CIVIL & STRUCTURAL DRAWING LIST

SL. NO.	DRAWING TITLE	DRAWING NUMBER	SHEET	REVISION
1.	GENERAL NOTES FOR CIVIL & STRUCTURAL WORKS	18A08-DWG-C-0001	1	0
2.	CONCRETE WORKS – STANDARD DETAILS	18A08-DWG-C-0002	1	0
3.	CONTROL BUILDING – LAYOUT & DETAILS OF PILE AND PILE CAP	18A08-DWG-C-0003	2	0
4.	CONTROL BUILDING – SUPERSTRUCTURE GA & RC DRAWING	18A08-DWG-C-0004	6	0
5.	CONTROL BUILDING – STAIR – GA & RC DETAILS	18A08-DWG-C-0005	2	0
6.	GA & FDN DETAILS OF CONNECTING PLATFORM BETWEEN CONTROL BUILDING & EXISTING BOILER BUILDING	18A08-DWG-C-0006	2	0
7.	CONTROL BUILDING – DETAILS OF GRADE SLAB	18A08-DWG-C-0007	1	0

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RELEASE STATUS	DATE	SIGNATURE
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FOR CONSTRUCTION	24.09.19	AR
REVIEWED: ARCHITECTURAL		
REVIEWED: CIVIL & STRUCTURAL		
REVIEWED: ELECTRICAL		
REVIEWED: INSTRUMENTATION		
REVIEWED: MECHANICAL		
REVIEWED: *		

IFFCO PARADEEP

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: LIST OF DETAIL ENGINEERING DRAWINGS

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	ASHIS	JOB NO.	18A08
CHECKED	NC	SCALE	1:1
APPROVED	AR	DATE	22.02.2019
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SHEET 1 OF 1

FILE LOCATION: E:\NC\IFFCO BOILER CONTROL ROOM\Drawing Prep\IFFCO CS PROGRESS DRGS UPTO 24-09-19\For IFC\Drawing List - Civil.dwg
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GENERAL NOTES FOR STRUCTURAL WORKS

A. GENERAL

1. ALL DIMENSIONS ARE IN MILLIMETRE AND LEVELS ARE IN METRES.
2. ALL ELEVATIONS ARE WITH RESPECT TO ROAD CAMBER TOP LEADING TO CHP, CONSIDERED AS EL.(±)0.0M.
3. CRUSHING STRENGTH OF GROUT SHALL BE ONE GRADE HIGHER THAN THE FOUNDATION CONCRETE GRADE SUBJECT TO A MINIMUM VALUE OF 30N/Sq.mm.
4. ALL GROUT UNDER COLUMN BASE PLATES SHALL BE READY MIX NON-SHRINK FREE-FLOW GROUT OF APPROVED MANUFACTURER, AFTER THE COLUMN IS ERECTED IN POSITION AND ALIGNED TO PLUMB.
5. THE BOTTOM SURFACE OF COLUMN SHAFT WHICH IS IN CONTACT WITH THE BASE PLATES SHALL BE MACHINED GROUND SMOOTH BEFORE BOTH ARE WELDED TOGETHER.
6. FABRICATION AND ERECTION SHALL CONFORM TO IS:800 AND RELEVANT CLAUSES OF TECHNICAL SPECIFICATION.
7. STIFFENER PLATES SHALL BE PROVIDED AS PER DESIGN/SCHEME DRAWING.
8. BOX SECTION (CHS, SHS & RHS) SHALL BE PROVIDED WITH DIAPHRAGM PLATES CUT TO THE PROFILE OF SECTION AND THE CAP PLATES TO SAFE-GUARD AGAINST DUST AND WATER.
9. MINIMUM ERECTION GAP BETWEEN COLUMN AND BRACING SHALL BE 25mm TO PERMIT SPACE FOR RETURN WELD.
10. WHERE TWO SIMILAR EQUAL SECTIONS ARE JOINTED BACK TO BACK TO FORM A SINGLE MEMBER, THEY SHALL BE PROVIDED WITH PACK PLATES AT REGULAR INTERVALS IN ACCORDANCE WITH THE PROVISIONS OF IS:800.
11. ENTIRE TRUSS SHALL BE FABRICATED AND ERECTED IN SINGLE PIECE UPTO 12M SPAN.
12. ALL WELDING PROCEDURES FOR MILD STEEL INCLUDING SELECTION OF ELECTRODES, EDGE PREPARATION, PRE-HEATING/POST-HEATING AND WELDING SEQUENCE SHALL BE AS PER SPECIFICATION AND AS PER APPROVED WPS.
13. WELDING SHALL CONFORM TO IS:816, IS:9595 & WELDING SYMBOLS TO IS:813.
14. ALL GUSSET PLATES FOR BRACING ARE ENVISAGED TO BE BUTT WELDED IN SHOP TO COLUMN FLANGE/WEB. HOWEVER, CONTRACTOR MAY BE REQUIRED TO WELD THE GUSSETS TO COLUMNS AFTER ERECTION OF COLUMNS IN SPECIFIC CASES WITH THE APPROVAL OF THE ENGINEER.
15. U.N.O., TIES AND BRACINGS (EXCEPT BOX TYPE BRACING SECTION) FORMED BY SINGLE CHANNEL OR ANGLE COMING ON BOTH FLANGES OF COLUMNS SHALL BE INTERLACED BY MEANS OF ANGLES AS PER APPROVED DETAILS.
16. LENGTH OF ALL THE INCLINED MEMBERS SHALL BE VERIFIED BY FULL SCALE SHOP LAYOUT PRIOR TO START OF FABRICATION.
17. ALL GRATINGS SHALL BE FACTORY MADE ELECTROFORGED. THICKNESS OF ALL GRATINGS SHALL BE KEPT AS 40MM. STEEL FOR GRATING SHALL CONFORM TO GRADE-'A' OF IS:2062.
18. CONTRACTOR SHALL SUBMIT ERECTION SCHEME FOR ERECTION OF VARIOUS STRUCTURAL ELEMENTS, SHALL GET IT APPROVED BY THE ENGINEER. FABRICATION/WORKING DRAWINGS SHALL BE PREPARED CONSIDERING STRESSES DUE TO ERECTION LOADS AND IF REQUIRED, TEMPORARY STRENGTHENING SHALL BE DONE TO TAKE CARE OF THE ERECTION STRESSES.
19. CONTRACTOR SHALL SUBMIT STANDARD DETAILS WITH SUPPORTING CALCULATIONS OF SPLICING FOR ROLLED SECTIONS, DIFFERENT TYPE OF WELDS, SHEAR CONNECTION FOR BEAMS OF VARIOUS SIZES, SPLICING FOR BOX CHANNEL SECTION OF VARIOUS SIZES.
20. ALL SPLICING IS TO BE DONE AS PER STANDARD SPLICING DETAILS.
21. COLUMN SHALL BE FABRICATED AND ERECTED IN SINGLE PIECE UPTO THE MAX. LENGTH WITHOUT EFFECTING REQUIRED ACCURACY.
22. GALLERIES, BUNKER/HOPPER ETC. SHALL BE TRIAL ASSEMBLED PRIOR TO DESPATCH TO SITE FOR ERECTION.
23. CUTTING OF ALL STRUCTURAL STEEL SHALL BE DONE AS PER CUTTING PLAN PREPARED BY CONTRACTOR AND APPROVED BY THE ENGINEER.
24. ALL INSPECTION/TESTING OF MATERIAL, WELDING, PAINTING ETC. SHALL BE AS PER TECHNICAL SPECIFICATION AND APPROVED FIELD QUALITY PLAN (FQP) AND WPS.
25. AS BUILT FABRICATION DRAWING ALONGWITH AS BUILT BILL OF MATERIAL SHALL BE PREPARED AND SUBMITTED BY CONTRACTOR TO THE ENGINEER AT SITE FOR APPROVAL AFTER COMPLETION OF THE STRUCTURE BY ENGINEER.
26. GALLERIES SHALL GENERALLY BE ERECTED AS BOX SECTION i.e. BOTTOM CHORD BRACING, TOP CHORD BRACING, SIDE VERTICAL POSTS, VERTICAL BRACINGS AND END PORTALS SHALL BE COMPLETELY WELDED PRIOR TO ERECTION AND, IF REQUIRED, TEMPORARY STRENGTHENING DURING ERECTION SHALL BE MADE.
27. STAINLESS STEEL HOPPER SHALL BE WITH STAINLESS STEEL OF GRADE SS 409M.

B. NUTS & BOLTS

1. ALL ERECTION BOLTS SHALL BE MINIMUM 16mm DIA UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER.
2. ALL MS BOLTS SHALL BE OF PROPERTY CLASS 4.6 AS PER IS:1367 AND GRADE-C AS PER IS:1363. PREFERRED BOLT SIZE SHALL BE M16 & M20 UNLESS NOTED OTHERWISE.
3. ALL HIGH STRENGTH STRUCTURAL BOLTS SHALL BE OF PROPERTY CLASS 8.8 AND PRODUCT GRADE-C CONFORMING TO IS:1367 AND SHALL MEET TTHE PROVISIONS OF IS:3757 WITH REGARD TO DIMENSIONS, SIZE, GRADE, NUT PROPERTY CLASS AND THREAD SIZES. PREFERRED BOLT SIZE SHALL BE M20, M24 & M30 UNLESS NOTED OTHERWISE.
4. ALL DESIGN PARAMETERS INCLUDING SLIP FACTOR, APPLIED PRE-TENSION IN BOLT, SURFACE PREPARATION AND FACTOR OF SAFETY ETC. FOR FRICTION TYPE (SLIP RESISTANT) JOINTS WITH HIGH STRENGTH BOLTS SHALL BE AS PER IS:4000.
5. ALL NUTS SHALL BE OF HEAVY DUTY HEXAGONAL TYPE AND SHALL BE COMPATIBLE WITH BOLTS.
6. MS NUTS SHALL BE OF CARBON STEEL OF PRODUCT GRADE-C OF IS:1363 AND OF PROPERTY CLASS 5 OF IS:1367.
7. WASHER FOR MS BOLT SHALL CONFORM TO IS:5369/IS:5372 OR IS:1374 AND OR IS:2014 AS THE CASE MAY BE.
8. NUTS FOR HIGH STRENGTH BOLTS SHALL BE HIGH STRENGTH STRUCTURAL HARDENED & TEMPERED NUTS (OF PROPERTY CLASS '8' AS PER IS:1367) CONFORMING TO IS:6623 WITH HARDENED & TEMPERED WASHERS AS PER IS:6649.
9. PRE-TENSIONS IN HIGH STRENGTH BOLTS FOR FRICTION JOINTS SHALL BE AS PER THE MANUFACTURE LITERATURE.

C. JOINTS/CONNECTIONS

1. STEEL STRUCTURES SHALL BE DETAILED WITH CONNECTIONS AND JOINTS PROVIDED AS PER THE PROVISIONS OF IS:800, IS:9595, IS:1367, IS:3757, IS:4000 AND IS:9178.
2. CONNECTION OF VERTICAL BRACING WITH CONNECTING MEMBERS AND DIAGONALS OF TRUSS MEMBERS SHALL BE DESIGNED FOR FULL TENSILE CAPACITY OF THE BRACING UNLESS ACTUAL LOADS ARE INDICATED ON THE DRAWING.
3. SIZE OF FILLET WELD FOR FLANGE TO WEB CONNECTION FOR BUILT UP SECTIONS SHALL BE AS FOLLOWS:
   i) FOR BOX SECTION, WELD SIZE SHALL BE DESIGNED FOR 60% OF FULL SHEAR CAPACITY OR ACTUAL SHEAR WHICHEVER IS MORE. WHERE FILLET WELD IS NOT POSSIBLE, FULL PENETRATION BUTT WELD SHALL BE PROVIDED.
   ii) FOR BUILD-UP I-SECTION, WELD SIZE SHALL BE DESIGNED FOR 80% OF SHEAR CAPACITY OR ACTUAL SHEAR (IF INDICATED, IN DRAWING) WHICHEVER IS MORE. HOWEVER, WELD SIZE SHALL NOT BE LESS THAN 0.5 TIMES THE WEB THICKNESS. WELD SHALL BE DOUBLE FILLET.
4. SHEAR CONNECTION:
   SHEAR CONNECTION SHALL BE DESIGNED FOR 60% OF SECTION STRENGTH FOR ROLLED SECTION AND 80% OF SECTION STRENGTH FOR BUILT-UP SECTION OR ROLLED SECTION WITH COVER PLATES. HOWEVER, IF FORCE IS MORE THAN ABOVE, THE CONNECTION SHALL DESIGNED FOR ACTUAL FORCE.
5. MOMENT CONNECTION:
   MOMENT CONNECTIONS BETWEEN BEAM AND COLUMN SHALL BE DESIGNED FOR 100% OF MOMENT CAPACITY OF BEAM SECTION.
6. ALL BUTT WELDS SHALL BE FULL PENETRATION BUTT WELDS
7. ALL WELDS SHALL BE CONTINUOUS. THE MINIMUM SIZE OF THE FILLET WELD SHALL BE 6mm
8. THE CONNECTION BETWEEN TOP FLANGE AND WEB OF CRANE GIRDER SHALL BE FULL PENETRATION BUTT WELD. BOTTOM FLANGE CONNECTION WITH WEB CAN BE FILLET WELD OR BUTT WELD AS DIRECTED BY ENGINEER.
9. CONNECTION OF BASE PLATE AND ASSOCIATED STIFFENERS WITH THE COLUMNS SHALL BE DESIGNED CONSIDERING THE TOTAL FORCE TRANSFERRED THROUGH WELDS. HOWEVER, MINIMUM WELD SIZE (DOUBLE FILLET) SHALL NOT BE LESS THAN 0.6 TIMES THE THICKNESS OF STIFFENERS OR 6mm WHICHEVER IS HIGHER.
10. SHOP SPLICING FOR ALL SECTIONS OTHER THAN ROLLED SECTION SHALL BE CARRIED OUT BY FULL PENETRATION BUTT WELDS WITH NO COVER PLATES. SHOP SPLICING FOR ALL ROLLED SECTION SHALL BE CARRIED OUT USING WEB & FLANGE COVER PLATES.
11. FIELD SPLICING IF PROVIDED, IN DESIGN DRAWING CAN BE PROVIDED WITH BUTT WELD FOLLOWED BY SPLICE COVER PLATES. BUTT WELD SHALL BE FULL STRENGTH BUTT WELDS ON WEB & FLANGE. WEB & FLANGE SPLICE COVER PLATES SHALL BE DESIGNED FOR FULL DESIGN FORCE/FULL STRENGTH.
12. AT THE JOINTS BETWEEN MAIN FRAMING BEAMS AND COLUMNS, STIFFENERS ON BOTH SIDES OF WEB OF COLUMN SHALL BE PROVIDED ALONG TOP FLANGE/ MOMENT PLATE AND BOTTOM FLANGE/MOMENT PLATE. THE THICKNESS OF STIFFENER PLATES SHALL BE SAME AS THAT OF FLANGE/MOMENT PLATE.
13. U.N.O. THE SIZE OF GUSSETS SHALL BE VERIFIED BY ACTUAL FULL SCALE LAYOUT TAKING INTO ACCOUNT THE WELDING LENGTH/ BOLTING SPACE REQUIREMENT AND CLEARANCE FROM THE MEMBERS.
14. THE SHAPE OF GUSSET PLATES ARE SUGGESTIVE ONLY.
15. ALL JOINT CONNECTION AND WELD CONNECTION DETAIL SHOWN IN THE FABRICATION DRAWING SHALL BE DONE AS PER APPROVED CONNECTION DETAIL.

D. HEAT TREATMENT FOR WELDING

1. BEFORE WELDING OF MILD STEEL OR MEDIUM/HIGH STRENGTH STEEL PLATES THICKER THAN 20mm, PRE-HEATING SHALL BE CARRIED OUT.
2. FOR WELDING OF BASE METALS OF UNEQUAL THICKNESS, THE THICKER PART SHALL BE TAKEN FOR DETERMINING THE REQUIREMENT OF PREHEATING / WELDING.
3. POST WELD HEAT TREATMENT SHALL BE AS PER TECHNICAL SPECIFICATION AND APPROVED WPS.

E. MATERIAL

1. MILD STEEL: ROLLED STEEL SECTIONS AND STEEL PLATES SHALL CONFORM TO GRADE-A OF IS:2062 FOR THICKNESS UPTO 20mm AND SHALL CONFORM TO GRADE-B OF IS:2062 FOR THICKNESS BEYOND 20mm. OTHER DETAILS WITH REGARD TO MILD STEEL SHALL BE AS PER SPECIFICATION.
2. PIPES SHALL CONFORM TO IS:1239/IS:1161.
3. CHEQURED PLATE SHALL CONFORM TO IS:3502 WITH STEEL CONFORMING TO IS:2062 GRADE-A

F. PAINTING

1. ALL STEEL SURFACES BELOW GROUND LEVEL OR EMBEDDED IN CONCRETE/MASONARY SHALL BE PROVIDED WITH CHLORINATED RUBBER BASED ZINC PHOSPHATE PRIMER.
2. ALL OTHER STEEL SURFACES SHALL BE PROVIDED WITH HIGH PERFORMANCE PAINTING SYSTEM AS GIVEN BELOW:
   a) STEEL SURFACES SHALL BE BLAST CLEANED TO NEAR WHITE METAL FINISH (Sa $2-\frac{1}{2}$) FOLLOWED BY APPLICATION OF INORGANIC ZINC SILICATE PRIMER OF MIN. 75 MICRON DFT.
   b) THE ABOVE SURFACE SHALL HAVE INTERMEDIATE COAT OF EPOXY BASED TITANIUM DIOXIDE/MICACEOUS IRON OXIDE (PIGMENTED) OF MIN. 75 MICRON DFT.
   c) THIS SHALL BE FOLLOWED BY FINISH COAT (MIN.75 MICRON DFT) OF EPOXY BASED COLOUR PIGMENTED POLY-AMIDE CURED PAINT AND FINAL FINISH COAT (MIN. 25 MICRON DFT) OF POLYURETHENE COLOUR PIGMENTED FINISH PAINT. THE FINISH COAT & FINAL FINISH COAT SHALL NOT BE APPLIED ON A-ROW & GABLE END COLUMNS.
3. SURFACE PREPARATION AT HSFG BOLT CONNECTION : SLIP RESISTANT JOINT SURFACES SHALL BE SHOT BLASTED TO A SURFACE EQUIVALENT TO MINIMUM (Sa $2-\frac{1}{2}$) AND APPLIED WITH ETHYL-ZINC SILICATE COAT.
4. BILL OF MATERIALS FOR STRUCTURAL STEEL SHALL GIVE THE OF STRUCTURAL STEEL SUBJECTED TO DIFFERENT TYPE OF PAINTING i.e. CHLORINATED RUBBER BASED ZINC PHOSPHATE PRIMER, INORGANIC ZINC SILICATE PRIMER, EPOXY BASED FINISH POLYAMIDE CURED PAINTING SYSTEM.
5. INDOOR GRATING SHALL BE PROVIDED WITH HIGH PERFORMANCE PAINTING SYSTEM AS GIVEN BELOW :
   a) SURFACE SHALL BE BLAST CLEANED TO NEAR WHITE METAL(Sa $2-\frac{1}{2}$) FOLLOWED BY APPLICATION OF INORGANIC ZINC SILICATE PRIMER OF (MIN. 75 MICRON DFT).
   b) THIS SHALL BE APPLIED WITH INTERMEDIATE COAT OF EPOXY BASED TITANIUM DIOXIDE/MICACEOUS IRON OXIDE PAINT AND SHALL BE FINISHED WITH POLY-AMIDE CURED COLOUR PIGMENTED EPOXY COAT (MIN. 75 MICRON DFT).
6. OUTDOOR GRATINGS SHALL BE GALVANISED @ 610g/Sq.m.

G. TERMINOLOGY AND ABBREVIATIONS

TOP OF STEEL	T.O.S.
BOTTOM OF STEEL	B.O.S.
25MM THICK	25 THK.
UNLESS NOTED OTHERWISE	U.N.O.
DIAMETER	DIA OR ø
LONG	LG.
RADIUS	R OR RAD.
VERTICAL	VERT.
MARKED	MKD.
DIMENSION	DIM.
NEAR SIDE, FAR SIDE	NS, FS
OPPOSITE HAND	OPP. HAND
CENTRE TO CENTRE	C/C
CENTRE-LINE	CL
HORIZONTAL	HORZ.
DRAWING	DWG.
NOT TO SCALE	N.T.S.
TYPICAL	TYP.
REQUIRED	REQD.
GIRDER	GDR.
COLUMN	COL.
HIGH STRENGTH FRICTION GRIP	HSFG.
HIGH STRENGTH FRICTION CAP	HSFC
COUNTERSUNK	CSK
PACKING PLATE	PACK PL.
FLANGE PLATE	FLG. PL.
STIFFENER	STIFF.

GENERAL NOTES FOR CIVIL WORKS

A. GENERAL

1. ALL DIMENSIONS ARE IN MILLIMETRE EXCEPT FLOOR ELEVATIONS AND PLANT GRID WHICH ARE IN METRE UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE WITH RESPECT TO ROAD CAMBER TOP LEADING TO CHP, CONSIDERED AS EL.(±)0.0M.
3. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE TERMS, CONDITIONS AND SPECIFICATIONS OF THE CONTRACT.
4. THE CONCRETING WORKS SHALL BE IN ACCORDANCE WITH IS:456 CODE OF PRACTICE FOR PLAIN AND REINFORCED CONCRETE AND AS SPECIFIED IN THE CONTRACT TECHNICAL SPECIFICATIONS.

B. MATERIAL

1. PLAIN CEMENT CONCRETE USED FOR SCREEDS AND FILL BETWEEN TWO FOUNDATIONS ONE ABOVE OTHER WILL BE M15. LEAN CONCRETE BELOW ALL FOUNDATIONS, PLINTH BEAMS, DRAINS, PITS ETC. SHALL BE M10.
2. ALL STRUCTURAL CONCRETE FOR SUBSTRUCTURE & SUPERSTRUCTURE WORKS SHALL BE OF GRADE M30 (DESIGN MIX.) UNLESS STATED OTHERWISE. M35 (DESIGN MIX.) GRADE OF CONCRETE FOR MILL AND FAN FOUNDATION, TG TOP DECK, TG FOUNDATION SPECIFICATION TO BE FOLLOWED.
3. ALL STRUCTURAL CONCRETE FOR GRADE SLAB WILL BE M25 (DESIGN MIX.). DUCT BANK, PAVEMENTS & PLINTH PROTECTION SHALL BE OF GRADE M20 (DESIGN MIX.). GRADE OF CONCRETE FOR SCREED WILL BE M15 UNLESS STATED OTHERWISE.
4. ALL REINFORCEMENTS SHALL BE OF HIGH STRENGTH DEFORMED BARS (f_y = 500 N/mm^2) CONFORMING TO IS:1786 EXCEPT 6mm. DIA BAR ALL HYSD BARS SHALL BE TMT BARS OF APPROVED MAKE OR EQUIVALENT.
5. ALL EMBEDDED PLATES AND SECTIONS SHALL BE OF MILD STEEL CONFORMING TO IS:2062 (GRADE A) UNLESS STATED OTHERWISE.
6. ALL EMBEDDED STEEL PIPES SHALL BE OF MILD STEEL MEDIUM CLASS GRADE CONFORMING TO IS:1161 UNLESS STATED OTHERWISE.
7. ALL EMBEDDED DRAIN PIPES SHALL BE CAST IRON CONFORMING TO IS:1729 UNLESS SPECIFIED OTHERWISE.
8. ALL COVERS FOR MANHOLES/GULLY PIT INCLUDING SEATING FRAME SHALL BE OF HEAVY DUTY C.I. MATERIAL CONFORMING TO IS:1726.
9. ALL R.C.C. (NON PRESSURE) PIPES SHALL BE OF CLASS NP2 EXCEPT AT ROAD CROSSINGS WHICH SHALL BE OF CLASS NP3 CONFORMING TO IS:458 UNLESS NOTED OTHERWISE.
10. ALL WATER STOP SHALL BE MINIMUM 6mm. THICK RIBBED/SERRATED PVC WITH A CENTRAL BULB AND SHALL BE 230mm. WIDE UNLESS STATED OTHERWISE.
11. ALL PVC PIPES FOR ELECTRICAL CONDUIT SHALL BE HEAVY DUTY TYPE CONFORMING TO IS:4985.
12. ALL GROUTS UNDER COLUMN BASE PLATES SHALL BE OF READY MIX NON-SHRINK FREE-FLOW GROUT OF APPROVED MANUFACTURER.

C. INSTALLATION

1. CLEAR COVER TO REINFORCEMENT SHALL BE AS FOLLOWS UNLESS STATED OTHERWISE :-

SUBSTRUCTURE WORKS	BOTTOM	SIDES	TOP	ENDS
i) PILE	75	75	75	–
ii) PILE CAPS	100	50	50	50
iii) FOUNDATION	50	50	50	50
iv) COLUMNS, PEDESTALS, GRADE BEAMS/TIE BEAM	50	50	50	50
v) TRENCHES, PITS, WALLS, DUCT BANK etc. IN CONTACT WITH				
EARTH	45	45	45	45
WATER	45	45	45	45
OTHERS	25	25	25	40
vi) EQUIPMENT FOUNDATIONS	45	45	45	45
vii) SLAB ON GRADE	45	45	45	45

   ALL OTHER FOUNDATIONS (AS APPLICABLE) 50mm.
   HOWEVER, THE CLEAR / NOMINAL COVER SHALL NOT BE LESS THAN THE DIAMETER OF THE REINFORCEMENT BARS.

