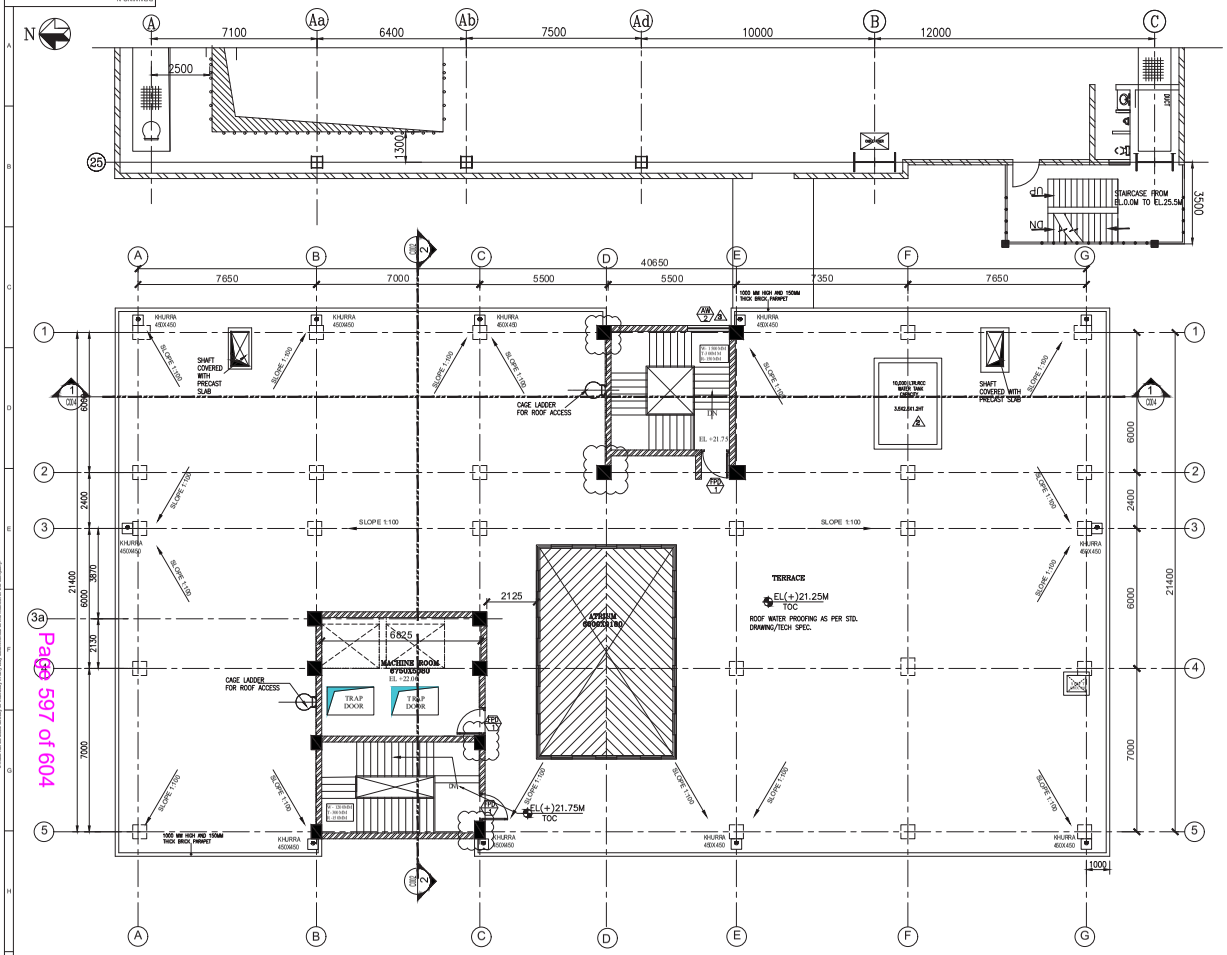
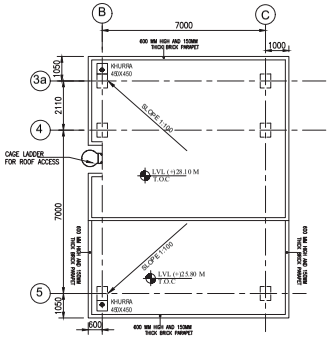
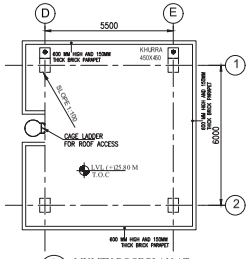


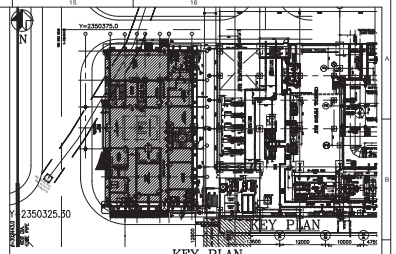
ROOF PLAN AT EL +21.25M LVL.



2 MUMTY & MACHINE ROOM ROOF PLAN AT T.O.C. (+)25.80 AND EL (+)28.10 M LVL.



3 MUMTY ROOF PLAN AT T.O.C. +25.8 M LVL.



KEY PLAN

GENERAL NOTES:-

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS OTHERWISE STATED.
2. MAIN PLANT FINISHED GRADED LEVEL (FGL) SHALL BE RL(+)304.75M.
3. ±0.00 OF MAIN PLANT AREA CORRESPONDS TO RL(+)305.25M.
   3.1. FFL OF TG HALL BUILDING EL. 0.00M
   3.2. TOP OF PAVING FOR BOILER / ESP AREA EL. (–) 0.20M.
   3.3. TOP OF PAVING FOR TRANSFORMER YARD EL. (–) 0.10M.
   3.4. FFL OF OTHER BUILDINGS IN MAIN PLANT AREA EL. 0.00M.
4. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, TECHNICAL SPECIFICATIONS.
5. FOR OTHER NOTES AND STD. DETAILS REFER DRG. PE-DG-519-600-C004 (NTPC DRG NO. 3112-101-PVA-B-001)
6. ALL WINDOWS/ VENTILATORS SHALL BE IN THE CENTRE OF GRID LINE UNLESS STATED OTHERWISE.
7. ALL WINDOW IN GROUND FLOOR OF BUILDING SHALL BE PROVIDED WITH ALUMINIUM GRILL

REFERENCE DRGS.:-

1. PE-DG-527-100-M001 – PLOT PLAN
2. PE-DG-527-100-M002 – MAIN EQUIPMENT PLAN AT EL(±)0.00M.
3. PE-DG-527-100-M003 – T.G. EQUIPMENT PLAN AT EL(±)0.00M

STANDARD DRAWINGS.:-

1. PE-DG-527-400-C004 –GEN. NOTES & STD. DETAILS FOR ARCH. WORKS
2. PE-DG-527-403-C002 –PLANT ROAD LAYOUT
3. PE-DG-527-403-C003 –PLANT ROAD CROSS SECTIONAL DETAILS

