

BUILDING SPECIFICATION

STRUCTURAL CONSIDERATIONS:

Name of building	IA
Building Usage	Work shops with Provision for EOT Crane (Only crane rail clips to be included)
Building Area	10000 Sq. Ft

1	Frame type	:	RF/Clear Span
2	End frames	:	Expandable
3	Width	:	1@ 100 ft O/O of Steel Line
4	Width module	:	1@100 Ft
5	Length	:	100 Ft O/O of Steel Line
6	Bay spacing	:	4@7.5 m
7	Height	:	7 mtr clear up to eaves
8	Columns	:	Full Height Steel Column.
9	Roof slope	:	1:10
10	End wall column spacing	:	4@7.62m
11	Provision for future expansion	:	Expandable
12	Bracings	:	As per design
13	Roofing	:	Trapezoidal roofing sheets 0.50 mm TCT PPGL
14	Cladding (available color)	:	Trapezoidal roofing sheets 0.50 mm TCT PPGL
15	Brick/Block Masonry with UPVC Windows/Ventilators & RCC framed structure up to 3.30 M above plinth level	:	3.30 mtr 200 mm C.C block work in CC 1: 1.5 :3 with cement mortar 1:3.
16	Canopy	:	N.A.
17	Curved sheets / eaves	:	NA
18	Gutter	:	Eaves gutter - 0.50 mm TCT color coated galvalume
19	Down Spouts	:	0.50 mm TCT color coated galvalume up to 100 mm above plinth protection
20	Crane Details / Special loads	:	N.A.
21	Skylights	:	One in each bay of size 900 X 1200 mm
22	Wall Lights	:	600 X 1200 mm at every 3m C/C
23	Ridge / Rotary ventilator	:	Two in each bay
24	Finish paint for PEB structure	:	Color : Smoke gray Enamel

LEW: Left End Wall ; REW : Right End Wall ; FSW: Front Side Wall ; BSW: Back Side Wall

BUILDING SPECIFICATION

STRUCTURAL CONSIDERATIONS:

Name of building	2A
Building Usage	Work shops (without crane Provision)
Building Area	4921 Sq. Ft

1	Frame type	: RF/Clear Span
2	End frames	: Expandable
3	Width	: <u>1@ 15.24m O/O of Steel Line</u>
4	Width module	: <u>1@15.24m</u>
5	Length	: 30 m O/O of Steel Line
6	Bay spacing	: <u>4@7.5 m</u>
7	Height	: 7 mtr clear up to eaves
8	Columns	: Full Height Steel Column.
9	Roof slope	: 1:10
10	End wall column spacing	<u>2@7.62m</u>
11	Provision for future expansion	: Expandable
12	Bracings	: 2 Braced Bays
13	Roofing	: Trapezoidal roofing sheets 0.50 mm TCT PPGL
14	Cladding (available color)	: Trapezoidal roofing sheets 0.50 mm TCT PPGL
15	Brick/Block Masonry with UPVC Windows/Ventilators & RCC framed structure up to 3.30 M above plinth level	: 3.30 mtr 200 mm C.C block work in CC 1: 1.5 :3 with cement mortar 1:3.
16	Canopy	: N.A.
17	Curved sheets / eaves	: N.A.
18	Gutter	: Eaves gutter - 0.50 mm TCT color coated galvalume
19	Down Spouts	: 0.50 mm TCT color coated galvalume up to 100 mm above plinth protection
20	Crane Details / Special loads	: N.A.
21	Skylights	: One in each bay of size 900 X 1200 mm
22	Wall Lights	: 600 X 1200 mm at every 3m C/C
23	Ridge / Rotary ventilator	: Two in each bay
24	Finish paint for PEB structure	: Color : Smoke gray Enamel

LEW: Left End Wall ; REW : Right End Wall ; FSW: Front Side Wall ; BSW: Back Side Wall



BUILDING SPECIFICATION

STRUCTURAL CONSIDERATIONS:

Name of building	2B
Building Usage	Work shops (with 5 MT EOT Crane Provision Only - Clips to be provided)
Building Area	4921 Sq. Ft

1	Frame type	:	RF/Clear Span
2	End frames	:	Expandable
3	Width	:	<u>1@ 15.24m O/O of Steel Line</u>
4	Width module	:	<u>1@15.24m</u>
5	Length	:	30 m O/O of Steel Line
6	Bay spacing	:	<u>4@7.5 m</u>
7	Height	:	7 mtr clear up to eves
8	Columns	:	Full Height Steel Column.
9	Roof slope	:	1:10
10	End wall column spacing	:	<u>2@7.62m</u>
11	Provision for future expansion	:	Expandable
12	Bracings	:	2 Braced Bays
13	Roofing	:	Trapezoidal roofing sheets 0.50 mm TCT PPGL
14	Cladding (available color)	:	Trapezoidal roofing sheets 0.50 mm TCT PPGL
15	Brick/Block Masonry with UPVC Windows/Ventilators & RCC framed structure up to 3.30 M above plinth level	:	3.30 mtr 200 mm C.C block work in CC 1: 1.5 :3 with cement mortar 1:3.
16	Canopy	:	N.A.
17	Curved sheets / eaves	:	NA
18	Gutter	:	Eaves gutter - 0.50 mm TCT color coated galvalume
19	Down Spouts	:	0.50 mm TCT color coated galvalume up to 100 mm above plinth protection
20	Crane Details / Special loads	:	Provision Considered for 1 No. of 5 MT - EOT crane (Only Clips provided)
21	Skylights	:	N.A.
22	Wall Lights	:	One in each bay of size 900 X 1200 mm
23	Ridge / Rotary ventilator	:	600 X 1200 mm every 3m C/C
24	Framed openings	:	Two in each bay
25	Finish paint for PEB structure	:	Color : Smoke gray Enamel

LEW: Left End Wall ; REW : Right End Wall ; FSW: Front Side Wall ; BSW: Back Side Wall

Material Specification.

