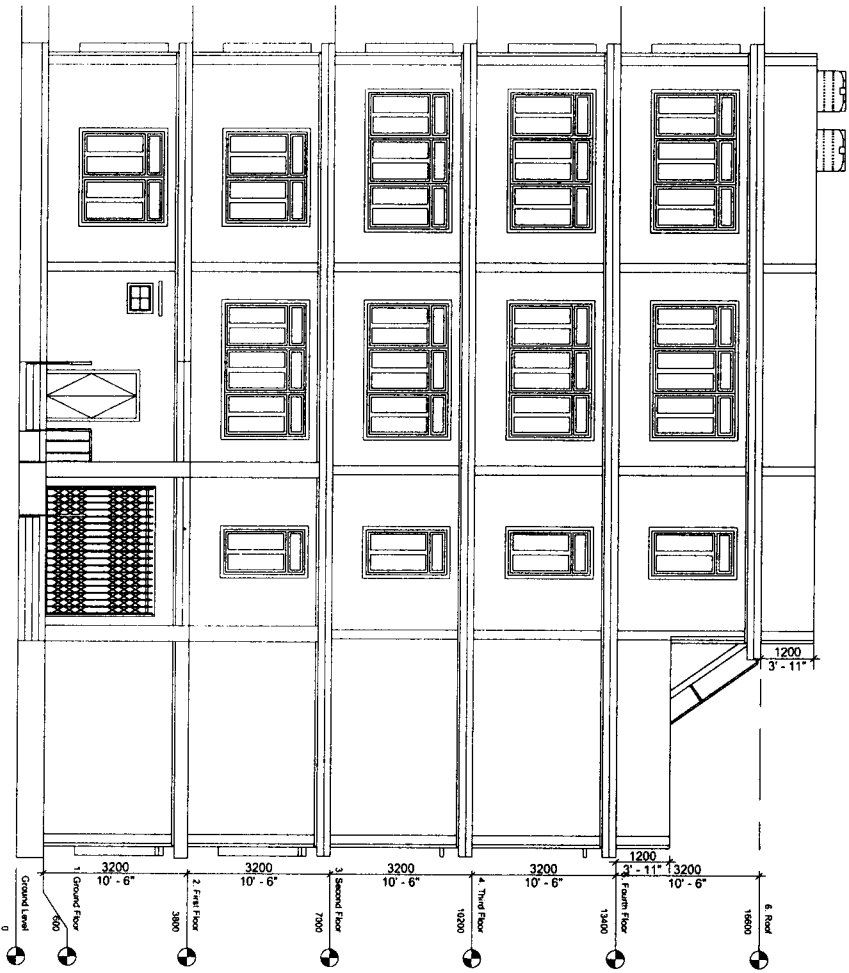
Sheet name: SECTION X

Sheet No: 07

Scale: 1 : 100

ENGINEERING CELL
 STATE PROJECT OFFICE
 SAMAGRA SHIKSHA
 MIZORAM

Project:
 CONSTRUCTION OF CHANMARI GIRLS HOSTEL (50 CAPACITY) -
 LAWNGTLAI DISTRICT



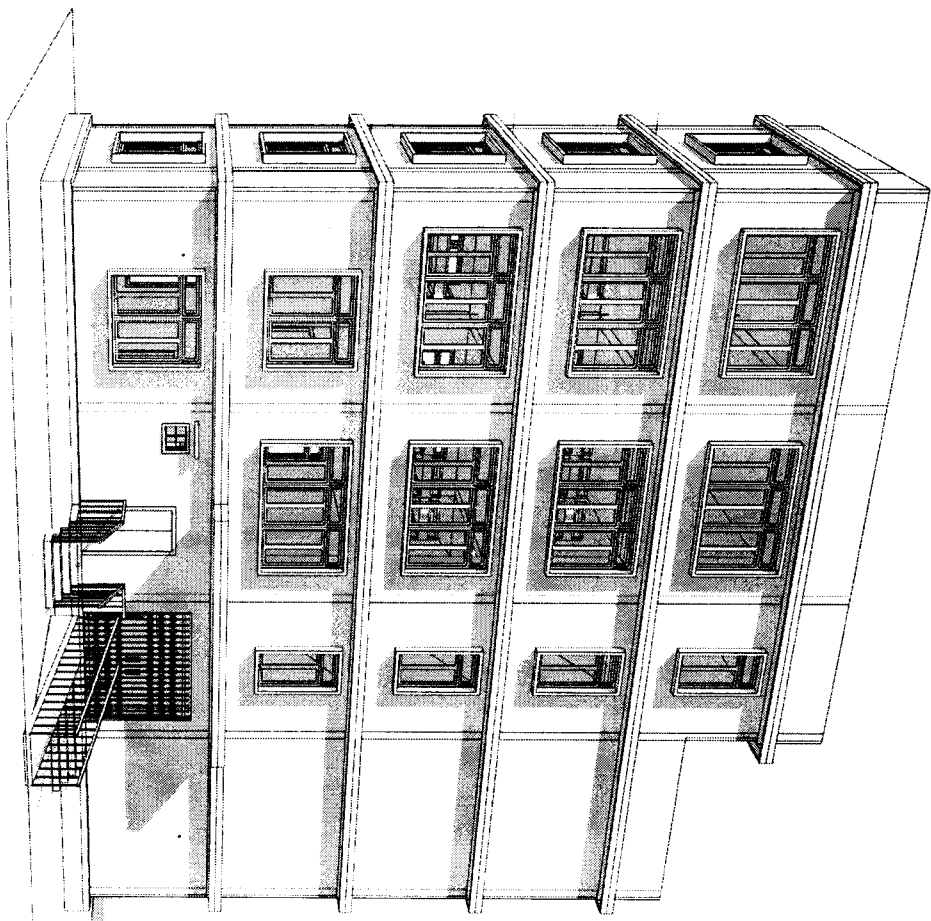
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 Checked by: *[Signature]*
 Date: 10/10/2023
 Scale: 1:100

Sheet name: FRONT ELEVATION

Sheet No: 08

Scale: 1 : 100

ENGINEERING CELL
 STATE PROJECT OFFICE
 SAMAGRA SHIKSHA
 MIZORAM



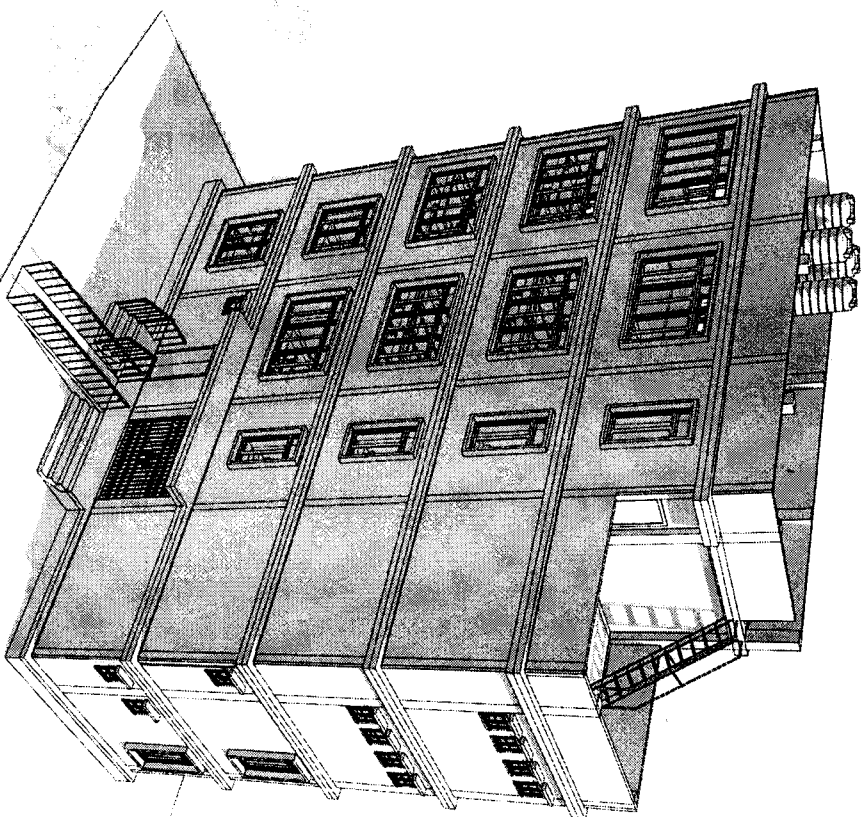
STATE PROJECT OFFICE
SAMAĞRA SHIKSHA
MIZORAM

Project:
CONSTRUCTION OF CHANMARI GIRLS HOSTEL (50 CAPACITY) -
LAWNGTLAI DISTRICT

Sheet name: VIEW 01
Sheet No: 09
Scale:

ENGINEERING CELL
STATE PROJECT OFFICE
SAMAĞRA SHIKSHA
MIZORAM

Project:
CONSTRUCTION OF CHANMARI GIRLS HOSTEL (50 CAPACITY) -
LAWNGTLAI DISTRICT



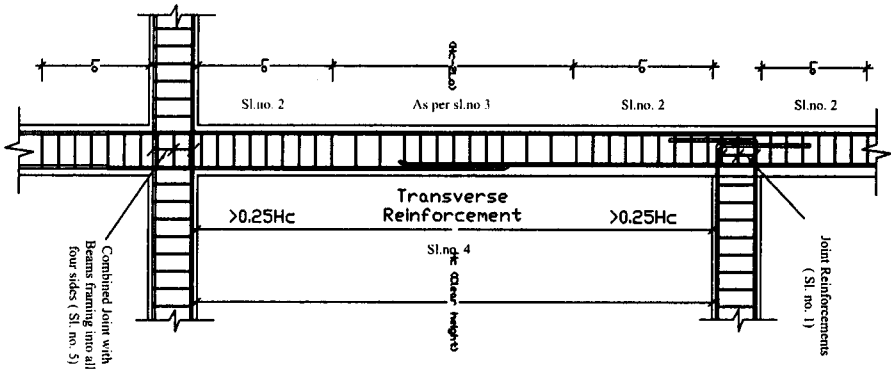
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Signature: [Handwritten signature]
Date: 10/10/2024

Sheet name: VIEW 02

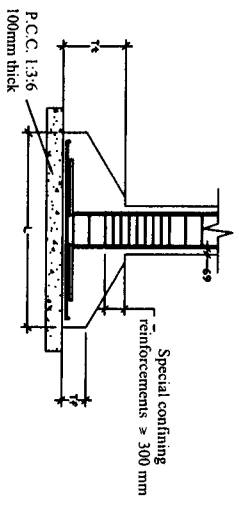
Sheet No: 10

Scale:

ENGINEERING CELL
STATE PROJECT OFFICE
SAMAGRA SHIKSHA
MIZORAM



Column and joint detailing

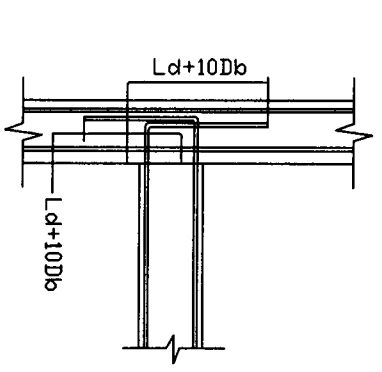


TYPICAL

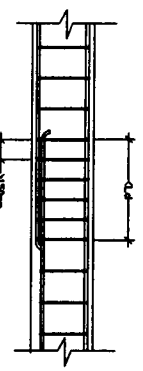
FOUNDATION

NOTES :

1. Joint which has beam framing into one/two sides shall be provided with special confining steel with a spacing equal to Sl.No 2 within the joint
2. Special Confining Reinforcements shall be provided over a length 'Lo' from each joint face, towards mid span and on either side of any section where flexural yielding may occur under the effect of earthquake forces. The length 'Lo' shall not be less than -
 a). Larger lateral dimension of the member at the section where yielding occurs. b). 1/6 of the clear span of the member. c). 450mm. The spacing of hoops used as special confining steel shall not exceed 1/4 of minimum member dimension but need not be less than 75mm nor more than 100mm.
3. The spacing of hoops within 'Hc-2Lo' shall not exceed half the least lateral dimension of the column, except where special confining reinforcements is provided for splice.
4. Lap length shall be 69 times the diameter of longitudinal reinforcements.
5. A joint which has beams framing into all four faces shall be provided with a spacing double the special confining steel required at the end of the column. The spacing of the hoop within the joint shall not exceed 150mm.
6. Beam with higher reinforcement should be adopted at the point where two different types of beam meet.