ARCHITECTURAL DRAWINGS:-

1. PE-DG-527-640-C001—SERVICE BLDG.–ARCH GA AT GROUND LEVEL
2. PE-DG-527-640-C002—SERVICE BLDG.–ARCH GA AT FIRST FLOOR LEVEL
3. PE-DG-527-640-C003—SERVICE BLDG.–ARCH GA AT SECOND FLOOR LEVEL
4. PE-DG-527-640-C004—SERVICE BLDG.–ARCH GA AT THIRD FLOOR LEVEL
5. PE-DG-527-640-C005—SERVICE BLDG.–ARCH GA AT FOURTH FLOOR LEVEL
6. PE-DG-527-640-C006—SERVICE BLDG.–ARCH GA AT ROOF LEVEL
7. PE-DG-527-640-C007—SERVICE BLDG.–WEST ELEVATION
8. PE-DG-527-640-C008—SERVICE BLDG.–SECTION DETAILS–1
9. PE-DG-527-640-C009—SERVICE BLDG.–EAST ELEVATION
10. PE-DG-527-640-C010—SERVICE BLDG.–SECTION DETAILS–2
11. PE-DG-527-640-C011—SERVICE BLDG.–NORTH ELEVATION
12. PE-DG-527-640-C012—SERVICE BLDG.–SOUTH ELEVATION

LEGENDS :-

- CONCRETE HATCH
- ℄ – CENTER LINE
- EF – EXHAUST FAN
- EL – ELEVATION
- FFL – FINISHED FLOOR LEVEL
- TYP – TYPICAL
- EL(+)X.XXX – LEVEL TAG
- TOC – TOP OF CONCRETE
- TOCP – TOP OF CHEQUERED PLATE
- TOP – TOP OF PARAPET
- UNO – UNLESS NOTED OTHERWISE
- AGP – ALUMINIUM GLAZED PARTITION
- EO – ELECTRICAL'S OPENING

LEGEND:

250 MM THICK AAC BLOCK FULL HEIGHT WALL	230 MM THICK BRICK WALL (TOILET AND LIFT AREA)
250 MM THICK AAC BLOCK WALL UP TO 100MM ABOVE FALSE CEILING	115 MM THICK BRICK WALL (UPTO 2200MM FROM FFL FOR TOILET INTERNAL WALL)
150 MM AAC BLOCK WALL	

ALL ELECTRICAL AND VENTILATION CUTOUT & OPENING DETAILS SHALL BE REFERRED FROM RESPECTIVE DRAWINGS BEFORE EXECUTION

BHEL-HRD/DBPS
THIS DRAWING MANAGER/ IS RELEASED FOR
☑ CONSULT/APPROVAL ☐ FABRICATION
☐ PURCHASE ☐ INSTALLATION
☐ CONSTRUCTION ☐ REVISED/ REVISE DRWING
NOTE: IN CASE OF DISCREPANCY, THE DRAWING MANAGER SHALL BE INFORMED
STOP ALL PRODUCTION IMMEDIATELY
SIGNATURE
NAME: AMIT SINGAL
SIGNATURE: –Sd–
DATE: 29.04.2026

CUSTOMER	MAHAGENCO	MAHARASHTRA STATE POWER GENERATION CO. LTD. KORADI THERMAL POWER STATION 2x660 MW UNITS –11&12 PROJECT	
CONSULTANT	steag	OWNER'S CONSULTANT STEAG ENERGY SERVICES (INDIA) PVT. LTD.	
CONSULTANT OF BHEL	D:\logo.jpg	BHEL'S ARCHITECTURAL CONSULTANT STUDIO ELEVEN CONSTRUCTIONS	INT.DWG NO. PE-DG-527-640-C006-A; DATE 09.04.2026; REV. 02

JOB NO. 527
STATUS CONTRACT
DISTRIBUTION

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

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	DATE	SIGN
DRN	AR/KM	–Sd–	19.03.2026
CHKD	AR	–Sd–	19.03.2026
CHKD	AR	–Sd–	19.03.2026
APPD	MSR/TMSR	–Sd–	19.03.2026

TITLE: SERVICE BUILDING
ARCHITECTURAL ROOF PLAN AT EL(+)21.250M LEVEL (TOC)

SCALE 1:100 | DRAWING NO. PE-DG-527-640-C006 | SHEET 1 OF 1 | REV. 02

REV.	DATE	ALTD	CHD	APPD
1	29.04.2026			
0	9.04.2026	KM	AR	TMSR

1 – DRAWING REVISED IN LINE WITH THE CUSTOMER COMMENTED DRAWING RECEIVED ON 13-03-2026 AND MEETING MAHAGENCO OFFICE.

0 – DRAWING REVISED IN LINE WITH THE CUSTOMER COMMENTED DRAWING RECEIVED ON 13-03-2026 AND MEETIN AT BHEL SADAN 13.04.2026 TO 14.03.2026

SCHEDULE OF OPENING FOR AND DOORS AT ROOF LEVEL

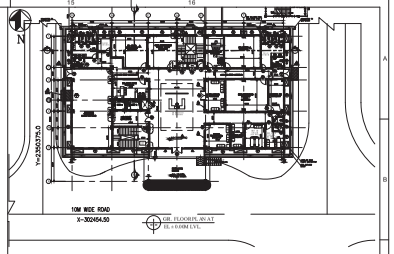
SYMBOL	NOS.	SILL LEVEL AT EL....	WIDTH	HEIGHT	DESCRIPTION
FPD 1	2	(+)21.750	1200	2100	FIRE PROOF DOOR – SINGLE SHUTTER WITH PANIC DEVICE & VISION PANEL WITH FIRE RATED GLASS.
FPD 1	1	(+)23.000	1200	2100	FIRE PROOF DOOR – SINGLE SHUTTER WITH PANIC DEVICE & VISION PANEL WITH FIRE RATED GLASS.

Aug 20, 2026 – 3:30pm

FIRST ANGLE PROJECTION

ALL DIMENSIONS ARE IN MM

1 SECTION 1–1



GENERAL NOTES:–

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS OTHERWISE STATED.
2. MAIN PLANT FINISHED GRADED LEVEL (FGL) SHALL BE RL(+)304.75M.
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   3.1. FFL OF TG HALL BUILDING EL. 0.00M
   3.2. TOP OF PAVING FOR BOILER / ESP AREA EL. (–) 0.20M.
   3.3. TOP OF PAVING FOR TRANSFORMER YARD EL. (–) 0.10M.
   3.4. FFL OF OTHER BUILDINGS IN MAIN PLANT AREA EL. 0.00M.
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5. FOR OTHER NOTES AND STD. DETAILS REFER DRG. PE–DG–519–600–C004 (NTPC DRG NO. 3112–101–PVA–B–001)
6. ALL WINDOWS/ VENTILATORS SHALL BE IN THE CENTRE OF GRID LINE UNLESS STATED OTHERWISE.
7. ALL WINDOW IN GROUND FLOOR OF BUILDING SHALL BE PROVIDED WITH ALUMINIUM GRILL

REFERENCE DRGS.:–

1. PE–DG–527–100–M001 – PLOT PLAN
2. PE–DG–527–100–M002 – MAIN EQUIPMENT PLAN AT EL(±)0.00M.
3. PE–DG–527–100–M003 – T.G. EQUIPMENT PLAN AT EL(±)0.00M

STANDARD DRAWINGS.:–

1. PE–DG–527–400–C004 –GEN. NOTES & STD. DETAILS FOR ARCH. WORKS
2. PE–DG–527–403–C002 –PLANT ROAD LAYOUT
3. PE–DG–527–403–C003 –PLANT ROAD CROSS SECTIONAL DETAILS