SUPER STRUCTURE WORKS				
i) COLUMNS	45	45	45	–
ii) BEAMS	45	45	45	45
iii) SLABS/WALLS	25	25	25	25
iv) LINTEL, CHAJJA, BANDS ETC.	20	20	20	25
v) PRE-CAST CONCRETE	20	20	20	20

2. LOCATION AND DETAILS OF CONSTRUCTION JOINTS SHALL BE AS SHOWN ON THE DRAWINGS. IF CONSTRUCTION JOINTS ARE REQUIRED BY FIELD OTHER THAN THOSE SHOWN ON DESIGN DRAWINGS AND/OR STATED IN THE TECHNICAL SPECIFICATIONS, THE LOCATION AND DETAIL FOR THE SAME SHALL BE APPROVED BY THE ENGINEER.
3. UNLESS STATED OTHERWISE ON DRAWINGS, ALL REINFORCEMENT SPLICES AND ANCHORAGES SHALL BE IN ACCORDANCE WITH IS:456 AND SHALL BE DETAILED CONFORMING TO IS:2502. 52 TIMES DIA OF BARS FOR REINF. BARS OF DIA 28mm. OR HIGHER AND 50 TIMES DIA OF BARS FOR OTHERS. ALL HOOKS, BENDS, LAPS & SPLICES SHALL BE AS PER IS:2502 UNLESS OTHERWISE INDICATED.
4. SPLICING OF BARS SHALL BE KEPT AS MINIMUM AS POSSIBLE USING MAXIMUM AVAILABLE LENGTH.
5. THE SPLICES SHALL BE STAGGERED AND IN NO CASE MORE THAN 50% OF BARS SHALL BE SPLICED AT ONE SECTION.
6. ALL EXPOSED EDGES OF CORNERS ABOVE GROUND FLOOR / GRADE LEVEL SHALL BE PROVIDED WITH 20mm. CHAMFER UNLESS PROTECTED BY CORNER ANGLES AND STATED OTHERWISE.
7. ALL EMBEDDED ITEMS INCLUDING FLOOR DRAINS, PIPES, DUCTS ETC. SHALL BE LOCATED AS PER RELEVANT DRAWINGS PRIOR TO PLACING OF CONCRETE.
8. ALL CONSTRUCTION JOINTS IN TRENCHES, PITS ETC. BELOW GRADE LEVEL SHALL BE PROVIDED WITH 230mm. WIDE PVC WATER STOP. WATER STOP SHALL BE MINIMUM 6mm THICK RIBBED/STRRATED PVC WITH A CENTRAL BULB AND 230mm WIDE, UNLESS SPECIFIED OTHERWISE.
9. MINOR ADJUSTMENTS OF REINFORCEMENTS MAY BE DONE AT SITE TO CLEAR POCKETS, BOLTS, OPENINGS ETC. AS APPROVED BY THE ENGINEER UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
10. LAYING OF R.C.C. BURIED PIPES SHALL CORRESPOND TO IS:783 UNLESS SHOWN OTHERWISE.
11. ANTI TERMITE CHEMICAL TREATMENT SHALL BE GIVEN TO PILE CAPS, TRENCH WALLS, FOUNDATION OF BUILDINGS AND FILLING BELOW THE GROUND FLOORS ETC. AS PER IS:6313 AND OTHER RELEVANT INDIAN STANDARDS.
12. SULPHATE RESISTING PORTLAND CEMENT SHALL BE USED FOR CONSTRUCTION OF ALL SUBSTRUCTURE INCLUDING PILE, PILE CAP ETC.
13. ORDINARY PORTLAND CEMENT NAMELY GRADE 43 CONFORMING TO IS:8112 (LATEST REVISION) SHALL BE USED FOR CONSTRUCTION OF ALL SUPERSTRUCTURE.
14. ALL CONCRETE SUB-SURFACE EXPOSED TO EARTH SHALL BE PAINTED WITH BITUMEN AS PER SPECIFICATION.
15. ALL CONCRETE BELOW GROUND LEVEL, PROTECTION AGAINST SULPHATE/CHLORIDE SHALL BE ADOPTED AS PER RECOMMENDATION OF SOIL REPORT.
16. UNLESS SPECIFIED 20mm AND DOWN AGGREGATE SHALL BE USED FOR ALL STRUCTURAL CONCRETE WORKS. 20mm AND DOWN AGGREGATE SHALL ALSO BE USED FOR MASS CONCRETING IN FOUNDATION.
17. WATER STOPS SHALL BE PROVIDED AT ALL CONSTRUCTION JOINT FOR RETAINING STRUCTURES, PITS, BASEMENT ETC. BELOW GROUND LEVEL.
18. TEMPERATURE OF FRESH CONC. SHALL NOT EXCEED 25°C WHEN PLACED. FOR MAINTAINING TEMPERATURE OF 25°C IN THE TOP DECK OF MACHINE FDN. CRUSHED ICE SHALL BE USED IN MIXING WATER.
19. FOR CONCRETING, WEIGH BATCHING PLANTS SHALL BE MOBILIZED FOR ALL MACHIN FDNS. CONCRETE PUMPS SHALL BE MOBILIZED FOR TG RAFT, TG TOP DECK, BFP DECK, PS/FD/ID FAN DECK MILL DECK. ARRANGEMENT FOR STAND-BY PLANT & EQUIPMENTS SHALL ALSO BE MADE.
20. LAPPING OF BARS FOR BEAMS AND SLAB SHALL BE AVOIDED IN THE MAXIMUM TENSION ZONE.
21. ALL EMBEDDED PLATES/INSERT PLATES SHALL BE PAINTED OVER THE EXPOSED SURFACE ONLY UNLESS SPECIFIED BY THE ENGINEER-IN-CHARGE.
22. IFFCO SHALL SUPPLY REQUIRED CEMENT, REINFORCEMENT STEEL AND STRUCTURAL STEEL ON FREE ISSUE BASIS. CEMENT SHALL BE PSC CONFORMING TO IS:455 REINFORCEMENT OF SAIL/RINL/TATA OF GRADE Fe500.

ALL IS CODE REFERED IN THIS SHEET TO BE CONSIDERED AS LATEST VERSION.

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IFFCO PARADEEP — OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: GENERAL NOTES FOR CIVIL & STRUCTURAL WORKS

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

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PLOT DATE: 9/24/2019 2:14:45 PM
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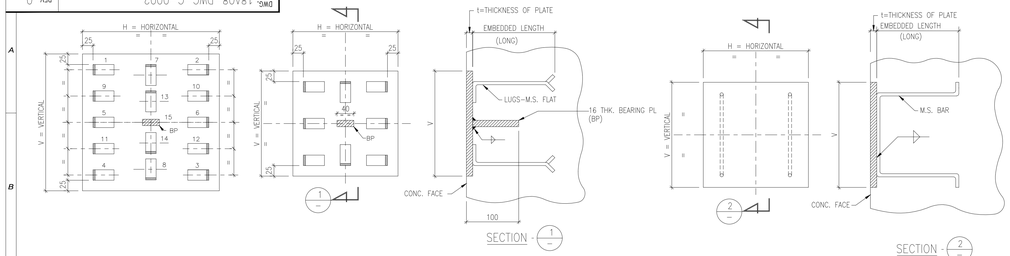


SECTION - (1/–)

SECTION - (2/–)

DETAIL OF EMBEDDED PLATES / INSERT PLATES

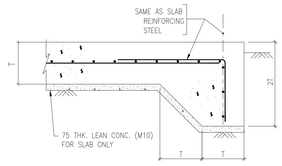
DETAIL - (A/–)

SQUARE PLATES

ITEM MARKED	"V"="H"	't'	LUGS TYPE – NOS	LOCATION	BEARING PLATE (BP)
EP-100	100	8	ROUND 12 – 4 NOS	1, 2, 3, 4	NIL
EP-150	150	8	ROUND 12 – 4 NOS		
EP-200	200	10	FLAT 25 – 4 NOS	1, 2, 3, 4	NIL
EP-250	250	12	FLAT 25 – 8 NOS	1 THRU. 8 & 15	100x40x 16 THICK
EP-300	300	12	FLAT 50 – 8 NOS		
EP-400	400	12	FLAT 50 – 10 NOS	1, 2, 3, 4 5, 6, 7, 8, 13, 14	NIL
EP-450	450	12	FLAT 50 – 10 NOS		
EP-500	500	12	FLAT 50 – 14 NOS	1 THRU. 14	NIL
EP-600	600	16	FLAT 50 – 14 NOS		

RECTANGULAR PLATES

ITEM MARKED	"V"x"H"	't'	LUGS TYPE – NOS	LOCATION	BEARING PLATE (BP)
EP-201	200 x 100	8	ROUND 12 – 6 NOS	1 THRU. 6	NIL
EP-302	300 x 200	10	FLAT 50 – 4 NOS	1 THRU. 4 & 15	100 x 40 x 16 TH.
EP-403	400 x 300	12	FLAT 50 – 10 NOS	1 THRU. 8, 13, 14	NIL
EP-504	500 x 400	12	FLAT 50 – 14 NOS	1 THRU. 14	100 x 40 x 16 TH.
EP-604	600 x 400	16	FLAT 50 – 14 NOS		
EP-251	250 x 150	12	FLAT 25 – 6 NOS	1 THRU. 6	NIL
EP-252	250 x 200	12	FLAT 50 – 6 NOS	1 THRU. 4 & 15	100 x 40 x 16 TH.
EP-352	350 x 250	12	FLAT 50 – 6 NOS	1 THRU. 6 & 15	
EP-452	450 x 250	12	FLAT 50 – 10 NOS	1 THRU. 6, 9 THRU. 12, & 15	
EP-652	650 x 250	16	FLAT 50 – 14 NOS		

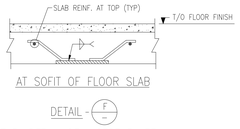


DETAIL - (B/–)

TYPICAL THICKENED SLAB EDGE

ON TOP OF FLOOR SLAB

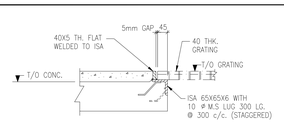
DETAIL - (C/–)



AT SOFIT OF FLOOR SLAB

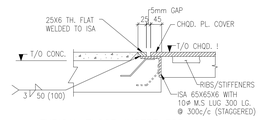
DETAIL - (F/–)

TYP. DETAIL OF INSERT PLATE EMBEDDED IN FLOOR SLAB



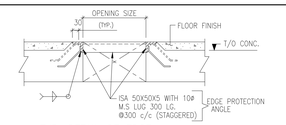
TYPICAL FLOOR INSERT FOR GRATING SUPPORT.

DETAIL - (D/–)



TYPICAL FLOOR INSERT FOR CHEQUERED PLATE SUPPORT.

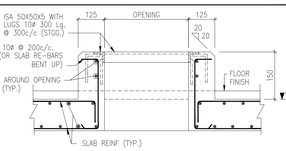
DETAIL - (G/–)



TYP. DETAIL OF EDGE PROTECTION AROUND OPENING

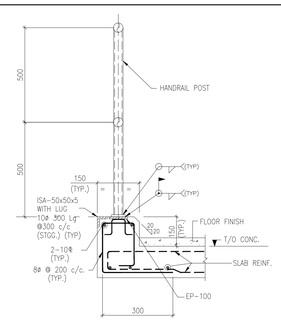
(THIS DETAIL IS ONLY APPLICABLE FOR OPENINGS WITHOUT HANDRAILS CURB/COVER)

DETAIL - (E/–)



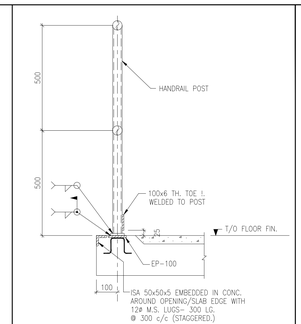
TYP. DETAIL OF CURB WITH EDGE PROTECTION ANGLE AROUND OPENING

DETAIL - (H/–)



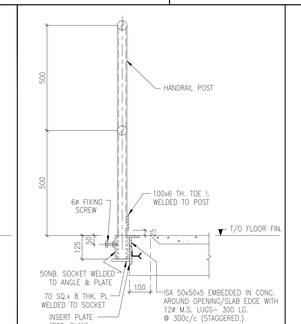
TYP. DETAIL OF HANDRAIL AROUND OPNG. WITH CURB

DETAIL - (J/–)



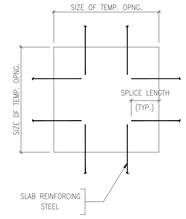
TYP. DETAIL OF HANDRAIL AROUND OPENING WITHOUT CURB

DETAIL - (K/–)



REMOVABLE TYPE HANDRAIL FIXING DETAIL

DETAIL - (L/–)



TYPICAL TEMPORARY OPENINGS AND/OR BLOCKOUTS

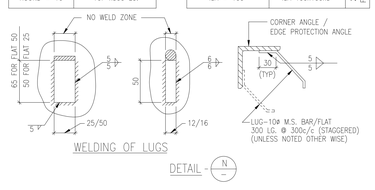
DETAIL - (M/–)

LUGS FOR EPs.

TYPE	DESCRIPTION
FLAT – 25	25x6 TH.x300 LG.
FLAT – 50	50x6 TH.x450 LG.
ROUND – 12	12ø x200 LG.
ROUND – 16	16ø x300 LG.

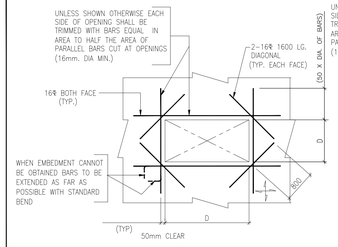
CORNER ANGLE.

CORNER ANGLE MARK	SECTION USED	LUG
ISA – 45	ISA 45x45x5	10 DIA. BAR
ISA – 50	ISA 50x50x5	
ISA – 75	ISA 75x75x6	25x6 TH. FLAT
ISA – 100	ISA 100x100x8	



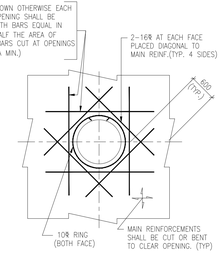
WELDING OF LUGS

DETAIL - (N/–)



FOR SQUARE & RECTANGULAR OPNG.

(250x250 MIN. & 1000x1500 MAX.)



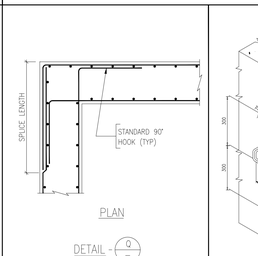
FOR CIRCULAR OPENINGS

(250Ø MIN. & 1000Ø MAX.)

TYPICAL DETAIL OF REINFORCEMENT AROUND OPENINGS

(NOTE : TO BE USED WHEN 'D' IS LARGER THAN MAIN REINFORCEMENT SPACING)

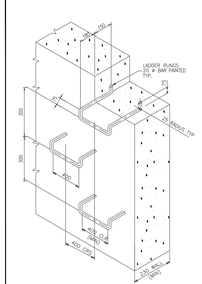
DETAIL - (P/–)



PLAN

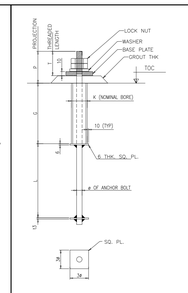
DETAIL - (Q/–)

TYPICAL CORNER DETAIL FOR WALL

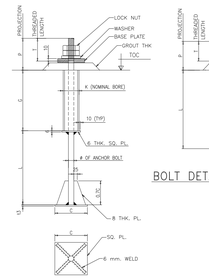


DETAIL - (R/–)

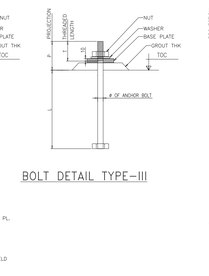
LADDER RUNG IN CONCRETE



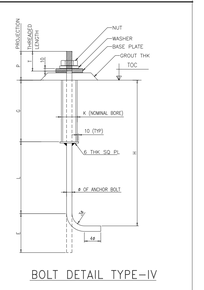
BOLT DETAIL TYPE–I



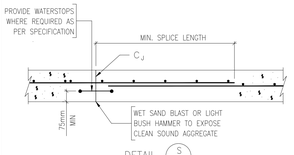
BOLT DETAIL TYPE–II



BOLT DETAIL TYPE–III

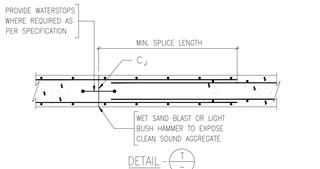


BOLT DETAIL TYPE–IV



DETAIL - (S/–)

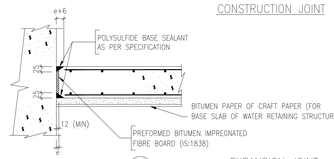
(WITH ONE LAYER OF REINFORCEMENT)



DETAIL - (T/–)

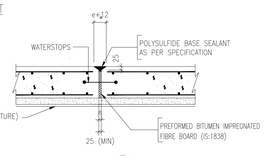
(WITH TWO LAYER OF REINFORCEMENT)

CONSTRUCTION JOINT



DETAIL - (U/–)

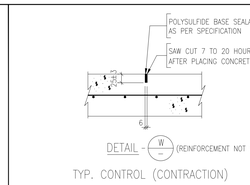
EXPANSION JOINT



DETAIL - (V/–)

BITUMEN PAPER OF CRAFT PAPER (FOR BASE SLAB OF WATER RETAINING STRUCTURE)

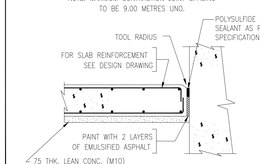
TYPICAL CONSTRUCTION AND EXPANSION JOINTS IN WALL AND SLAB



DETAIL - (W/–) (REINFORCEMENT NOT SHOWN)

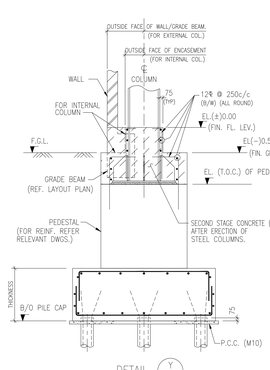
TYP. CONTROL (CONTRACTION) JOINT FOR PAVEMENT SLAB

NOTE: MAXIMUM CONTRACTION JOINT SPACING TO BE 9.00 METRES UNO.



DETAIL - (X/–)

SLIDING JOINT TO WALL OR EQPT. FDN. OR COL. FOR SLAB ON GRADE



DETAIL - (Y/–)

TYP. ARRANGEMENT OF FOUNDATION & COLUMN BASE ENCASEMENT

SCHEDULE FOR BOLTS CAPACITY

	BOLT DIA	12	16	20	24	30	36	42	45	48	52	56	60	64
BOLT TYPE – I	TENSILE STRESS AREA (cm^2)	0.84	1.57	2.45	3.53	5.61	8.17	11.20	13.00	14.70	17.60	20.30	23.60	26.80
	ALLOWABLE STRESS IN AXIAL TENSION (Kg/cm^2)	785	785	945	945	945	945	1260	1260	1260	1260	1260	1260	1260
	FULL TENSION CAPACITY (Kg)	660	1230	2320	3340	5300	7760	14100	16400	18500	22200	25600	29750	33800
	FULL SHEAR CAPACITY (Kg)	725	1360	2120	3060	4850	7070	9700	11250	12710	15210	17560	20400	23200
BOLT TYPE – II	TENSILE STRESS AREA (cm^2)	0.84	1.57	2.45	3.53	5.61	8.17	11.20	13.00	14.70	17.60	20.30	23.60	26.80
	ALLOWABLE STRESS IN AXIAL TENSION (Kg/cm^2)	785	785	945	945	945	945	1260	1260	1260	1260	1260	1260	1260
	FULL TENSION CAPACITY (Kg)	660	1230	2320	3340	5300	7760	14100	16400	18500	22200	25600	29750	33800
	FULL SHEAR CAPACITY (Kg)	725	1360	2120	3060	4850	7070	9700	11250	12710	15210	17560	20400	23200
BOLT TYPE – III	SHEAR STRESS AREA (cm^2)	0.84	1.57	2.45	3.53	5.61	8.17							
	FULL SHEAR CAPACITY (Kg)	725	1360	2120	3060	4850	7070							
BOLT TYPE – IV	TENSILE STRESS AREA (cm^2)	0.84	1.57	2.45	3.53	5.61	8.17	11.20	13.00	14.70	17.60	20.30	23.60	26.80
	ALLOWABLE STRESS IN AXIAL TENSION (Kg/cm^2)	785	785	945	945	945	945	1260	1260	1260	1260	1260	1260	1260
	FULL TENSION CAPACITY (Kg)	660	1230	2320	3340	5300	7760	14100	16400	18500	22200	25600	29750	33800
	FULL SHEAR CAPACITY (Kg)	725	1360	2120	3060	4850	7070	9700	11250	12710	15210	17560	20400	23200

CONC. MIX	BOLT TYPE	DIMENSIONS mm		BOLT DIA (#) IN mm.										
				12	16	20	24	30	36	42	45	48	52	56	60	64
M20,M25 & M30	I & II	THREAD LENGTH	SINGLE NUT	45	55	60	70	80	95	105	110	120	125	135	140	150
			DOUBLE NUT	60	70	80	95	110	130	150	155	165	180	190	200	215
		G		150	150	300	300	450	450	450	450	450	450	450	450	600
		K		50	50	50	80	80	80	100	100	100	125	125	125	150
	I	L3				16	16	16	16	16	16	20	20	20	20	20
	II	L3							16	20	20	25	25	25	28	32
M35 & M25	I	L				350	400	550	750	1050	1200	1100	1250	1500	1750	1900
	II	L							350	450	500	550	600	650	700	750
	II	C							160	200	200	240	240	240	260	280
M30	I	L				275	325	425	600	850	975	1000	1075	1225	1375	1525
	II	L							300	400	450	500	550	600	650	700
	II	C							125	160	160	185	185	200	240	240
M35, M25 & M30	III	THREAD LENGTH	SINGLE NUT	45	55	60	70	80	95							
			DOUBLE NUT	60	70	80	95	110	130							
M20 & M25	III	L		220	310	385	460	590	720							
M30	III	L		150	200	250	300	375	450							
M35, M25 & M30	IV	THREAD LENGTH	SINGLE NUT	45	55	60	70	80	95							
			DOUBLE NUT	60	70	80	95	110	130							
		G		150	150	300	300	450	450							
		K		50	50	50	80	80	80							
		E		115	155	190	230	285	345							
M20	IV	L		300	450	550	650	850	1000							
M25	IV	L		250	400	450	550	700	850							
M30	IV	L		220	315	390	470	600	735							
M20	IV	H		486	648	910	1022	1390	1558							
M25	IV	H		436	598	810	922	1240	1408							
M30	IV	H		410	515	750	845	1140	1295							

ISSUED FOR CONSTRUCTION

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.
	REVIEWED				

NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE

REVIEWED	RELEASE STATUS	DATE	SIGNATURE
	PRELIMINARY		
	FOR TENDER ONLY		
	FOR CONSTRUCTION	23.09.19	AR
	ARCHITECTURAL		
	CIVIL & STRUCTURAL		
	ELECTRICAL		
	INSTRUMENTATION		
	MECHANICAL		
	-		

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: CONCRETE WORKS STANDARD DETAILS

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	ASHS	JOB NO.	18A08
CHECKED	N.C.	SCALE	1:1
APPROVED	A.RAY	DATE	22.02.2019
DWG. NO.	18A08-DWG-C-0002		REV 0
			SHEET 01