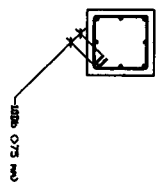


ANCHORAGE OF BEAM AND BAR IN EXTERNAL JOINT

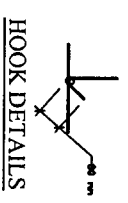


LAP SPLICE IN BEAM

Ld = Development length in tension
 Db = Bar diameter



Extension of Hoop in column



HOOK DETAILS

CONSTRUCTION OF ELECTRIC M/S (GIRLS HOSTEL)

GENERAL SPECIFICATIONS FOR STRUCTURAL DETAILS

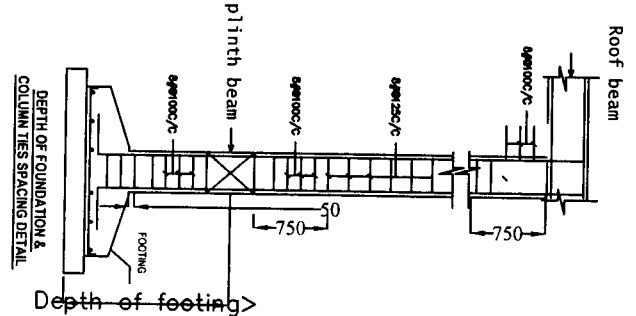
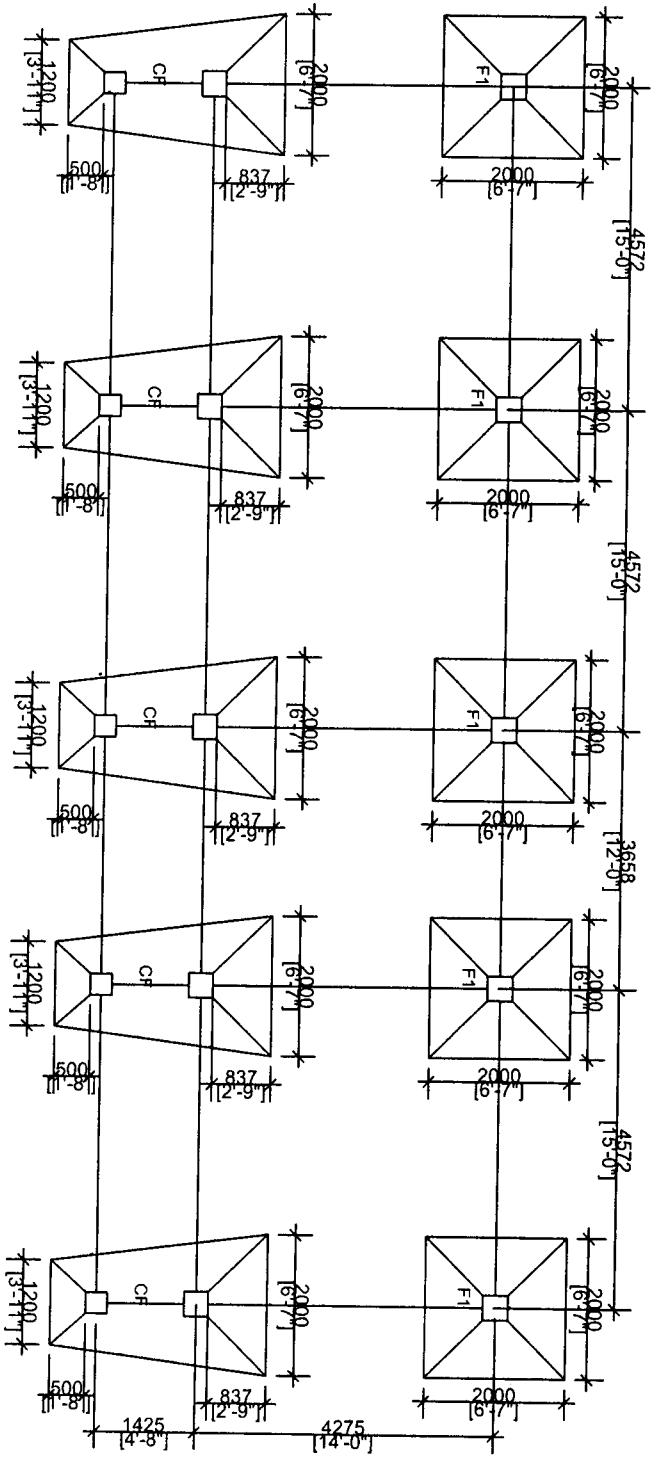
SCALE : DRAWING NO: **NTS 1**

ALL DIMENSIONS ARE IN MM

DESIGNED BY:

(**Er. DENNIS LALHIMPUIA**)
 State Project Engineer
 Civil Works
 Samagra Shiksha, Mizoram


FOUNDATION LAYOUT



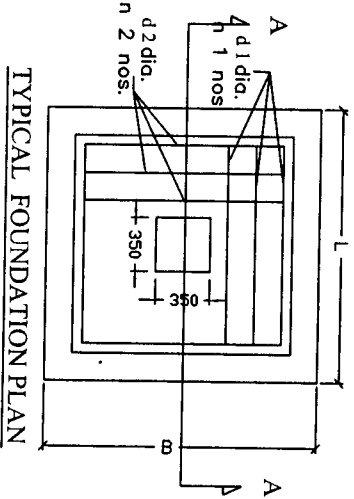
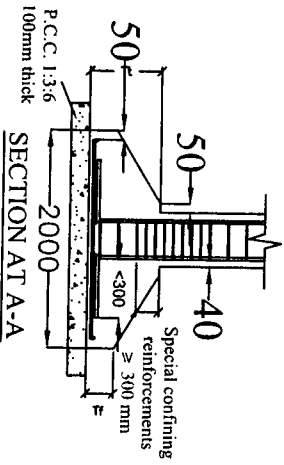
NOTES:

1. P.C.C. 1:3:6 100mm thick shall be provided for leveling course below foundation.
2. Special confining reinforcement shall be extended at least 300mm into the footing or mat when column terminates into the footing of mat.
3. Clear Cover = 50 mm.
4. Concrete Grade = M20, Steel = Fe415(Tor Steel)

<p>CONSTRUCTION OF ELECTRIC M/S (GIRLS HOSTEL)</p> <p>Scale: Not to Scale</p> <p style="text-align: center;"><i>All dimensions in mm</i></p>	<p>SHEET NO. 2</p> <p>Prepared by:</p>
--	--


(E. DENNIS ALLEN)
 State Project Engineer
 Civil Works
 Samagra Shiksha, 100

FOUNDATION DETAILS



NOTES :

1. P.C.C. 1:3:6 100mm thick shall be provided for levelling course below foundation.
2. Special confining reinforcement shall be extended at least 300mm into the footing or mat when column terminates into the footing of mat.
3. Clear Cover = 50 mm.
4. Concrete Grade = M20, Steel = Fe415(Tor Steel)

Type of Footing :	Dimensions :		Tf	Tt	L Direction :		B Direction :	
	L	B			d 1 dia.	n 1 nos.	Dia. d 2	n 2 nos.
F1	2000	X 2000	150	300	12 mm	20	12 mm	20
CF	2000	X 1200	150	300	12 mm	20	12 mm	12

SHEET NO.: 3

CONSTRUCTION OF ELECTRIC M/S (GIRLS HOSTEL)

Scale:
Not to Scale

*All dimensions
in mm*

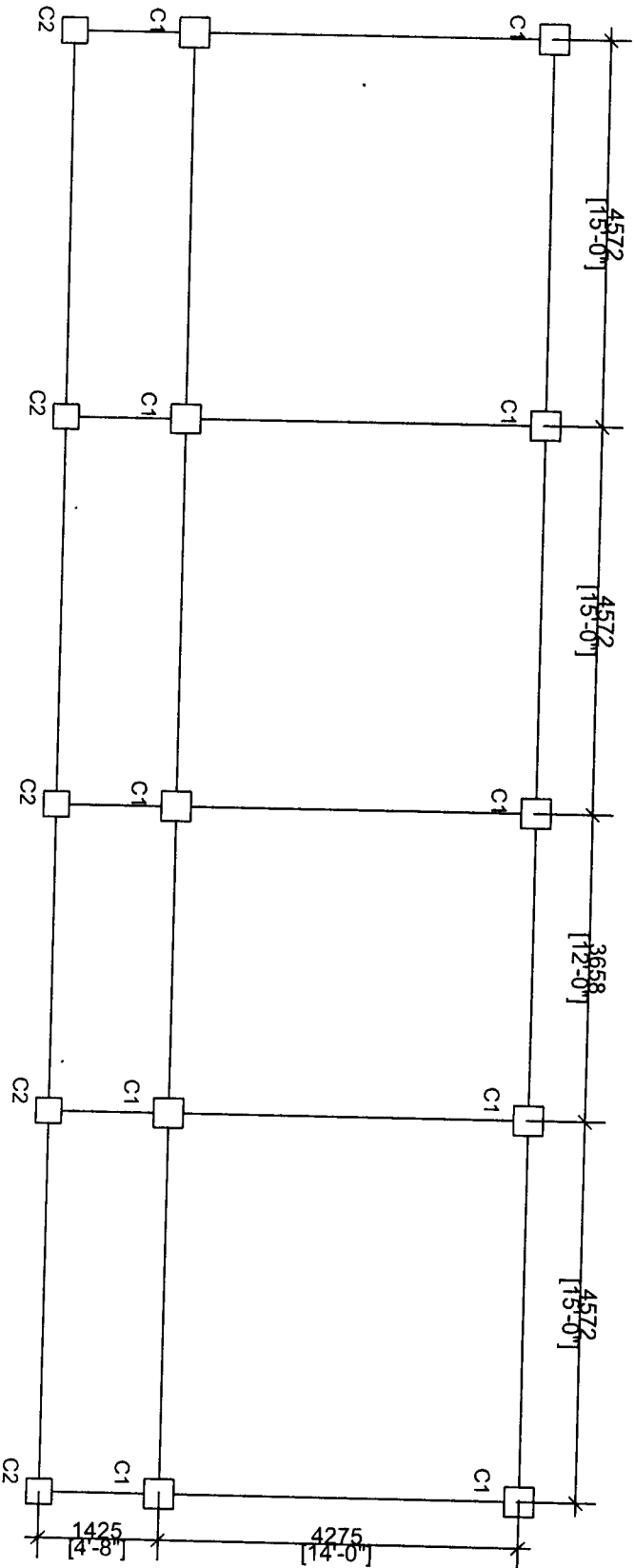
Prepared by:

(E. DENNIS LALHIMPUIA)
State Project Engineer

Civil Works

Samagra Shiksha, Mizoram

COLUMNS LAYOUT



NOTES :

1. Main Reinforcement and Lateral ties shall be of Top Steel Fe415 Grade.
2. Lap length of steel in compression members shall be at least 480 mm and lapping to be provided at a distance $H_c/4$ beyond beam-column joint with ties 8mm @ 150 mm c/c.
3. Clear Cover shall be maintained as specified.
4. Provide 135 degree hook, hook length = 80mm at each hook.
5. Grade of Concrete = M20.

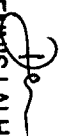
**CONSTRUCTION OF ELECTRIC M/S (GIRLS
HOSTEL)**

SHEET NO: 4

Scale:
Not to Scale

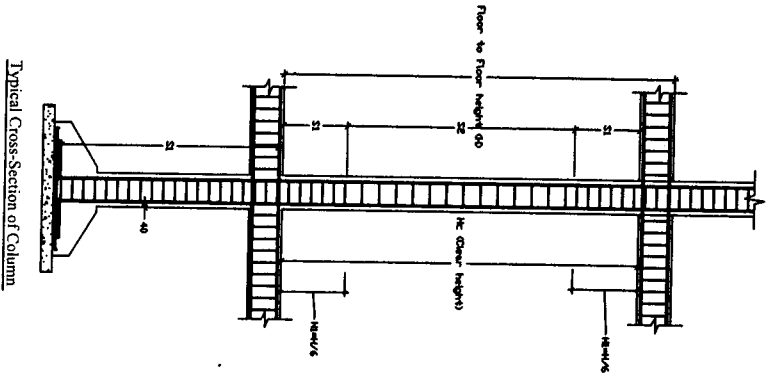
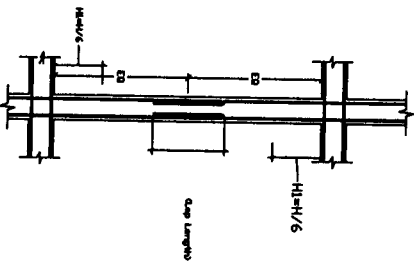
Prepared by:

*All dimensions
in mm*


(Er. DENNIS LALHLMPUIA)
 State Project Engineer
 Civil Works

Samagra Shiksha, Mizoram

COLUMN DETAILS



COLUMN MARKED	DETAIL OF COLUMN SECTIONS		Lateral Ties			
	AT GROUND FLOOR	AT THIRD FLOOR LEVEL	S1 mm	S2 mm	H1 mm	Dia. mm
C1			100	150	500	8
C2			100	150	500	8

CONSTRUCTION OF ELECTRIC M/S (GIRLS HOSTEL)