ARCHITECTURAL DRAWINGS:–

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6. PE–DG–527–640–C006––SERVICE BLDG.–ARCH GA AT ROOF LEVEL
7. PE–DG–527–640–C007––SERVICE BLDG.–WEST ELEVATION
8. PE–DG–527–640–C008––SERVICE BLDG.–SECTION DETAILS–1
9. PE–DG–527–640–C009––SERVICE BLDG.–EAST ELEVATION
10. PE–DG–527–640–C010––SERVICE BLDG.–SECTION DETAILS–2
11. PE–DG–527–640–C011––SERVICE BLDG.–NORTH ELEVATION
12. PE–DG–527–640–C012––SERVICE BLDG.–SOUTH ELEVATION

LEGENDS :–

CONCRETE HATCH
℄ – CENTER LINE
EF – EXHAUST FAN
EL – ELEVATION
FFL – FINISHED FLOOR LEVEL
TYP – TYPICAL
EL(+)X.XXX – LEVEL TAG
TOC – TOP OF CONCRETE
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150 MM AAC BLOCK WALL	

BHEL–HRSG/BBPS
THIS DRAWING MANDELL/ IS RELEASED FOR
☑ CONSULTANCY/APPROVAL ☐ FABRICATION
☐ PURCHASE ☐ ERECTION
☐ CONSTRUCTION ☐ PRE-ASSEMBLY DRAWING
NOTE: A, B, C, D, E, F, G, H, I, J, K, L, M
STAMP ALL PREVIOUS REVISION AS SUPERSEDED

SIGNED BY	
NAME	AMIT SAMAL
SIGNATURE	–Sd–
DATE	20.04.2026

ALL ELECTRICAL AND VENTILATION CUTOUT & OPENING DETAILS SHALL BE REFERRED FROM RESPECTIVE DRAWINGS BEFORE EXECUTION

CUSTOMER	MAHAGENCO	MAHARASHTRA STATE POWER GENERATION CO. LTD. KORADI THERMAL POWER STATION 2x660 MW UNITS –11&12 PROJECT
CONSULTANT	steag	OWNER'S CONSULTANT STEAG ENERGY SERVICES (INDIA) PVT. LTD.
CONSULTANT OF BHEL	D:\logo.jpg	BHEL'S ARCHITECTURAL CONSULTANT STUDIO ELEVEN CONSTRUCTIONS

INT.DWG NO.	DATE	REV.
PE–DG–527–640–C008A	19.02.2026	0

JOB NO. 527
STATUS CONTRACT
DISTRIBUTION

REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

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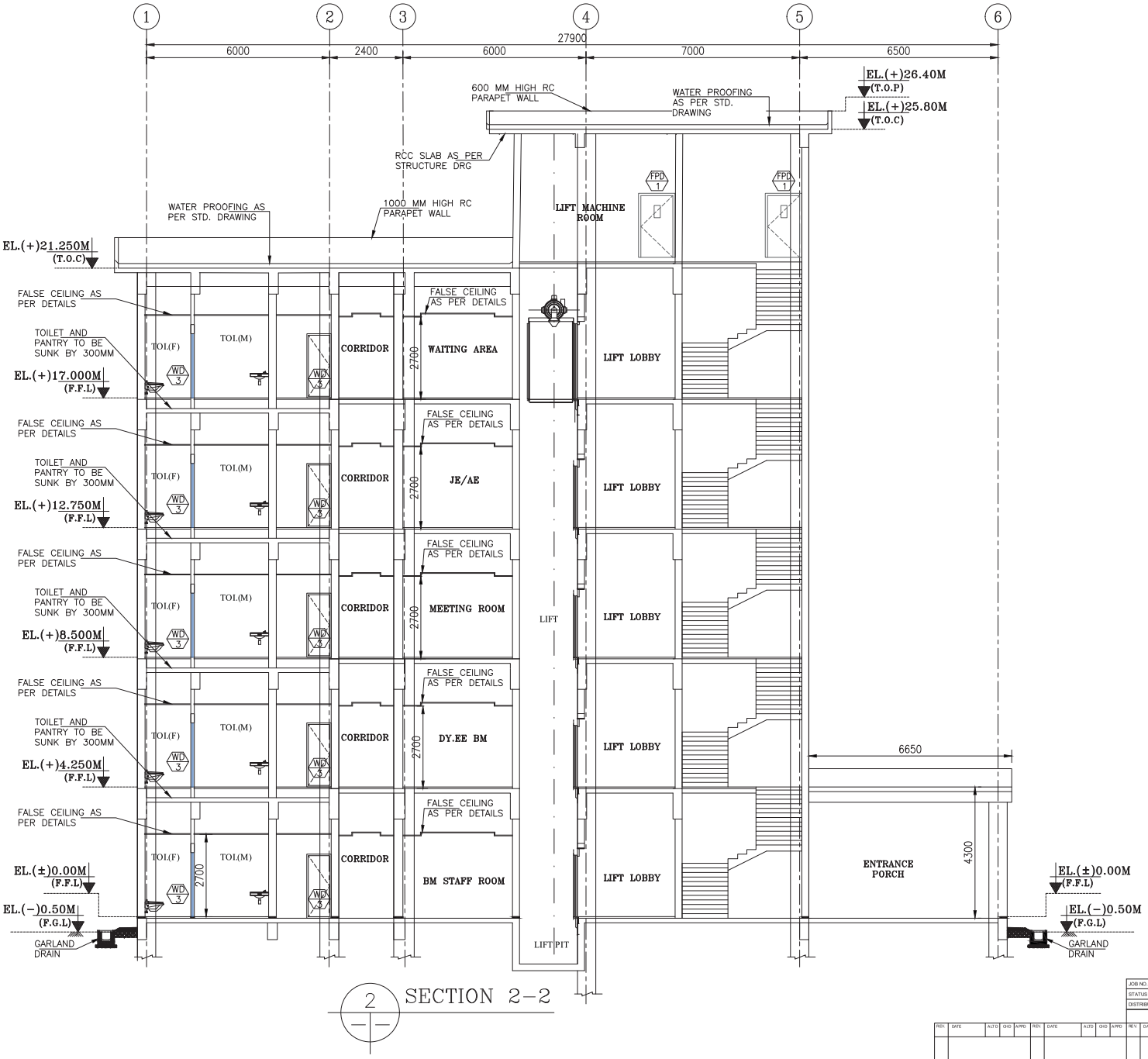
It must not be used directly or indirectly in any way detrimental to the interest of the company.

	DEPT	NAME	SIGN	DATE
C	CODE CHK	AR/KM	–Sd–	19.02.2026
	DESIGN	AR	–Sd–	19.02.2026
	CHKD	AR	–Sd–	19.02.2026
	APPD	RKN/PMJRS	–Sd–	19.02.2026

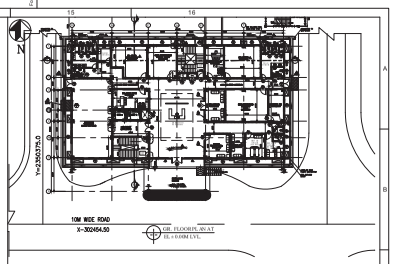
TITLE
SERVICE BUILDING
ARCHITECTURAL SECTIONS–DETAIL 1

DEPT.	SCALE 1:100	DRAWING NO. PE–DG–527–640–C008
SIGN.		SHEET 1 OF 1 REV. 0

Aug 20, 2026 – 3:30pm



2 SECTION 2-2



GENERAL NOTES:-

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REFERENCE DRGS.:-

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1. PE-DG-527-400-C004 –GEN. NOTES & STD. DETAILS FOR ARCH. WORKS
2. PE-DG-527-403-C002 –PLANT ROAD LAYOUT
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ARCHITECTURAL DRAWINGS:-