ITEM	DESCRIPTION	FINISH
1	Frames, Built-Up / HR Sections	All the Frames/Built up Material would be 345MPa. All the HR Sections would be Grade-36 ,240 MPa Painting: Two coats of Synthetic enamel paint over one coat of Red oxide primer.
2	Purlins / Girts / Bracings	Galvanized Purlins.(GI-120 GSM with YS-345 MPa)
3	Anchor Bolts	Grade -36/240 MPa - Black (Unpainted)
4.	Connection Bolts	Primary Connections – High Tension Bolts 8.8 Grade Secondary Connections – Machine Bolts of Grade 4.6.
5.	Roofing/Cladding Sheets	The Material will be Pre Painted Galvalume Sheets of 0.50mm thick.The material shall conform to ASTM A792 and the Galvalume coating to ASTM- A792 – AZ150.Yeild Strength 550MPa (Min) .The Top Coat will be 20 microns of RMP and the bottom will be 5-7Microns of Alkyd Back coat.
6.	All Accessories	Flashing or trim shall be furnished at the Ridge,Rake, Corners, Eaves, wherever necessary to provide weather-tightness and finished

DESIGN LOADS

As per MBMA

ITEM	DESCRIPTION	Load Details
1	Dead Load	0.10 KN/m ²
2	Live Load	0.57 KN/m ²
4	Snow Load	None
5	Collateral Load	None
6	Wind Load	44m/sec
7	Special Loads	None
8	Seismic Zone	Zone II

APPLICABLE CODES

The buildings proposed in this proposal shall be designed in compliance with the following codes:

Wind Speed as per IS 875

Design According to AISC/MBMA-96 standards.

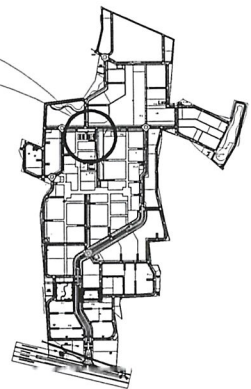
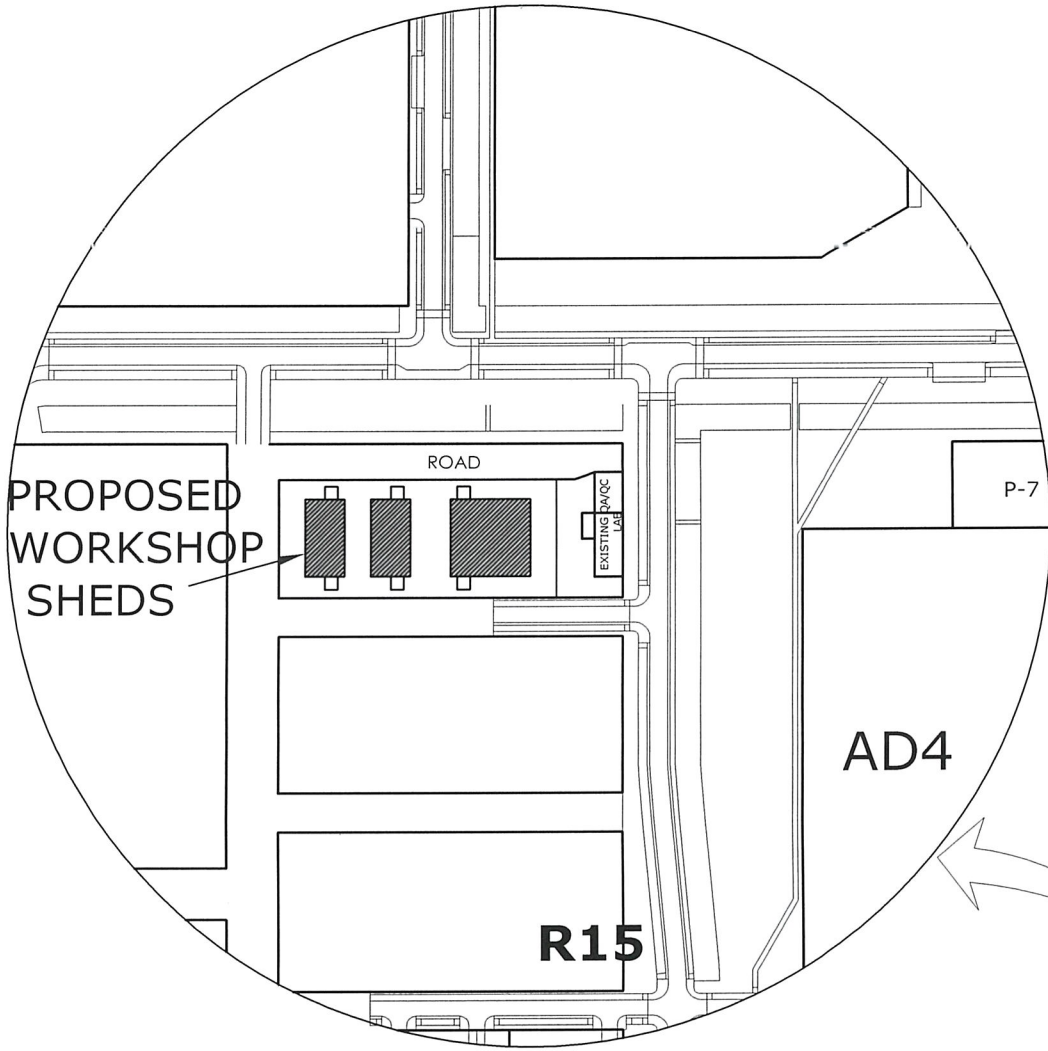
Wind co-efficient and Design combination as per IS 875 Part-III

The buildings shall be manufactured in accordance with the following codes:

AWS D1.1 Structural Welding Code.