STRUCTURAL DETAILS FOR ALL FLOOR COLUMNS

DRAWING NO: 5

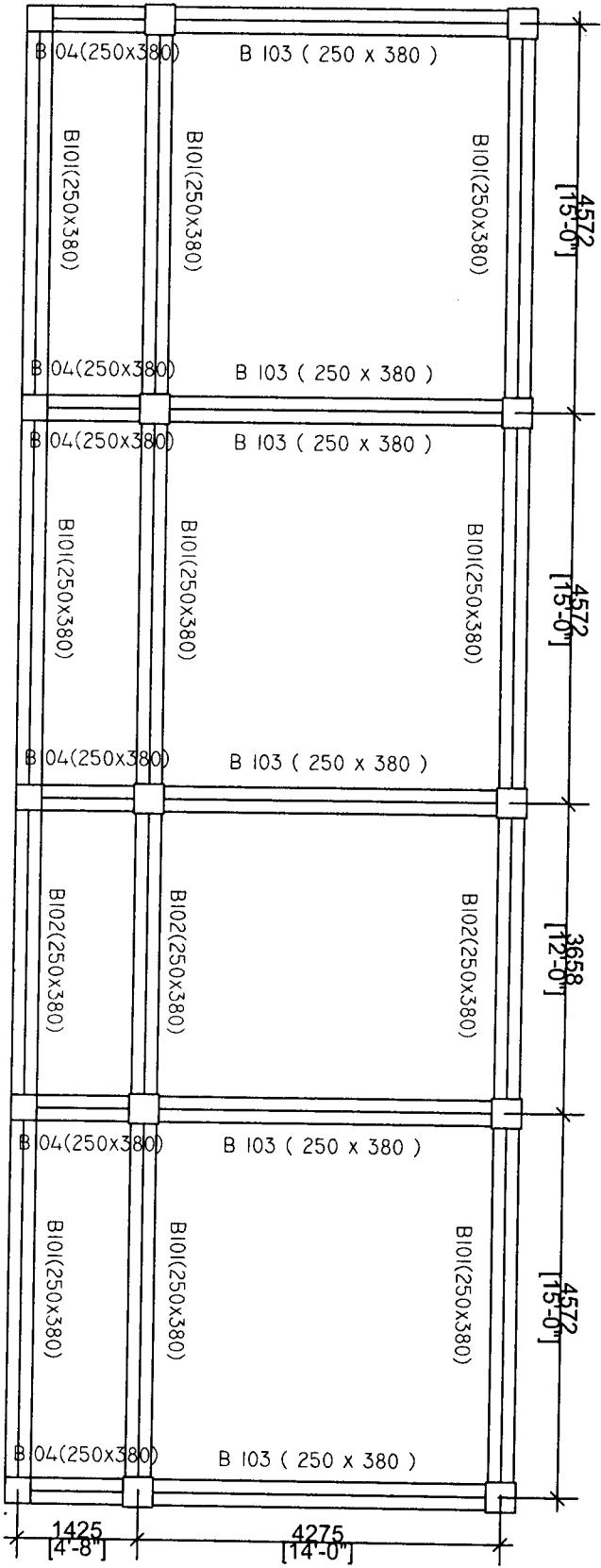
DESIGNED BY:

SCALE : NTS

ALL DIMENSIONS ARE IN MM

(E. DENNIS LALHIMPUIA)
 State Project Engineer
 Civil Works
 Samagra Shiksha, Mizoram

DETAILS OF BEAM



SHEET NO. 6

CONSTRUCTION OF ELECTRIC M/S (GIRLS
HOSTEL)

Scale:
Not to Scale

Prepared by:

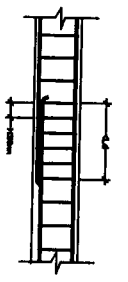
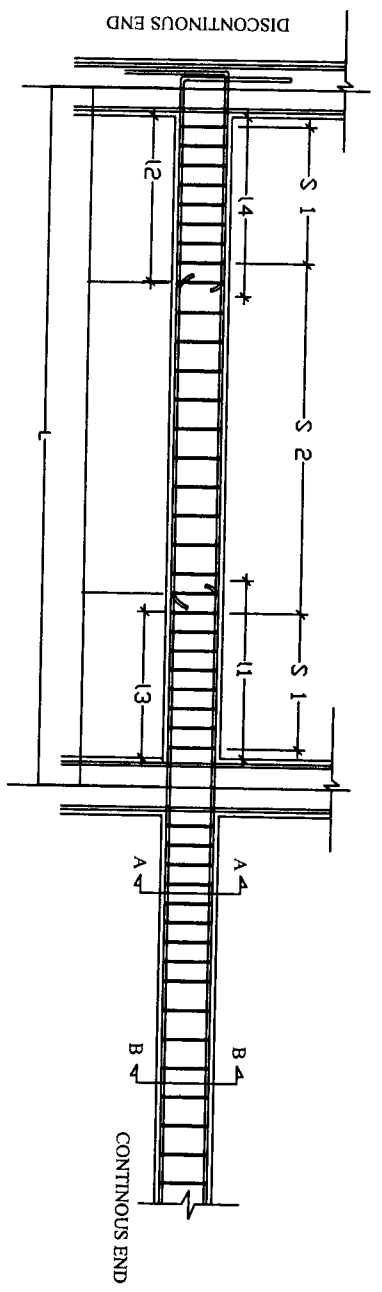
All dimensions
in mm

(E. DENNIS LALHIMPUIA)
State Project Engineer

Civil Works

Samagra Shiksha, Mizoram

TYPICAL LONG SECTION OF BEAM



LAP SPlice IN BEAM
 L_d = Development length in tension
 D_b = Bar diameter

Where,
 S_1 = Spacing of stirrups for a length of $2d$
 S_2 = Spacing of stirrups in the mid-span
 L_d = development length of bar in tension
 L = Length of beam (C/C of column)

Typical long section of beam

Type of Beam	Dimensions (mm)	Section at A-A	Section at B-B	L (mm)	I 1 (mm)	I 2 (mm)	I 3 (mm)	I 4 (mm)	S 1	S 2
B 101	250 x 380			4572	1350	650	1130	900	From dia. Top steel, 1. 3-legged, 2. 2-legged, 3. 150 mm c/c	From dia. Top steel, 2. 2-legged, 3. 150 mm c/c
B 102	250 x 380			3658	1100	550	900	700	From dia. Top steel, 1. 3-legged, 2. 2-legged, 3. 150 mm c/c	From dia. Top steel, 2. 2-legged, 3. 150 mm c/c
B 103	250 x 380			4275	1250	650	1050	850	From dia. Top steel, 1. 3-legged, 2. 2-legged, 3. 150 mm c/c	From dia. Top steel, 2. 2-legged, 3. 150 mm c/c
B 104	250 x 380			1425	400	200	350	900	From dia. Top steel, 1. 3-legged, 2. 2-legged, 3. 150 mm c/c	From dia. Top steel, 2. 2-legged, 3. 150 mm c/c

SPECIFICATIONS :

1. Clear Cover for Beam = 25mm.
2. Grade of Steel = Fe 415
3. Grade of Concrete = M 20
4. The first hoop shall be at a distance not exceeding 50mm from the joint face.
5. Minimum Curing Period = 28 days
6. Beam with higher reinforcement should be adopted at the point where two different types of beam meet.

CONSTRUCTION OF ELECTRIC M/S (GIRLS HOSTEL)

SHEET NO: 7

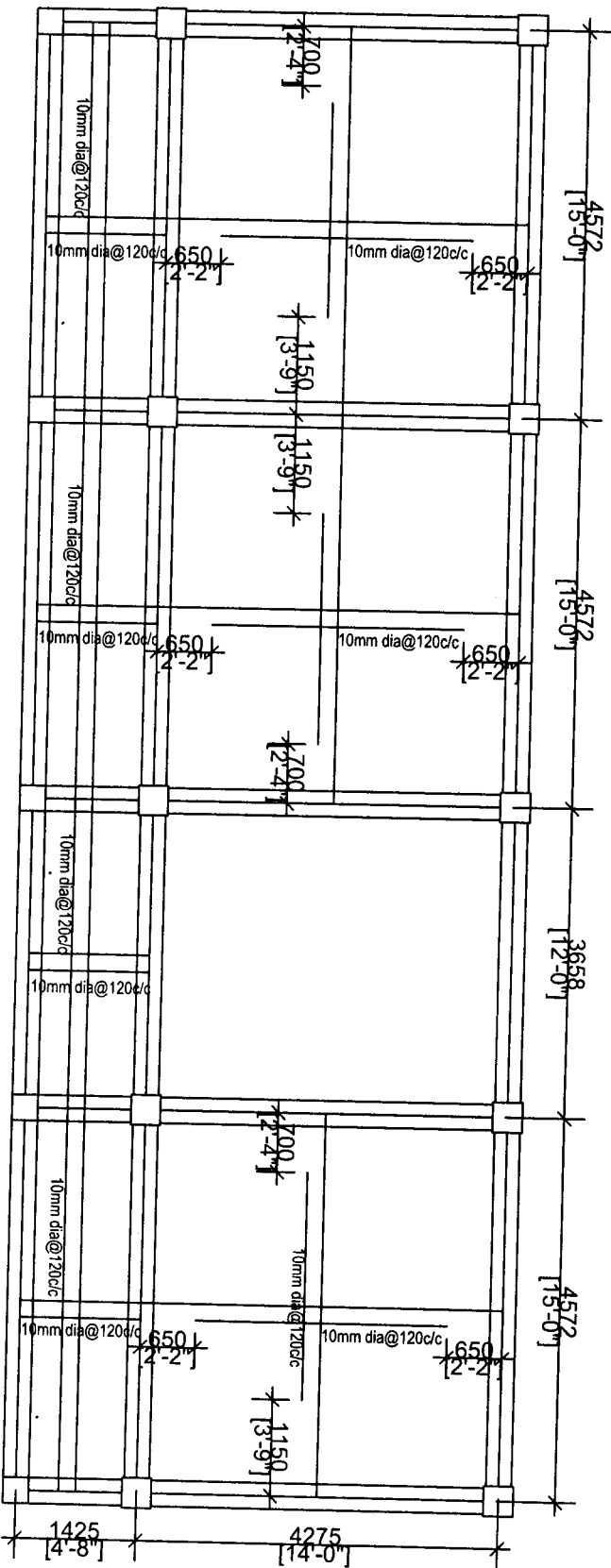
Certified that the requirements of Regulation 30 of the Atizawl Municipal Council Building regulations, 2012, have been complied with in the preparation of this structural drawing.

Scale: Not to Scale

All dimensions in mm

(E. DENNIS TALHIMPUIA)
 State Project Engineer
 Civil Works

DETAILS OF SLAB



BOTTOM REINFORCEMENT


CONSTRUCTION OF ELECTRIC M/S (GIRLS
HOSTEL)

SHEET NO. : 8

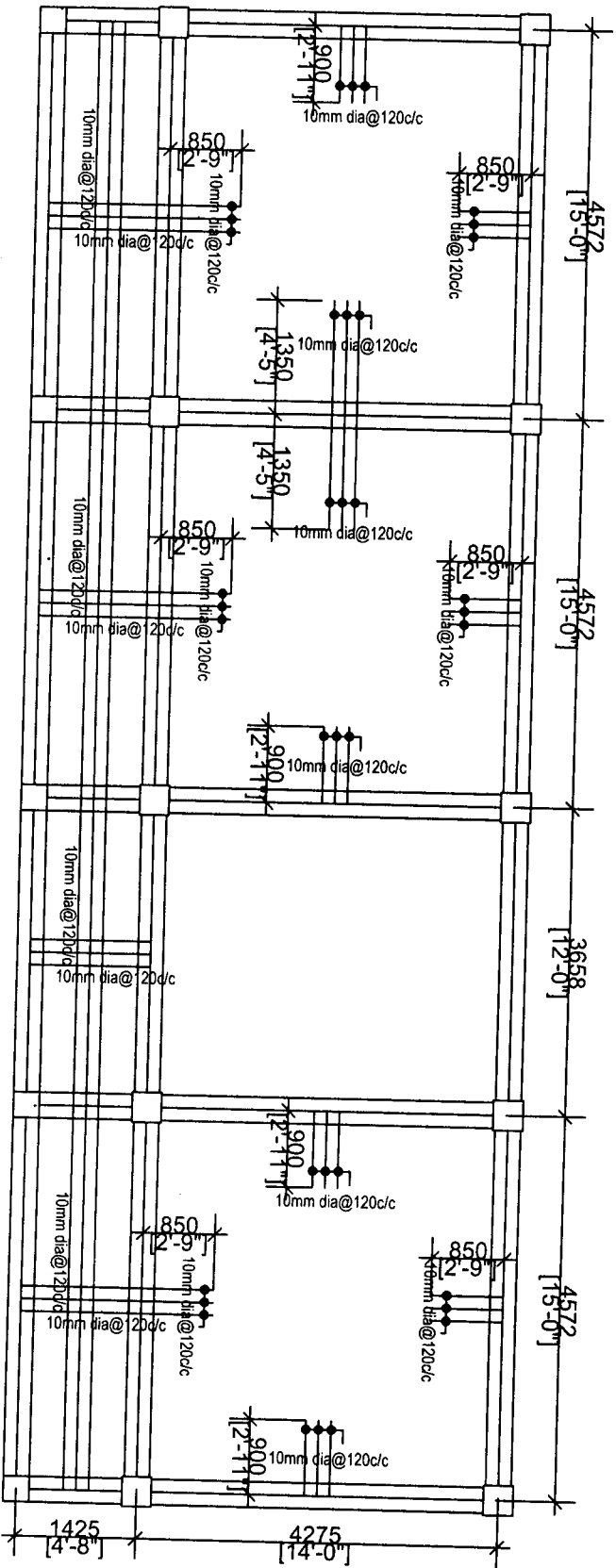
Scale :
Not to Scale

*All dimensions
in mm*

Prepared by:


(E. DENNIS LALHLIMPUIA)
 State Project Engineer
 Civil Works
 Samagra Shiksha, Mizoram

DETAILS OF SLAB



TOP REINFORCEMENT

CONSTRUCTION OF ELECTRIC M/S (GIRLS HOSTEL)

Scale:
Not to Scale

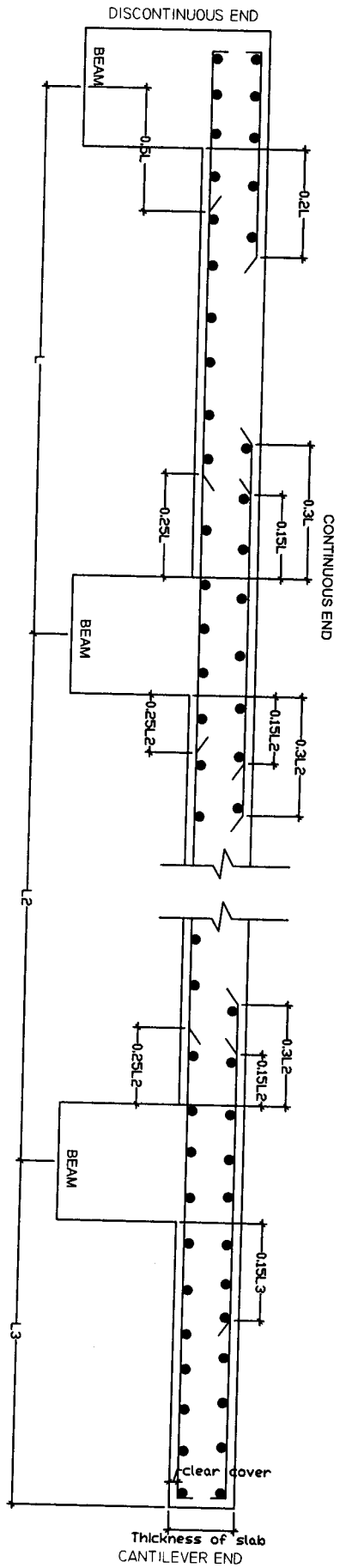
All dimensions
in mm

Prepared by:

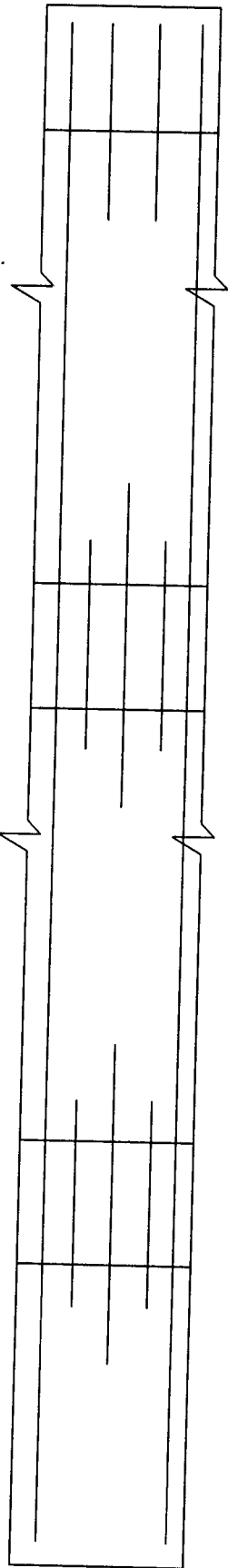
(E. DENNIS LALHIMPUIA)
State Project Engineer
Civil Works
Samagra Shiksha - Mizoram

SHEET NO: 9

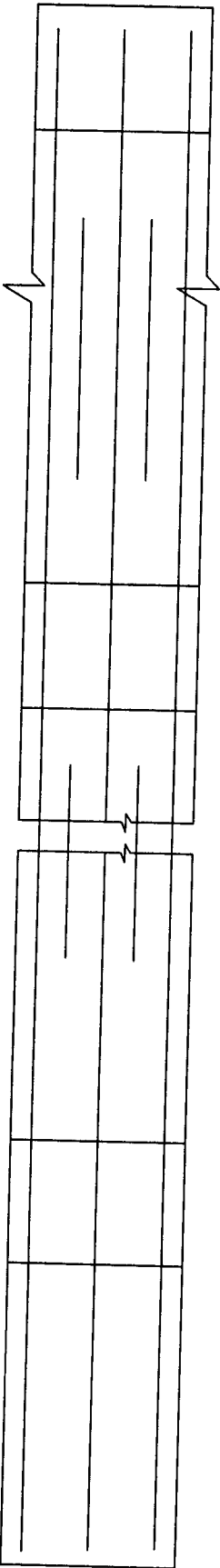
TYPICAL SLAB DRAWING




TYPICAL LONG SECTION OF SLAB AT MID STRIP X-X



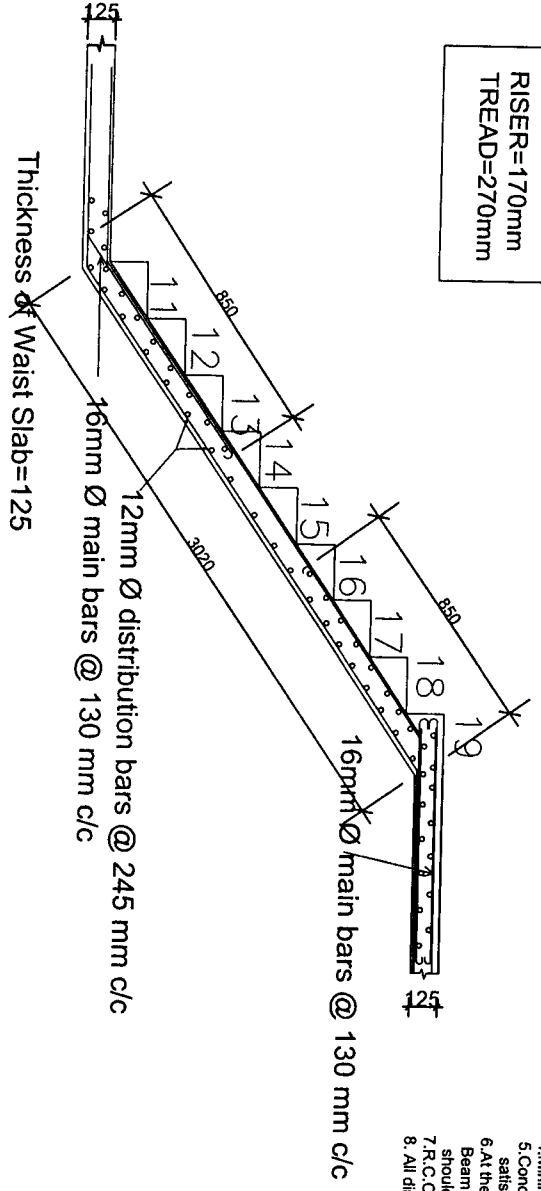
PLAN OF TOP MAIN REINFORCEMENT



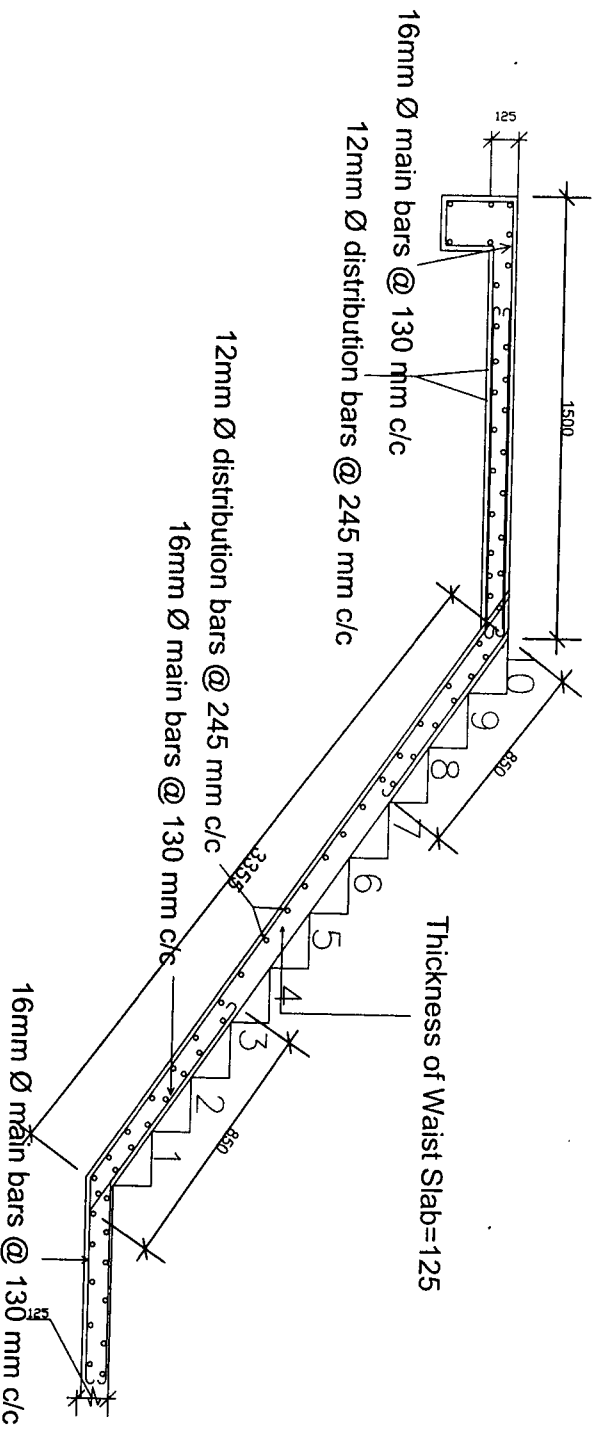
PLAN OF BOTTOM MAIN REINFORCEMENT

CONSTRUCTION OF ELECTRIC M/S (GIRLS HOSTEL)		SHEET NO: 10
Scale: Not to Scale	Prepared by:	 (E.R. DENNIS LALHIMPUIA) State Project Engineer CIVIL Works
All dimensions in mm		

RISER=170mm
TREAD=270mm



1. Grade of Cement Concrete = M20.
2. Grade of Steel = Fe 415.
3. Clear Cover = 20mm.
4. Minimum Curing Period = 28 days.
5. Concrete and Steel must be tested and should satisfy the strength specified above.
6. At the point where two different types of Beam meet, Beam with higher reinforcement should be adopted.
7. R.C.C. Slab & Brick Walling
8. All dimension are in mm, but not to scale.