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5. PE-DG-527-640-C005--SERVICE BLDG.-ARCH GA AT FOURTH FLOOR LEVEL
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LEGENDS :-

CONCRETE HATCH
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EF – EXHAUST FAN
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150 MM AAC BLOCK WALL	

ALL ELECTRICAL AND VENTILATION CUTOUT & OPENING DETAILS SHALL BE REFERRED FROM RESPECTIVE DRAWINGS BEFORE EXECUTION

BHEL-HPEE/DEPS
THIS DRAWING MANDELA/ IS RELEASED FOR
☑ CONSULT/APPROVAL ☐ FABRICATION
☐ PURCHASE ☐ INSTALLATION
☐ CONSTRUCTION ☐ AS BUILT DRAWING
NOTE: IN CASE OF DISCREPANCY, THE DRAWING WILL BE ISSUED BY HPEE/DEPS
STAMP ALL PREVIOUS REVISION AS SUPERSEDED

ISSUED BY	
NAME	AMIT KUMAR
SIGNATURE	-Sd-
DATE	20.04.2026

CUSTOMER	MAHAGENCO	MAHARASHTRA STATE POWER GENERATION CO. LTD. KORADI THERMAL POWER STATION 2x660 MW UNITS -11&12 PROJECT
CONSULTANT	steag	OWNER'S CONSULTANT STEAG ENERGY SERVICES (INDIA) PVT. LTD.
CONSULTANT OF BHEL	D:\logo.jpg	BHEL'S ARCHITECTURAL CONSULTANT STUDIO ELEVEN CONSTRUCTIONS

INT.DWG NO.	DATE	REV.
PE-DG-527-640-C010A	19.02.2026	0

JOB NO. 527
STATUS CONTRACT
DISTRIBUTION

REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

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	CODE	NAME	SIGN	DATE
C	DRN	AK/KM	–sd–	19.02.2026
	CHKD	AK	–sd–	19.02.2026
	CHKD	AS	–sd–	19.02.2026
	APPD	RKN/PMJRS	–sd–	19.02.2026

TITLE SERVICE BUILDING
ARCHITECTURAL SECTIONS DETAIL-2

DEPT. SCALE 1:100 DRAWING NO. PE-DG-527-640-C010
SHEET 1 OF 1 REV. 0

Aug 20, 2026 – 3:31pm

DRAWING NO. PE-DG-527-640-C010

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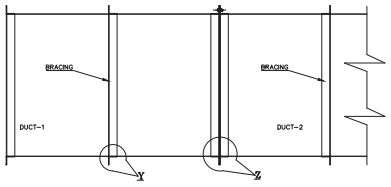
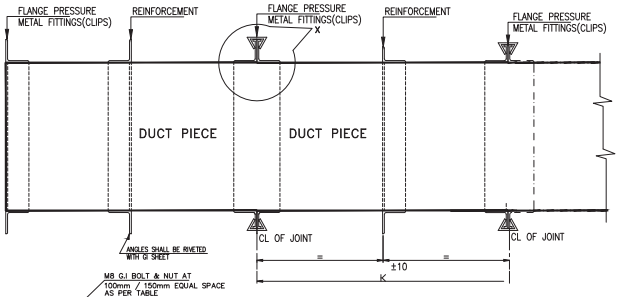
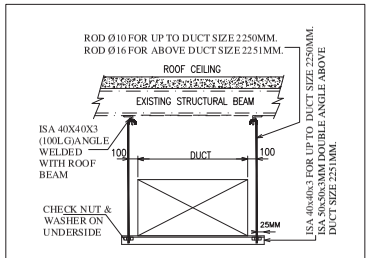
COMPUTER FILE NAME:



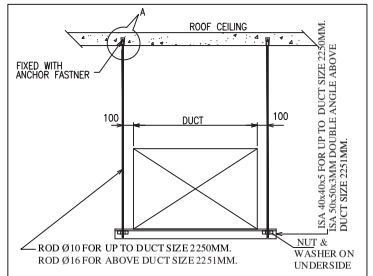
ANGLE FLANGED DUCT FABRICATION & PLENUM BOX
(SITE FABRICATION)



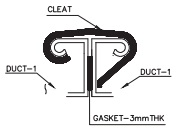
DUCT JOINT



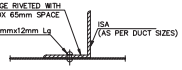
TYP. DETAIL OF DUCT SUPPORT
TAKEN FROM EXISTING STEEL BEAM
AT 2.0M (MAX.) SPACING INSIDE BUILDING



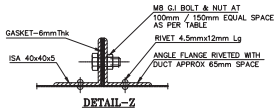
TYP. DETAIL OF DUCT SUPPORT
TAKEN FROM RCC SLAB
AT 2.0M (MAX.) SPACING INSIDE BUILDING



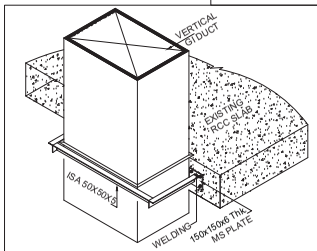
DETAIL-X TDF FLANGE JOINT



DETAIL-Y
FLANGE & BRACING CONNECTION

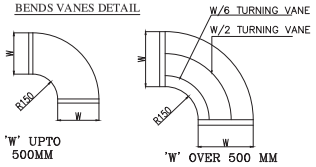


DETAIL-Z
ANGLE FLANGE CONNECTIONS



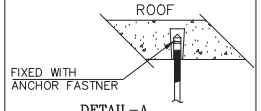
TYPICAL VERTICAL DUCT SUPPORT

BENDS VANES DETAIL



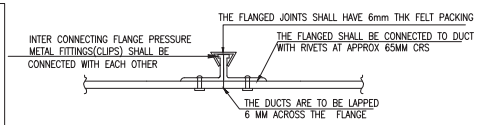
'W' UPTO 500MM

'W' OVER 500 MM



DETAIL-A

THICKNESS OF DUCT SHEET	
LONG SIDE OF DUCT(MM)	THICKNESS
UPTO 750	24G (0.63 mm)
751 TO 1500	22G (0.8 mm)
1501 TO 2200	20G (1.0 mm)
2201 AND ABOVE	18G (1.25 mm)



DETAIL- SAME SHEET CLIP JOINT

SAME SHEET TECHNIQUE FOR BELOW 2200 MM SIZES							
LONG SIDE OF DUCT(MM)	MINIMUM SIZE OF SAME SHEET FLANGE (MM), LOW PRESSURE			MINIMUM SIZE / THICKNESS OF CORNER METAL FLANGE (MM)		MINIMUM THICK. OF SHEET OF FLANGE PRESS. METAL FITTINGS	MAX.SPACING OF JOINTS) (MM)
	HEIGHT	WIDTH	GI SHEET THICKNESS	LOW PRESSURE	NOMINAL DIA. OF BOLT	LOW PRESSURE	
0 – 450	30	10	0.5	1.2	M8	1.0	3480
451 – 750	30	10	0.6	1.2	M8	1.0	3480
751 – 1200	30	10	0.8	1.2	M8	1.0	2610
1201– 1500	30	10	0.8	1.6	M8	1.0	2610
1501– 2200	30	10	1.0	1.6	M8	1.2	1740