FILE LOCATION: C:\Users\1394\Desktop\24-09-19 NL\18A08-DWG-C-0002-R00 23-09-19.dwg
PLOTTED: 24/09/2019 2:16:56 PM
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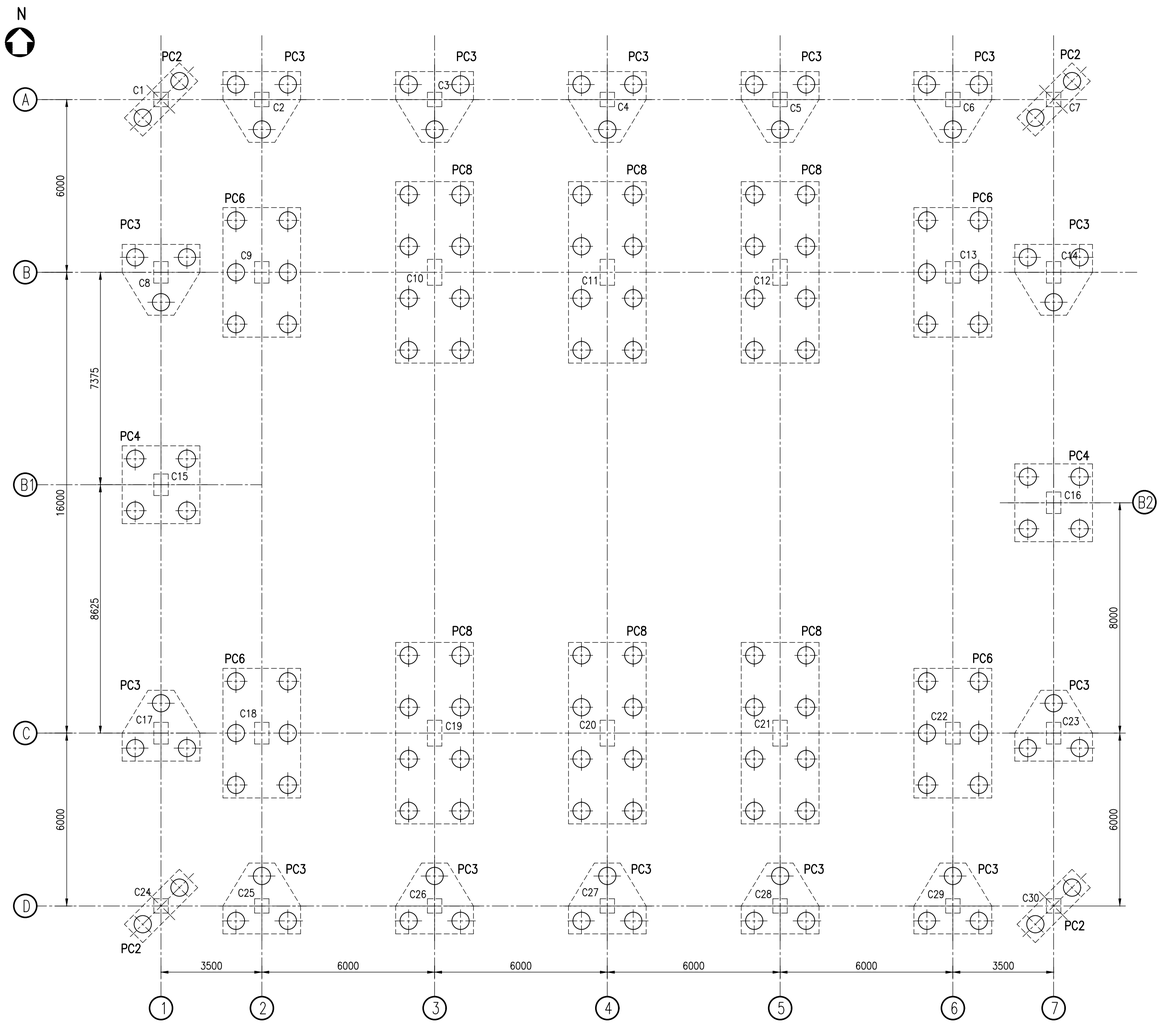
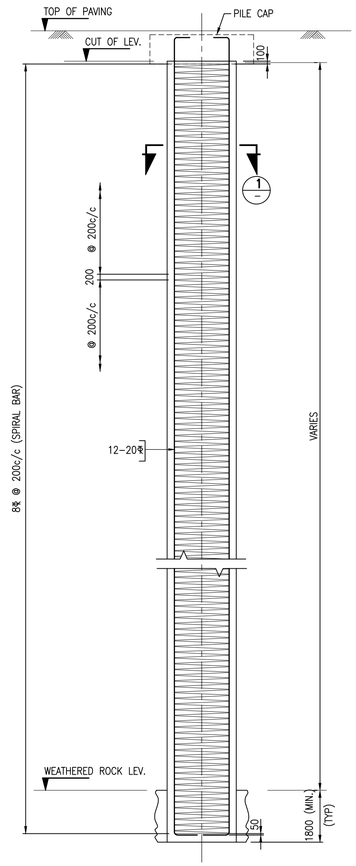
DWG. NO. 18A08-DWG-C-0003(SHT-1) REV 0



LAYOUT OF PILE

(SCALE–1:100)

(UNLESS OTHERWISE CONNECTION CENTER LINE OF COLUMN COINCIDE WITH CENTER LINE OF PILE CAP)

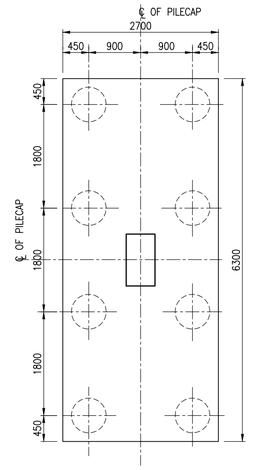


TYPICAL DETAIL OF BORED CAST–IN–SITU PILE (600ø)

HORIZONTAL SCALE 1:25
VERTICAL SCALE 1:100

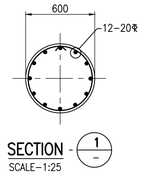
SCHEDULE FOR PILE CUT–OFFS

COL. MKD.	GRID INTERSECTION	PILECAP MKD.	PILE CUT–OFF LEVEL (M)
C1	A–1	PC2	(–) 1.50
C2	A–2	PC3	(–) 1.50
C3	A–3	PC3	(–) 1.50
C4	A–4	PC3	(–) 1.50
C5	A–5	PC3	(–) 1.50
C6	A–6	PC3	(–) 1.50
C7	A–7	PC2	(–) 1.50
C8	B–1	PC3	(–) 1.50
C9	B–2	PC6	(–) 1.50
C10	B–3	PC8	(–) 1.50
C11	B–4	PC8	(–) 1.50
C12	B–5	PC8	(–) 1.50
C13	B–6	PC6	(–) 1.50
C14	B–7	PC3	(–) 1.50
C15	B1–1	PC4	(–) 1.50
C16	B2–7	PC4	(–) 1.50
C17	C–1	PC3	(–) 1.50
C18	C–2	PC6	(–) 1.50
C19	C–3	PC8	(–) 1.50
C20	C–4	PC8	(–) 1.50
C21	C–5	PC8	(–) 1.50
C22	C–6	PC6	(–) 1.50
C23	C–7	PC3	(–) 1.50
C24	D–1	PC2	(–) 1.50
C25	D–2	PC3	(–) 1.50
C26	D–3	PC3	(–) 1.50
C27	D–4	PC3	(–) 1.50
C28	D–5	PC3	(–) 1.50
C29	D–6	PC3	(–) 1.50
C30	D–7	PC2	(–) 1.50



DETAIL OF PILECAP MKD. PC8

(SCALE–1:50)



SECTION 1/–

SCALE–1:25

PILE CAPACITY CONSIDERED AS PER GEOTECHNICAL INVESTIGATION REPORT PREPARED BY ORBITAL INFRASTRUCTURE CONSULTANCY & RESEARCH PRIVATE LIMITED

NOTES:–

1. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS ARE IN METRES.
2. PILES SHALL BE BORED CAST–IN–SITU CONCRETE PILES CONFORMING TO IS:2911 (PART1/SEC 2).
3. STRUCTURAL CONCRETE SHALL BE OF DESIGN MIX OF GRADE M30 CONFORMING TO IS 456 : 2000.
4. MINIMUM CEMENT CONTENT SHALL BE 400kg/cu.m.
5. THE WATER CEMENT RATIO SHALL NOT EXCEED 0.45
6. ADEQUATE WORKABILITY SHALL BE ACHIEVED BY ADDING PLASTICISER TO BE APPROVED BY ENGINEER–IN–CHARGE.
7. TREMIE SHALL BE USED FOR CONCRETING OF PILES.
8. REINFORCEMENT SHALL BE HIGH YIELD STRENGTH DEFORMED BARS OF GRADE Fe500 CONFORMING TO IS 1786.
9. LAP LENGTH SHALL BE MINIMUM 50 DIA. UNLESS NOTED OTHERWISE. LAPS SHALL BE STAGGERED.
10. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE 75mm FOR PILE.
11. AN ANGULAR DEVIATION OF 1.5 PERCENT IS PERMISSIBLE IS VERTICAL PILES. PILES SHOULD NOT DEVIATE 75mm OR D/4 IN PILES HAVING DIAMETER MORE THAN 600mm.
12. SLUMP OF CONCRETE FOR PILE FOUNDATIONS SHOULD BE 150mm–180mm
13. CLEAR COVER TO REINFORCEMENT SHALL BE AS FOLLOWS UNLESS STATED OTHERWISE :–

SUBSTRUCTURE WORKS	BOTTOM	SIDES	TOP	ENDS
i) PILE CAPS	100	50	50	50

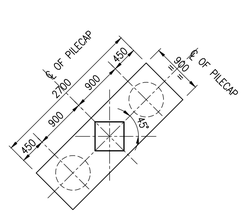
REF DWGS:

1. 18A08–DWG–E–0401 – ELECTRICAL DWG.
2. 18A08–DWG–A–0002 TO 0006 – ARCHITECTURAL DWG.
3. 18A08–DWG–M–0001 TO 0007 – MECHANICAL DWG. (FIRE DETECTION AND PROTECTION)
4. 18A08–DWG–C–0001,0002 & C–0004 & 0007 – CIVIL & STRUCTURAL DWG.
5. 18A08–03–DWG–VA–001 – HVAC LAYOUT
6. 18A08–03–DWG–VA–002 – HVAC POWER DISTRIBUTION SCHEME.

SCHEDULE OF PILE

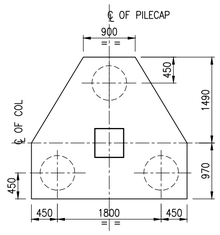
PILE CAPACITY		SYMBOL	PILE DIA (NOMINAL)	NO. OF PILE	LENGTH BELOW CUT–OFF LEVEL	REMARKS
COMP.	76 M.T		600mm.	130	AS PER CRITERIA SUBJECT TO MINIMUM LENGTH OF 16.5M. BELOW PILE CUT–OFF LEVEL.	ALL PILES ARE BORED CAST–IN–SITU CONCRETE PILES.
TEN.	35 M.T					
LAT.	8.9 M.T					

PILE CAP MKD.	NO. OF PILES IN PILE CAP
PC2	2
PC3	3
PC4	4
PC6	6
PC8	8



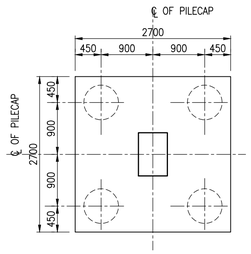
DETAIL OF PILECAP MKD. PC2

(SCALE–1:50)



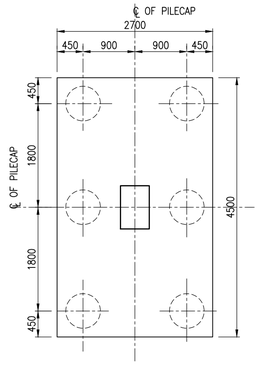
DETAIL OF PILECAP MKD. PC3

(SCALE–1:50)



DETAIL OF PILECAP MKD. PC4

(SCALE–1:50)



DETAIL OF PILECAP MKD. PC6

(SCALE–1:50)

ISSUED FOR CONSTRUCTION

IFFCO PARADEEP

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: CONTROL BUILDING
LAYOUT OF PILE & PILE CAP

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.	NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE
	REVIEWED									

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY		
FOR TENDER ONLY	03.10.19	AR
FOR CONSTRUCTION		

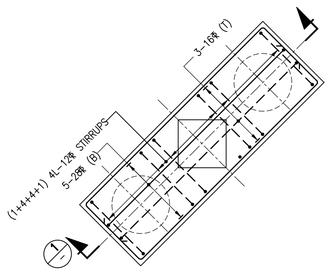
REVIEWED: ARCHITECTURAL; CIVIL & STRUCTURAL; ELECTRICAL; INSTRUMENTATION; MECHANICAL; •

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

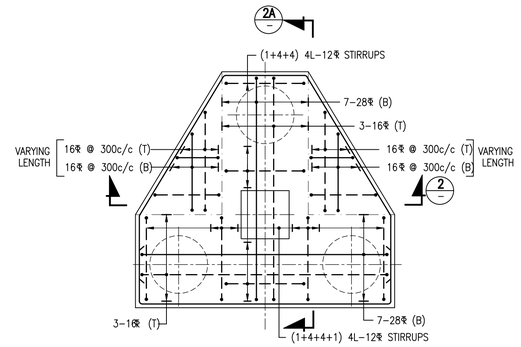
PREPARED	Prosenjit	JOB NO.	18A08
CHECKED	NC	SCALE	AS NOTED
APPROVED	AR	DATE	22.02.2019
DWG. NO.	18A08–DWG–C–0003		REV 0
			SHEET 1 OF

FILE LOCATION: D:\18A08\IFFCO CURRENT\28-09-19 NIL\18A08-DWG-C-0003(SHT-1)-R0 03-10-19.dwg
PLOT DATE: 10/5/2019 2:23:02 PM

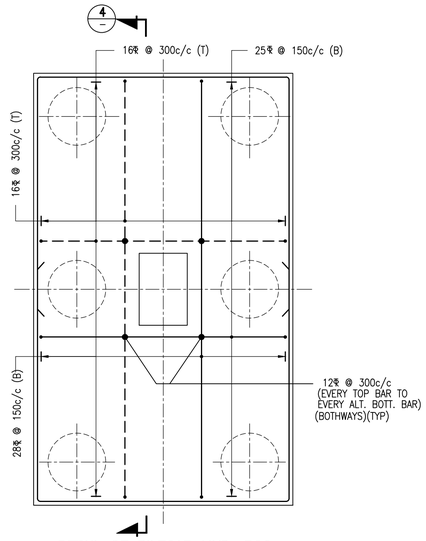
A1 [841 x 594]



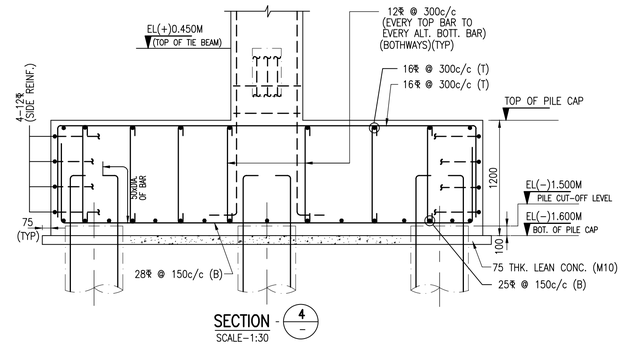
DETAIL OF PILECAP MKD. PC2
(SCALE-1:30)



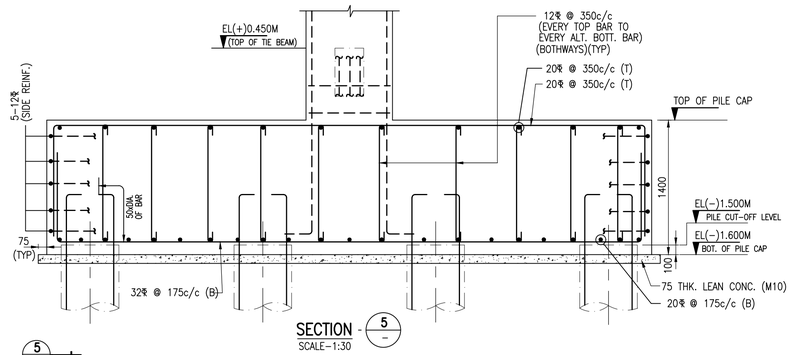
DETAIL OF PILECAP MKD. PC3
(SCALE-1:30)



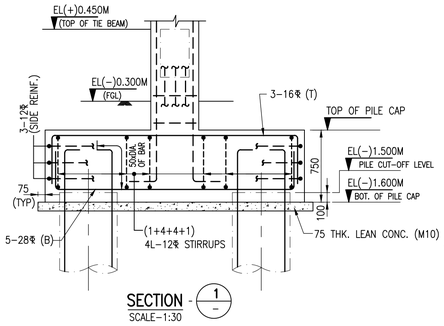
DETAIL OF PILECAP MKD. PC6
(SCALE-1:30)



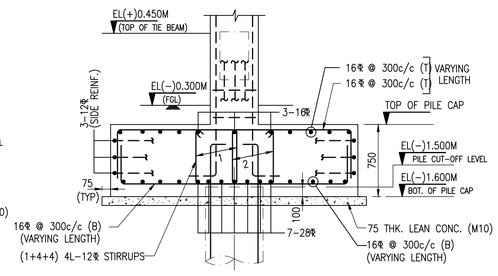
SECTION - 4
SCALE-1:30



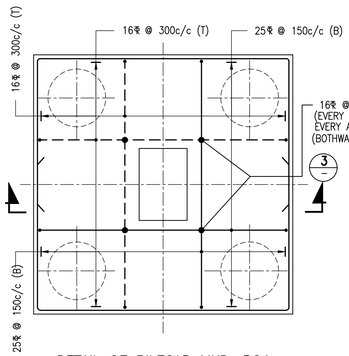
SECTION - 5
SCALE-1:30



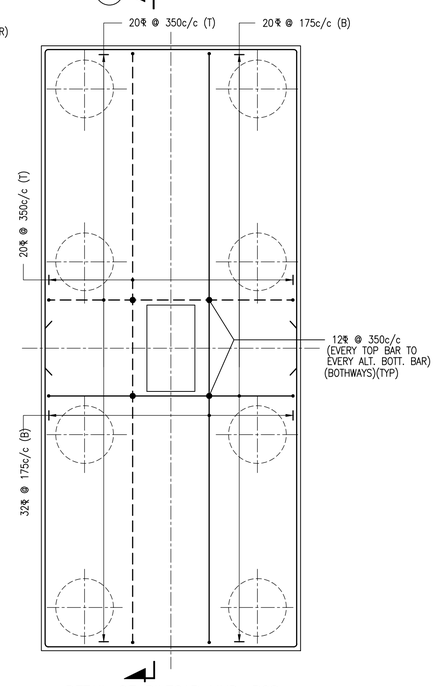
SECTION - 1
SCALE-1:30



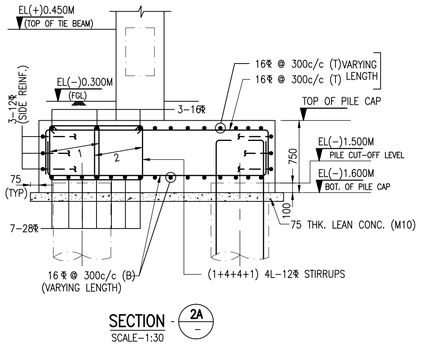
SECTION - 2
SCALE-1:30



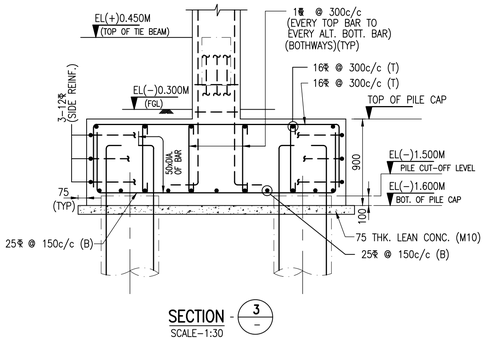
DETAIL OF PILECAP MKD. PC4
(SCALE-1:30)



DETAIL OF PILECAP MKD. PC8
(SCALE-1:30)



SECTION - 2A
SCALE-1:30



SECTION - 3
SCALE-1:30

LEGENDS:-

TOP REINFORCEMENT
BOTTOM REINFORCEMENT

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS ARE IN METRES.
2. FOR ALL OTHER NOTES REF. DWG. NO. 18A08-DWG-C-0003(SHT-1)

REF DWGS:

1. 18A08-DWG-E-0401 - ELECTRICAL DWG.
2. 18A08-DWG-A-0002 TO 0006 - ARCHITECTURAL DWG.
3. 18A08-DWG-M-0001 TO 0007 - MECHANICAL DWG. (FIRE DETECTION AND PROTECTION)
4. 18A08-DWG-C-0001,0002 & C-0004 & 0007 - CIVIL & STRUCTURAL DWG.
5. 18A08-03-DWG-VA-001 - HVAC LAYOUT
6. 18A08-03-DWG-VA-002 - HVAC POWER DISTRIBUTION SCHEME.

ISSUED FOR CONSTRUCTION

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.	NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE
	REVIEWED									

RELEASE STATUS		DATE	SIGNATURE
PRELIMINARY			
FOR TENDER ONLY			
FOR CONSTRUCTION		03.10.19	AR
REVIEWED	ARCHITECTURAL		
	CIVIL & STRUCTURAL		
	ELECTRICAL		
	INSTRUMENTATION		
	MECHANICAL		
	*		

IFFCO PARADEEP

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: CONTROL BUILDING
RC DETAILS OF PILE CAPS

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	Prasenjit	JOB NO.	18A08
CHECKED	NC	SCALE	AS NOTED
APPROVED	AR	DATE	15.03.2019

DWG. NO. 18A08-DWG-C-0003

REV 0
2 SHEET OF

FILE LOCATION: D:\18A08\WTO\ CURRENT\28-09-19 NIL\18A08-DWG-C-0003(SHT-2)-R0 03-10-19.dwg
PLOT DATE: 10/3/2019 12:43:39 PM
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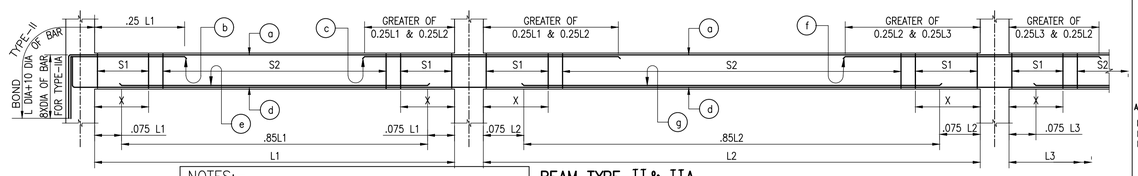
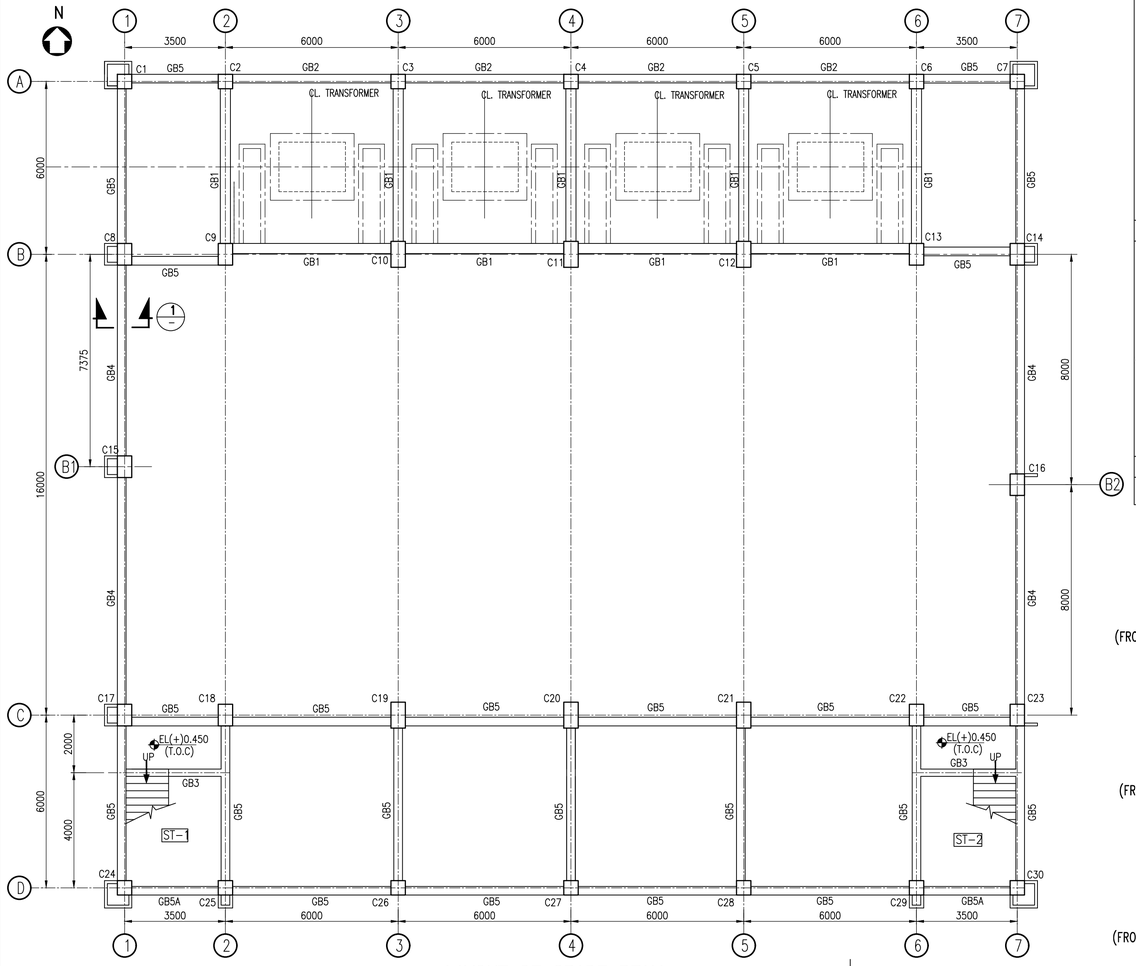
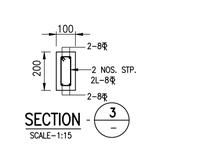


NOTES:–
1. BEAM TYPE– I & II : THE BEAMS ARE FIXED/ CONTINUOUS AT ENDS.
2. BEAM TYPE– IA & IIA : THE BEAMS ARE SIMPLY SUPPORTED AT THE ENDS./ CONTINUOUS AT ENDS.