CONSTRUCTION OF ELECTRIC M/S (GIRLS HOSTEL)

STRUCTURAL DETAILS FOR STAIRCASE

DESIGNED BY:

(E. DENNIS LALHIMPUIA)
State Project Engineer
Civil Works
Samagra Shiksha, Mizoram

SCALE :
NTS

ALL DIMENSIONS ARE IN MM

ESTIMATE FOR CONSTRUCTION OF CHANMARI GIRLS HOSTEL, LAWNGTLAI (Electric M/S)

Slno	Description of Items	Unit	Qty	Rate		Amount
				in figure	in words	
1/2.06	Earthwork in excavation over areas (exceeding 30cm in depth, 1.5m in width as well as 10sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.					
	(a) Ordinary and Hard Soil	cum	378.488			
2/2.08	Earthwork in excavation in foundation trenches etc. not exceeding 2 meters depth including dressing of bottom and sides of trenches and subsequent filling and compaction in 15cm layers as in column foundations, fence posts, etc. and disposal of all surplus soil as directed within a lead of					
	(a) Ordinary Soil	cum	88.000			
3/2.17	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.					
	2/3 of qty taken from 2/2.08	cum	58.667			
4/4.03	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:					
	b) 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size)	cum	15.554			
5/5.01	Providing and laying in position reinforced cement concrete excluding cost of centering and shuttering, finishing and reinforcement in -					
	All work upto plinth level :					
	(a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size)	cum	18.750			

(E. DENNIS LALHIMPUIA)

State Project Engineer

Civil Works

Samagra Shiksha, Mizoram

6/5.02	Reinforced cement concrete work in walls including attached pilasters, columns, pillars, posts, piers, abutments, return walls, retaining walls, struts, buttresses, string or lacing courses, fillets etc. upto floor five level excluding cost of centering shuttering etc complete.					
	a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size)	cum	24.19			
7/5.03	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement complete.					
	a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size)	cum	134.47			
8/5.18	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete	kg	29936.257			
	b) Thermo-Mechanically Treated Bars					
9/5.10	Centering and shuttering including strutting, propping, etc. and removal of form works in -					
	(a) Foundations, footings, bases of columns etc. for mass	sqm	42			
	Columns, pillars, piers, abutments,					
	c) posts and struts.					
	Column					
	350x350 mm	sqm	224.000			
	300x300 mm	sqm	96.000			
		sqm	320.000			
	Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.					
	d) Beams.					
	230x350 mm	sqm	213.900			
		sqm	195.300			
		sqm	409.20			
	Suspended floors, roofs, landings, shelves and their					


	e) support, balconies and chajaj, etc.	sqm	645.02			
	d) Staircases (except spiral staircase) excluding landings.	sqm	63.23			
10/6.06	Half brick masonry with first class brick in superstructure above plinth level upto floor V level.	sqm	840.122			
11/9.06	a) in cement mortar 1:3 (1 cement : 3 coarse sand) Providing 1st class local wood dressed in frames of chaukat for doors, windows, clerestory windows fixed in position.	cum	1.170			
12/9.10	Providing and fixing 1st class teak wood <i>panelled</i> shutters for doors etc. including M.S. butt hinges with necessary screws, etc. complete.	sqm	43.81			
13/11.01	a) 40 mm thick. Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions with extruded built up standard sections/ other sections of approved make conforming to IS : 733 and IS : 1285 fixing with dash fasteners of required dia and size, including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/ neoprene gaskets etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, aluminium snap beading for glazing /panelling, CP brass /stainless steel screws all complete including fixing of glasses but excluding cost of glasses.	sqm				
14/11.02	a) Natural colour i) 2 - track sliding windows/ventilators. Supplying of glass panes at site	sqm	139.69			
15/20.11	a) 4mm thick plate sheet glass. 15mm cement plaster 1 : 3 (1 cement : 3 fine sand).	sqm	139.69			
16/10.10	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer. (round, square or rectangular hollow tubes etc.)	kg	2308.26			
	a) GI tube 40mm @ 3.72 Kg/m	kg	2308.26			

17/12.11	Providing and ceramic glazed floor tiles of size 300x300mm or more (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 15622 of approved make in all colours, shades, except white, ivory, grey, flame red brown, laid on 20mm thick cement mortar 1 : 4 (1 cement : 4 course sand) including pointing the joints with white cement and matching pigments etc. complete. as per designed colour.						
	b) Mat/Aniscratch	sgm	534.40				
18/20.51	Applying priming coat with ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood) & Plywood.	sgm	78.91				
19/20.72	Painting with synthetic enamel paint of approved brand and manufacture in all shades on new work (two or more coats).						
	a) General quality	sgm	78.912				
20/20.75	Finishing walls with exterior emulsion of required shade on new work (three or more coats) to give an even shade.						
	a) Regular exterior emulsion like supercote, walmasta etc.	sgm	3163.26				
21/20.50	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :	sgm	3163.26				
22/14.11	Providing and fixing bright finished M.S two lever mortise door lock with necessary screws, etc. complete.						
	a) Union type	Nos	23.00				
23/14.07	Providing and fixing M.S. Tower bolts (socket bolts) bright finished with necessary screws etc. complete.						
	(a) 300 mm	Nos	92.00				
24/14.10	Providing and fixing M.S. handles with necessary screws, etc. complete						
	(a) 150mm	Nos	92.00				
25/18.01	Providing and fixing on terrace (at all floor levels) Polyethylene storage tank of approved brand and manufacture with cover and mosquito proof coupling and suitable locking arrangement and making necessary						
		Nos	92.00				

	connections for inlet, outlet and overflow pipes but without the cost for base support.						
	a) Sintex or equivalent	lit	8000.00				
26/17.33	Providing and fixing on wall face SWRPVC soil, waste and vent pipes including jointing with rubber lubricant/cement solvent complete.						
	a) 110mm dia.	m	100.00				
27/17.34	Providing and fixing SWRPVC plain bend of required degree (87.50°) including jointing with rubber lubricant/cement solvent complete.						
	a) 110 mm dia.	Nos	22.00				
28/17.35	Providing and fixing SWRPVC plain bend of required degree (45°) including jointing with rubber lubricant/cement solvent complete.						
	a) 110 mm dia.	Nos	15.00				
29/17.37	Providing and fixing single equal SWRPVC plain junction of required degree (T-junction).						
	a) 110x110x110 mm	Nos	17.00				
30/17.42	Providing and fixing ventilation cowl including jointing with rubber lubricant/cement solvent complete.						
	a) 110 mm dia.	Nos	9.00				
31/17.02	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm UPVC P or S trap, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required: (Without Cistem)						
	(a) Orissa pattern pan with integral type foot rests						
	(i) White	Nos	8.00				
32/17.04	Providing and fixing vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. Flushing cistem, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :						
	i) White	Nos	1.00				
33/18.25	Providing and fixing PVC pipes complete with fittings and						

		clamps, including cutting and making good the walls etc.					
		b) 20mm dia nominal bore	mm	80,000			
34/18.02		Providing and fixing G.I. pipes complete with G.I. fitting and clamps, including cutting and making good the walls etc. (internal works- exposed on wall).					
		a) 20mm dia nominal bore	mm	50,000			
35/18.07		Providing and fixing brass bib cock of approved quality.					
		b) 20mm nominal bore	Nos	15,000			
36/18.08		Providing and fixing brass stop cock of approved quality.					
		b) 20mm nominal bore	Nos	27,000			
37/18.09		Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc.					
		b) 20 mm nominal bore	Nos	15,000			
38/17.16		Providing and fixing White vitreous china wash basin Standard of Parryware/ Hindware/ Cera and equivalent make with R.S. or C.I. brackets, 15mm C.P. brass pillar taps, C.P. brass chain with rubber plugs, 32mm C.P. brass waste of standard pattern, 32mm C.P. brass traps and union complete including painting of fittings and brackets, cutting and making good the walls wherever required.					
		b) Vitreous China Wash basin Compact 450 x 300 mm with single 15 mm C.P. brass pillar taps					
		i) white	Nos	10,000			
39/18.51		Providing and placing in position electric water pump of approved manufacture including connections to G.I pipes etc. complete with accessories.					
		b) 750 watts	each	1,000			
40/17.24		Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :	Nos	10,000			
41/17.29		Providing and fixing anodised aluminium towel rail with two anodised aluminium brackets to wooden cleats with C.P brass screws.					
		a) 750x20mm size.	Nos	1,000			


42/17.30	Providing and fixing toilet paper holder.					
	b) Plastic toilet paper holder of standard size.	Nos	1.00			
43/17.31	Providing and fixing liquid soap container with C.P. brass lid and brackets fixed to wooden cleats with C.P. brass screws.					
	a) Glass container with C.P. lid and brackets.	No	1.00			
44/7.01	Regular coursed rubble masonry with hard stone in foundation upto one storey above and below ground level including curing, etc. complete.					
	c) in cement mortar 1 : 6 (1cement : 6 fine sand)	cum	15.00			
45/10.16	Steel work welded in built up sections/framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.					
	b) In a grating, frames, guard bar, ladders, railings, brackets, gates & similar works.	kg	666.91			
46/12.01	Cement concrete flooring 1:2:4 (1 cement : 2 sand : 4 well graded stone aggregate 20mm size) finished with a floating coat neat cement including cement slurry etc. complete but excluding the cost of nosing of steps etc.					
	40 mm thick with 20 mm nominal size stone aggregate	sqm	41.85			
47/10.04	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2mm and braced with flat iron diagonals 20x5mm size with top and bottom rails of T-iron 40x40x6mm with 40mm dia. steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	sqm	10.08			
SEPTIC TANK						
1/2.08	Earthwork in excavation in foundation trenches etc. not exceeding 2 meters depth including dressing of bottom and sides of trenches and subsequent filling and compaction in 15cm layers as in column foundations, fence posts, etc. and disposal of all surplus soil as directed within a lead of 30 metres.					
	(a) Ordinary Soil	m ³	12.400			


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BILL OF QUANTITIES

NAME OF WORK : INTERNAL ELECTRIFICATION OF NSCBV (CHANMARI GIRLS HOSTEL); LAWNGTLAI DISTRICT


SOR	DESCRIPTION OF MATERIAL	UNIT	QUANTITY	RATE		AMOUNT
				in figure	in words	
C:02:01	SURFACE PVC CASING & CAPPING COPPER WIRING (GRADE-II)					
	LIGHT POINT, CEILING FAN POINT, EXHAUST FAN POINT ETC (MODULAR TYPE)					
	Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694 (1990) and Flame retardant low smoke & Halogen (FR-LSH) 1100 voltage graded copper flexible wire stranded copper running inside PVC casing & capping (Gr-II) 20mm dia fixed, surface on the wall/ceiling/floor as per convenience including junction box having required numbers of ways from DB to the light plug/socket light point etc as required:-					
	LIGHT POINT					
	C:02:01 (B) Short Point (Modular)	Each	29			
C:02:01 (C) Medium Point (Modular)	Each	36				
C:02:01 (D) Long Point (Modular)	Each	9				
FAN POINT						
C:02:01 (C) Medium Point (Modular)	Each	11				
C:02:02	LIGHT PLUG/SOCKET POINT 5/6 AMPERES (MODULAR TYPE)					
	Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694 (1990) and Flame retardant low smoke & Halogen (FR-LSH) 1100 voltage graded copper flexible wire stranded copper running inside PVC casing & capping (Gr-II) 20x12mm fixed, surface on the wall/ceiling/floor as per convenience including junction box having required numbers of ways from DB to the light plug/socket 5/6A point etc. as required :-					
C:02:02(E) Light plug Point Very Long Point (modular)	Each	12				


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C:02:03	<p>POWER PLUG/SOCKET POINT 15/16 AMPERES (MODULAR TYPE)</p> <p>Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694 1990) and Flame retardant low smoke & Halogen (FR-LSH) 1100 voltage graded copper flexible wire stranded copper running inside PVC casing & capping (Gr-II) 30x12mm fixed, surface on the wall/ceiling /floor as per convenience including junction box having required numbers of ways from DB to the power plug/socket 15/16A point etc: as required :-</p>		3						
	C:02:03(D)Power plug Point 15/16 A Long Point (Modular)	Each	3						
	<p>MAIN TO SUB-MAIN IN COPPER WIRE GRADE-II SURFACE (SINGLE PHASE TWO WIRES)</p> <p>Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694 (1990) and Flame retardant low smoke & Halogen (FR-LSH) 1100 voltage graded copper flexible wire stranded copper running inside PVC Casing & capping (Grade-II) of all available sizes diameter fixed, surface on the wall/ceiling/floor as per convenience including junction box having required numbers of ways from Main to Sub-Main/DB/Sub-Main/DB to SDB/SDB/Switch boards/SDB to switch boards as required:-</p>								
C:02:06	C:02:06(A) 2X2.5 Sqmm copper conductor/cable + 1x2.5 Sqmm earth wire	rm	520						
	C:02:06(B) 2X4 Sqmm copper conductor/cable + 1x4 Sqmm earth wire	rm	130						
	C:01:06(C) 2X 6 Sqmm copper conductor/cable + 1 x 6 Sqmm earth wire	rm	60						
	<p>SUPPLYING AND FIXING OF SWITCH BOARDS (MODULAR TYPE)</p> <p>Grade-II</p> <p>Supplying and fixing of Modular switch board grade-II of the following sizes/modules on surface/recess including PVC/Steel boxes, modular plate and necessary switches, plug/socket, and fan regulators etc. with necessary painting if necessary</p>								
	<p>One Module Switch Board (Modular)</p> <p>1:02:01 1 S</p>	No	10						
	<p>Two modules Switch Board (Modular)</p> <p>1:02:03 1 S two ways</p>	No	8						