MBMA Manual for Fabrication Tolerances.





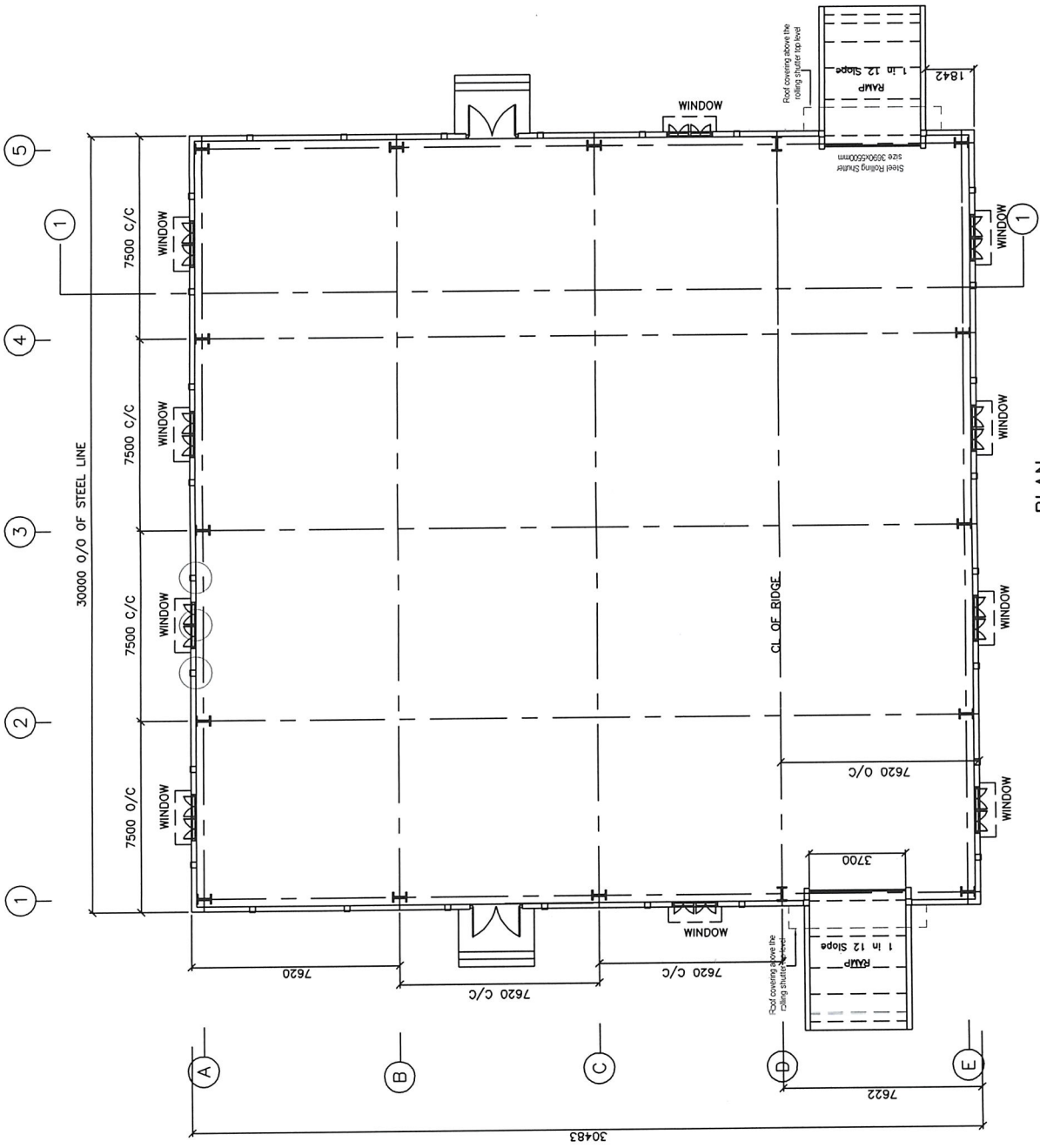
Name of Work: Workshop sheds 1A, 2A & 2B at IIT Hyderabad campus Kandi.

Note :- Drawing Not to Scale

Assistant Engineer (Civil)
Indain Institute of
Technology Hyderabad
Kandi (vill), Medak (Dist)

Executive Engineer (Civil)
Indain Institute of
Technology Hyderabad
Kandi (vill), Medak (Dist)

Superintending Engineer (Civil)
Indain Institute of
Technology Hyderabad
Kandi (vill), Medak (Dist)



PLAN

WORK SHOP SHED 1A OF SIZE 30.00MTRS X 30.48 MTRS AT IIT HYDERABAD CAMPUS AT KANDI

Drawing not to scale. All dimensions are in Millimeters.