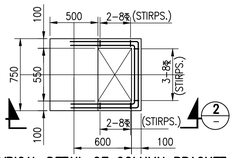
BEAM TYPE–II& IIA (MULTIPLE SPAN)



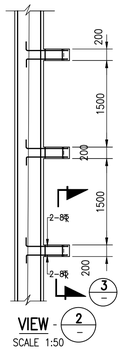
LAYOUT OF GRADE BEAM
(SCALE–1:100)



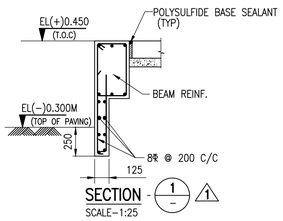
SECTION – 3/– SCALE–1:15



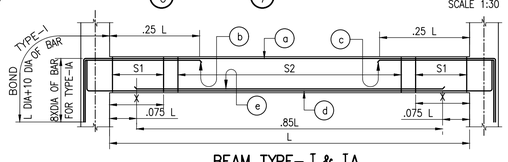
TYPICAL DETAIL OF COLUMN BRACKET – 2/– SCALE 1:30



VIEW – 2/– SCALE 1:50 ; 3/–

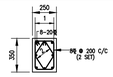


SECTION – 1/– 1 SCALE–1:25

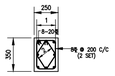


BEAM TYPE– I & IA (SINGLE SPAN BEAM)

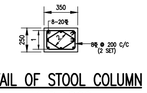
NOTES:–
1. BEAM TYPE– I & II : THE BEAMS ARE FIXED/ CONTINUOUS AT ENDS.
2. BEAM TYPE– IA & IIA : THE BEAMS ARE SIMPLY SUPPORTED AT THE ENDS./ CONTINUOUS AT ENDS.



DETAIL OF STOOL COLUMN MKD. SC1
(FROM ROOF EL.(+)14.950 TO EL(+)17.950)
SCALE 1:30



DETAIL OF STOOL COLUMN MKD. SC1A
(FROM ROOF EL.(+)14.950 TO EL(+)19.950)
SCALE 1:30



DETAIL OF STOOL COLUMN MKD. SC2
(FROM ROOF EL.(+)14.950 TO EL(+)19.950)
SCALE 1:30

SCHEDULE OF COLUMNS

ROOF LEVEL TO ABOVE ROOF LEVEL EL(+)14.950M TO EL(+)17.950M & EL(+)19.950M	ONLY FOR C30		ONLY FOR C29		ONLY FOR C17, C23		ONLY FOR C18, C22				ONLY FOR C15						
	8–20ϕ	2 SET – 8ϕ @ 200 C/C	8–20ϕ	2 SET – 8ϕ @ 200 C/C	8–25ϕ	2 SET – 8ϕ @ 200 C/C	8–25ϕ	2 SET – 8ϕ @ 200 C/C	–	–	8–25ϕ	2 SET – 8ϕ @ 200 C/C					
LEVEL	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK					
2nd. FLOOR TO ROOF LEVEL EL(+)9.450M TO EL(+)14.950M TO	8–20ϕ	2 SET – 8ϕ @ 200 C/C	8 – 25ϕ	2 SET – 8ϕ @ 200 C/C	12 – 25ϕ	3 SET – 8ϕ @ 200 C/C	12 – 32ϕ + 6 – 28ϕ	5 SET – 8ϕ @ 200 C/C	12 – 32ϕ + 8 – 28ϕ	6 SET – 8ϕ @ 200 C/C	12 – 28ϕ	3 SET – 8ϕ @ 200 C/C					
LEVEL	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK					
FDN TO 2nd. FLOOR LEVEL EL(+)9.450M (T.O.C) (FOR 2ND. FLOOR)	12–20ϕ	3 SET – 8ϕ @ 200 C/C	12 – 25ϕ	3 SET – 8ϕ @ 200 C/C	12 – 25ϕ	3 SET – 8ϕ @ 200 C/C	18 – 32ϕ	5 SET – 8ϕ @ 200 C/C	20 – 32ϕ	6 SET – 8ϕ @ 200 C/C	12 – 28ϕ	3 SET – 8ϕ @ 200 C/C					
LEVEL	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK	REINFORCEMENT	LINK					
COL MARK	C1, C7, C24 & C30		C2, C3, C4, C5, C6, C25, C26, C27, C28 & C29		C8, C14, C17 & C23		C9, C13, C18 & C22		C10, C11, C12, C19, C20 & C21		C15, C16						

SCHEDULE OF BEAMS

BEAM MKD.	BEAM TYPE	BEAM SIZE WIDTH (mm)	BEAM SIZE DEPTH (mm)	ELEVATION (T.O.C)	REINFORCEMENTS a	b	c	d	e	f	g	STIRRUPS S1	S2	X(mm.)	SIDE REINF. EACH FACE	REMARKS
GB1	I/II	350	600	EL(+)0.450M	3–25ϕ	⊛ 2–20ϕ	⊛ 2–20ϕ	3–25ϕ	–	⊛ 2–20ϕ	–	4L–8ϕ @ 150C/C	4L–8ϕ @ 250C/C	2000	–	⊛2nd. LAYER
GB2	II	300	600	EL(+)0.450M	3–20ϕ	–	–	3–20ϕ	–	–	–	2L–8ϕ @ 150C/C	2L–8ϕ @ 250C/C	2000	–	–
GB3	IA	300	400	EL(+)0.450M	2–16ϕ	–	–	3–16ϕ	–	–	–	2L–8ϕ @ 200C/C	2L–8ϕ @ 300C/C	1200	–	–
GB4	II	300	600	EL(+)0.450M	3–25ϕ	–	–	3–20ϕ	–	–	–	2L–8ϕ @ 150C/C	2L–8ϕ @ 250C/C	2500	–	–
GB5	I/II	300	600	EL(+)0.450M	3–25ϕ	⊛ 2–20ϕ	⊛ 2–20ϕ	3–25ϕ + 3–16ϕ	–	⊛ 2–20ϕ	–	2L–8ϕ @ 150C/C	2L–8ϕ @ 250C/C	2000	–	⊛2nd. LAYER
GB5A	I	300	600	EL(+)0.150M	3–25ϕ	⊛ 2–20ϕ	⊛ 2–20ϕ	3–25ϕ + 3–16ϕ	–	⊛ 2–20ϕ	–	2L–8ϕ @ 150C/C	2L–8ϕ @ 250C/C	2000	–	⊛2nd. LAYER

SPECIAL NOTES:–
1. LEVELS, DIMENSIONS AND ARRANGEMENT SHOWN IN THIS DRAWING TO BE CHECKED AND CONFIRMED (VERIFIED) BY MECHANICAL & ELECTRICAL DEPARTMENT, CONSIDERING FUNCTIONAL REQUIREMENTS.
2. PROVISION OF INSERT PLATES, CUT–OUT, PIPE SLEEVES ETC. TO BE CONSIDERED BEFORE CASTING AS PER REQUIREMENTS.

ALL CUT OUTS SHOWN IN THIS DWG. TO BE MATCHED WITH ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS.

ARRANGEMENT OF FALSE FLOORING (AS REQUIRED) SHALL BE AS PER ARCHITECTURAL DRAWINGS.

HORIZONTAL AND VERTICAL STRIPS/BANDS OF RCC SHALL BE PROVIDED WITHIN AAC BLOCKWALL AS REQUIRED [AS PER LATEST VERSION OF IS : 2185 (PART3)] DURING CONSTRUCTION BY ENGINEER IN CHARGE.

REF DWGS:
1. 18A08–DWG–E–0401 – ELECTRICAL DWG.
2. 18A08–DWG–A–0002 TO 0006 – ARCHITECTURAL DWG.
3. 18A08–DWG–M–0001 TO 0007 – MECHANICAL DWG. (FIRE DETECTION AND PROTECTION)
4. 18A08–DWG–C–0001 TO 0005, C–0005 & 007 – CIVIL & STRUCTURAL DWG.
5. 18A08–03–DWG–VA–001 – HVAC LAYOUT
6. 18A08–03–DWG–VA–002 – HVAC POWER DISTRIBUTION SCHEME.

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRE AND LEVELS IN METERS UNO.
2. ALL CO–ORDINATES, LEVELS AND NORTH DIRECTION SHOULD BE CHECKED BEFORE EXECUTION OF THE WORK
3. GRADE OF CONC. SHALL BE AS FOLLOWS
   a. FOR RCC WORK–M30.
   b. FOR PCC WORK–M10
4. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:

	TOP	BOTTOM	SIDE
COLUMN	45	–	45
GRADE BEAM	45	45	45

5. GRADE OF REINFORCEMENT STEEL – Fe500 CONFORMING TO IS : 1786.
6. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCH. & ELEC. DRAWINGS

ISSUED FOR CONSTRUCTION

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.
REVIEWED					

	NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE
1	REVISED AS MKD. 1/–	NC	ASHIS	1	06.11.19

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY		
FOR TENDER ONLY		
FOR CONSTRUCTION	03.10.19	AR

REVIEWED		
ARCHITECTURAL		
CIVIL & STRUCTURAL		
ELECTRICAL		
INSTRUMENTATION		
MECHANICAL		
•		

OWNER: **IFFCO PARADEEP**

PROJECT: **IFFCO PARADEEP AFBC BOILER CONTROL ROOM**

TITLE: CONTROL BUILDING
GA & RC DETAILS OF GRADE BEAM AT EL(+)0.450 (T.O.C) AND COLUMN SCHEDULE

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	ASHIS	JOB NO.	18A08
CHECKED	NC	SCALE	AS NOTED
APPROVED	AR	DATE	22.02.2019
DWG. NO.	18A08–DWG–C–0004		REV 1
			SHEET 1 OF

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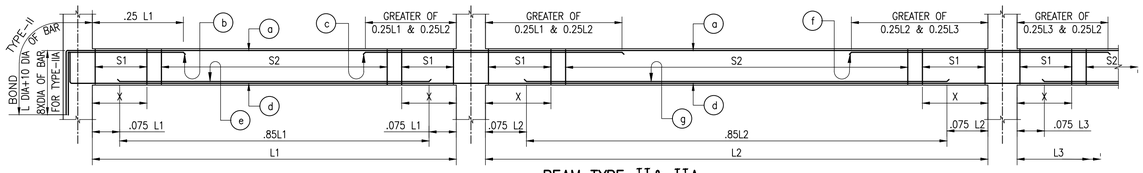
PLOT DATE: 11/6/2019 9:55:49 AM

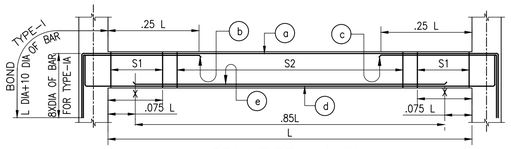
A1 [841 x 594]



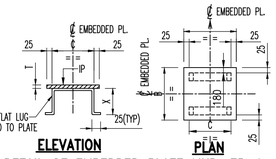
BEAM TYPE-II& IIA
(MULTIPLE SPAN)

NOTES:-

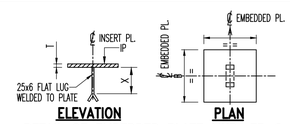
1. BEAM TYPE- I & II : THE BEAMS ARE FIXED/ CONTINUOUS AT ENDS.
2. BEAM TYPE- IA & IIA : THE BEAMS ARE SIMPLY SUPPORTED AT THE ENDS./ CONTINUOUS AT ENDS.



BEAM TYPE- I & IA
(SINGLE SPAN BEAM)



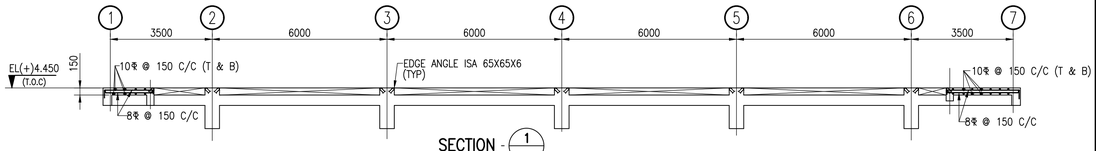
ELEVATION
PLAN
DETAIL OF EMBEDDED PLATE MKD. EP-1



ELEVATION
PLAN
DETAIL OF EMBEDDED PLATE MKD. EP-2

SCHEDULE OF EMBEDDED PLATE

EP MKD.	A	B	C	T	X	NOS. OF LUG
EP-1	200	200	150	10	150	2
EP-2	100	100	–	8	150	1



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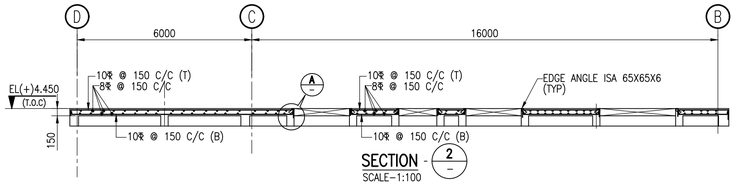

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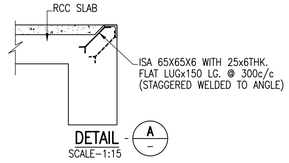
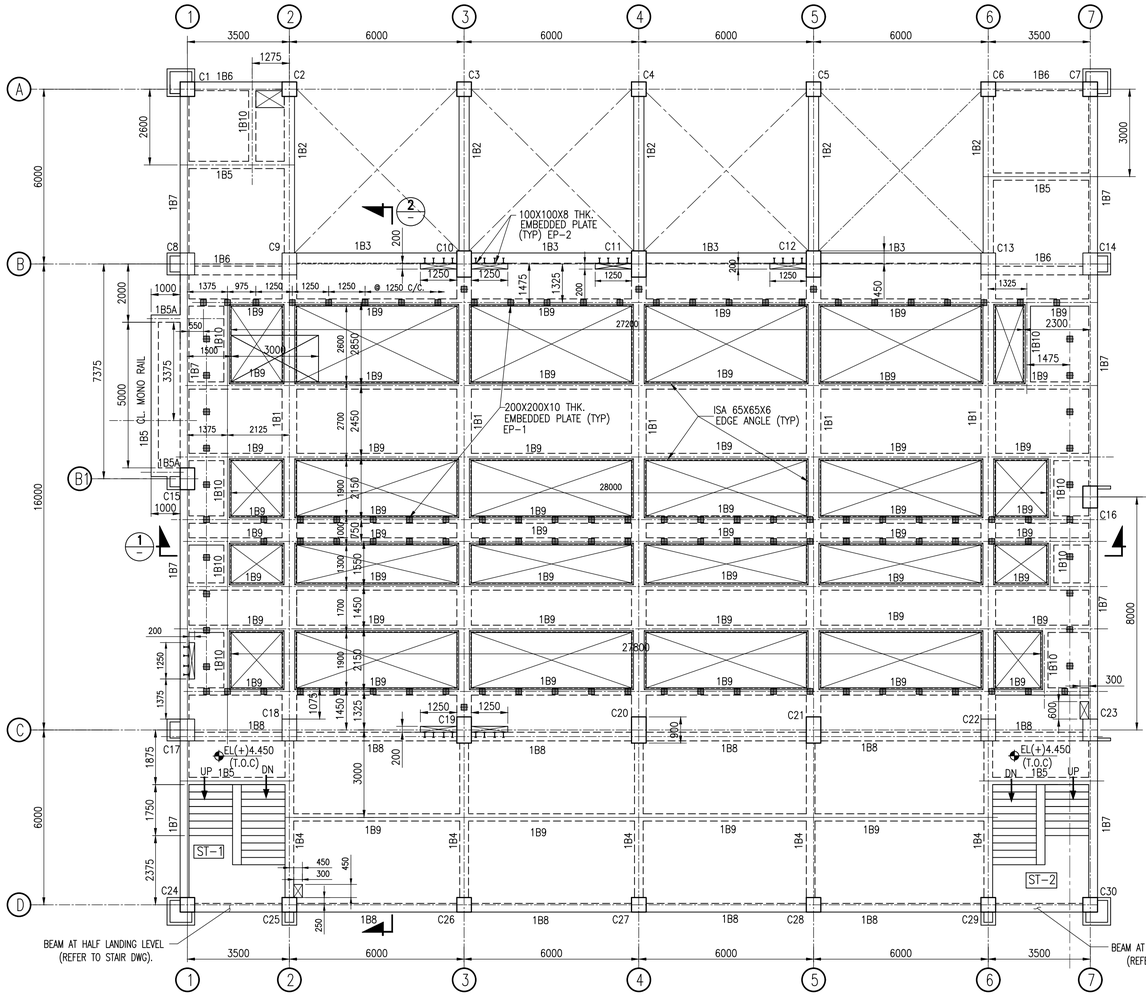


DETAIL - A/– SCALE-1:15



1ST FLOOR BEAM LAYOUT AT EL.(+)4.450(T.O.C.)
(SLAB THICKNESS 150 THK.)
(SCALE-1:100)

SCHEDULE OF BEAMS

BEAM MKD.	BEAM TYPE	BEAM SIZE WIDTH (mm)	BEAM SIZE DEPTH (mm)	ELEVATION (T.O.C)	REINFORCEMENTS a	b	c	d	e	f	g	STIRRUPS S1	STIRRUPS S2	X(mm.)	SIDE REINF. EACH FACE	REMARKS
1B1	I	500	1400	EL(+)4.450M	5-32ϕ	5-32ϕ + 5-25ϕ	5-32ϕ + 5-25ϕ	5-32ϕ + 5-25ϕ	5-25ϕ	–	–	4L-12ϕ @ 125C/C	4L-12ϕ @ 200C/C	4500	4-12ϕ (BOTH FACE)	2nd. LAYER 3rd. LAYER
1B2	I	350	700	EL(+)4.450M	3-25ϕ	3-25ϕ	3-25ϕ	3-25ϕ	–	–	–	4L-8ϕ @ 200C/C	4L-8ϕ @ 300C/C	1600	–	2nd. LAYER
1B3	II	350	700	EL(+)4.450M	3-25ϕ	3-20ϕ	3-20ϕ	3-25ϕ	–	3-20ϕ	–	4L-8ϕ @ 200C/C	4L-8ϕ @ 300C/C	1600	–	2nd. LAYER
1B4	I	350	750	EL(+)4.450M	4-25ϕ	4-25ϕ	4-25ϕ	4-25ϕ	–	–	–	4L-8ϕ @ 150C/C	4L-8ϕ @ 200C/C	1650	2-12ϕ (BOTH FACE)	2nd. LAYER
1B5	IA	250	500	EL(+)4.450M	2-16ϕ	–	–	3-16ϕ	–	–	–	2L-8ϕ @ 200C/C	2L-8ϕ @ 300C/C	1400	–	2nd. LAYER
1B5A	I	250	500	EL(+)4.450M	3-16ϕ	–	–	3-16ϕ	–	–	–	2L-8ϕ @ 200C/C	2L-8ϕ @ 200C/C	–	–	–
1B6	I	300	700	EL(+)4.450M	3-25ϕ	3-20ϕ	3-20ϕ	3-25ϕ + 2-20ϕ	–	–	–	4L-8ϕ @ 200C/C	4L-8ϕ @ 300C/C	1400	–	2nd. LAYER
1B7	II	300	700	EL(+)4.450M	3-25ϕ	3-25ϕ	3-25ϕ	3-25ϕ + 2-20ϕ	–	3-25ϕ	–	4L-8ϕ @ 125C/C	4L-8ϕ @ 200C/C	2250	–	2nd. LAYER
1B8	II	300	700	EL(+)4.450M	3-25ϕ	3-20ϕ	3-20ϕ	3-25ϕ + 2-20ϕ	–	3-20ϕ	–	4L-8ϕ @ 200C/C	4L-8ϕ @ 300C/C	1600	–	2nd. LAYER
1B9	IIA	250	600	EL(+)4.450M	3-20ϕ	–	3-16ϕ	2-25ϕ + 1-20ϕ	–	3-16ϕ	–	2L-8ϕ @ 125C/C	2L-8ϕ @ 200C/C	1625	–	2nd. LAYER
1B10	IA	250	350	EL(+)4.450M	2-16ϕ	–	–	3-16ϕ	–	–	–	2L-8ϕ @ 200C/C	2L-8ϕ @ 200C/C	–	–	–

SPECIAL NOTES:-

1. LEVELS, DIMENSIONS AND ARRANGEMENT SHOWN IN THIS DRAWING TO BE CHECKED AND CONFIRMED (VERIFIED) BY MECHANICAL & ELECTRICAL DEPARTMENT, CONSIDERING FUNCTIONAL REQUIREMENTS.
2. PROVISION OF INSERT PLATES, CUT-OUT, PIPE SLEEVES ETC. TO BE CONSIDERED BEFORE CASTING AS PER REQUIREMENTS.

ALL CUT OUTS SHOWN IN THIS DWG. TO BE MATCHED WITH ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS.

ARRANGEMENT OF FALSE FLOORING (AS REQUIRED) SHALL BE AS PER ARCHITECTURAL DRAWINGS.

HORIZONTAL AND VERTICAL STRIPS/BANDS OF RCC SHALL BE PROVIDED WITHIN AAC BLOCKWALL AS REQUIRED [AS PER LATEST VERSION OF IS : 2185 (PART3)] DURING CONSTRUCTION BY ENGINEER IN CHARGE.

REF DWGS:

1. 18A08-DWG-E-0401 – ELECTRICAL DWG.
2. 18A08-DWG-A-0002 TO 0006 – ARCHITECTURAL DWG.
3. 18A08-DWG-M-0001 TO 0007 – MECHANICAL DWG. (FIRE DETECTION AND PROTECTION)
4. 18A08-DWG-C-0001 TO 0003, C-0005 TO 0007 – CIVIL & STRUCTURAL DWG.
5. 18A08-03-DWG-VA-001 – HVAC LAYOUT
6. 18A08-03-DWG-VA-002 – HVAC POWER DISTRIBUTION SCHEME.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRE AND LEVELS IN METERS UNO.
2. ALL CO-ORDINATES, LEVELS AND NORTH DIRECTION SHOULD BE CHECKED BEFORE EXECUTION OF THE WORK
3. GRADE OF CONC. SHALL BE AS FOLLOWS
   a. FOR RCC WORK–M30.
   b. FOR PCC WORK–M10
4. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:

	TOP	BOTTOM	SIDE
SLAB	25	25	45
BEAM	45	45	45

5. GRADE OF REINFORCEMENT STEEL – Fe500 CONFORMING TO IS : 1786.
6. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCH. & ELEC. DRAWINGS

ISSUED FOR CONSTRUCTION

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.	NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE
	REVIEWED									

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY		
FOR TENDER ONLY		
✓ FOR CONSTRUCTION	03.10.19	AR
REVIEWED: ARCHITECTURAL		
REVIEWED: CIVIL & STRUCTURAL		
REVIEWED: ELECTRICAL		
REVIEWED: INSTRUMENTATION		
REVIEWED: MECHANICAL		
REVIEWED: •		

IFFCO PARADEEP

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: CONTROL BUILDING
GA & RC DETAILS OF BEAM & SLAB AT FIRST FLOOR LEVEL AT EL.(+)4.450 (T.O.C.)