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	I:02:13 2 S		No	13				
	Three modules Switch Board (Modular)							
	I:02:38 1S + 1 Soc		No	8				
	Six modules Switch Board (Modular)							
	I:02:86 2 S + 1 R + 1SOC		No	7				
	Eight modules Switch Board (Modular)							
	I:02:158 3 S + 1SOC +1R+ 1BKP		No	5				
N:00:00	MCBs/RCCBs/ELCBs/MCCBs/EARTH FAULT RELAY SP/SPN/DP/DP&N/TP/TP&N/FP							
	MCBs SP/SP&N/DP/TP/TP&N/FP							
N:01:00	Supplying and fixing of all types and rating MCBs, RCCBs, ELCBs etc, 240/415 Volts 50 Hz AC supply in the existing MCB DB complete with connections, testing & commissioning etc in N:01:01 5 to 32 Amps ,SP, MCB B-series N:01:26 40 Amps' DP, MCB Isolator		Each	16				
O:00:00	DISTRIBUTION BOARDS MCB DISTRIBUTION BOARD		Each	4				
O:03:00	Supplying, fitting, & fixing of 63 Amps' 6-ways Distribution Board with Bakelite fused fitting with fused links, 240 volts, 50 Hz AC on surface/recess completed with inter-connection, painting etc, as required. O:03:75 6-ways MCB DB SP & N DD metallic Door		Each	4				
J:00:00	LIGHTING FIXTURES(SURFACE/RECESS) LIGHTING FIXTURES CEILING/WALL MOUNTED:-							
	J:01:03 Supplying, fitting and fixing Batten Holder including connection etc, as required		Each	29				
	(1661) CFL Curvy 15W(SP) B22, E27 Base Havells/Equivalent		No	29				
	J:01:30 Installation, testing & commissioning of pre-wired fluorescent Light fittings of all types, with all accessories and tubes etc, directly on ceiling/wall, including connection with 1.5 Sqmm copper conductor single core cable etc as required.		Each	42				
	(1375) LED Batten fitting 1X12W Linea 2' with LED tube (Phillips/equivalent)		No	5				
J:01:00	(1377) LED Batten fitting 1X26W Linea 4' with LED tube (Phillips/equivalent)		No	36				


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	(1625) Flood Light 2X65W CFL Retro ZING 2 Polycarbonate Flood light luminaire for twin high Wattage Retrofit CFL. Havells/equivalent	No	1				
	J:01:36 Installation, testing & commissioning of ceiling fan and regulator, including wiring the down rod of standard length (upto 30cm) with 2X1.5 sqmm PVC insulated copper conductor single core cable etc, as required	Each	22				
	(1861) Bracket wall mounting fan 400mm sweeps Helix with remote ISI marked (Usha/equivalent)	No	11				
	(1845) Ceiling fan 1200mm Sweeps ISI marked 3 blades (Usha/Crompton/Equivalent)	No	11				
	J:02:00 Installation of all kind of Electrical appliances						
	J:02:02 Installation of Instantaneous Electric Water Heater up to 50 litres in the existing wall including fixing the Hook in the wall by standard sizes of sleeves Nuts and bolt or Standard Screw for the above Instantaneous Electric Water Heater, and making good the damage, connection, testing and commissioning etc, as required.	Each	3				
J:02:00	(1828) Electric Storage Water Heater/Geyser 6 litres 2 KW Havells Rio /Equivalent	No	3				
	EARTHING AND LOOP EARTHING						
	Q:01:07 Earthing with Copper Earth plate 600mmx600mmx6mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and water pipe, etc. (but without charcoal or coke and salt) complete as required.	Each	1				
	Q:01:10 Extra for using salt and coke for G.I or copper plate earth electrode as required.	Each	1				
Q:01:00	Q:01:38 Supplying & Laying of 8 SWG Copper Wire at .50m below ground level for conductor earth electrode, including soldering etc. as required. (8 SWG Copper Wire (4mm dia ')	Metre	18				
	Q:01:55 Supplying and drawing of 1.5 sqmm PVC sheathed copper conductor for loop earthing in the existing surface/recess steel/PVC conduit/PVC cassing & capping alongwith others wires as required.	Metre	719				
R:01:00	LIGHTNING CONDUCTOR						

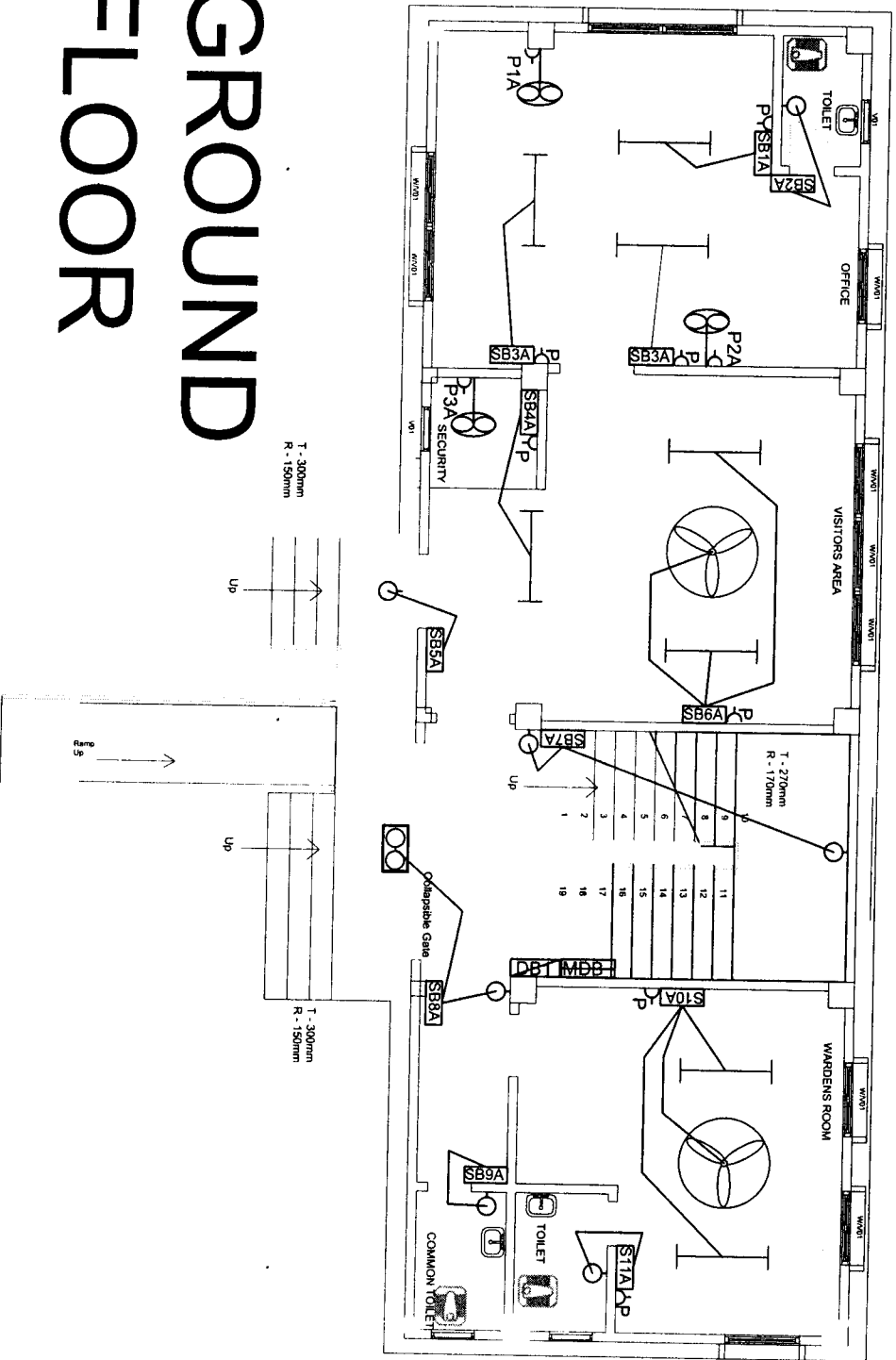
R:01:08 Providing and fixing of ESE type lightning Arrestor PDC 6.5 (DPDC 6.5) with non electric ESE(Early steamer Emission) standardized according to norms UNE 21.186 AND NPC 17.102 Duly tested and certified by CPRI Bangalore, Having coverage area of 63m diameter lightning charge capacity 100 KA and 43 micro second delay (DOKSUN/equivalent)	Each	1			
R:01:10 Providing and fixing of Stainless steel pole for ESE lightning Arrestor 50m 3 meters long made of SS-304 material with base plate to mount lightning Arrestor (DOKSUN/Equivalent) in complete	Each	1			
R:01:67 Providing and laying of copper tape 32mmx6mm thick from earth electrode directly in ground as required.	Metre	18			
Supplying and fitting of Water Cooler 120 ltrs with water pipe line as required in lump sum	Each	1			
1- Phase Service connection 25sqm twin core Aluminium cable lump sum					
Total					
Add 18% GST					
Add 1% Labour Cess					
GRAND TOTAL					

Rupees in words

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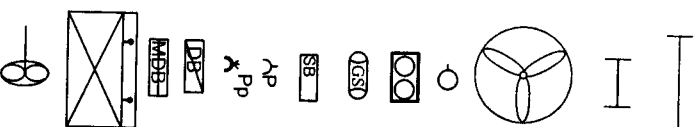
GROUND FLOOR



LEGENDS

SHEET NO : 1

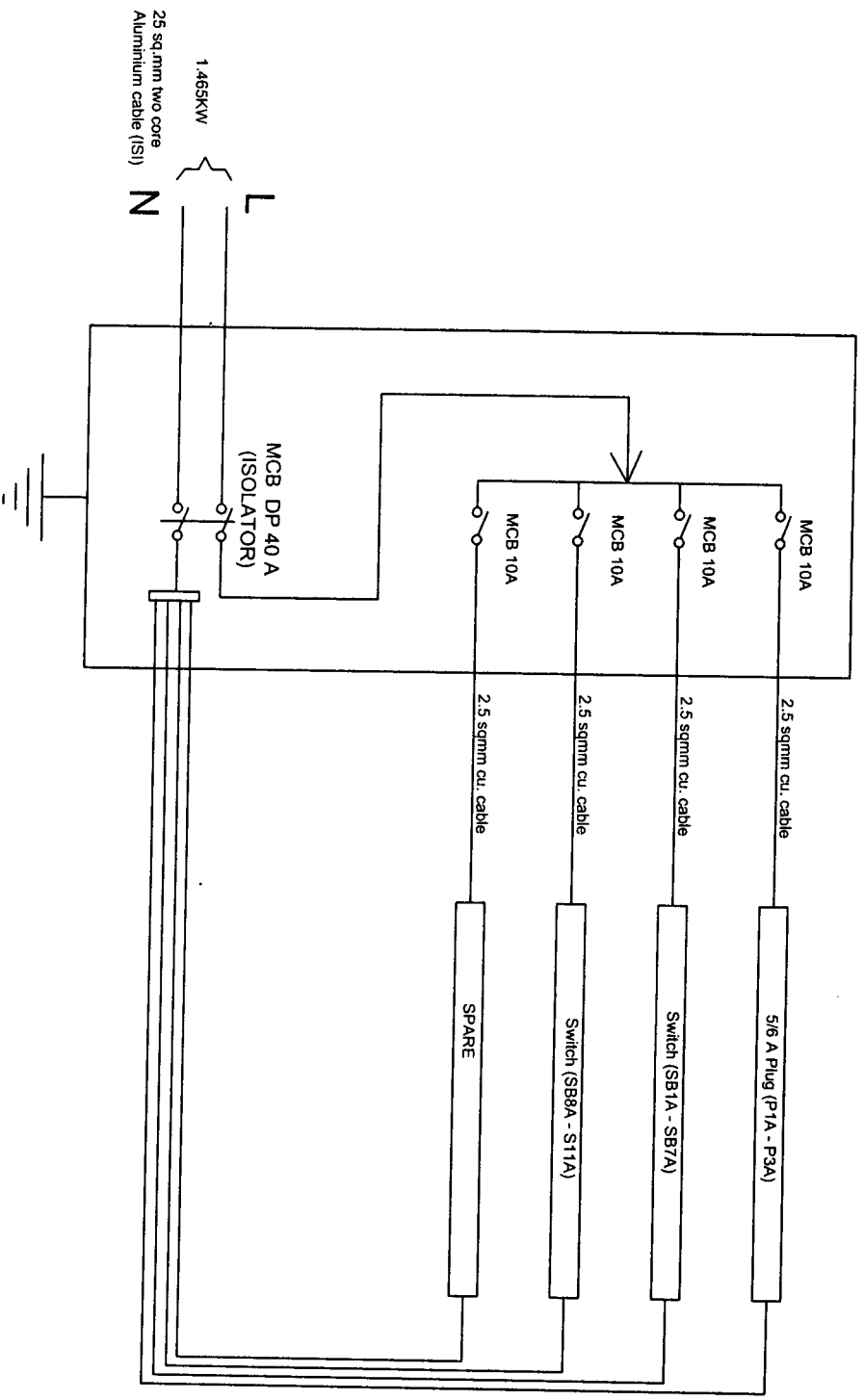
- LED Batten fitting 1 x 20W
4' with LED tube
- LED Batten fitting 1 x 12W
2' with LED tube
- 1200mm sweep Ceiling fan
- Wall mounting light(15 W CFL)
- Flood light(2X65 W CFL)
- Guyser 6 litres
- Control Switch board(Modular)
- 5amp S/S comb Plug
- 1amp S/S comb Plug
- Circuit Distribution board
- Main Distribution Board
- Water Cooler 120 ltrs
- Bracket wall mounted fan
400mm sweeps