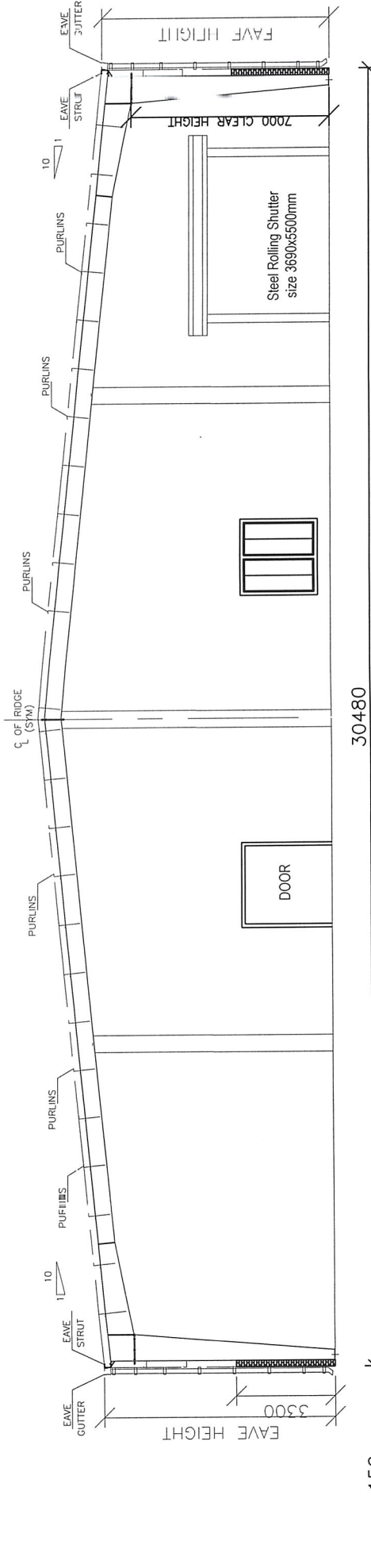
Indian Institute of Technology Hyderabad
Kandi - 5022935, Sangareddy, Telangana, INDIA

Assistant Engineer (Civil)
Indian Institute of Technology Hyderabad
KANDI (VIII), Medak (Dist.)

Executive Engineer (Civil)
Indian Institute of Technology Hyderabad
KANDI (VIII), Medak (Dist.)

Superintending Engineer (Civil)
Indian Institute of Technology Hyderabad
KANDI (VIII), Medak (Dist.)





PROPOSED CROSS SECTION 1-1

WORK SHOP SHED 1A OF SIZE 30.00MTRS X 30.48 MTRS AT IIT HYDERABAD CAMPUS AT KANDI

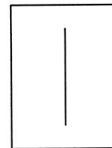
Notes: Drawing not to scale. All dimensions are in Millimeters.

Indian Institute of Technology Hyderabad
Kandi - 502285, Sangareddy, Telangana, INDIA

Superintending Engineer (Civil)
Indian Institute of Technology Hyderabad
KANDI (Vij), Medak (Dist)

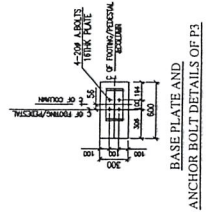
Executive Engineer (Civil)
Indian Institute of Technology Hyderabad
KANDI (Vij), Medak (Dist)

Assistant Engineer (Civil)
Indian Institute of Technology Hyderabad
KANDI (Vij), Medak (Dist)

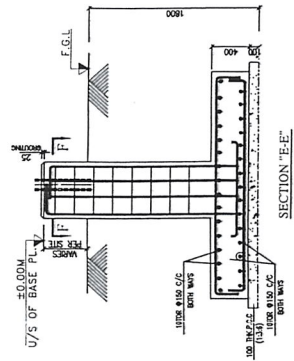
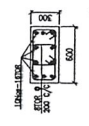


IT IS ADVISIBLE TO HAVE MARKOUT CENTER LINE BY TOTAL STATION INSTRUMENT

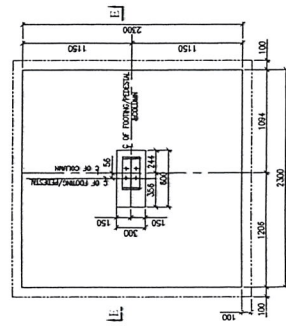
- NOTES:**
1. DIMENSIONS ARE IN MILLIMETERS AND DECIMALS IN METERS.
 2. CONCRETE GRADE, M20 GRADE OF STEEL, M30 GRADE.
 3. JOINTING SHALL NOT BE SCALLOPPED DIMENSIONS SHALL BE FOLLOWED.
 4. ALL DIMENSIONS ARE TO FACE UNLESS SPECIFIED OTHERWISE.
 5. CLEAR COVER:
 - FOOTING BOTTOM = 50mm & TOP = 40mm.
 - PEDESTAL = 40mm & 50mm = 40mm.
 6. CENTER OF FOOTING AND PEDESTAL LIES AT THE SAME POINT.
- LEGEND:**
- F⁺ FOOTING
 - P⁺ PANDA BEAM
 - F⁻ PEDESTAL
 - TOP TOP OF CONCRETE
 - FULL FINISHED GROUND LEVEL



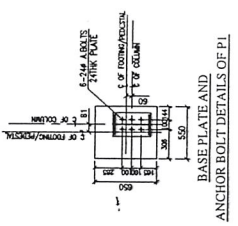
BASE PLATE AND ANCHOR BOLT DETAILS OF P3



