

CHART SHOWING DETAIL OF ISOLATED FOOTING REINFORCEMENT

35		Footing to, roof level	Sectional plan with longitudinal reinf.
	-	No.	
	F1	Sr. Name of column No. footing (bxd)	
	35 X 35		
	120 X 120	(BXD)	Size of Size of column footing
	1. F1 35 x 35 120 x 120 130 x 130 30	(B1XD1)	Size of pit
		T2	of Thickness d-eff. h Sr
	25	d-eff.	
	20		7
	8Ø @ 200mm C/C		Spacing of reinf. Spacing of reinf. parallel to x-x parallel to y-y
	25 20 8Ø@ 200mm C/C 8Ø@ 200mm C/C		Spacing of reinf. parallel to y-y

No.

Column

Transverse reinforcement

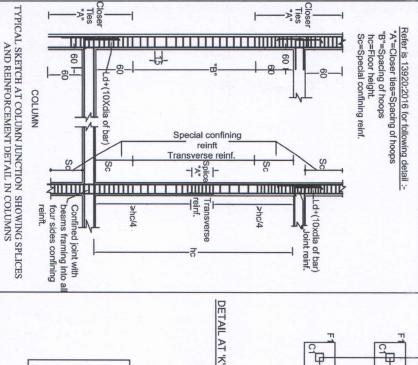
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2

8Ø@ 150mm C/C "B" 8Ø @100mm C/C "A"

All Column Size are 35cm x 35cm and Grade is M20

4-16Ø + 4-12Ø

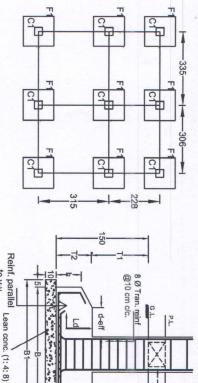


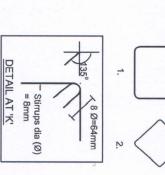
SHAPE OF STIRRUPS

FOOTING PLAN

to y-y

X- SECTION AT X-X





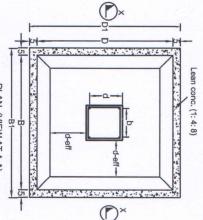
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Dr. Pardeep Kumar

Associate Professor (Structural Engg.



PLAN (VIEW AT A-A) OPTION 3 BUILDING NAME: PMAY HFA SLOPING ROOF

DETAIL OF FOOTINGS & CLOUMN

OF ISOLATED FOOTING

specified diameter of the bars shown in mm. All dimensions are in cm,unless wherever NOTES:-

- Dimensions are not to be scaled out, only written dimensions may be taken as correct.
- Safe bearing capacity for design of footing is considered at 15 T/m² to be ensured at site.
- Grade of concrete M:20.
- IS:1786-2008. deformed steel bars conforming The reinforcement shall be of high strength
- including stirrups:-Minimum clear cover to the reinforcement

---Plinth Beam.

25

- (i) Beam 25 mm
- (ii) Column 40 mm (iii) Footing 50 mm

Side cover 7.5 cm.

- Lap length and development length (La) (i) For 16 mm \emptyset = 800
- (ii) For $12 \text{ mm } \emptyset = 600$
- (iii) for 8 mm Ø = 400

Reinf. parallel

to x-x

- exceeding 0.55. The concrete shall be mechanically mixed and vibrated with water- cement ratio not
- Incase the proposed building is at probable landslide prone area the soil should be retained properly with adequate retaining wall to prevent differential settlement of the foundation.
- Any discrepancy in the structural drawing should be correlated with architectural drawing

Z-V/DWG-2 DRG. No. - NIT/CED/2017/OP-3 RCC-SR

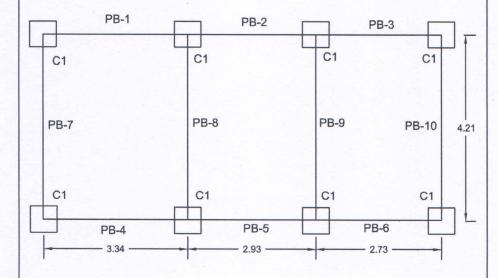
NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR

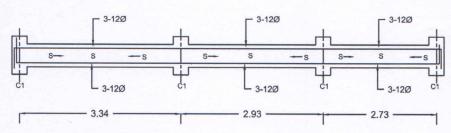
RCC BUILDING

Dr. Pardeep Kumar Dr. Hemant Kumar Vinayak DESIGNED BY:

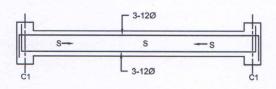
DETAILED DRAWING OF REINFORCEMENT OF BEAMS AT PLINTH LEVEL

S - 8 mm dia bars @ 100 mm c/c



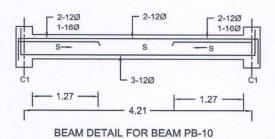


BEAM DETAIL FOR BEAM PB-1 to PB-6



- 4.21 -

BEAM DETAIL FOR BEAM PB-7 to PB-9



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- NOTES:
- All dimensions are in meters, unless wherever specified diameter of the bars shown in mm.
- Dimensions are not to be scaled out, only written dimensions may be taken as correct.
- Size of Beam is 250 X 250 mm.
- Grade of concrete shall be M20.
- All reinforcement shall be of grade
 Fe 415 confirming to IS:1786-2008.
- Clear Cover to reinforcement shall be 25 mm.
- Bending and fixing of reinforcement shall be as per is:2502-1963.
- Lap length and anchorage length shall be 57 times the bar diameter
- Further refer notes from the drawing of 'Detail' of footings'.

DRG. No. - NIT/CED/2017/OP-2-RCC-SR Z-V/DWG-3

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BUILDING NAME:
PMAY HFA
OPTION 2
REINFORCED CONCRETE
BUILDING
SLOPING ROOF
ZONE V

DETAIL OF PLINTH BEAM

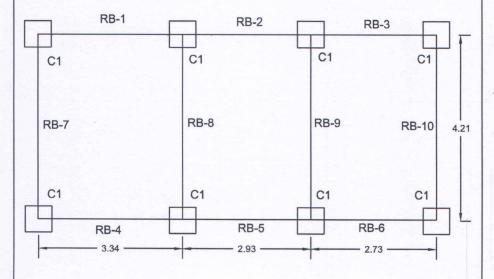
DESIGNED BY: Dr. Pardeep Kumar Dr. Hemant Kumar Vinayak

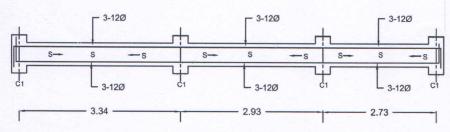
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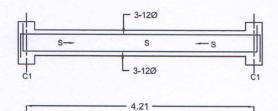
DETAILED DRAWING OF REINFORCEMENT OF BEAMS AT ROOF LEVEL

S - 8 mm dia bars @ 100 mm c/c





BEAM DETAIL FOR BEAM RB-1 to RB-6



BEAM DETAIL FOR BEAM RB-7 & RB-10

NOTES:

- All dimensions are in meters,unless wherever specified diameter of the bars shown in mm.
- Dimensions are not to be scaled out, only written dimensions may be taken as correct.
- Size of Beam is 250 X 250 mm.
- Grade of concrete shall be M20.
- All reinforcement shall be of grade Fe 415 confirming to IS:1786-2008.
- Clear Cover to reinforcement shall be 25 mm.
- Bending and fixing of reinforcement shall be as per is:2502-1963.
- Lap length and anchorage length shall be 57 times the bar diameter
- Further refer notes from the drawing of 'Detail' of footings'.

DRG. No. - NIT/CED/2017/OP-2-RCC-SR Z-V/DWG-4

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BUILDING NAME:
PMAY HFA
OPTION 2
REINFORCED CONCRETE
BUILDING
SLOPING ROOF
ZONE V

DETAIL OF ROOF BEAM

DESIGNED BY: Dr. Pardeep Kumar Dr. Hemant Kumar Vinayak

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