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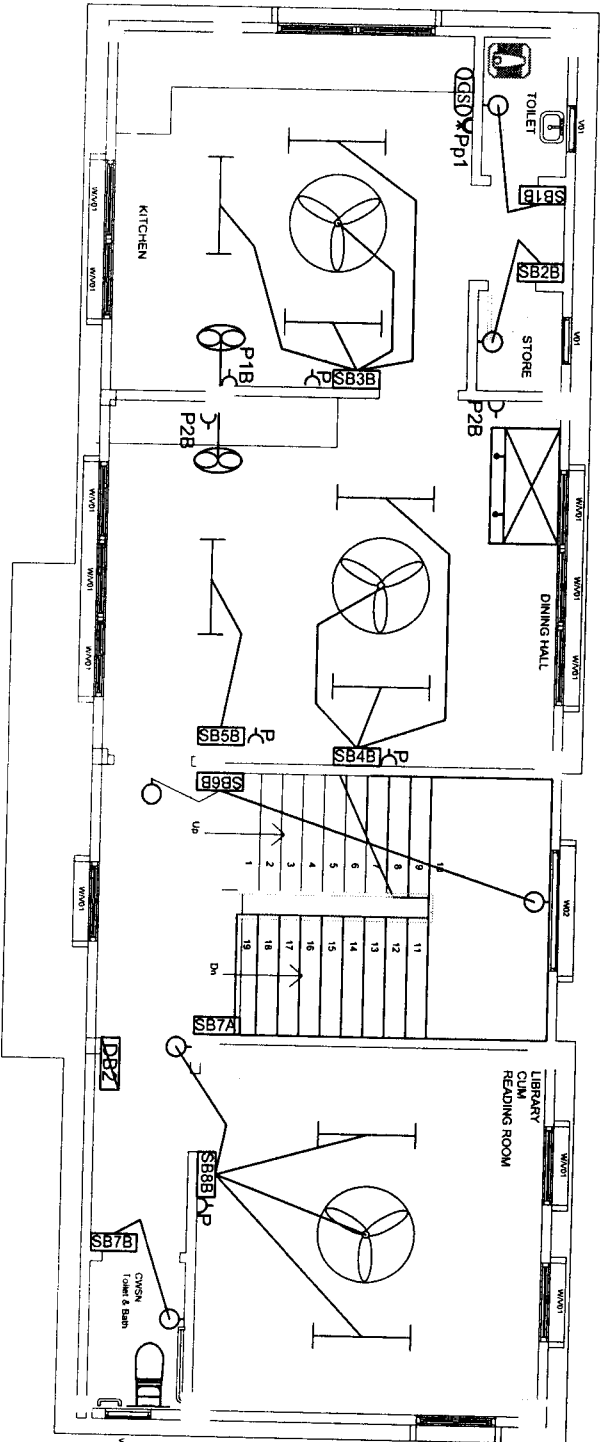
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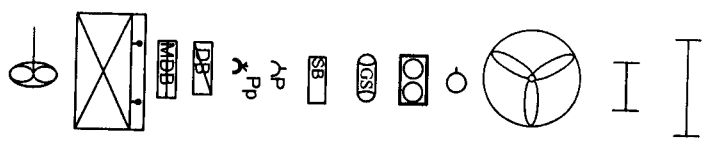


FIRST FLOOR

LEGENDS

SHEET NO : 3

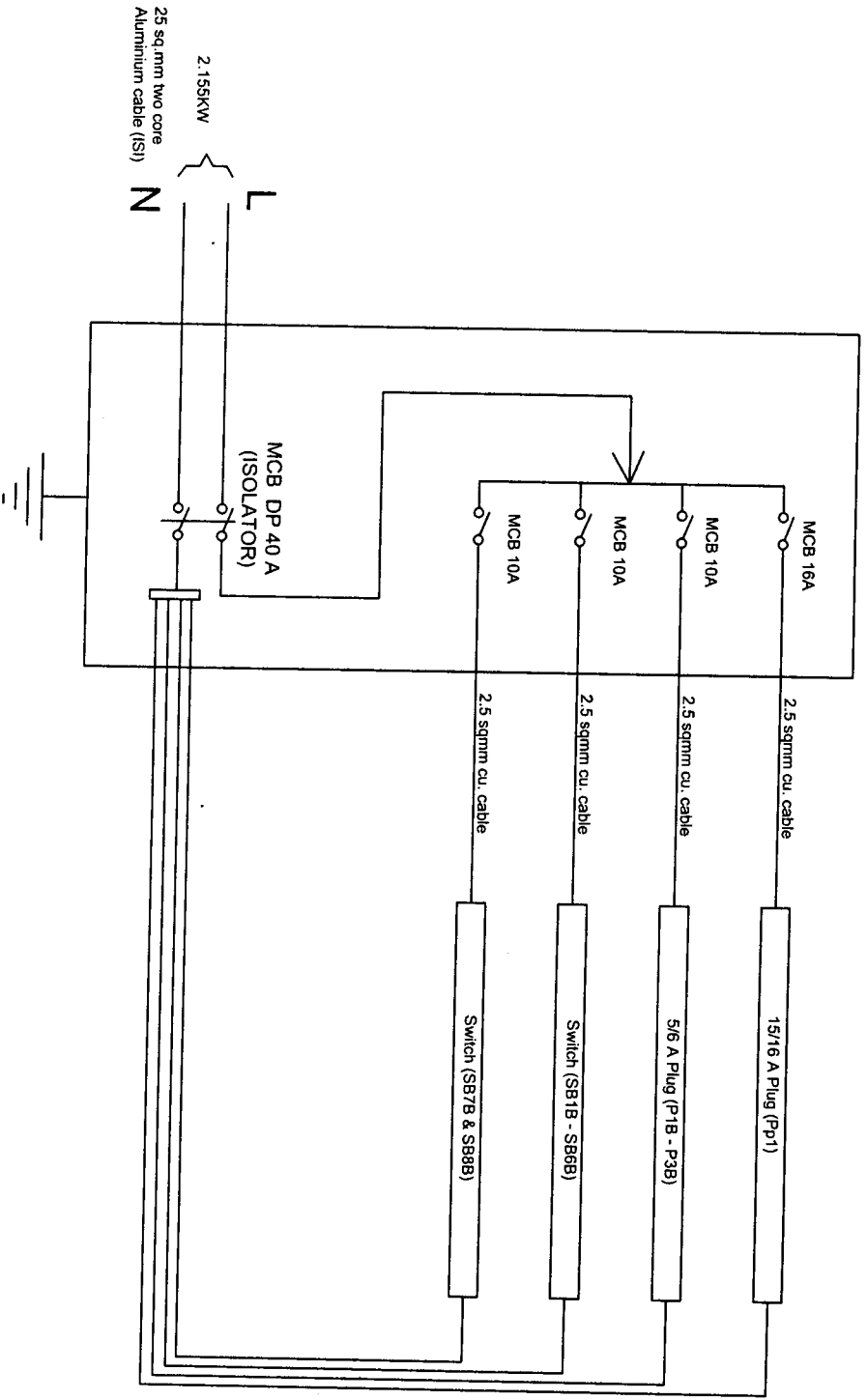
- LED Batten fitting 1 x 20W
4' with LED tube
- LED Batten fitting 1 x 12W
2' with LED tube
- 1200mm sweep Ceiling fan
- Wall mounting light(15 W CFL)
- Flood light(2X65 W CFL)
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400mm sweeps



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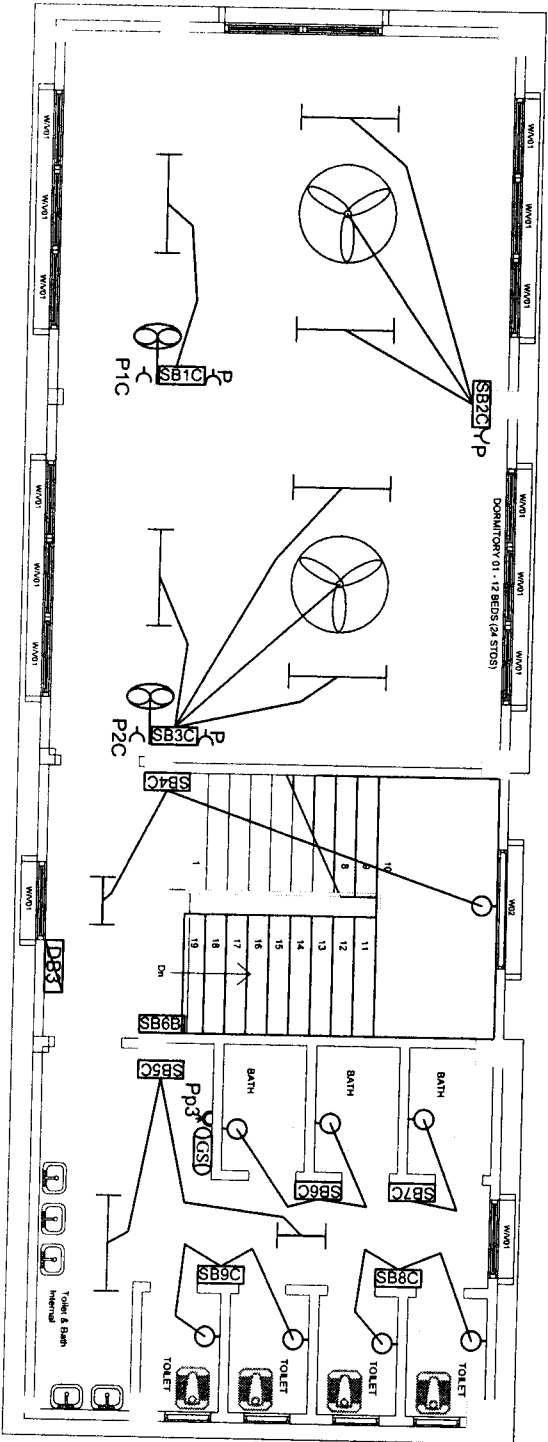
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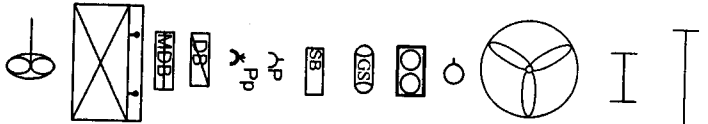


SECOND FLOOR

LEGENDS

SHEET NO. : 5

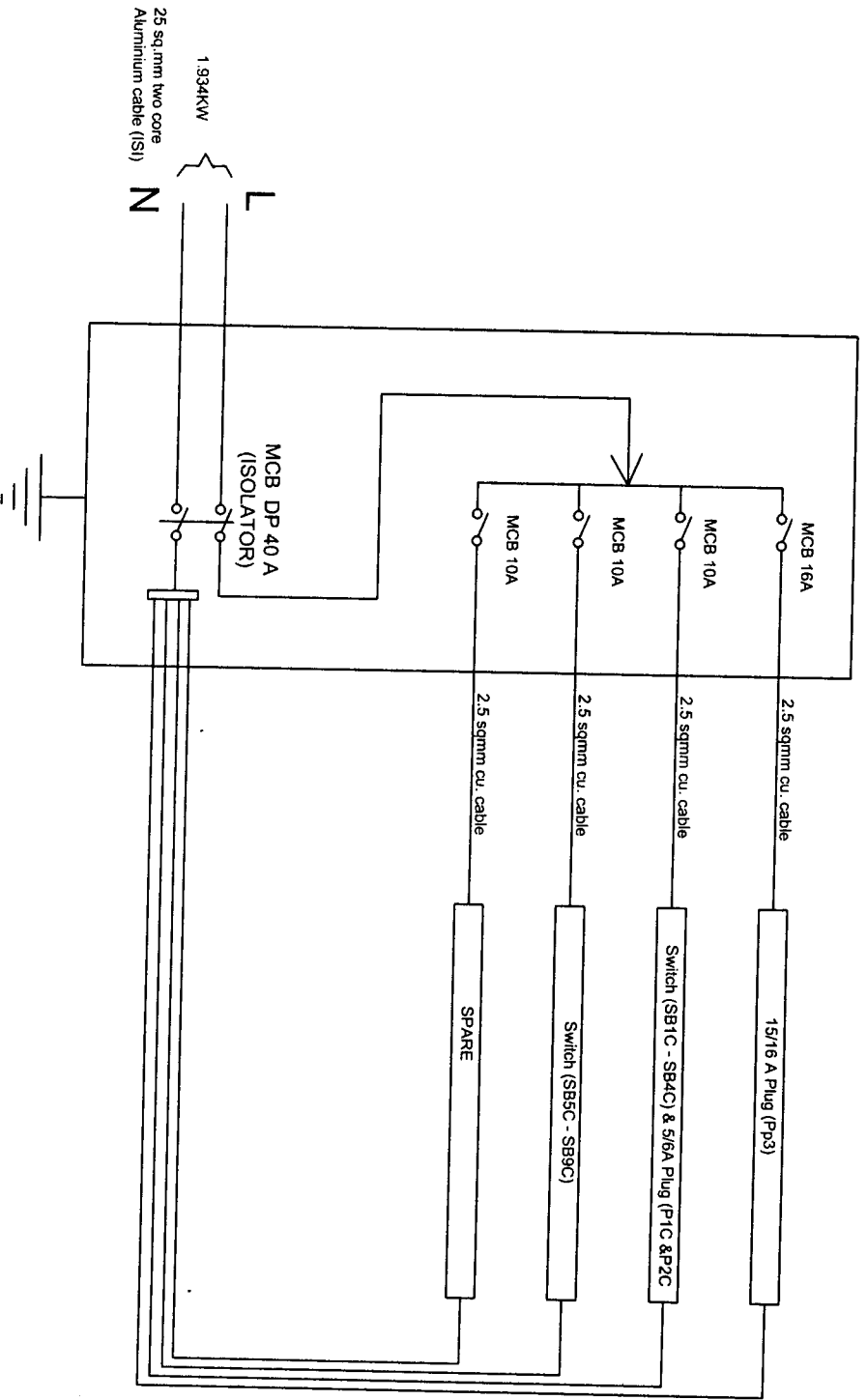
- LED Batten fitting 1 x 20W
4' with LED tube
- LED Batten fitting 1 x 12W
2' with LED tube
- 1200mm sweep Ceiling fan
- Wall mounting light(15 W CFL)
- Flood light(2X65 W CFL)
- Gyuser 6 litres
- Control Switch board(Modular)
- 5amp S/S comb Plug
- 1amp S/S comb Plug
- Circuit Distribution board
- Main Distribution Board
- Water Cooler 120 ltrs
- Bracket wall mounted fan
400mm sweeps