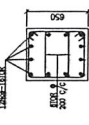
SECTION "E-E"



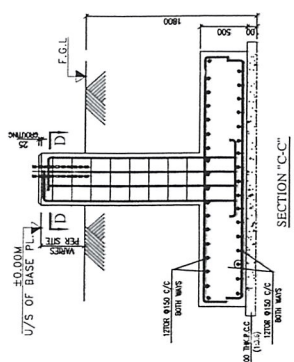
PLAN: P3/E



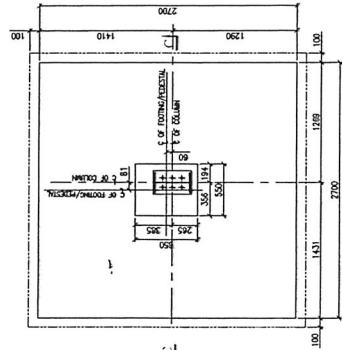
BASE PLATE AND ANCHOR BOLT DETAILS OF P1



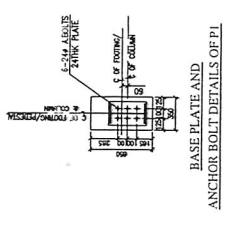
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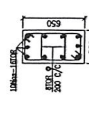
SECTION "C-C"



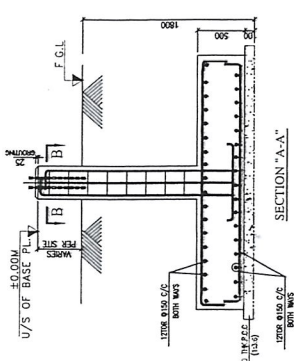
PLAN: P1/C



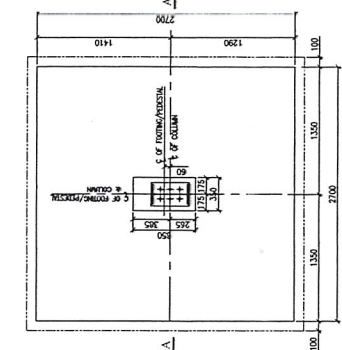
BASE PLATE AND ANCHOR BOLT DETAILS OF P1



SECTION "B-B"



SECTION "A-A"