NOTE– THE DIA OF THE BOLTS FOR CORNER METAL FITTING SHALL NOT EXCEED AS CERTAIN DIAMETER WHICH ENSURES ENOUGH EDGE DISTANCE OF FLANGE

ANGLE FLANGE TECHNIQUE							
LONG SIDE OF DUCT (L) MM	JOINT FLANGE		CONNECTING BOLT			FLANGE MOUNTING RIVET	
	ANGLE MIN. SIZE (MM)	MAX. SPACING (MM)	MIN. NOM. DIA. (MM)	MAX. SPACING (MM) CORNER	MAX. SPACING (MM) NON CORNER	MIN. DIA OF RIVET (MM)	MAX.SPACING OF RIVETS (MM)
0 – 750	25X25X3	3640	M8	100	150	4.5	65
751 – 1500	30X30X3	2730	M8	100	150	4.5	65
1501– 2200	40X40X3	1820	M8	100	150	4.5	65
2201–ABOVE	40X40X5	1820	M8	100	150	4.5	65

NOTE–
1. THE BOLTS SHALL BE LOCATED SYMMETRICALLY AT THE CENTRAL PORTION OF FLANGE
2. ELECTRICAL SPOT WELDING MAY BE EMPLOYED OTHER THAN RIVETING. SPACING SHALL WITHING 100MM.
3. THE DIA OF THE BOLTS FOR CORNER METAL FITTING SHALL NOT EXCEED AS CERTAIN DIAMETER WHICH ENSURES ENOUGH EDGE DISTANCE OF FLANGE

TYPE AND SPACING OF LATERAL REINFORCEMENT				
LONG SIDE OF DUCT(MM)	MINIMUM SIZE OF STEEL ANGLE REINFORCEMENT(MM)	MAXIMUM SPACEING		
		SAME SHEET TECHNIQUE(MM)	ANGLE FLANGE TECHNIQUE(MM)	TYPE OF LONG JOINT
251 – 750	25x25x3	1840	1840	1A OR 1D OR 1J
751 – 1500	30x30x3	925	925	1A OR 1D OR 1J
1501– 2200	40x40x3	925+TIE ROD	925	1A OR 1D OR 1J
2201–ABOVE	40x40x5(3)	–	925	1A OR 1D OR 1J

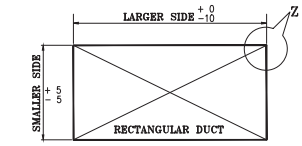
* NOTE– THE VALUE GIVEN IN PARENTHESIS SHOW THAT WHEN TIE RODS ARE ALSO USED.

TYPE AND SPACING OF LONGITUDNAL REINFORCEMENT		
LONG SIDE OF DUCT(MM)	MINIMUM SIZE OF STEEL ANGLE REINFORCEMENT(MM)	POSITION OF REINFORCEMENT
1501– 2200	40x40x3	ONE POINT OR MORE
2201–ABOVE	40x40x5(3)	TWO POINT OR MORE

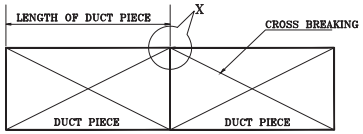
DETAILS OF DUCT SUPPORT		
LONG SIDE OF DUCT(MM)	ANGLE	ROD (MS) øD
UPTO 2250	L 40X40X3	10
2251–ABOVE	L 50X50X3 DOUBLE ANGLE	16

* NOTE– 1. THE VALUE GIVEN IN PARENTHESIS SHOW THAT WHEN TIE RODS ARE ALSO USED.
2. ANGLE REINFORCEMENT CAN BE INSIDE OR OUTSIDE THE DUCT

DUCT SEAM & JOINTS

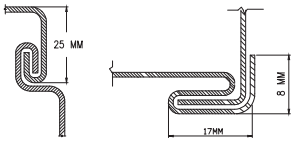


DUCT JOINT (CORNER DETAILS)
(FOR ALL DUCTS – TYPE-B)



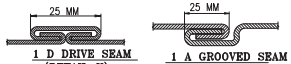
DUCT JOINT (TYPE A)

NOTE:–
ALL RECTANGULAR DUCT SHALL BE FLAT ON FACE AND DOUBLE SEAM JOINT (DETAIL – Z) ON CORNER OF DUCT



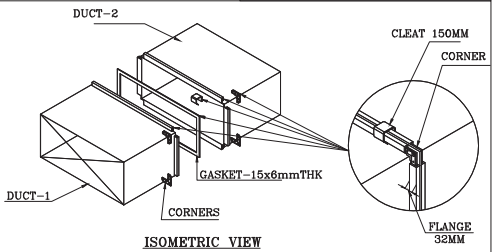
1 J DOUBLE SEAM
(DETAIL-Z)

1 K PITTSBURG SEAM
(DETAIL-Z)



1 D DRIVE SEAM
(DETAIL-X)

1 A GROOVED SEAM
(DETAIL-X)



ISOMETRIC VIEW

SITE FABRICATED SAME SHEET TECHNIQUE(MM) L-SHAPE
DUCT JOINTS TYPICAL DETAIL

NOTES:

1. ALL RECTANGULAR DUCTS OVER 450mm IN EITHER DIMENSION SHALL BE CROSS BROKEN IT IS NOT NECESSARY TO HAVE CROSS BREAKING THE AIR OUTLET CONNECTION OF DUCTS (COLLAR & DIFFUSERS) DEPENDING UPON THE LENGTH OF COLLAR/DIFFUSER.
2. ALL FLANGED JOINTS SHALL HAVE 6mm THK. FRLT PACKING STUCK TO THE FLANGES WITH SHELIAC VANISH OR APPROVED EQUIVALENT ADHESIVE HOLES IN THE FELT PACKING SHALL BE BURNT THROUGH.
3. DUCT SUPPORT TO BE TAKEN PREFERABLY FROM EXISTING STEEL BEAM. ONLY WHEN STEEL BEAM ARE NOT AVAILABLE SUPPORT MAY BE TAKEN FROM RCC SLAB.
4. DUCT FABRICATION IS AS PER THE IS655.

PROJECT	2X660 MW KORADI STP (UNITS 11 & 12)		
	CUSTOMER : MAHAGENCO		
	EPC SUPPLIER BHARAT HEAVY ELECTRICALS LTD PS–PEM, BHEL SADAN, SECTOR–16A, PLOT NO. 25, NOIDA–201301		
JOB NO. 527			
STATUS CONTRACT	BHEL Doc. No: PE-DG-527-553-A004		REV: 00
PACKAGE	AC SYSTEM		SHEET NO. OF 2
TITLE	TYPICAL DETAILS OF DUCT FABRICATION DRAWING / SUPPORT / ERECTION		
PREPARED BY	VN	-SD-	15/10/2025
CHECKED BY	VN	-SD-	15/10/2025
APPROVED BY	VN	-SD-	15/10/2025
			A1 SIZE

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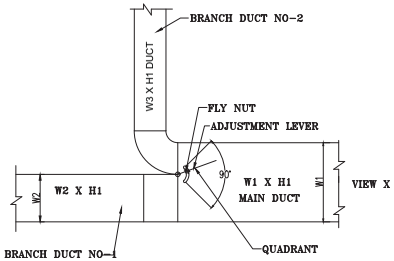
FIRST ANGLE PROJECTION

ALL DIMENSIONS ARE IN MM

DRAWING No.