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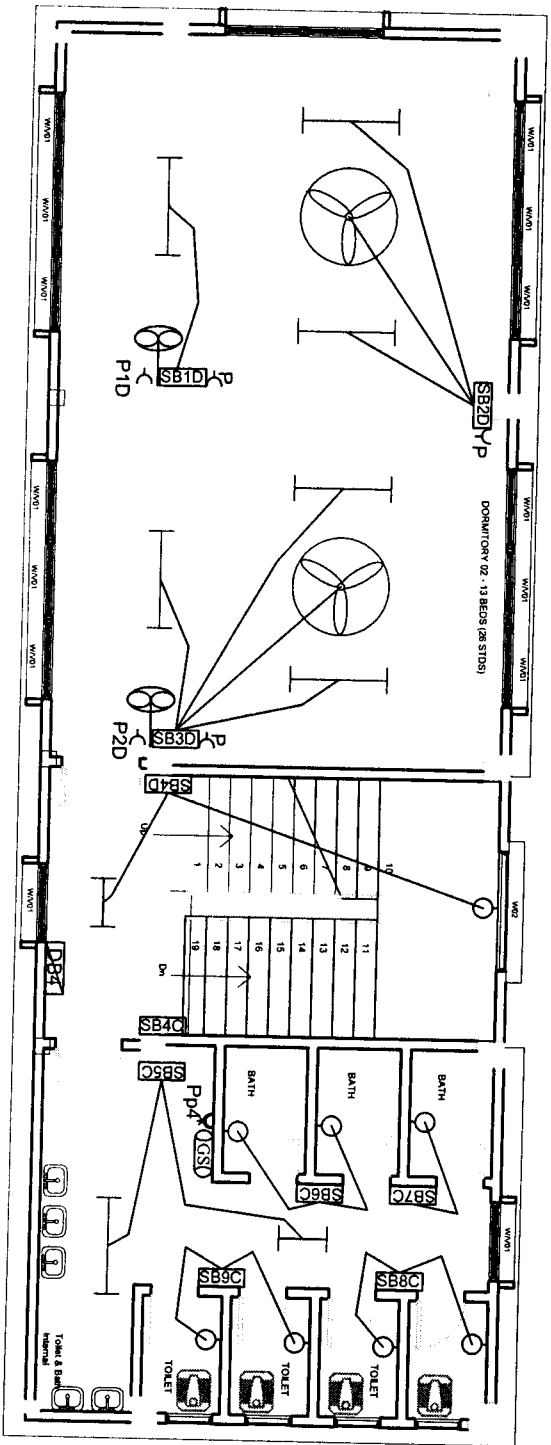
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NSCBV CHANNARI GIRLS HOSTELELEMENTARY LAWNGTLAI DISTRICT	
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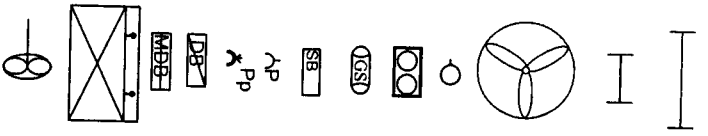


THIRD FLOOR

LEGENDS

SHEET NO. 7

- LED Batten fitting 1 x 20W
4' with LED tube
- LED Batten fitting 1 x 12W
2' with LED tube
- 1200mm sweep Ceiling fan
- Wall mounting light(15 W CFL)
- Flood light(2X65 W CFL)
- Guyser 6 litres
- Control Switch board(Medular)
- 5amp S/S comb Plug
- 1amp S/S comb Plug
- Circuit Distribution board
- Main Distribution Board
- Water Cooler 120 ltrs
- Bracket wall mounted fan
400mm sweeps



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Programme Officer

Civil works

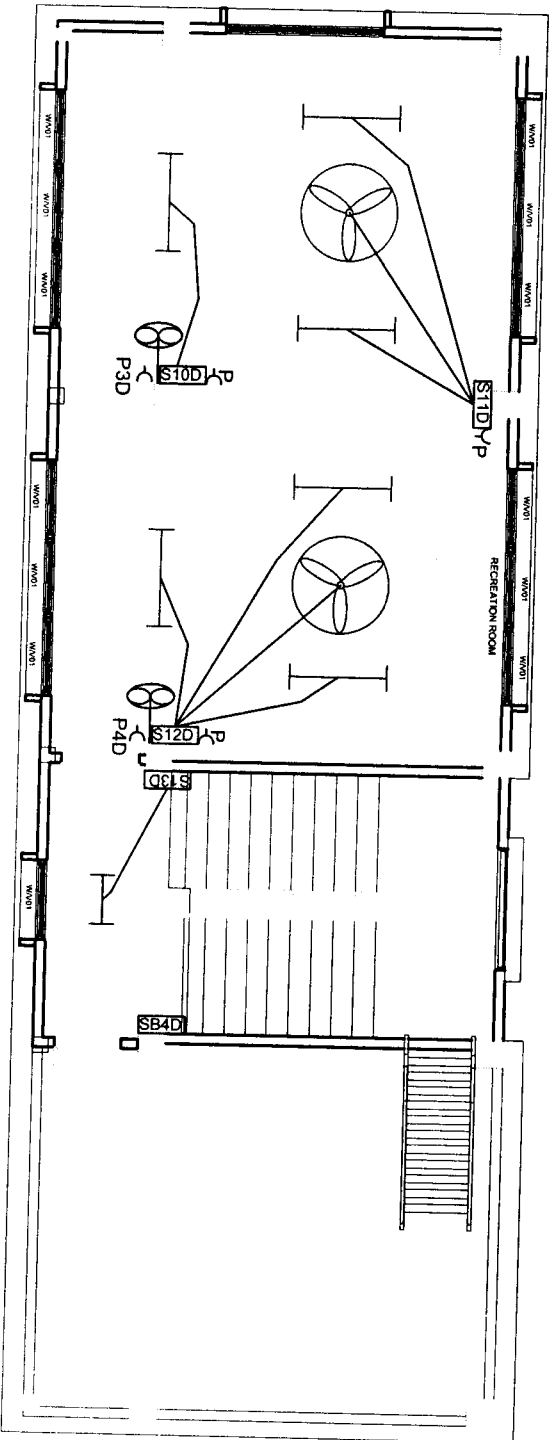
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Civil Works

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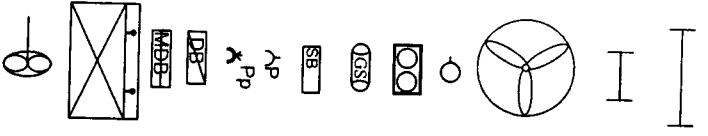


FOURTH FLOOR

LEGENDS

SHEET NO : 8

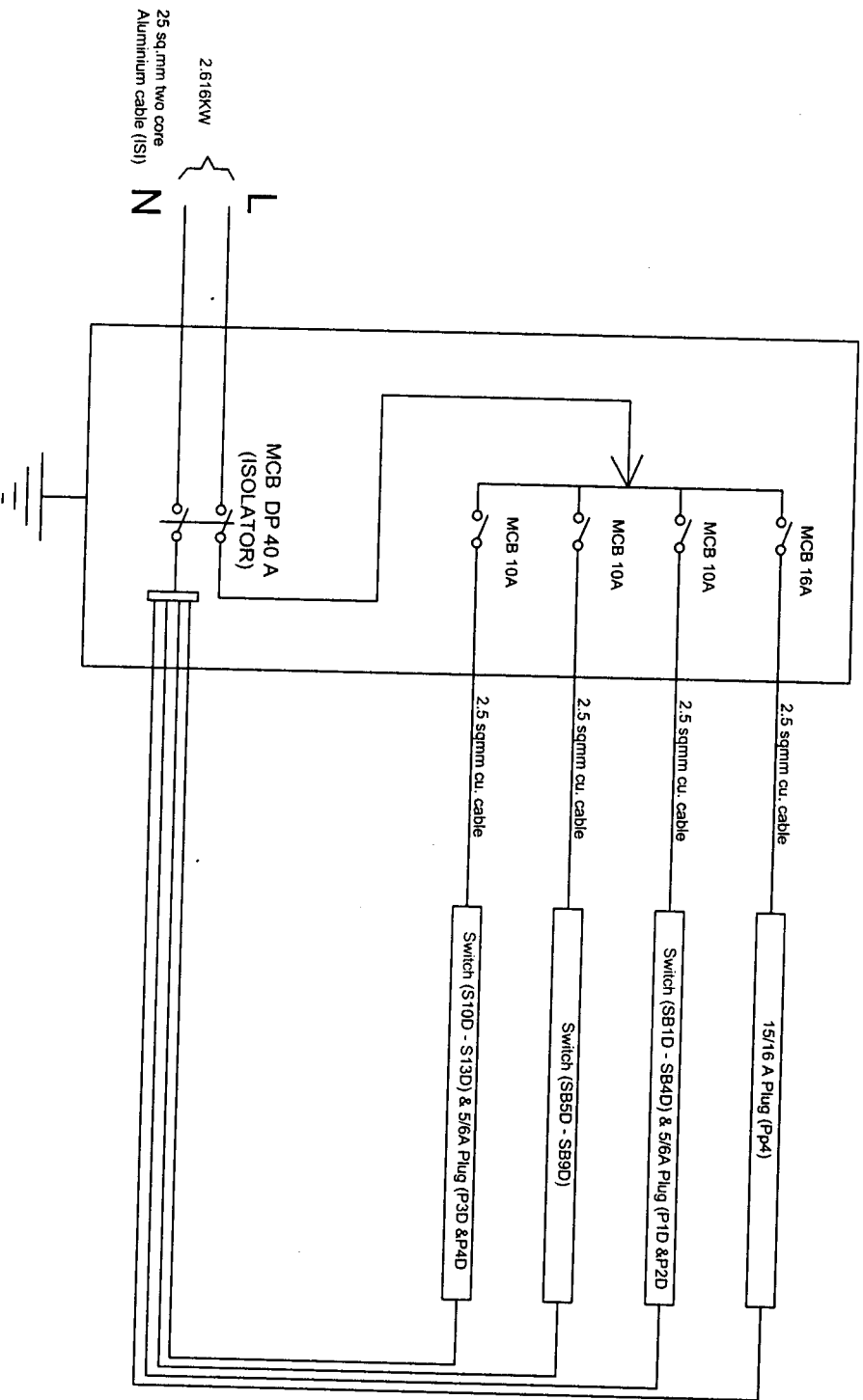
- LED Batten fitting 1 x 20W
4' with LED tube
- LED Batten fitting 1 x 12W
2' with LED tube
- 1200mm sweep Ceiling fan
- Wall mounting light(15 W CFL)
- Flood light(2X65 W CFL)
- Guyser 6 litres
- Control Switch board(Modular)
- Samp S/S comb Plug
- 1samp S/S comb Plug
- Circuit Distribution board
- Main Distribution Board
- Water Cooler 120 lns
- Bracket wall mounted fan
- 400mm sweeps



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CIRCUIT DISTRIBUTION (4)

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NSCBV CHANNARI GIRLS HOSTELELEMENTARY LAWNGTLAI DISTRICT	
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