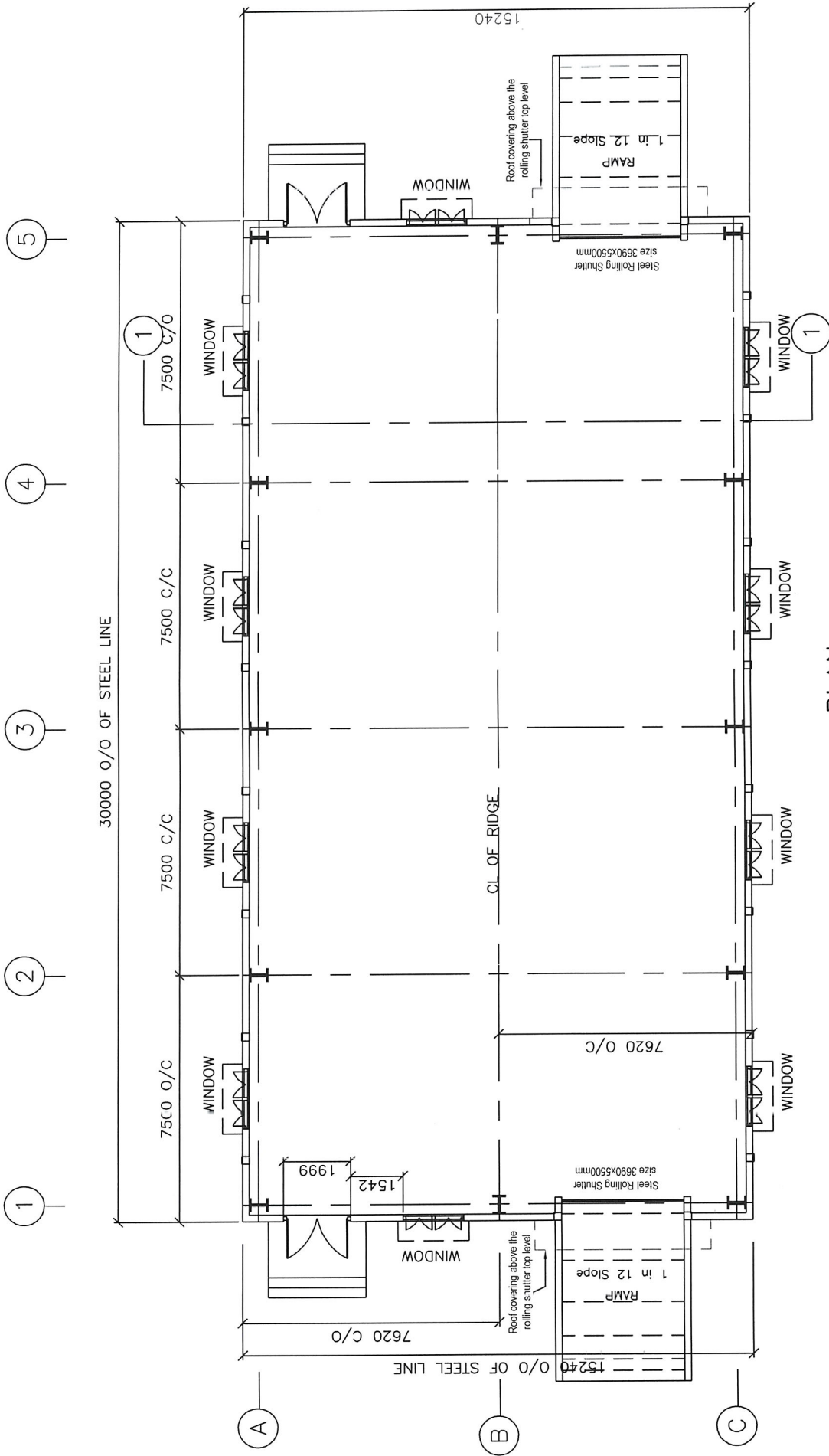
PLAN: P1/A

INDIA INSTITUTE OF TECHNOLOGY HYDERABAD
KANDI, SANGAREDDY.

TITLE: FOOTING/PEDESTAL DETAILS
DWG. No. FDN-02

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PLAN

WORK SHOP SHED 2A & 2B OF SIZE 30.00MTRS X 15.24 MTRS AT IIT HYDERABAD CAMPUS AT KANDI

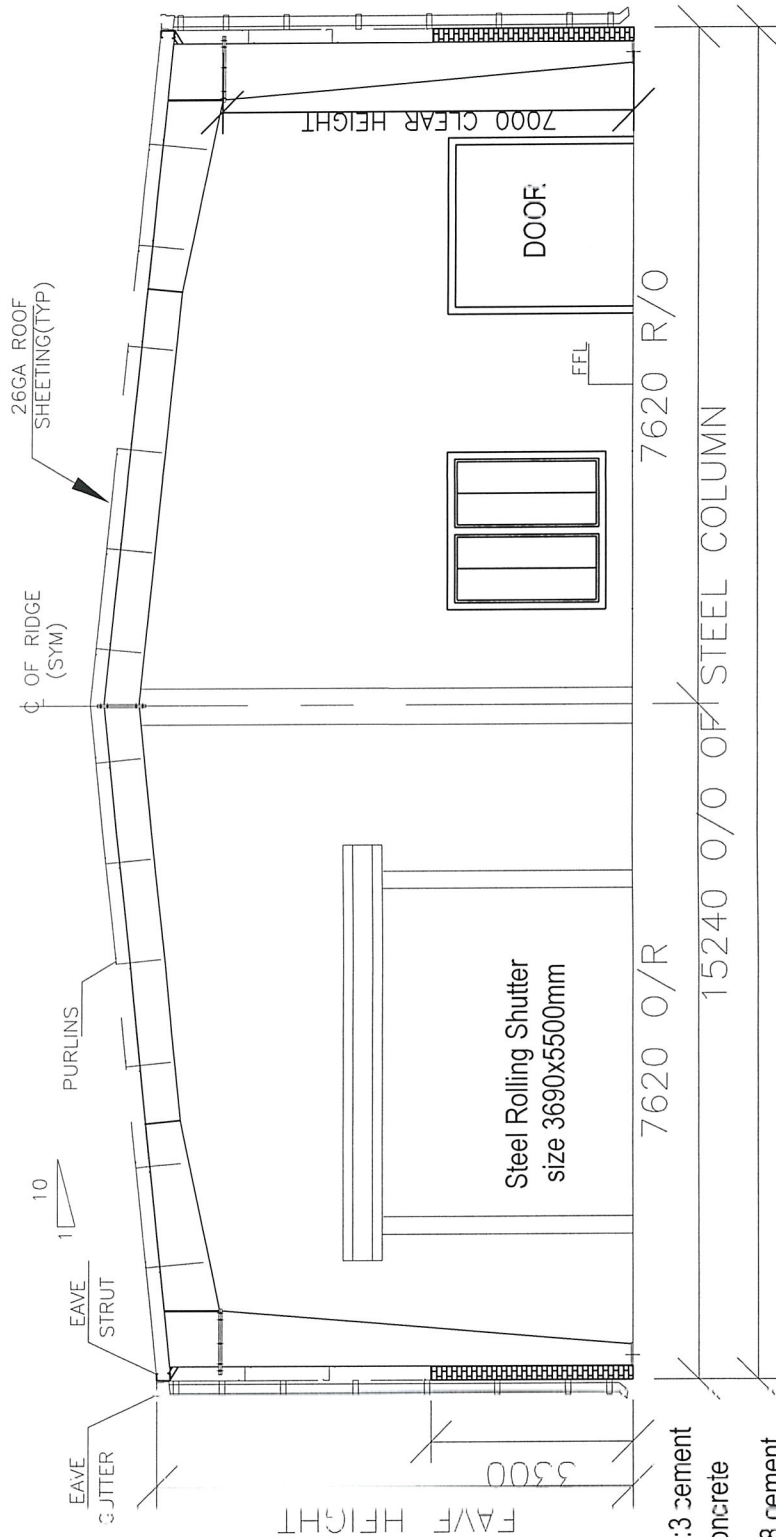
Drawing not to scale. All dimensions are in Millimeters.