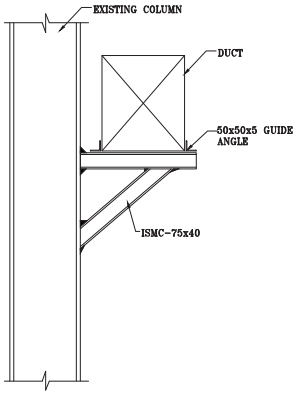
CUSTOMER'S DRAWING No. PE-DG-XXX-XXX-AXXX



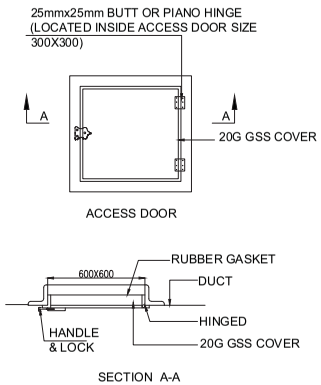
WHERE

(1) W1 = WIDTH OF THE MAIN DUCT.
(2) W2 = WIDTH OF BRANCH DUCT NO.-1
(3) W3 = WIDTH OF BRANCH DUCT NO.-2
(4) H1 = HEIGHT OF THE MAIN DUCT.
= HEIGHT OF BRANCH DUCT NO.-1
= HEIGHT OF BRANCH DUCT NO.-2
= 600
(5) W1 = W2 + W3

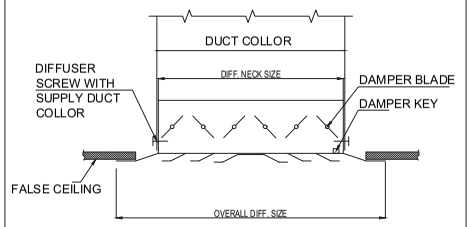
TYPICAL INSTALLATION ARRANGEMENT OF SPLITTER DAMPER



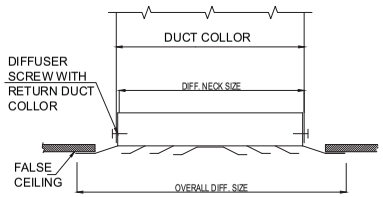
DUCT SUPPORT FORM BUILDING COLUMN



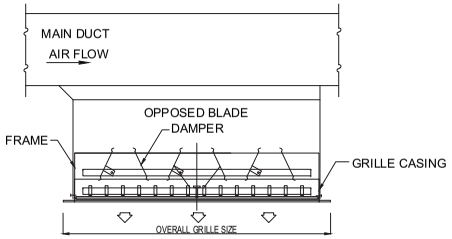
ACCESS DOOR DETAILS



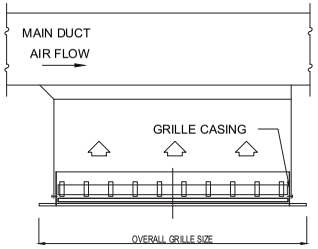
SUPPLY AIR DIFFUSER FIXING ARRANGEMENT(TYP)



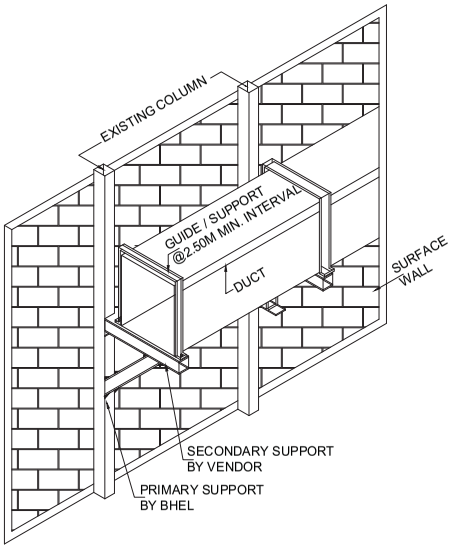
RETURN AIR DIFFUSER FIXING ARRANGEMENT(TYP)



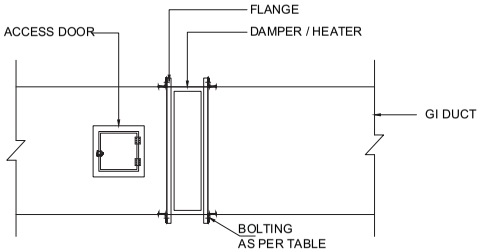
SUPPLY AIR GRILLE FIXING ARRANGEMENT(TYP)



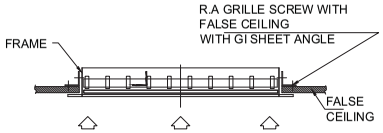
RETURN AIR GRILLE FIXING ARRANGEMENT WITH RA DUCT (TYP)



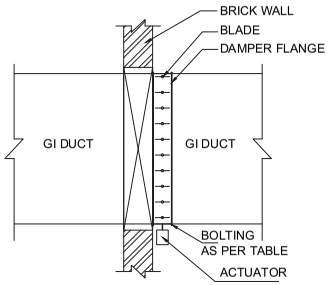
TYPICAL HORIZONTAL DUCTS SUPPORT



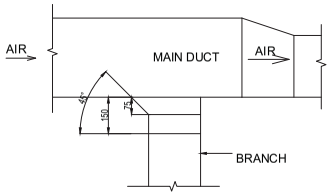
FIXING DETAIL VOLUME CONTROL DAMPER, HEATER OF DUCT (TYP)



RETURN AIR GRILLE FIXING ARRANGEMENT WITHOUT RA DUCT (TYP)



FIRE DAMPER FIXING DETAILS



90° BRANCH CONNECTION

NOTES:

1. ALL RECTANGULAR DUCTS OVER 450mm IN EITHER DIMENSION SHALL BE CROSS BROKEN IT IS NOT NECESSARY TO HAVE CROSS BREAKING THE AIR OUTLET CONNECTION OF DUCTS (COLLAR & DIFFUSERS) DEPENDING UPON THE LENGTH OF COLLAR/DIFFUSER.
2. ALL FLANGED JOINTS SHALL HAVE 6mm THK. FRLT PACKING STUCK TO THE FLANGES WITH SHELIAC VANISH OR APPROVED EQUIVALENT ADHESIVE HOLES IN THE FELT PACKING SHALL BE BURNT THROUGH.
3. DUCT SUPPORT TO BE TAKEN PREFERABLY FROM EXISTING STEEL BEAM. ONLY WHEN STEEL BEAM ARE NOT AVAILABLE SUPPORT MAY BE TAKEN FROM RCC SLAB.
4. DUCT FABRICATION IS AS PER THE IS655.
5. DUCTS WITH LONGER SIDES OF 500MM AND OVER SHALL HAVE ANGLE FLANGED JOINT

PROJECT	2X660 MW KORADI STP (UNITS 11 & 12)		
	CUSTOMER : MAHAGENCO		
	EPC SUPPLIER BHARAT HEAVY ELECTRICALS LTD PS-PEM, BHEL SADAN, SECTOR-16A, PLOT NO. 25, NOIDA-201301		
JOB NO. 527			
STATUS CONTRACT	BHEL Doc. No: PE-DG-527-553-A005		REV: 00
PACKAGE	AC SYSTEM		SHEET NO. OF 2
TITLE	TYPICAL DETAILS OF DUCT FABRICATION DRAWING / SUPPORT / ERECTION		
PREPARED BY	VN	-SD-	15/10/2025
CHECKED BY	VN	-SD-	15/10/2025
APPROVED BY	VN	-SD-	15/10/2025