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	ASHIS	JOB NO.	18A08
CHECKED	NC	SCALE	1:100
APPROVED	AR	DATE	22.02.2019
DWG. NO.	18A08–DWG–C–0004		REV 0
			2 SHEET OF

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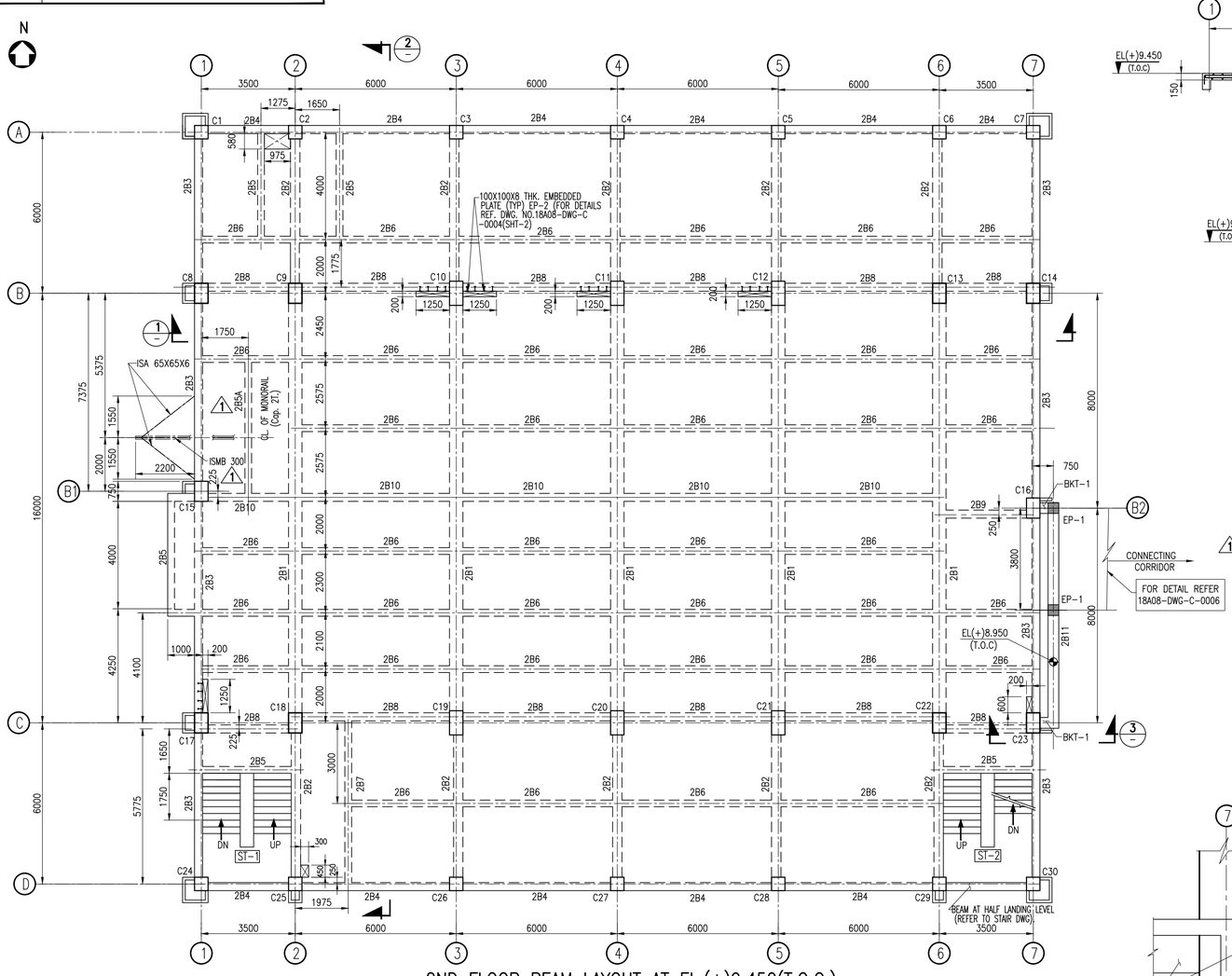
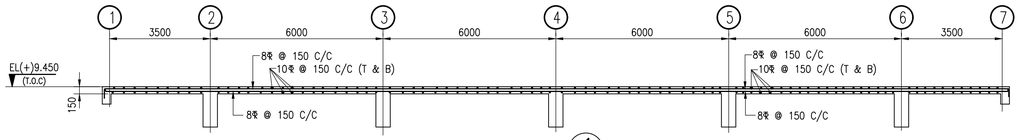


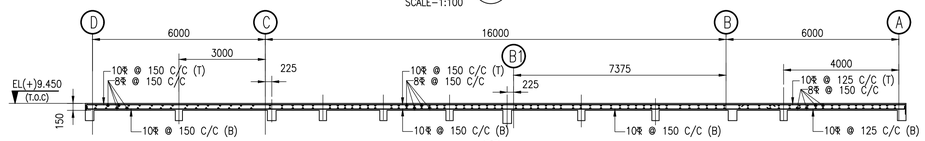
2ND FLOOR BEAM LAYOUT AT EL.(+)9.450(T.O.C.)

(SLAB THICKNESS 150 THK.)

(SCALE-1:100)



SECTION - 1 / – SCALE-1:100



SECTION - 2 / – SCALE-1:100

SCHEDULE OF BEAMS

BEAM MKD.	BEAM TYPE	BEAM SIZE WIDTH (mm)	BEAM SIZE DEPTH (mm)	ELEVATION (T.O.C)	REINFORCEMENTS a	b	c	d	e	f	g	STIRRUPS S1	S2	X(mm.)	SIDE REINF. EACH FACE	REMARKS
2B1	I	500	1400	EL(+)9.450M	5–32ϕ	④5–25ϕ ⑧④5–25ϕ	④5–25ϕ ⑧④5–25ϕ	5–32ϕ	④5–25ϕ	–	–	4L–10ϕ @ 125C/C	4L–10ϕ @ 200C/C	4500	4–12ϕ (BOTH FACE)	⑧2nd. LAYER ⑧⑧3rd. LAYER
2B2	I	350	750	EL(+)9.450M	4–25ϕ	④4–25ϕ	④4–25ϕ	4–25ϕ	–	–	–	4L–8ϕ @ 125C/C	4L–8ϕ @ 200C/C	1800	2–12ϕ (BOTH FACE)	⑧ 2nd. LAYER
2B3	II	300	700	EL(+)9.450M	3–25ϕ	④ 3–16ϕ	④ 3–16ϕ	2–25ϕ + 1–20ϕ	–	④3–16ϕ	–	4L–8ϕ @ 200C/C	4L–8ϕ @ 250C/C	1800	–	⑧ 2nd. LAYER
2B4	II	300	600	EL(+)9.450M	3–25ϕ	④ 2–16ϕ	④ 2–16ϕ	3–25ϕ	–	④2–16ϕ	–	4L–8ϕ @ 200C/C	4L–8ϕ @ 300C/C	1800	–	⑧ 2nd. LAYER
2B5	IA	250	500	EL(+)9.450M	2–16ϕ	–	–	3–20ϕ	–	–	–	2L–8ϕ @ 175C/C	2L–8ϕ @ 300C/C	1225	–	–
2B5A	IA	250	500	EL(+)9.450M	2–16ϕ	–	–	3–25ϕ	–	–	–	2L–8ϕ @ 150C/C	2L–8ϕ @ 250C/C	1225	–	–
2B6	IIA	250	600	EL(+)9.450M	3–20ϕ	④ 3–20ϕ	④ 3–20ϕ	2–20ϕ + 1–25ϕ	–	④3–20ϕ	–	2L–8ϕ @ 100C/C	2L–8ϕ @ 150C/C	1700	–	⑧2nd. LAYER
2B7	IA	250	600	EL(+)9.450M	2–16ϕ	–	–	3–25ϕ	④2–20ϕ	–	–	2L–8ϕ @ 100C/C	2L–8ϕ @ 200C/C	2000	–	⑧2nd. LAYER
2B8	II	300	700	EL(+)9.450M	3–25ϕ	④ 3–20ϕ	④ 3–20ϕ	3–25ϕ + ⑧2–16ϕ	–	④3–20ϕ	–	4L–8ϕ @ 150C/C	4L–8ϕ @ 250C/C	1800	–	⑧2nd. LAYER
2B9	I/IA	300	750	EL(+)9.450M	3–25ϕ	–	④ 3–32ϕ	3–25ϕ	–	–	–	2L–8ϕ @ 125C/C	2L–8ϕ @ 125C/C	–	2–12ϕ (BOTH FACE)	⑧2nd. LAYER SIMPLY SUPPORTED AT GRID Ⓑ FIXED AT GRID Ⓒ
2B10	II/IIA	300	750	EL(+)9.450M	3–25ϕ	④ 3–32ϕ	④ 3–32ϕ	3–25ϕ + ⑧2–16ϕ	–	④3–32ϕ	–	4L–8ϕ @ 150C/C	4L–8ϕ @ 200C/C	1800	2–12ϕ (BOTH FACE)	⑧2nd. LAYER SIMPLY SUPPORTED ON GRIDⒷ
2B11	IA	400	600	EL(+)8.950M	4–16ϕ	–	–	4–20ϕ	–	–	–	4L–8ϕ @ 200C/C	4L–8ϕ @ 300C/C	2400	–	–
BKT–1	I/IA	400	600	EL(+)8.950M	4–20ϕ	–	–	4–20ϕ	–	–	–	4L–8ϕ @ 200C/C	4L–8ϕ @ 200C/C	–	–	–

NOTES:–

1. ALL DIMENSIONS ARE IN MILLIMETRE AND LEVELS IN METERS UNO.
2. ALL CO-ORDINATES, LEVELS AND NORTH DIRECTION SHOULD BE CHECKED BEFORE EXECUTION OF THE WORK
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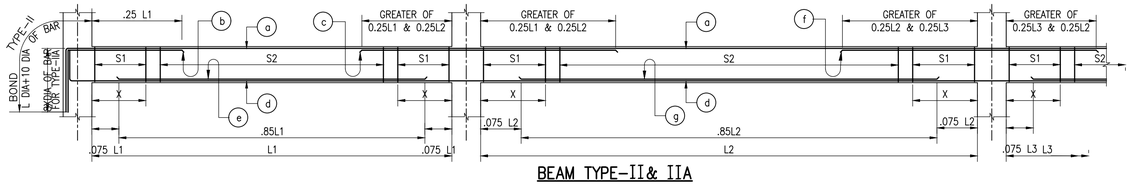
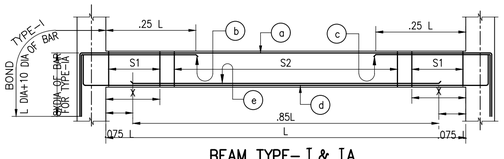
	TOP	BOTTOM	SIDE
SLAB	25	25	45
BEAM	45	45	45

5. GRADE OF REINFORCEMENT STEEL – Fe500 CONFORMING TO IS : 1786.
6. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCH. & ELEC. DRAWINGS



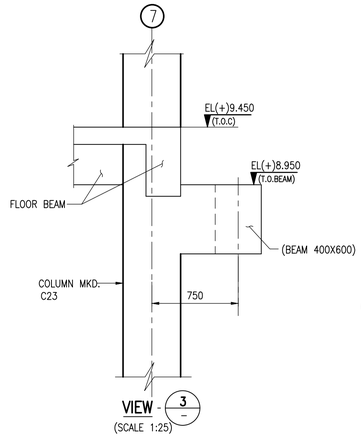
BEAM TYPE–II& IIA (MULTIPLE SPAN)



BEAM TYPE– I & IA (SINGLE SPAN BEAM)

NOTES:–
1. BEAM TYPE– I & II : THE BEAMS ARE FIXED/ CONTINUOUS AT ENDS.
2. BEAM TYPE– IA & IIA : THE BEAMS ARE SIMPLY SUPPORTED AT THE ENDS./ CONTINUOUS AT ENDS.

HORIZONTAL AND VERTICAL STRIPS/BANDS OF RCC SHALL BE PROVIDED WITHIN AAC BLOCKWALL AS REQUIRED [AS PER LATEST VERSION OF IS : 2185 (PART3)] DURING CONSTRUCTION BY ENGINEER IN CHARGE.



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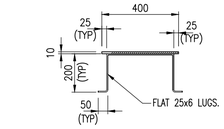
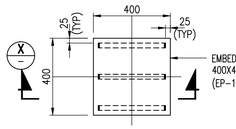


SECTION - X / – SCALE–1:15



TYP. DET. OF EMBEDDED PLATE MKD. EP–1

SCALE 1:15

REF DWGS:

1. 18A08–DWG–E–0401 – ELECTRICAL DWG.
2. 18A08–DWG–A–0002 TO 0006 – ARCHITECTURAL DWG.
3. 18A08–DWG–M–0001 TO 0007 – MECHANICAL DWG. (FIRE DETECTION AND PROTECTION)
4. 18A08–DWG–C–0001 TO 0003, C–0005 TO 0007 – CIVIL & STRUCTURAL DWG.
5. 18A08–03–DWG–VA–001 – HVAC LAYOUT
6. 18A08–03–DWG–VA–002 – HVAC POWER DISTRIBUTION SCHEME.

SPECIAL NOTES:–

1. LEVELS, DIMENSIONS AND ARRANGEMENT SHOWN IN THIS DRAWING TO BE CHECKED AND CONFIRMED (VERIFIED) BY MECHANICAL & ELECTRICAL DEPARTMENT, CONSIDERING FUNCTIONAL REQUIREMENTS.
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ARRANGEMENT OF FALSE FLOORING (AS REQUIRED) SHALL BE AS PER ARCHITECTURAL DRAWINGS.

ISSUED FOR CONSTRUCTION

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH. (REVIEWED)	NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE
						REVISED AS MKD. 1	NC	ASHIS	1	06.11.19

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY		
FOR TENDER ONLY		
FOR CONSTRUCTION	17.10.19	AR

REVIEWED: ARCHITECTURAL; CIVIL & STRUCTURAL; ELECTRICAL; INSTRUMENTATION; MECHANICAL; *

IFFCO PARADEEP

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: CONTROL BUILDING
GA & RC DETAILS OF BEAM & SLAB AT SECONED FLOOR LEVEL AT EL.(+) 9.450 (T.O.C.)

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	ASHIS	JOB NO.	18A08
CHECKED	NC	SCALE	AS NOTED
APPROVED	AR	DATE	22.02.2019

DWG. NO. 18A08–DWG–C–0004 REV 1 SHEET 3 OF

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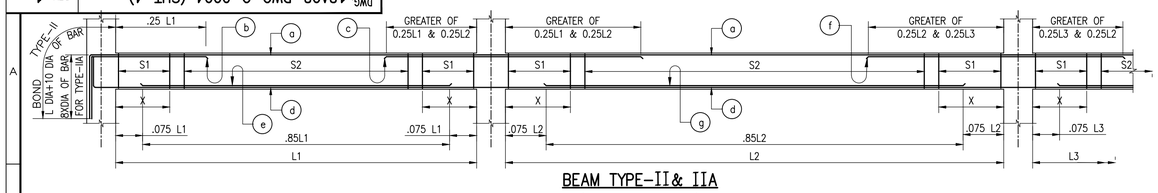
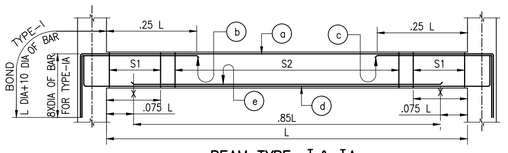
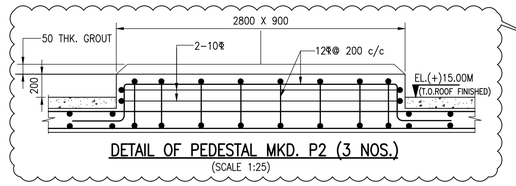


BEAM TYPE-II& IIA
(MULTIPLE SPAN)



BEAM TYPE- I & IA
(SINGLE SPAN BEAM)



DETAIL OF PEDESTAL MKD. P2 (3 NOS.)
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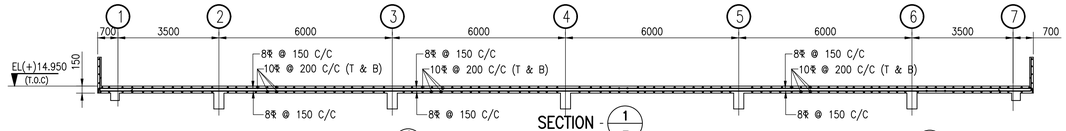

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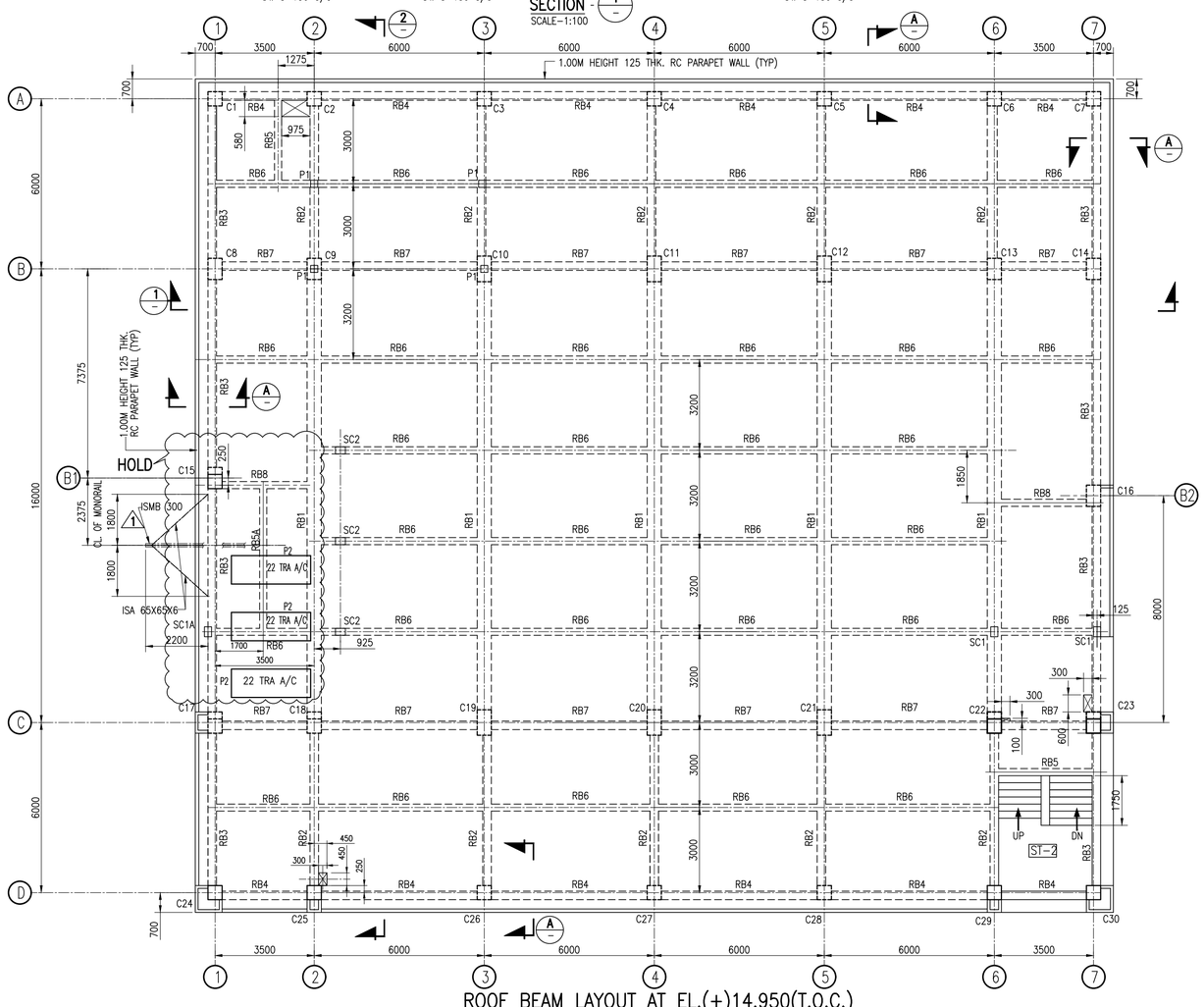
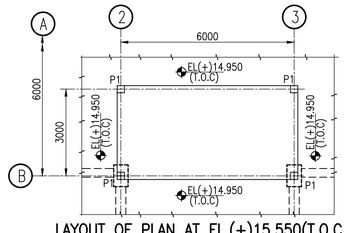
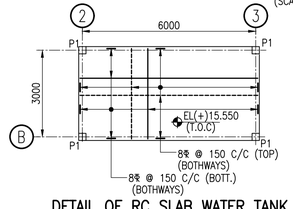


ROOF BEAM LAYOUT AT EL.(+)14.950(T.O.C.)
(SLAB THICKNESS 150 THK.)
(SCALE-1:100)



LAYOUT OF PLAN AT EL.(+)15.550(T.O.C.)
(SCALE-1:100)



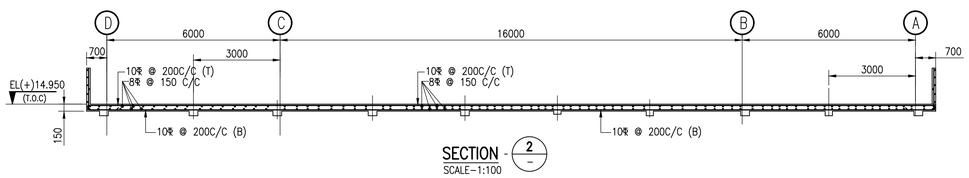
DETAIL OF RC SLAB WATER TANK
(SCALE-1:100)

HOLD TILL FINALIZATION OF EQUIPMENT LAYOUT

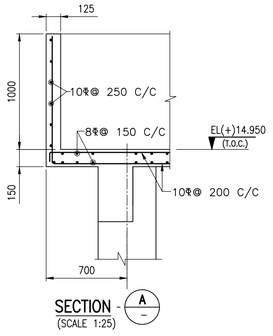
ROOF LEVEL

SCHEDULE OF BEAMS

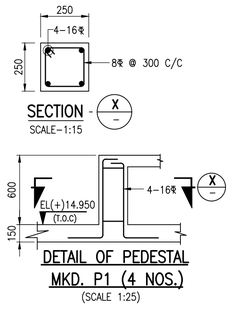
BEAM MKD.	BEAM TYPE	BEAM SIZE WIDTH (mm)	BEAM SIZE DEPTH (mm)	ELEVATION (T.O.C)	REINFORCEMENTS a	b	c	d	e	f	g	STIRRUPS S1	STIRRUPS S2	STIRRUPS X(mm.)	SIDE REINF. EACH FACE	REMARKS
RB1	I	500	1300	EL(+)14.950M	5-32ϕ	⊛5-25ϕ	⊛5-25ϕ	5-32ϕ	⊛5-32ϕ	–	–	4L-10ϕ @ 150C/C	4L-10ϕ @ 250C/C	4500	4-12ϕ (BOTHFACE)	⊛2nd. LAYER
RB2	I	350	750	EL(+)14.950M	4-25ϕ	⊛4-25ϕ	⊛4-25ϕ	4-25ϕ	–	–	–	4L-8ϕ @ 175C/C	4L-8ϕ @ 250C/C	1750	2-12ϕ (BOTHFACE)	⊛2nd. LAYER
RB3	II	300	700	EL(+)14.950M	3-25ϕ	⊛3-25ϕ	⊛3-25ϕ	3-25ϕ + ⊛2-16ϕ	–	⊛3-25ϕ	–	4L-8ϕ @ 150C/C	4L-8ϕ @ 250C/C	2100	–	⊛2nd. LAYER
RB4	II	300	500	EL(+)14.950M	3-20ϕ	⊛2-16ϕ	⊛2-16ϕ	3-20ϕ	–	⊛2-16ϕ	–	2L-8ϕ @ 175C/C	2L-8ϕ @ 250C/C	1750	–	⊛2nd. LAYER
RB5	IA	250	500	EL(+)14.950M	2-16ϕ	–	–	3-20ϕ	–	–	–	2L-8ϕ @ 200C/C	2L-8ϕ @ 300C/C	1000	–	–
1 RB5A	IA	250	550	EL(+)14.950M	2-16ϕ	–	–	3-25ϕ + 2-16ϕ	–	–	–	2L-8ϕ @ 125C/C	2L-8ϕ @ 200C/C	1500	–	–
RB6	IIA	250	600	EL(+)14.950M	3-20ϕ	⊛3-20ϕ	⊛3-20ϕ	3-25ϕ	–	⊛3-20ϕ	–	2L-10ϕ @ 100C/C	2L-10ϕ @ 200C/C	1600	–	⊛2nd. LAYER
RB7	II	300	600	EL(+)14.950M	3-20ϕ	⊛3-20ϕ	⊛3-20ϕ	2-25ϕ + 1-20ϕ	–	⊛3-20ϕ	–	2L-8ϕ @ 150C/C	2L-8ϕ @ 250C/C	1800	–	⊛2nd. LAYER
RB8	I/IA	300	750	EL(+)14.950M	3-32ϕ	⊛2-20ϕ	⊛2-20ϕ	3-20ϕ	–	–	–	2L-8ϕ @ 125C/C	2L-8ϕ @ 125C/C	–	2-12ϕ (BOTHFACE)	⊛2nd. LAYER



SECTION - 2
SCALE-1:100



SECTION - A
(SCALE 1:25)



SECTION - X
SCALE-1:15

DETAIL OF PEDESTAL MKD. P1 (4 NOS.)
(SCALE 1:25)

NOTES:–
1. BEAM TYPE– I & II : THE BEAMS ARE FIXED/ CONTINUOUS AT ENDS.
2. BEAM TYPE– IA & IIA : THE BEAMS ARE SIMPLY SUPPORTED AT ENDS.

HORIZONTAL AND VERTICAL STRIPS/BANDS OF RCC SHALL BE PROVIDED WITHIN AAC BLOCKWALL AS REQUIRED [AS PER LATEST VERSION OF IS : 2185 (PART3)] DURING CONSTRUCTION BY ENGINEER IN CHARGE.

REF DWGS:

1. 18A08-DWG-E-0401 – ELECTRICAL DWG.
2. 18A08-DWG-A-0002 TO 0006 – ARCHITECTURAL DWG.
3. 18A08-DWG-M-0001 TO 0007 – MECHANICAL DWG. (FIRE DETECTION AND PROTECTION)
4. 18A08-DWG-C-0001 TO 0003, C-0005 TO 0007 – CIVIL & STRUCTURAL DWG.
5. 18A08-03-DWG-VA-001 – HVAC LAYOUT
6. 18A08-03-DWG-VA-002 – HVAC POWER DISTRIBUTION SCHEME.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRE AND LEVELS IN METERS UNO.
2. ALL CO-ORDINATES, LEVELS AND NORTH DIRECTION SHOULD BE CHECKED BEFORE EXECUTION OF THE WORK
3. GRADE OF CONC. SHALL BE AS FOLLOWS
   a. FOR RCC WORK–M30.
   b. FOR PCC WORK–M10
4. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:

	TOP	BOTTOM	SIDE
SLAB	25	25	45
BEAM	45	45	45

5. GRADE OF REINFORCEMENT STEEL – Fe500 CONFORMING TO IS : 1786.
6. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCH. & ELEC. DRAWINGS

SPECIAL NOTES:–

1. LEVELS, DIMENSIONS AND ARRANGEMENT SHOWN IN THIS DRAWING TO BE CHECKED AND CONFIRMED (VERIFIED) BY MECHANICAL & ELECTRICAL DEPARTMENT, CONSIDERING FUNCTIONAL REQUIREMENTS.
2. PROVISION OF INSERT PLATES, CUT-OUT, PIPE SLEEVES ETC. TO BE CONSIDERED BEFORE CASTING AS PER REQUIREMENTS.