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Kandi - 502285, Sangareddy, Telangana, INDIA

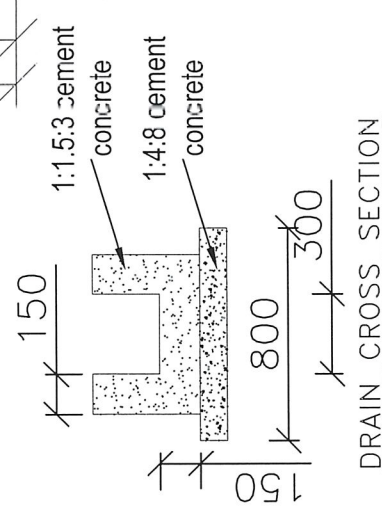
Assistant Engineer (Civil)
Indian Institute of Technology Hyderabad
KANDI (VIII), Medak (Dist.)

Executive Engineer (Civil)
Indian Institute of Technology Hyderabad
KANDI (VIII), Medak (Dist.)


Superintending Engineer (Civil)
Indian Institute of Technology Hyderabad
KANDI (VIII), Medak (Dist.)



PROPOSED CROSS SECTION 1-1



DRAIN CROSS SECTION

Indian Institute of Technology Hyderabad Kandi - 502285, Sangareddy, Telegana, INDIA		WORK SHOP SHED 2A & 2B OF SIZE 30.00MTRS X15.24 MTRS AT IIT HYDERABAD CAMPUS AT KANDI	
Notes: Drawing not to scale. All dimensions are in Millimeters.		Notes: Drawing not to scale. All dimensions are in Millimeters.	
Assistant Engineer (Civil) Indian Institute of Technology Hyderabad KANDI (VIII), Medak (Dist.)	Executive Engineer (Civil) Indian Institute of Technology Hyderabad KANDI (VIII), Medak (Dist.)	Superintending Engineer (Civil) Indian Institute of Technology Hyderabad KANDI (VIII), Medak (Dist.)	

IT IS ADVISIBLE TO HAVE MARKOUT CENTER LINE BY TOTAL STATION INSTRUMENT

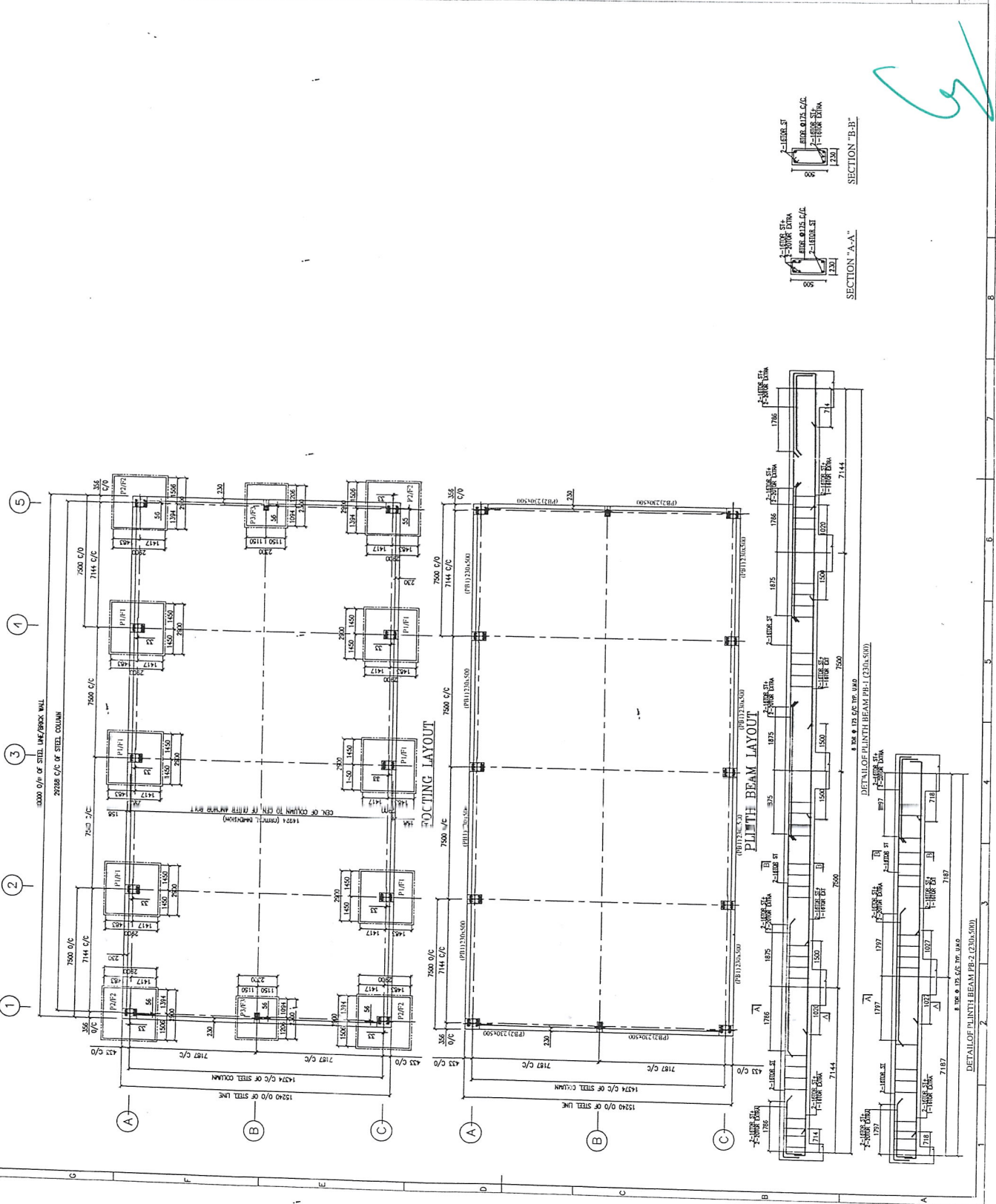
NOTES:
 1. DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METERS.
 2. CONCRETE GRADE IS 25 GRADE OF STEEL (M20) U.L.O.
 3. ALL REINFORCEMENT SHALL BE SOLDERED UNLESS OTHERWISE SPECIFIED.
 4. ALL WORK SHALL BE CHECKED AT 50% APPROXIMATELY DEPTH = 1m.
 5. SOLAR COVER:
 FOOTING BOTTOM = 7mm & TOP = 5mm.
 FOOTING TOP = 10mm & 10mm.
 CENTER OF FOOTING AND REINFORCEMENT IS AT THE SAME POINT.