A1 SIZE

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FIRST ANGLE PROJECTION

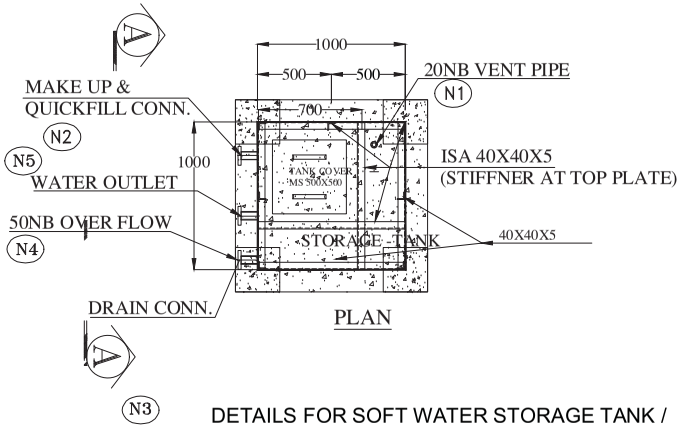
ALL DIMENSIONS ARE IN MM

DRAWING No.

CLIENT'S DRAWING No.

PE-DG-XXX-XXX-AXXX

1 CUM TANK



PLAN

DETAILS FOR SOFT WATER STORAGE TANK /
MAKE UP WATER TANK
SIZE-1000(L)X1000(W)X1400(H)
EFFECTIVE VOLUME OF TANK-1 CUM

NOTES:-

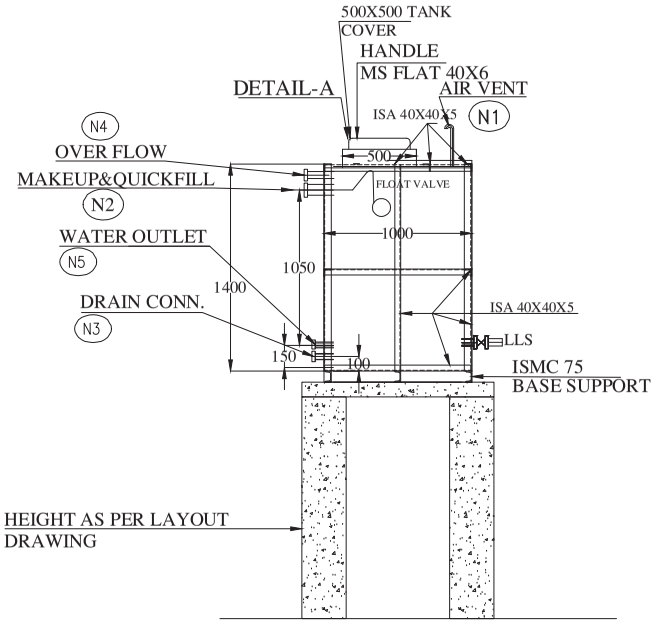
1. ALL DIMENSIONS ARE IN MM.
2. PROJECTION OF PIPE CONN. FROM TANK SURFACE=100mm(TYP.)
   PROJECTION OF SOCKET CONN. FROM TANK SURFACE=60mm(TYP.)
3. MATERIAL OF CONSTRUCTION:-4.0THK.
4. WEIGHT OF TANK WITH WATER ~ 1700.00 KGS(APPROX.)
5. WEIGHT OF TANK WITHOUT WATER ~ 300.00 KGS(APPROX.)
6. NOZZLES ON THE TANK SHALL BE CUT AT SITE TO MATCH THE PIPING LAYOUT
7. MINIMUM TANK FOUNDATION REQUIRED IS SHOWN IN THE DRAWING.
   FOUNDATION SHALL BE PROVIDED AS PER APPROVED LAYOUT ONLY.
8. NOZZLES SHALL BE CUT AT SITE AS PER LAYOUT DRAWING.
9. REINFORCEMENT SHALL BE PROVIDED WHEREVER NOZZLES HAS BEEN PROVIDED.

LIST OF NOZZLES OF EACH TANK

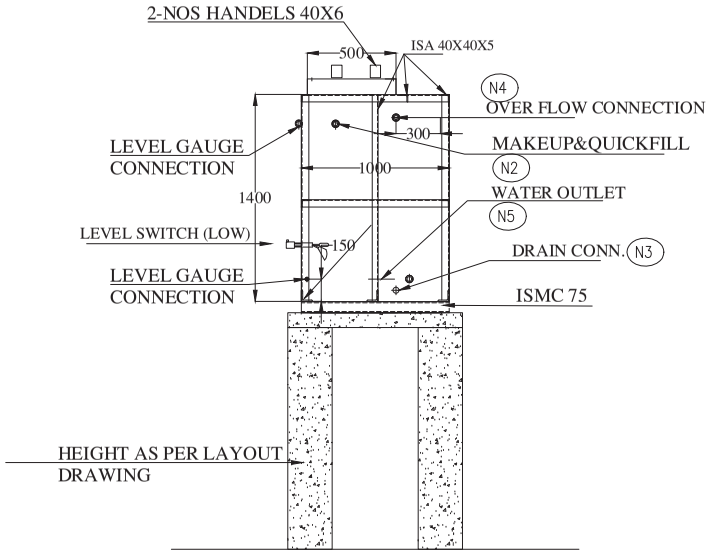
	DESCRIPTION	SIZE	QTY
N1	VENT	20 NB	
N2	MAKE UP	50 NB	01 NO
N2	QUICK FILL	50 NB	01 NO
N3	DRAIN	40 NB	01 NO
N4	OVER FLOW	65 NB	01 NO
N5	OUTLET	65 NB	01 NO

S.NO.	LOCATION	QTY
01	LOCATION – 1	02
02	LOCATION – 1	02
03	LOCATION – 1	02

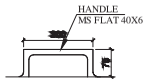
PAINTING DETAILS (BOTH INSIDE & OUTSIDE):
1. SURFACE PREPARATION : BLAST CLEANING TO SA 2.5
2. PRIMER COAT: ONE (1) COAT OF EPOXY RAISIN BASED ZINC PHOSPHATE HIGH BUILD PRIMER (2 PACK), DFT – 75 MICRONS
3. INTERMEDIATE COAT : ONE (1) COAT OF HIGH BUILD AMINE CURED EPOXY (2 PACK), DFT – 100 MICRONS
4. FINISH COAT: ONE (1) COAT OF POLYAMIDE CURED EPOXY (2 PACK), DFT – 150 MICRONS
5. TOTAL DFT: 325 MICRONS



ELEVATION



VIEW-A-A



DETAIL-A

PROJECT	2X660 MW KORADI STP (UNITS 11 & 12)		
	CUSTOMER : MAHAGENCO		
	EPC SUPPLIER BHARAT HEAVY ELECTRICALS LTD PS-PEM, BHEL SADAN, SECTOR-16A, PLOT NO. 25, NOIDA-201301		
JOB NO. 527			
STATUS CONTRACT	BHEL Doc. No: PE-DG-527-553-A006		REV: 00
PACKAGE	AC SYSTEM		SHEET NO. OF 2
TITLE	TYPICAL DETAILS OF DUCT FABRICATION DRAWING / SUPPORT / ERECTION		
PREPARED BY	VN	-SD-	15/10/2025
CHECKED BY	VN	-SD-	15/10/2025
APPROVED BY	VN	-SD-	15/10/2025