ALL CUT OUTS SHOWN IN THIS DWG. TO BE MATCHED WITH ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS.

ARRANGEMENT OF FALSE FLOORING (AS REQUIRED) SHALL BE AS PER ARCHITECTURAL DRAWINGS.

ISSUED FOR CONSTRUCTION

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY		
FOR TENDER ONLY		
✓FOR CONSTRUCTION	17.10.19	AR

REVIEWED	DATE	SIGNATURE
ARCHITECTURAL		
CIVIL & STRUCTURAL		
ELECTRICAL		
INSTRUMENTATION		
MECHANICAL		
*		

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.
REVIEWED					

REV.	NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE
1	REVISED AS MKD. 1	NC	ASHIS	1	07.11.19

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: CONTROL BUILDING
GA & RC DETAILS OF BEAM & SLAB AT ROOF AT EL.(+) 14.950 (T.O.C.)

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	ASHIS	JOB NO.	18A08
CHECKED	NC	SCALE	1:100
APPROVED	AR	DATE	22.02.2019
DWG. NO.	18A08-DWG-C-0004		REV 1
			SHEET 4 OF

FILE LOCATION: E:\W\IFFCO BOILER CONTROL ROOM\Drawing Prep\Rev 07-11-19\18A08-DWG-C-0004(SHT-4)-R1 07-11-19.dwg
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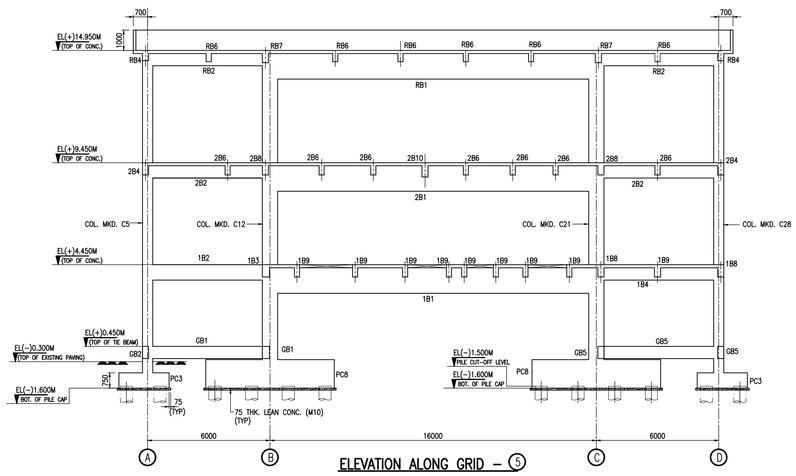
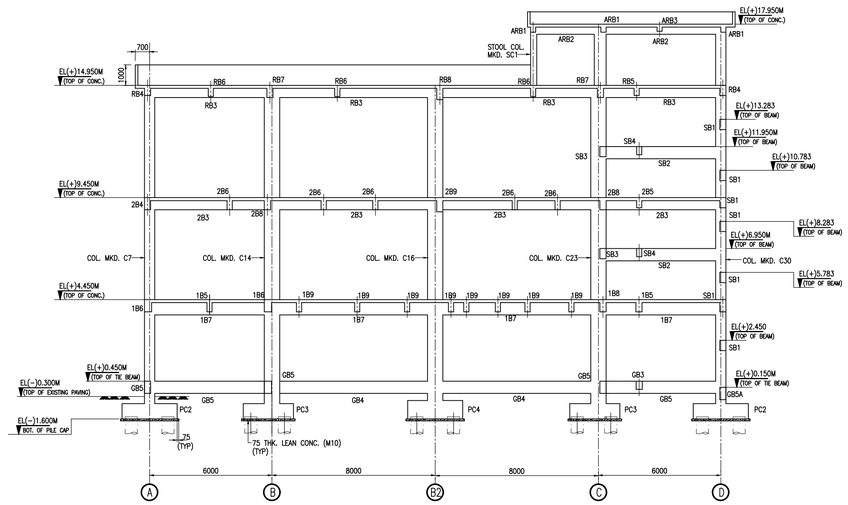
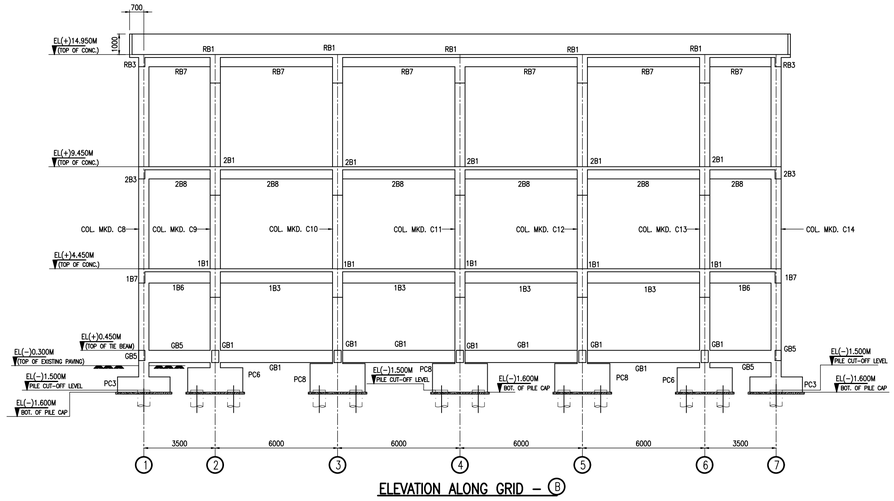


ELEVATION ALONG GRID – (5)



ELEVATION ALONG GRID – (7)



ELEVATION ALONG GRID – (B)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRE AND LEVELS IN METERS UNO.
2. ALL CO-ORDINATES, LEVELS AND NORTH DIRECTION SHOULD BE CHECKED BEFORE EXECUTION OF THE WORK
3. GRADE OF CONC. SHALL BE AS FOLLOWS
   a. FOR RCC WORK-M30.
   b. FOR PCC WORK-M10
4. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCH. & ELEC. DRAWINGS
5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DWG. NO. C-0004 (SHT – 1 TO 4)

SPECIAL NOTES:–

1. LEVELS, DIMENSIONS AND ARRANGEMENT SHOWN IN THIS DRAWING TO BE CHECKED AND CONFIRMED (VERIFIED) BY MECHANICAL & ELECTRICAL DEPARTMENT, CONSIDERING FUNCTIONAL REQUIREMENTS.
2. PROVISION OF INSERT PLATES, CUT-OUT, PIPE SLEEVES ETC. TO BE CONSIDERED BEFORE CASTING AS PER REQUIREMENTS.

ALL CUT OUTS SHOWN IN THIS DWG. TO BE MATCHED WITH ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS.

ARRANGEMENT OF FALSE FLOORING (AS REQUIRED) SHALL BE AS PER ARCHITECTURAL DRAWINGS.

HORIZONTAL AND VERTICAL STRIPS/BANDS OF RCC SHALL BE PROVIDED WITHIN AAC BLOCKWALL AS REQUIRED [AS PER LATEST VERSION OF IS : 2185 (PART3)] DURING CONSTRUCTION BY ENGINEER IN CHARGE.

REF DWGS:

1. 18A08-DWG-E-0401 – ELECTRICAL DWG.
2. 18A08-DWG-A-0002 TO 0006 – ARCHITECTURAL DWG.
3. 18A08-DWG-M-0001 TO 0007 – MECHANICAL DWG. (FIRE DETECTION AND PROTECTION)
4. 18A08-DWG-C-0001 TO 0003, C-0005 TO 0007 – CIVIL & STRUCTURAL DWG.
5. 18A08-03-DWG-VA-001 – HVAC LAYOUT
6. 18A08-03-DWG-VA-002 – HVAC POWER DISTRIBUTION SCHEME.

ALL CUT OUTS SHOWN IN THIS DWG. SHALL BE MATCHED WITH ELECTRICAL EQUIPMENT LAYOUT.

ISSUED FOR CONSTRUCTION

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY		
FOR TENDER ONLY		
FOR CONSTRUCTION	17.10.19	AR

REVIEWED	
ARCHITECTURAL	
CIVIL & STRUCTURAL	
ELECTRICAL	
INSTRUMENTATION	
MECHANICAL	
*	

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.
REVIEWED					

NATURE OF REVISION & DESCRIPTION | CHECKED | DRAWN | REV. | DATE

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: CONTROL BUILDING
GENERAL ARRANGEMENTS ELEVATIONS

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	ASHS	JOB NO.	18A08
CHECKED	NC	SCALE	1:100
APPROVED	AR	DATE	13.03.2019

DWG. NO. 18A08-DWG-C-0004 | REV 0 | SHEET 5 OF

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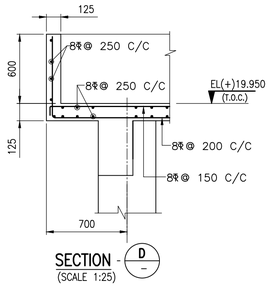
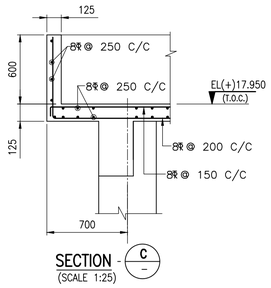


SECTION - D
(SCALE 1:25)



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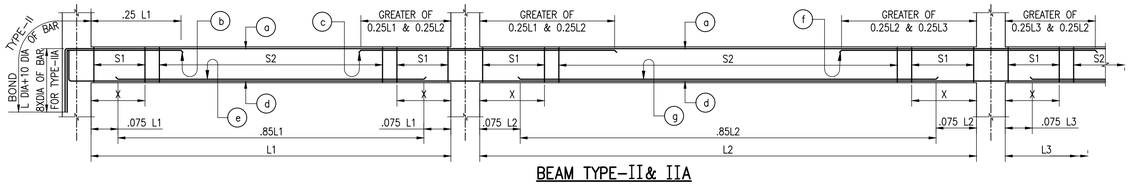
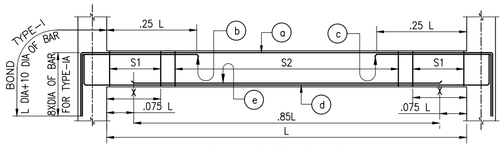
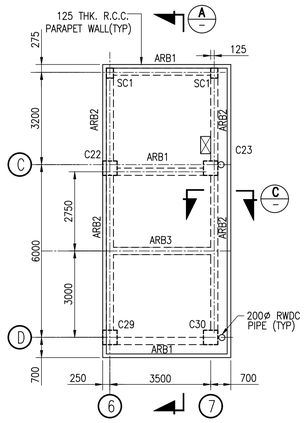


BEAM TYPE-II& IIA
(MULTIPLE SPAN)

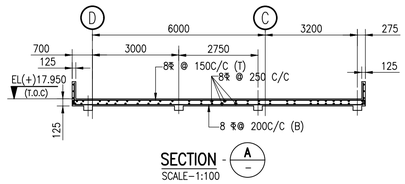


BEAM TYPE- I & IA
(SINGLE SPAN BEAM)

NOTES:-
1. BEAM TYPE- I & II : THE BEAMS ARE FIXED/ CONTINUOUS AT ENDS.
2. BEAM TYPE- IA & IIA : THE BEAMS ARE SIMPLY SUPPORTED AT ENDS.



ABOVE ROOF BEAM LAYOUT
AT EL.(+)17.950M(T.O.C.)
(SLAB THICKNESS 125 mm)
(SCALE-1:100)



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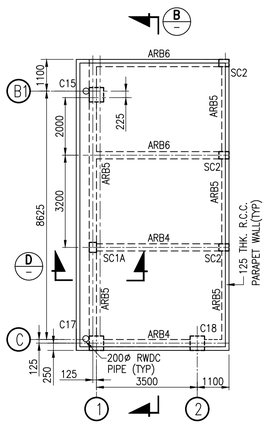
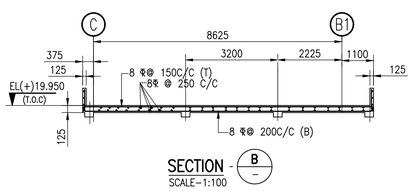


ABOVE ROOF BEAM LAYOUT
AT EL.(+)19.950M (T.O.C.) 1
(SLAB THICKNESS 125 mm)
SCALE-1:100



SECTION - B
SCALE-1:100

ABOVE ROOF LEVEL

S C H E D U L E O F B E A M S

BEAM MKD.	BEAM TYPE	BEAM SIZE WIDTH (mm)	BEAM SIZE DEPTH (mm)	ELEVATION (T.O.C)	REINFORCEMENTS a	b	c	d	e	f	g	STIRRUPS S1	S2	X(mm.)	SIDE REINF. EACH FACE	REMARKS
ARB1	I	250	400	EL(+)17.950M	3-16ϕ	–	–	3-16ϕ	–	–	–	2L-8ϕ @ 200C/C	2L-8ϕ @ 300C/C	1000	–	–
ARB2	II	250	500	EL(+)17.950M	3-16ϕ	⊛2-20ϕ	⊛2-20ϕ	3-16ϕ	–	⊛2-20ϕ	–	2L-8ϕ @ 150C/C	2L-8ϕ @ 250C/C	1800	–	⊛2nd. LAYER
ARB3	IA	250	350	EL(+)17.950M	2-16ϕ	–	–	3-16ϕ	–	–	–	2L-8ϕ @ 200C/C	2L-8ϕ @ 300C/C	1000	–	–
ARB4	I	250	400	EL(+)19.950M	3-20ϕ	–	–	3-20ϕ	–	–	–	2L-8ϕ @ 200C/C	2L-8ϕ @ 300C/C	1400	–	–
ARB5	II/IIA	250	600	EL(+)19.950M	3-20ϕ	⊛3-20ϕ	⊛3-20ϕ	3-20ϕ	–	⊛3-20ϕ	–	2L-8ϕ @ 125C/C	2L-8ϕ @ 200C/C	1500	–	⊛2nd. LAYER
ARB6	I/IA	250	400	EL(+)19.950M	2-16ϕ + 1-20ϕ	–	–	2-16ϕ + 1-20ϕ	–	–	–	2L-8ϕ @ 200C/C	2L-8ϕ @ 300C/C	1400	–	–

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRE AND LEVELS IN METERS UNO.
2. ALL CO-ORDINATES, LEVELS AND NORTH DIRECTION SHOULD BE CHECKED BEFORE EXECUTION OF THE WORK
3. GRADE OF CONC. SHALL BE AS FOLLOWS
   a. FOR RCC WORK-M30.
   b. FOR PCC WORK-M10
4. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:

	TOP	BOTTOM	SIDE
SLAB	25	25	45
BEAM	45	45	45

5. GRADE OF REINFORCEMENT STEEL – Fe500 CONFORMING TO IS : 1786.
6. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCH. & ELEC. DRAWINGS

SPECIAL NOTES:-

1. LEVELS, DIMENSIONS AND ARRANGEMENT SHOWN IN THIS DRAWING TO BE CHECKED AND CONFIRMED (VERIFIED) BY MECHANICAL & ELECTRICAL DEPARTMENT, CONSIDERING FUNCTIONAL REQUIREMENTS.
2. PROVISION OF INSERT PLATES, CUT-OUT, PIPE SLEEVES ETC. TO BE CONSIDERED BEFORE CASTING AS PER REQUIREMENTS.

ALL CUT OUTS SHOWN IN THIS DWG. TO BE MATCHED WITH ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS.

ARRANGEMENT OF FALSE FLOORING (AS REQUIRED) SHALL BE AS PER ARCHITECTURAL DRAWINGS.

HORIZONTAL AND VERTICAL STRIPS/BANDS OF RCC SHALL BE PROVIDED WITHIN AAC BLOCKWALL AS REQUIRED [AS PER LATEST VERSION OF IS : 2185 (PART3)] DURING CONSTRUCTION BY ENGINEER IN CHARGE.

REF DWGS:

1. 18A08-DWG-E-0401 – ELECTRICAL DWG.
2. 18A08-DWG-A-0002 TO 0006 – ARCHITECTURAL DWG.
3. 18A08-DWG-M-0001 TO 0007 – MECHANICAL DWG. (FIRE DETECTION AND PROTECTION)
4. 18A08-DWG-C-0001 TO 0003, C-0005 TO 0007 – CIVIL & STRUCTURAL DWG.
5. 18A08-03-DWG-VA-001 – HVAC LAYOUT
6. 18A08-03-DWG-VA-002 – HVAC POWER DISTRIBUTION SCHEME.

ISSUED FOR CONSTRUCTION

IFFCO PARADEEP

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: CONTROL BUILDING
GA & RC DETAILS OF BEAM & SLAB AT EL.(+) 17.950 (T.O.C.) & EL.(+) 19.950 (T.O.C.)

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.	NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE
						REVISED AS MKD. 1	NC	ASHIS	1	06.11.19

REVIEWED

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY		
FOR TENDER ONLY		
FOR CONSTRUCTION	17.10.19	AR

REVIEWED

ARCHITECTURAL			
CIVIL & STRUCTURAL			
ELECTRICAL			
INSTRUMENTATION			
MECHANICAL			
+			

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	ASHIS	JOB NO.	18A08
CHECKED	NC	SCALE	1:100
APPROVED	AR	DATE	22.02.2019
DWG. NO.	18A08-DWG-C-0004 (SHT-6)		REV 1

6 SHEET OF

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PLOT DATE: 11/6/2019 10:02:14 AM

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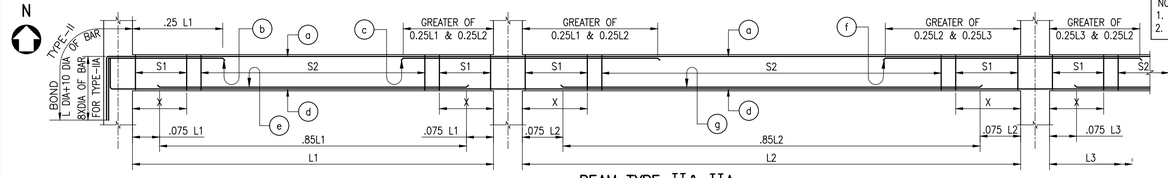
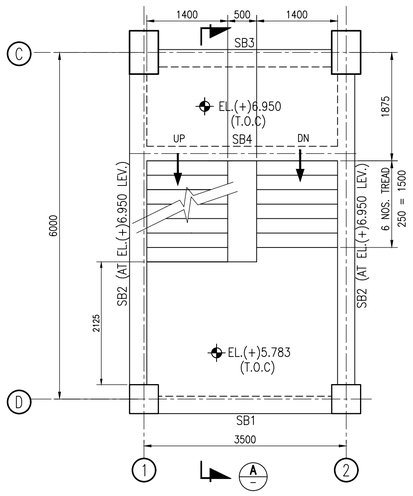
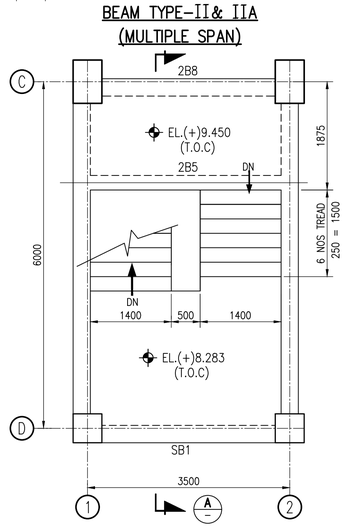


NOTES:–
1. BEAM TYPE– I & II : THE BEAMS ARE FIXED/ CONTINUOUS AT ENDS.
2. BEAM TYPE– IA & IIA : THE BEAMS ARE SIMPLY SUPPORTED AT ENDS.

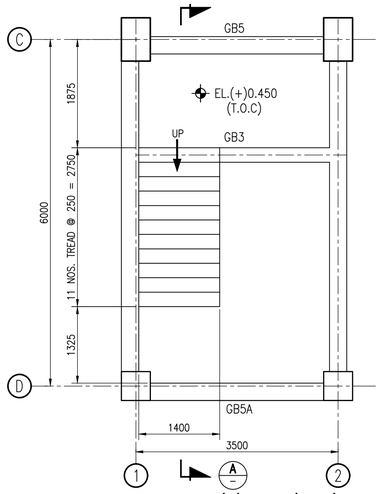


PLAN AT EL(+)6.950 (T.O.C) FOR STAIR CASE MKD. ST–1
SCALE 1:50

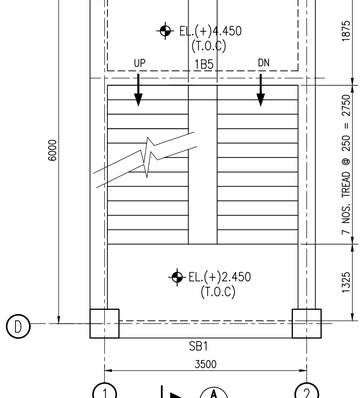
BEAM TYPE–II& IIA (MULTIPLE SPAN)



PLAN AT EL(+)9.450 (T.O.C) FOR STAIR CASE MKD. ST–1
SCALE 1:50

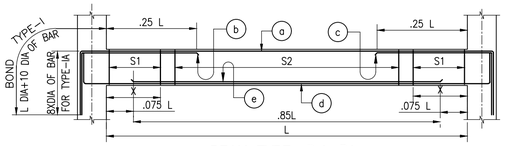


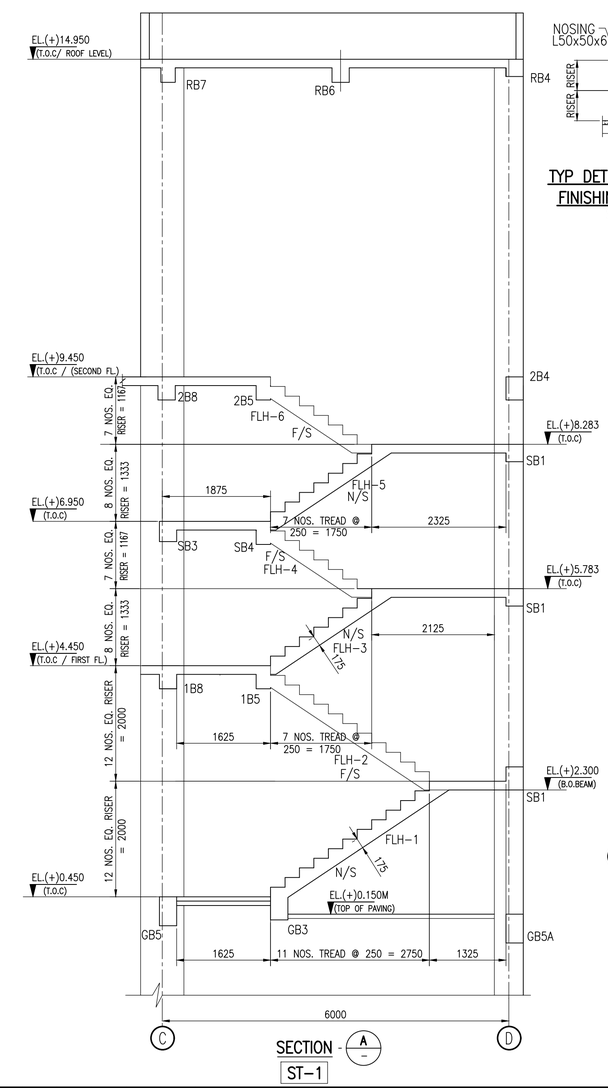
PLAN AT EL(+)0.450 (T.O.C) FOR STAIR CASE MKD. ST–1
SCALE 1:50



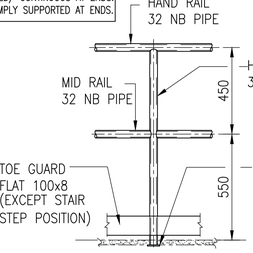
PLAN AT EL(+)4.450 (T.O.C) FOR STAIR CASE MKD. ST–1
SCALE 1:50

BEAM TYPE– I & IA (SINGLE SPAN BEAM)

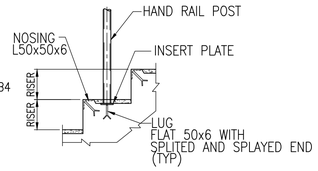




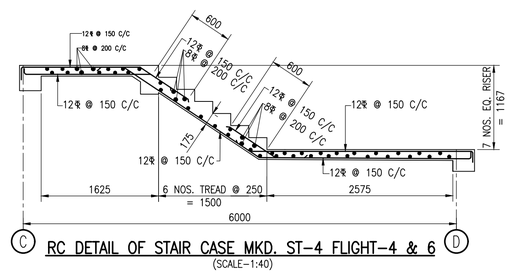
SECTION A– ST–1



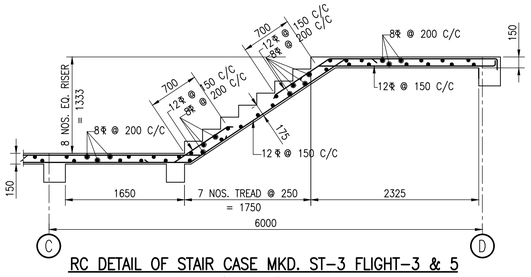
TYP DET. OF HAND RAILING
SCALE 1:20



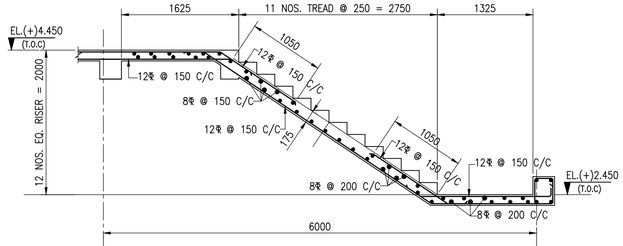
TYP DET. OF CURB & FLOOR FINISHING DET. OF STEPS
SCALE 1:15



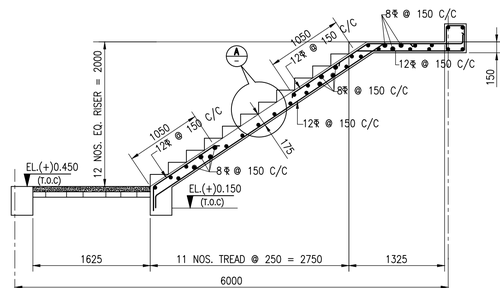
RC DETAIL OF STAIR CASE MKD. ST–4 FLIGHT–4 & 6
(SCALE–1:40)



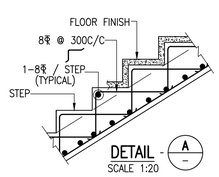
RC DETAIL OF STAIR CASE MKD. ST–3 FLIGHT–3 & 5
(SCALE–1:40)



RC DETAIL OF STAIR CASE MKD. ST–2 FLIGHT–2
(SCALE–1:40)



RC DETAIL OF STAIR CASE MKD. ST–1 FLIGHT–1
(SCALE–1:40)



NOTES:–
1. ALL DIMENSIONS ARE IN MILLIMETRE & LEVELS ARE IN METRE UNLESS NOTED OTHERWISE.
2. CONCRETE GRADE SHALL BE AS FOLLOWS :
   a) STRUCTURAL CONCRETE – M30
   c) PLAIN CEMENT CONCRETE (PCC) – M10.
3. GRADE OF STEEL SHALL BE Fe 500 AS PER IS 1786
4. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS.