LEGEND:
 F- FOOTING
 P-P PANTH BEAM
 T-C- TOP OF CONCRETE
 F.L.M- FINISHED GROUND LEVEL

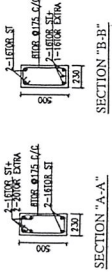
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INDIA INSTITUTE OF TECHNOLOGY HYDERABAD
 LANDI, SANGAREDDY.

DWG. NO. FDN-01



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FOOTING LAYOUT

PANTH BEAM LAYOUT

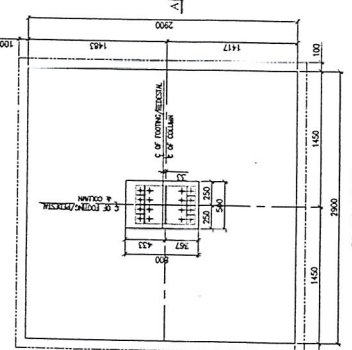
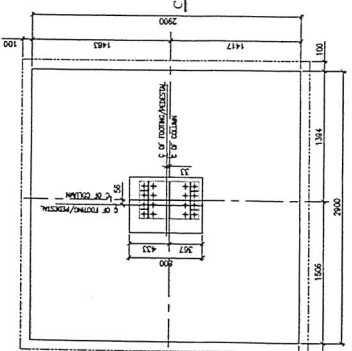
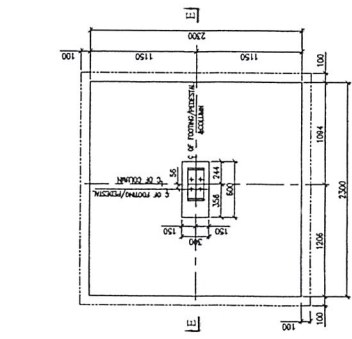
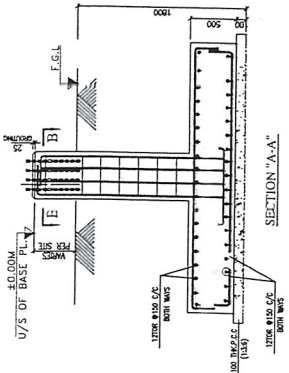
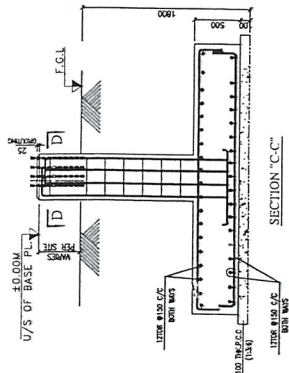
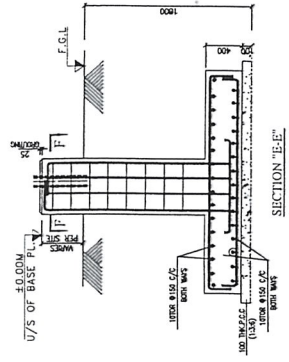
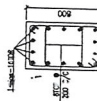
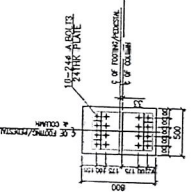
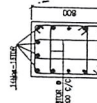
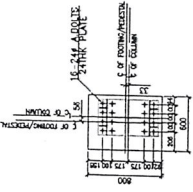
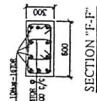
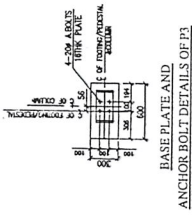
DETAIL OF PANTH BEAM PB-1 (230x300)

DETAIL OF PANTH BEAM PB-2 (230x300)

IT IS ADVISIBLE TO HAVE MARKOUT CENTER LINE BY TOTAL STATION INSTRUMENT

NOTES:
 1. DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METERS.
 2. CONCRETE GRADE AND MIX-RATIO OF STEEL WELD WIRE.
 3. FINISHING SHALL NOT BE SOUGHT UNLESS DIMENSIONS SHALL BE FOLLOWED.
 4. ALL DIMENSIONS ARE TO BE TAKEN FROM THE CENTER LINE OF THE COLUMN.
 5. ALL DIMENSIONS ARE TO BE TAKEN FROM THE CENTER LINE OF THE COLUMN.
 6. ALL DIMENSIONS ARE TO BE TAKEN FROM THE CENTER LINE OF THE COLUMN.

LEGEND:
 F- FOOTING
 P- PARTIAL BEAM
 FC- TOP OF CONCRETE
 FGL- FINISHED GROUND LEVEL



INDIA INSTITUTE OF TECHNOLOGY HYDELABAD
 KANDI, SANGAREDDY.

FIG. NO. FDY-42
 TITLE: FOOTING/PEDISTAL DETAILS

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