	TOP	BOTTOM	SIDE
SLAB	25	25	45
BEAM	45	45	45

5. LAP LENGTH & DEVELOPMENT LENGTH SHALL BE 50 TIMES DIA. OF BAR.
6. FOR GENERAL NOTES REFER DWG NO. –18A08–DWG–C–0001 & C–0002

REF DWGS:
1. 18A08–DWG–E–0401 – ELECTRICAL DWG.
2. 18A08–DWG–A–0002, 0003 & 0004 – ARCHITECTURAL DWG.
3. 18A08–DWG–M–0001 TO 0008 – MECHANICAL DWG.
4. 18A08–DWG–C–0001 TO 0004 – CIVIL & STRUCTURAL DWG.

ISSUED FOR CONSTRUCTION

SPECIAL NOTES:–
1. LEVELS, DIMENSIONS AND ARRANGEMENT SHOWN IN THIS DRAWING TO BE CHECKED AND CONFIRMED (VERIFIED) BY MECHANICAL DEPARTMENT, CONSIDERING FUNCTIONAL REQUIREMENT.
2. PROVISION OF INSERT PLATES, CUT–OUT, PIPE SLEEVES ETC. TO BE CONSIDERED BEFORE CASTING AS PER REQUIREMENTS.

S C H E D U L E O F S T A I R B E A M S

BEAM MKD.	BEAM TYPE	BEAM SIZE WIDTH (mm)	BEAM SIZE DEPTH (mm)	ELEVATION (T.O.C)	REINFORCEMENTS a	b	c	d	e	f	g	STIRRUPS S1	S2	X(mm.)	SIDE REINF. EACH FACE	REMARKS
SB1	I	300	500	AS PER PLANS & STAIR DWGS	3–20ϕ	⊛ 2–25ϕ	⊛ 2–25ϕ	3–20ϕ + ⊛2–20ϕ	–	–	–	2L–8ϕ @ 125C/C	2L–8ϕ @ 200C/C	1000	–	⊛2nd. LAYER
SB2	I	300	600		3–25ϕ	⊛ 2–16ϕ	⊛ 2–16ϕ	2–20ϕ + 1–25ϕ	–	–	–	2L–8ϕ @ 200C/C	2L–8ϕ @ 300C/C	1600	–	⊛2nd. LAYER
SB3	I	300	600		3–25ϕ	⊛ 2–20ϕ	⊛ 2–20ϕ	3–25ϕ + ⊛2–20ϕ	–	–	–	2L–8ϕ @ 125C/C	2L–8ϕ @ 200C/C	1000	–	⊛2nd. LAYER
SB4	IA	250	400		2–16ϕ	–	–	2–20ϕ + 1–16ϕ	–	–	–	2L–8ϕ @ 175C/C	2L–8ϕ @ 250C/C	1050	–	–

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.	REVIEWED	NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY		
FOR TENDER ONLY		
FOR CONSTRUCTION	17.10.19	AR

REVIEWED	
ARCHITECTURAL	
CIVIL & STRUCTURAL	
ELECTRICAL	
INSTRUMENTATION	
MECHANICAL	
*	

IFFCO PARADEEP

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: CONTROL BUILDING
GA AND RC DETAIL OF STAIR CASE MKD. ST–1

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

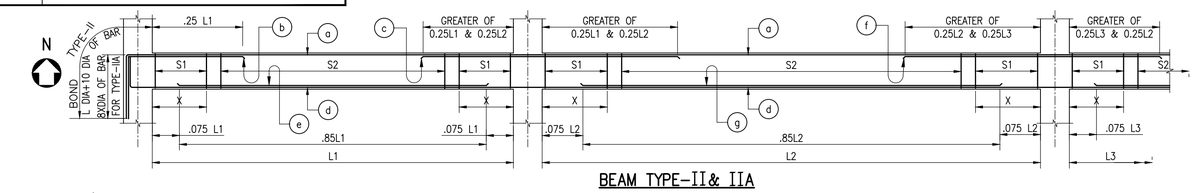
PREPARED	ASHIS	JOB NO.	18A08
CHECKED	NC	SCALE	AS NOTED
APPROVED	A.RAY	DATE	22.02.2019

DWG. NO. 18A008–DWG–C–0005 REV 0 SHEET 1 OF

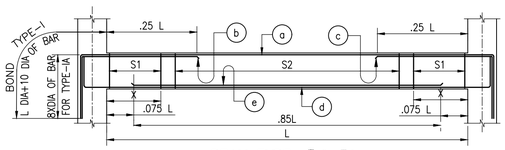
FILE LOCATION: E:\NC\IFFCO BOILER CONTROL ROOM\Drawing Prep\IFFCO CS PROGRESS DRGS UPTO 17-10-19\18A08-DWG-C-0005(SHT-1)-R0 17-10-19.dwg
PLOT DATE: 10/17/2019 12:19:59 PM

A1 [841 x 594]

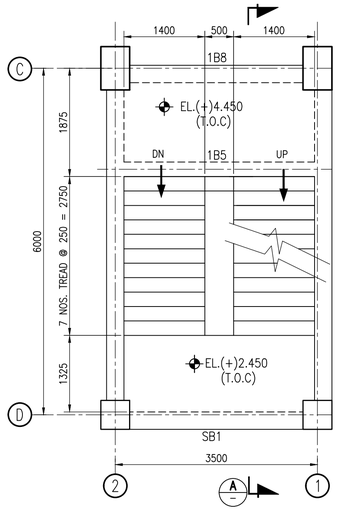
BEAM TYPE-II& IIA (MULTIPLE SPAN)



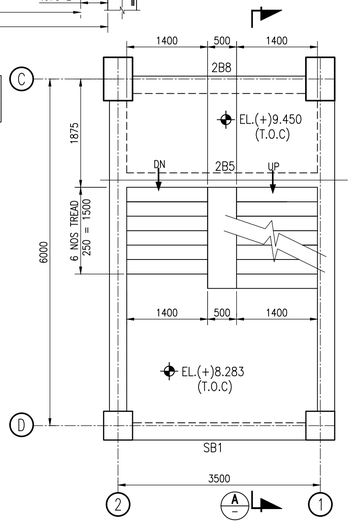
BEAM TYPE- I & IA (SINGLE SPAN BEAM)



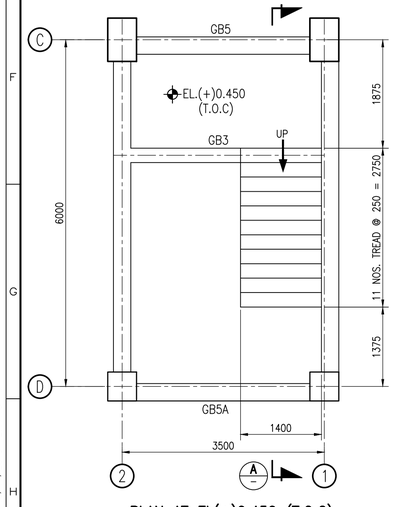
NOTES:–
1. BEAM TYPE– I & II : THE BEAMS ARE FIXED/ CONTINUOUS AT ENDS.
2. BEAM TYPE– IA & IIA : THE BEAMS ARE SIMPLY SUPPORTED AT ENDS.



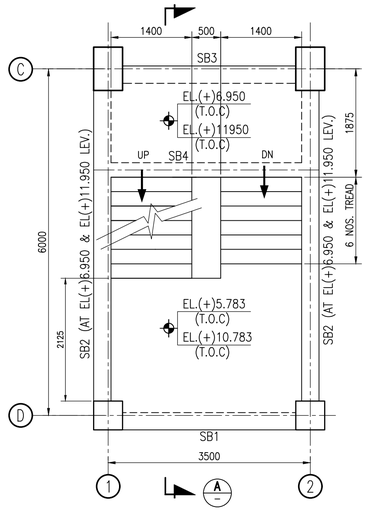
PLAN AT EL(+)4.450 (T.O.C) FOR STAIR CASE MKD. ST–2
SCALE 1:50



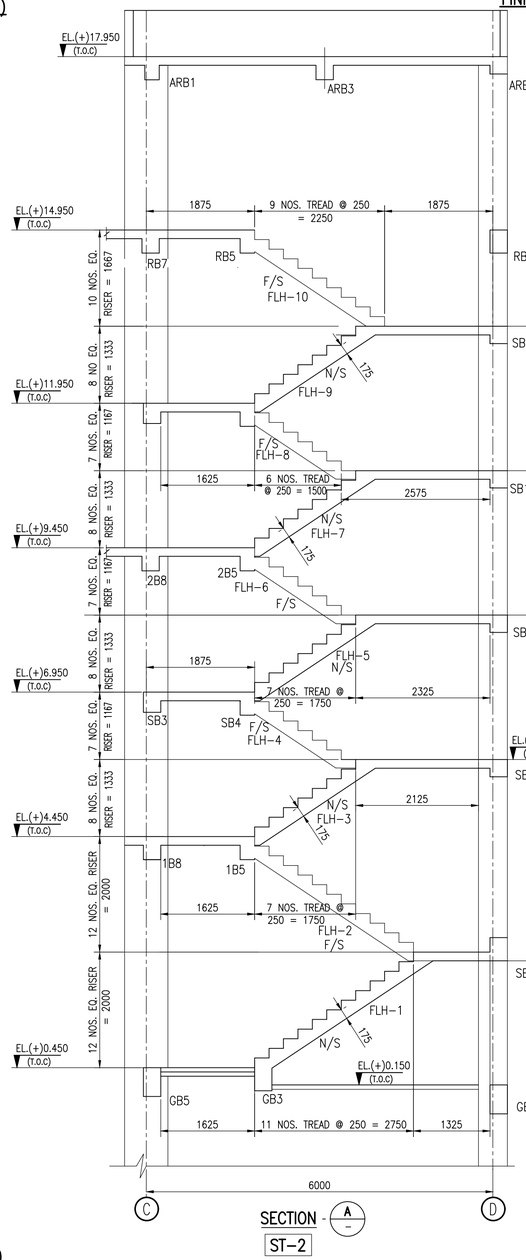
PLAN AT EL(+)9.450 (T.O.C) FOR STAIR CASE MKD. ST–2
SCALE 1:50



PLAN AT EL(+)0.450 (T.O.C) FOR STAIR CASE MKD. ST–2
SCALE 1:50

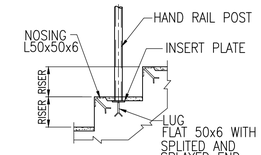


PLAN AT EL(+)6.950 & EL(+)11.950 (T.O.C) FOR STAIR CASE MKD. ST–2
SCALE 1:50



SECTION - A
ST–2

TYP DET. OF CURB & FLOOR FINISHING DET. OF STEPS

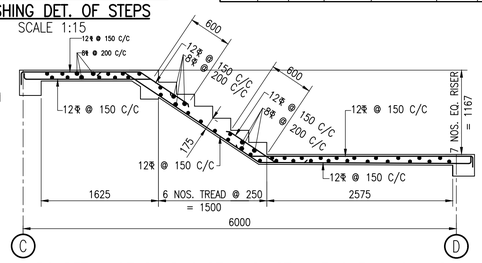


SCHEDULE OF STAIR BEAMS

BEAM MKD.	BEAM TYPE	BEAM SIZE WIDTH (mm)	BEAM SIZE DEPTH (mm)	ELEVATION (T.O.C)	REINFORCEMENTS a	b	c	d	e	f	g	STIRRUPS S1	STIRRUPS S2	STIRRUPS X(mm.)	SIDE REINF. EACH FACE	REMARKS
SB1	I	300	500	AS PER PLANS & STAIR DWGS	3–20ϕ	⊛2–25ϕ	⊛2–25ϕ	3–20ϕ + ⊛2–20ϕ	–	–	–	2L–8ϕ @ 125C/C	2L–8ϕ @ 200C/C	1000	–	⊛2nd. LAYER
SB2	I	300	600		3–25ϕ	⊛2–16ϕ	⊛2–16ϕ	2–20ϕ + 1–25ϕ	–	–	–	2L–8ϕ @ 200C/C	2L–8ϕ @ 300C/C	1600	–	⊛2nd. LAYER
SB3	I	300	600		3–25ϕ	⊛2–20ϕ	⊛2–20ϕ	3–25ϕ + ⊛2–20ϕ	–	–	–	2L–8ϕ @ 125C/C	2L–8ϕ @ 200C/C	1000	–	⊛2nd. LAYER
SB4	IA	250	400		2–16ϕ	–	–	2–20ϕ + 1–16ϕ	–	–	–	2L–8ϕ @ 175C/C	2L–8ϕ @ 250C/C	1050	–	–

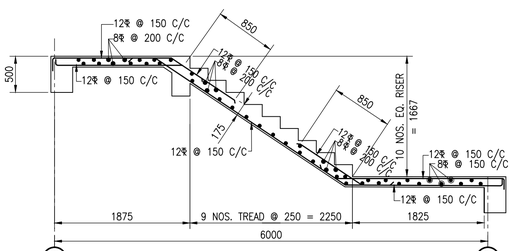
RC DETAIL OF STAIR CASE MKD. ST–4 FLIGHT–4, 6 & 8

(SCALE–1:40)



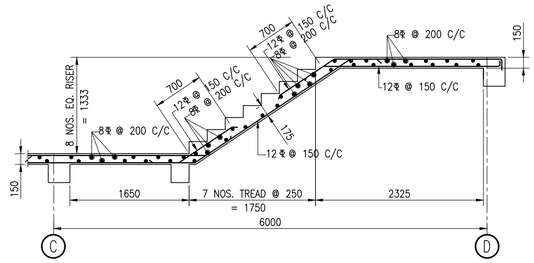
RC DETAIL OF STAIR CASE MKD. ST–2 FLIGHT–10

(SCALE–1:40)

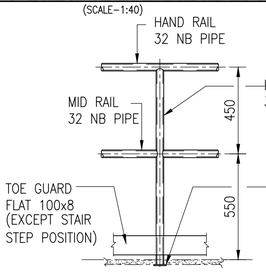


RC DETAIL OF STAIR CASE MKD. ST–3 FLIGHT–3, 5, 7 & 9

(SCALE–1:40)

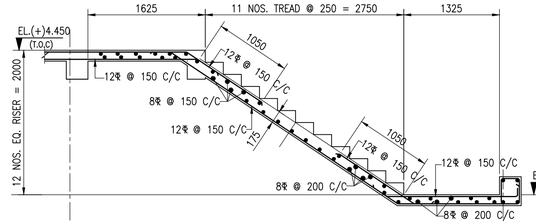


TYP DET. OF HAND RAILING



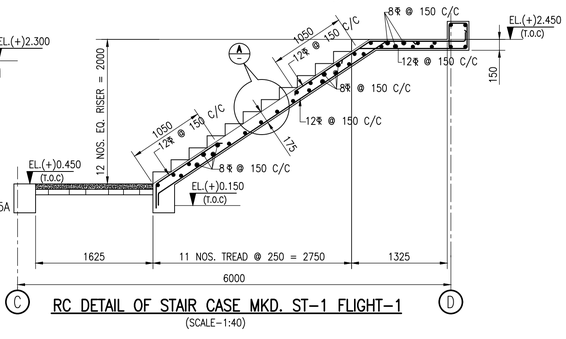
RC DETAIL OF STAIR CASE MKD. ST–2 FLIGHT–2

(SCALE–1:40)

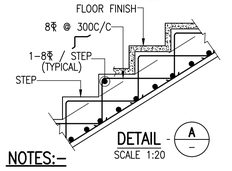


RC DETAIL OF STAIR CASE MKD. ST–1 FLIGHT–1

(SCALE–1:40)



TYP DET. OF STEPS



DETAIL - A
SCALE 1:20

NOTES:–

1. ALL DIMENSIONS ARE IN MILLIMETRE & LEVELS ARE IN METRE UNLESS NOTED OTHERWISE.
2. CONCRETE GRADE SHALL BE AS FOLLOWS :
   a) STRUCTURAL CONCRETE – M30
   c) PLAIN CEMENT CONCRETE (PCC) – M10.
3. GRADE OF STEEL SHALL BE Fe 500 AS PER IS 1786
4. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS.

	TOP	BOTTOM	SIDE
SLAB	25	25	45
BEAM	45	45	45

5. LAP LENGTH & DEVELOPMENT LENGTH SHALL BE 50 TIMES DIA. OF BAR.
6. FOR GENERAL NOTES REFER DWG NO. –18A08–DWG–C–0001 & C–0002

REF DWGS:

1. 18A08–DWG–E–0401 – ELECTRICAL DWG.
2. 18A08–DWG–A–0002, 0003 & 0004 – ARCHITECTURAL DWG.
3. 18A08–DWG–M–0001 TO 0008 – MECHANICAL DWG.
4. 18A08–DWG–C–0001 TO 0004 – CIVIL & STRUCTURAL DWG.

ISSUED FOR CONSTRUCTION

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.	NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE
	REVIEWED									

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY		
FOR TENDER ONLY		
FOR CONSTRUCTION	17.10.19	AR

REVIEWED	
ARCHITECTURAL	
CIVIL & STRUCTURAL	
ELECTRICAL	
INSTRUMENTATION	
MECHANICAL	
•	

IFFCO PARADEEP

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: CONTROL BUILDING
GA AND RC DETAIL OF STAIR CASE MKD. ST–2

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	ASHIS	JOB NO.	18A08
CHECKED	NC	SCALE	AS NOTED
APPROVED	A.RAY	DATE	22.02.2019

DWG. NO. 18A08–DWG–C–0005 REV 0 SHEET 2 OF

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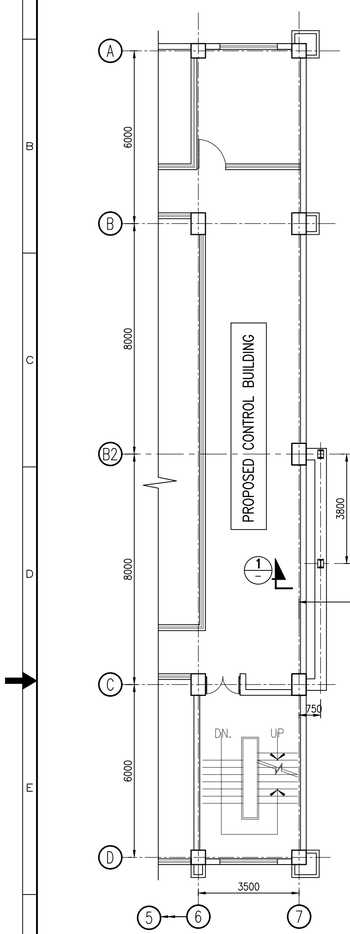
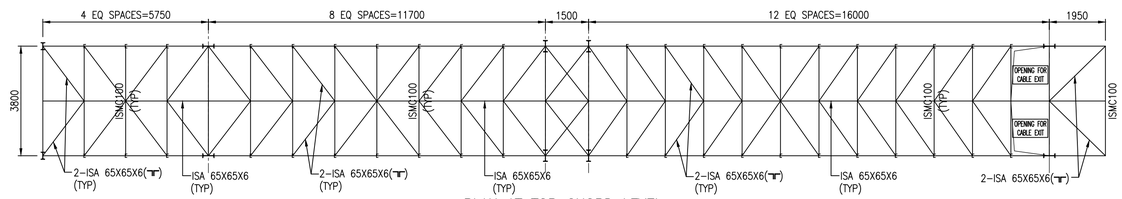
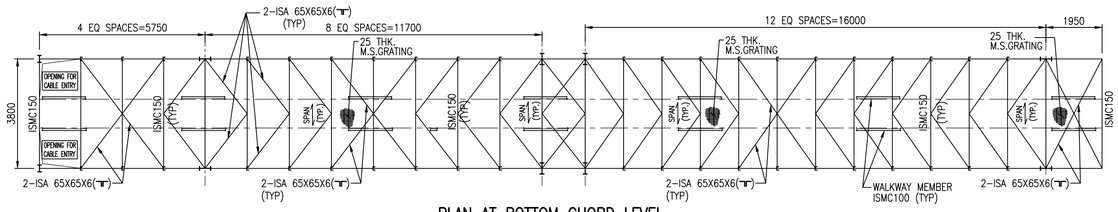
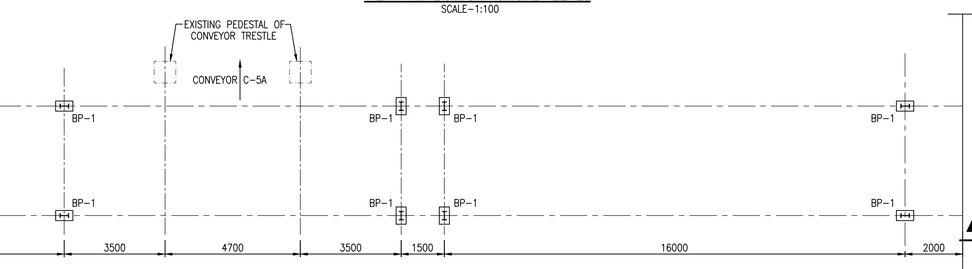


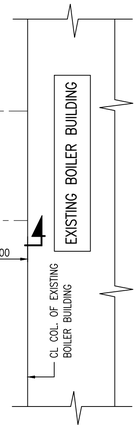


PLAN AT TOP CHORD LEVEL
SCALE-1:100

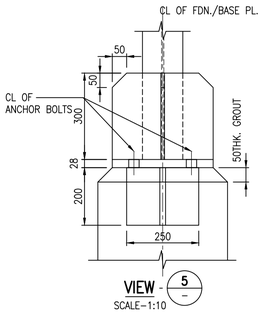


PLAN AT BOTTOM CHORD LEVEL
SCALE-1:100

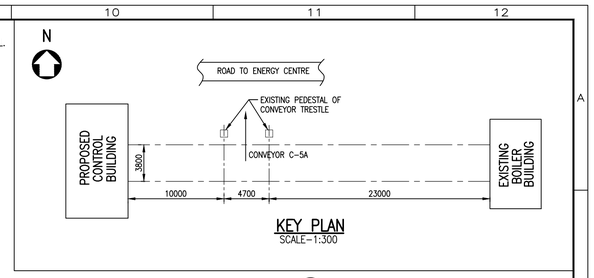




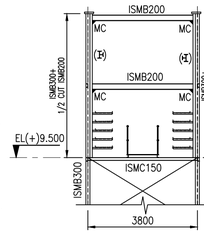
PLAN AT U/S OF BASE PLATE
SCALE-1:100



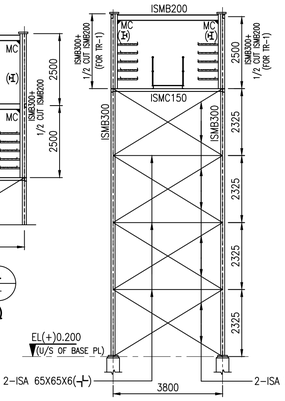
VIEW - 5
SCALE-1:10



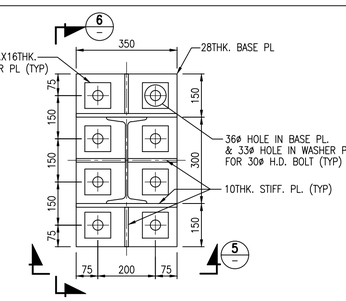
KEY PLAN
SCALE-1:300



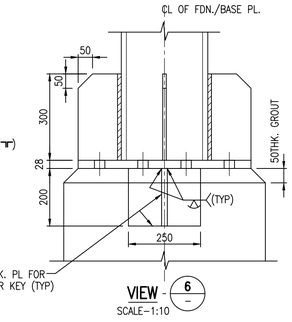
VIEW - 4
(FOR TR-3)
SCALE-1:100



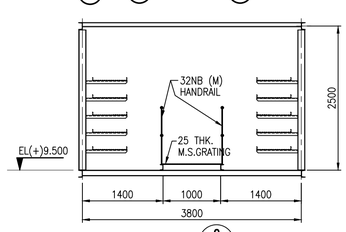
TYPICAL ELEVATION OF TRESTLE
SCALE-1:100



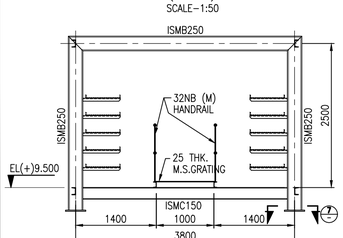
DETAIL OF BASE PLATE MKD BP-1
SCALE-1:10



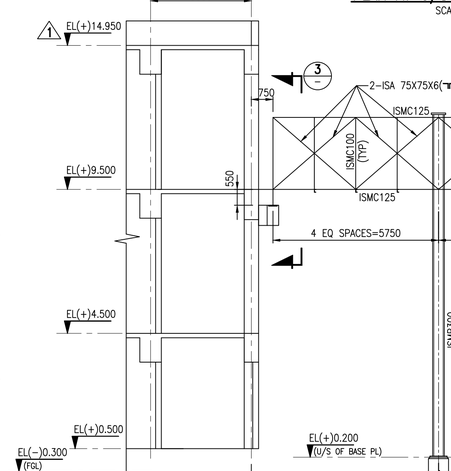
VIEW - 6
SCALE-1:10



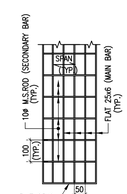
VIEW - 2
(AT SPAN)
SCALE-1:50



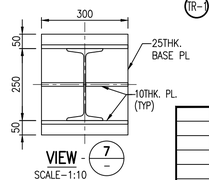
VIEW - 3
(AT END PORTAL)
SCALE-1:50



VIEW - 1
SCALE-1:100



TYP. DETAIL OF 25 THK. M.S. GRATING



VIEW - 7
SCALE-1:10

DETAIL OF BASE PLATE FOR END PORTAL

SPECIAL NOTE:–

CONNECTING PLATFORM LEVEL IS TENTATIVE AND SHALL BE AS PER ACTUAL SITE CONDITION/ REQUIREMENT. FURTHER, DISTANCE BETWEEN CONTROL ROOM TO BOILER HOUSE IS TENTATIVE AND SHALL BE AS PER ACTUAL SITE CONDITION.

NOTES:–

1. ALL DIMENSIONS ARE IN MM & CO-ORDINATES, ELEVATIONS AND LEVELS ARE IN METER, UNLESS NOTED OTHERWISE.
2. ALL WELDS ARE 6mm THK. CONTINUOUS FILLET UNLESS NOTED OTHERWISE.
3. ALL INCLINED MEMBERS & SIZE OF GUSSET PL. TO BE CHECKED & VERIFIED FROM ACTUAL FULL SCALE SHOP LAYOUT.
4. ALL VERTICAL GUSSET PL. 10mm THK. & HORIZONTAL GUSSET PL. 8mm THK.
5. GRADE OF STEEL E250A AS PER IS:2062

REF DWGS:

1. 18A08-DWG-E-0401 – ELECTRICAL DWG.
2. 18A08-DWG-A-0002 TO 0006 – ARCHITECTURAL DWG.
3. 18A08-DWG-M-0001 TO 0007 – MECHANICAL DWG. (FIRE DETECTION AND PROTECTION)
4. 18A08-DWG-C-0001 TO 0005 & 0007 – CIVIL & STRUCTURAL DWG.
5. 18A08-03-DWG-VA-001 – HVAC LAYOUT
6. 18A08-03-DWG-VA-002 – HVAC POWER DISTRIBUTION SCHEME.

ISSUED FOR CONSTRUCTION

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.	REVIEWED	REVISED AS MKD. 1	NC	ASHIS	1	06.11.19
							NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY		
FOR TENDER ONLY		
FOR CONSTRUCTION	23.09.19	AR

REVIEWED	
ARCHITECTURAL	
CIVIL & STRUCTURAL	
ELECTRICAL	
INSTRUMENTATION	
MECHANICAL	
*	

IFFCO PARADEEP

OWNER: **IFFCO PARADEEP**

PROJECT: **IFFCO PARADEEP AFBC BOILER CONTROL ROOM**

TITLE: GENERAL ARRANGEMENT OF CONNECTING PLATFORM BETWEEN CONTROL BUILDING & EXISTING BOILER BUILDING

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	Prosenjit	JOB NO.	18A08
CHECKED	RM	SCALE	AS NOTED
APPROVED	AR	DATE	21.02.2019
DWG. NO.	18A08-DWG-C-0006		REV 1
			SHEET 1 OF

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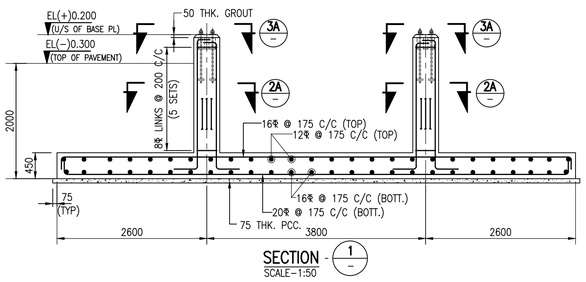
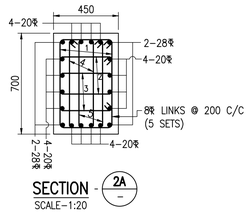
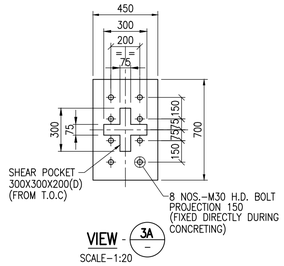


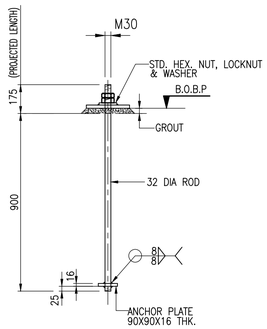
SECTION - 1
SCALE−1:50



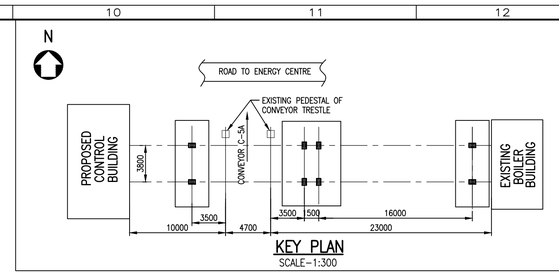
SECTION - 2A
SCALE−1:20



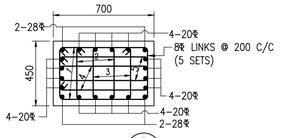
VIEW - 3A
SCALE−1:20



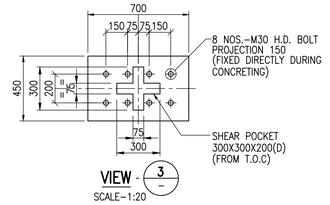
DETAIL OF M30 ANCHOR BOLT
(64 NOS. REQD.)
SCALE−1:15



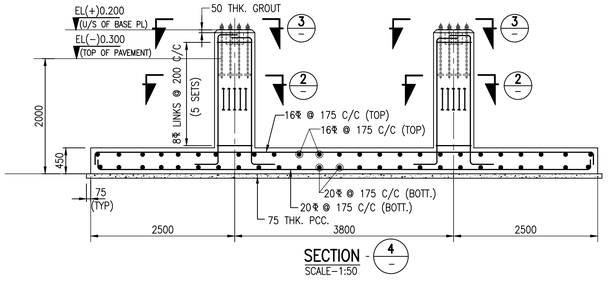
KEY PLAN
SCALE−1:300



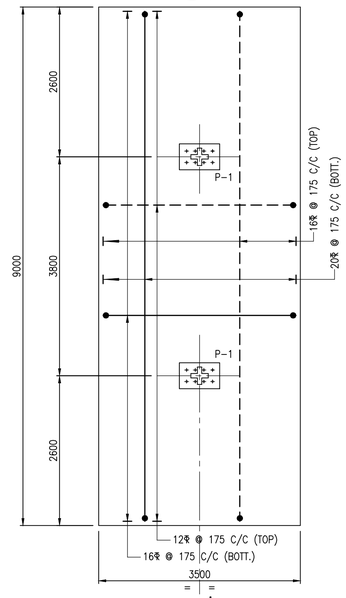
SECTION - 2
SCALE−1:20

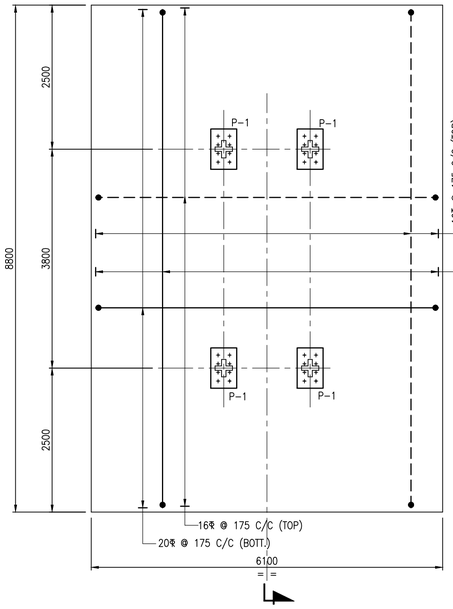


VIEW - 3
SCALE−1:20



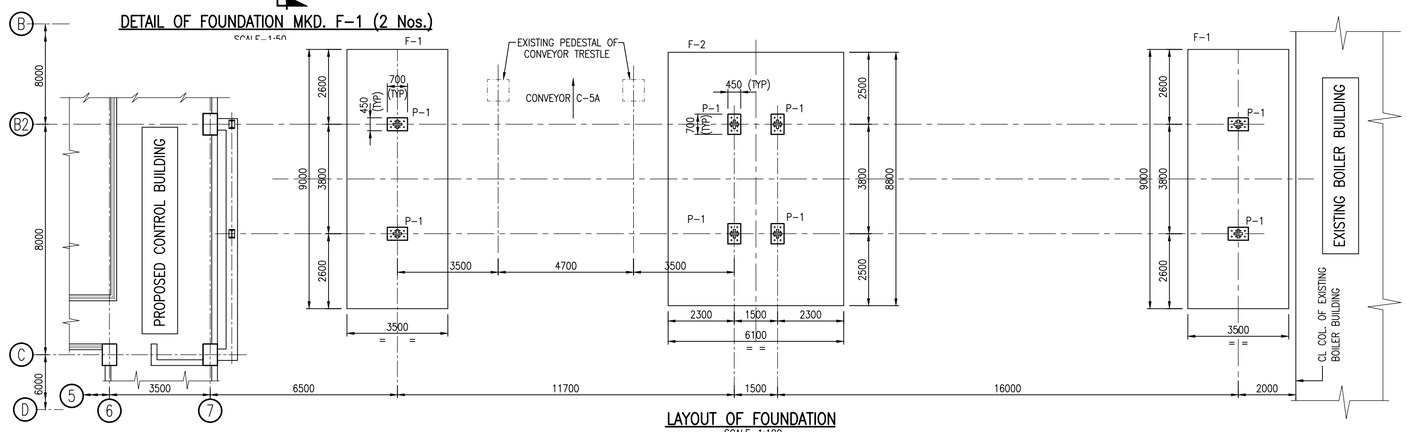
SECTION - 4
SCALE−1:50





DETAIL OF FOUNDATION MKD. F−2 (1 No.)
SCALE−1:50

DETAIL OF FOUNDATION MKD. F−1 (2 Nos.)
SCALE−1:50



LAYOUT OF FOUNDATION
SCALE−1:100

LEGEND:−

TOP BAR ------
BOTTOM BAR ——

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRE AND LEVELS IN METERS UNO.
2. ALL CO−ORDINATES, LEVELS AND NORTH DIRECTION SHOULD BE CHECKED BEFORE EXECUTION OF THE WORK
3. GRADE OF CONC. SHALL BE AS FOLLOWS
   a. FOR RCC WORK−M30.
   b. FOR PCC WORK−M10
4. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:

	TOP	BOTTOM	SIDE
FOUNDATION	50	50	50
COLUMN	45	–	45

5. GRADE OF REINFORCEMENT STEEL − Fe500 CONFORMING TO IS : 1786.
6. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCH. & ELEC. DRAWINGS
7. NET SAFE BEARING CAPACITY AT A DEPTH OF 2.0M FROM TOP OF PAVING CONSIDERED AS 5.0T/SQ.M
8. AN ADDITIONAL DEPTH OF 600MM BELOW BOTTOM OF FOUNDATION SHALL BE EXCAVATED, THE FILLING OF WHICH SHALL BE DONE IN LAYERS NOT EXCEEDING 150 MM, WATERED, RAMMED AND COMPACTED TO ACHIEVE A MAXIMUM DRY DENSITY OF NOT LESS THAN 95% (MODIFIED PROCTOR) BY MECHANICAL MEANS AT OPTIMUM MOISTURE CONTENT. IF EXCESS EXCAVATION IS OBSERVED AT SITE BELOW THE DESIRED LEVEL, THE SAME SHALL BE FILLED UP BY PCC (1:4:8) UP TO THE DESIRED LEVEL.

REF DWGS:

1. 18A08−DWG−E−0401 − ELECTRICAL DWG.
2. 18A08−DWG−A−0002 TO 0006 − ARCHITECTURAL DWG.
3. 18A08−DWG−M−0001 TO 0007 − MECHANICAL DWG. (FIRE DETECTION AND PROTECTION)
4. 18A08−DWG−C−0001 TO 0005 & 0007 − CIVIL & STRUCTURAL DWG.
5. 18A08−03−DWG−VA−001 − HVAC LAYOUT
6. 18A08−03−DWG−VA−002 − HVAC POWER DISTRIBUTION SCHEME.

ISSUED FOR CONSTRUCTION

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.	NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE
	REVIEWED									

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY		
FOR TENDER ONLY		
FOR CONSTRUCTION	23.09.19	AR

REVIEWED: ARCHITECTURAL; CIVIL & STRUCTURAL; ELECTRICAL; INSTRUMENTATION; MECHANICAL; •

IFFCO PARADEEP

OWNER: IFFCO PARADEEP

PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM

TITLE: LAYOUT & DETAILS OF FOUNDATION FOR CONNECTING PLATFORM BETWEEN CONTROL BUILDING & EXISTING BOILER BUILDING

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	ASHIS	JOB NO.	18A08
CHECKED	RM	SCALE	AS NOTED
APPROVED	AR	DATE	15.03.2019

DWG. NO. 18A08−DWG−C−0006 — REV 0 — 2 SHEET OF

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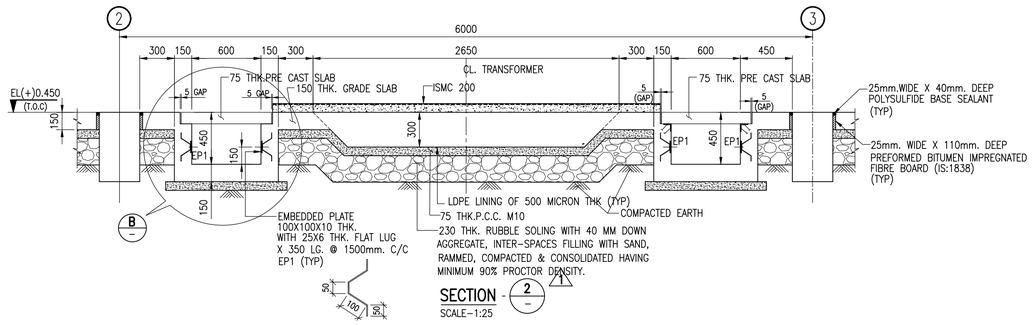
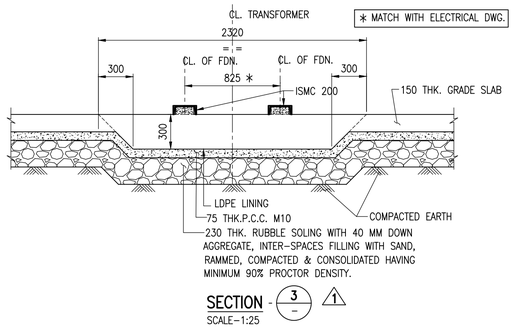
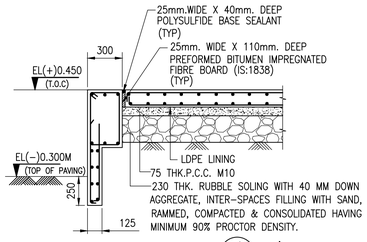
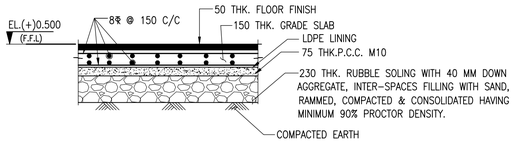
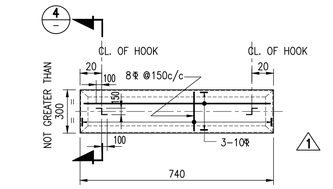




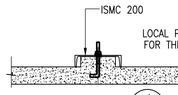




TYPICAL DETAILS OF GRADE SLAB
(M20 CONCRETE GRADE ONLY FOR GRADE SLAB)
(SCALE 1:25)

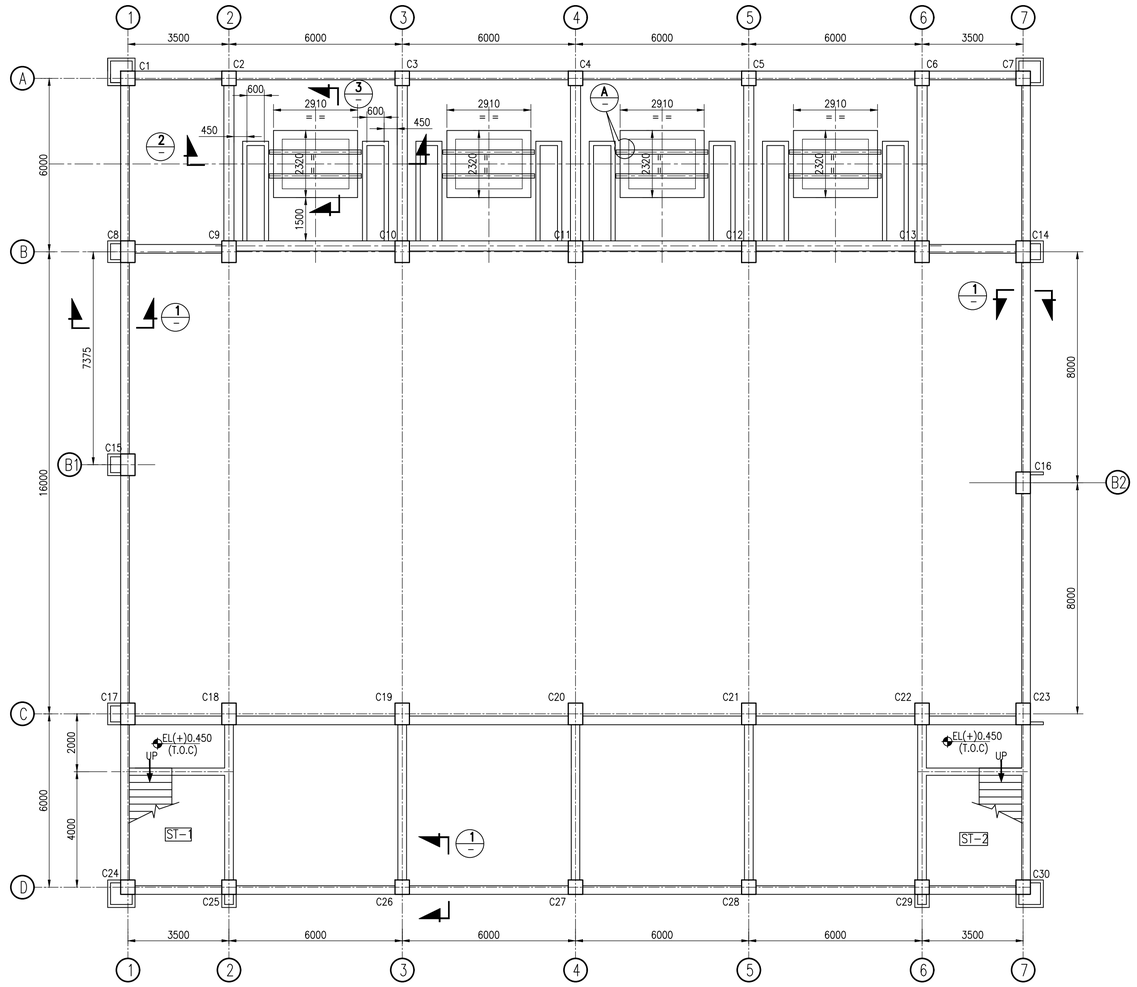


TYPICAL DETAIL OF PRE-CAST COVER
(FOR CABLE TRENCH)
(SCALE-1:20)



DETAIL - A
(SCALE 1:25)

DETAIL - B
(TYP. RC DETAIL OF CABLE TRENCH)
(SCALE 1:25)



LAYOUT OF GRADE SLAB
(SCALE-1:100)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRE AND LEVELS IN METERS UNO.
2. ALL CO-ORDINATES, LEVELS AND NORTH DIRECTION SHOULD BE CHECKED BEFORE EXECUTION OF THE WORK
3. GRADE OF CONC. SHALL BE AS FOLLOWS
   a. FOR RCC WORK-M25 (FOR GRADE SLAB).
   b. FOR PCC WORK-M10.
4. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:

	TOP	BOTTOM	SIDE
COLUMN	45	–	45
GRADE BEAM	45	45	

5. GRADE OF REINFORCEMENT STEEL – Fe500 CONFORMING TO IS : 1786.
6. MINIMUM CRUSHING STRENGTH OF NON SHIRNK GROUT WILL BE 30N/mm2
7. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCH. & ELEC. DRAWINGS

REF DWGS:

1. 18A08-DWG-E-0401 – ELECTRICAL DWG.
2. 18A08-DWG-A-0002 TO 0006 – ARCHITECTURAL DWG.
3. 18A08-DWG-M-0001 TO 0007 – MECHANICAL DWG. (FIRE DETECTION AND PROTECTION)
4. 18A08-DWG-C-0001 TO 0006 – CIVIL & STRUCTURAL DWG.
5. 18A08-03-DWG-VA-001 – HVAC LAYOUT
6. 18A08-03-DWG-VA-002 – HVAC POWER DISTRIBUTION SCHEME.

ISSUED FOR CONSTRUCTION

SPECIAL NOTES:-

1. LEVELS, DIMENSIONS AND ARRANGEMENT SHOWN IN THIS DRAWING TO BE CHECKED AND CONFIRMED (VERIFIED) BY MECHANICAL & ELECTRICAL DEPARTMENT, CONSIDERING FUNCTIONAL REQUIREMENTS.
2. PROVISION OF INSERT PLATES, CUT-OUT, PIPE SLEEVES ETC. TO BE CONSIDERED BEFORE CASTING AS PER REQUIREMENTS.

APPROV.	MECH.	INST.	ELEC.	STRL.	ARCH.	NATURE OF REVISION & DESCRIPTION	CHECKED	DRAWN	REV.	DATE
	REVIEWED					REVISED AS MKD. 1	NC	ASHIS	1	07.11.19

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FOR CONSTRUCTION	23.09.19	AR

REVIEWED: ARCHITECTURAL; CIVIL & STRUCTURAL; ELECTRICAL; INSTRUMENTATION; MECHANICAL; *

IFFCO PARADEEP
OWNER: IFFCO PARADEEP
PROJECT: IFFCO PARADEEP AFBC BOILER CONTROL ROOM
TITLE: CONTROL BUILDING DETAILS OF GRADE SLAB

DEVELOPMENT CONSULTANTS PVT LTD.
CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

PREPARED	ASHIS	JOB NO.	18A08
CHECKED	NC	SCALE	AS NOTED
APPROVED	AR	DATE	22.02.2019
DWG. NO.	18A08-DWG-C-0007		REV 1
			1 SHEET OF

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