A1 SIZE

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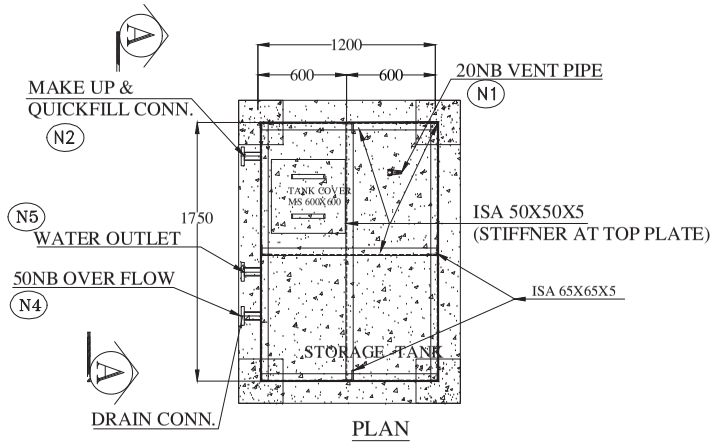
2 CUM TANK



PLAN

DETAILS FOR SOFT WATER STORAGE TANK /
MAKE UP WATER TANK
SIZE-1750(L)X1200(W)X1400(H)
EFFECTIVE VOLUME OF TANK-2 CUM

NOTES:–

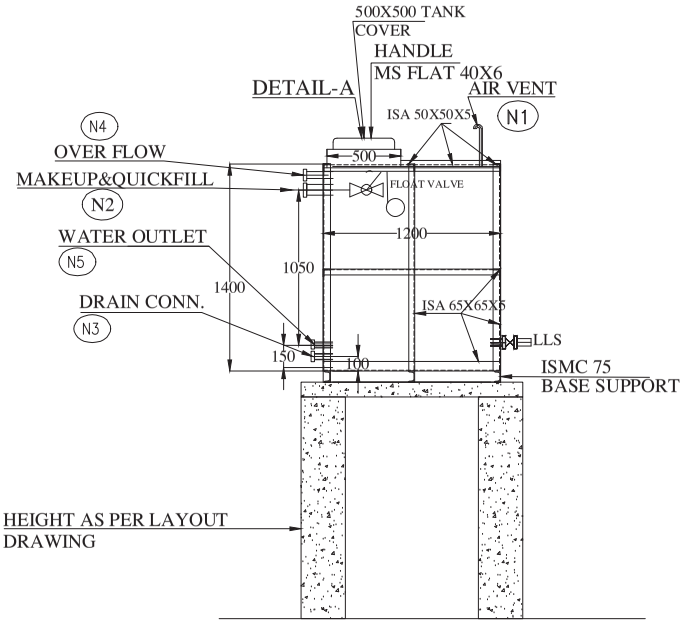
1. ALL DIMENSIONS ARE IN MM.
2. PROJECTION OF PIPE CONN. FROM TANK SURFACE=100mm(TYP.)
   PROJECTION OF SOCKET CONN. FROM TANK SURFACE=60mm(TYP.)
3. MATERIAL OF CONSTRUCTION:–4.0THK.
4. WEIGHT OF TANK WITH WATER ~ 2800.00 KGS(APPROX.)
5. WEIGHT OF TANK WITHOUT WATER ~ 350.00 KGS(APPROX.)
6. NOZZLES ON THE TANK SHALL BE CUT AT SITE TO MATCH THE PIPING LAYOUT
7. MINIMUM TANK FOUNDATION REQUIRED IS SHOWN IN THE DRAWING.
   FOUNDATION SHALL BE PROVIDED AS PER APPROVED LAYOUT ONLY.
8. NOZZLES SHALL BE CUT AT SITE AS PER LAYOUT DRAWING.
9. REINFORCEMENT SHALL BE PROVIDED WHEREVER NOZZLES HAS BEEN PROVIDED.

LIST OF NOZZLES OF EACH TANK

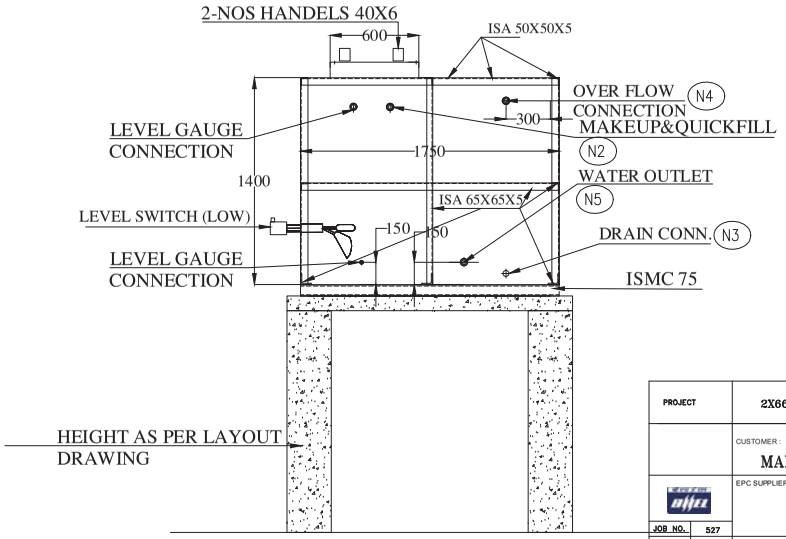
	DESCRIPTION	SIZE	QTY
N1	VENT	20 NB	
N2	MAKE UP	50 NB	01 NO
N2	QUICK FILL	50 NB	01 NO
N3	DRAIN	40 NB	01 NO
N4	OVER FLOW	65 NB	01 NO
N5	OUTLET	65 NB	01 NO

S.NO.	LOCATION	QTY
01	LOCATION – 1	02
02	LOCATION – 1	02
03	LOCATION – 1	02

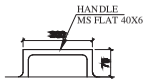
PAINTING DETAILS (BOTH INSIDE & OUTSIDE):
1. SURFACE PREPARATION : BLAST CLEANING TO SA 2.5
2. PRIMER COAT: ONE (1) COAT OF EPOXY RAISIN BASED ZINC PHOSPHATE HIGH BUILD PRIMER (2 PACK), DFT – 75 MICRONS
3. INTERMEDIATE COAT : ONE (1) COAT OF HIGH BUILD AMINE CURED EPOXY (2 PACK), DFT – 100 MICRONS
4. FINISH COAT: ONE (1) COAT OF POLYAMIDE CURED EPOXY (2 PACK), DFT – 150 MICRONS
5. TOTAL DFT: 325 MICRONS



ELEVATION



VIEW-A-A



DETAIL-A

PROJECT	2X660 MW KORADI STP (UNITS 11 & 12)		
	CUSTOMER : MAHAGENCO		
	EPC SUPPLIER BHARAT HEAVY ELECTRICALS LTD PS-PEM, BHEL SADAN, SECTOR-16A, PLOT NO. 25, NOIDA-201301		
JOB NO. 527			
STATUS CONTRACT	BHEL Doc. No: PE-DG-527-553-A007		REV: 00
PACKAGE	AC SYSTEM		SHEET NO. OF 2
TITLE	TYPICAL DETAILS OF DUCT FABRICATION DRAWING / SUPPORT / ERECTION		
PREPARED BY	VN	–SD–	15/10/2025
CHECKED BY	VN	–SD–	15/10/2025
APPROVED BY	VN	–SD–	15/10/2025
			A1 SIZE

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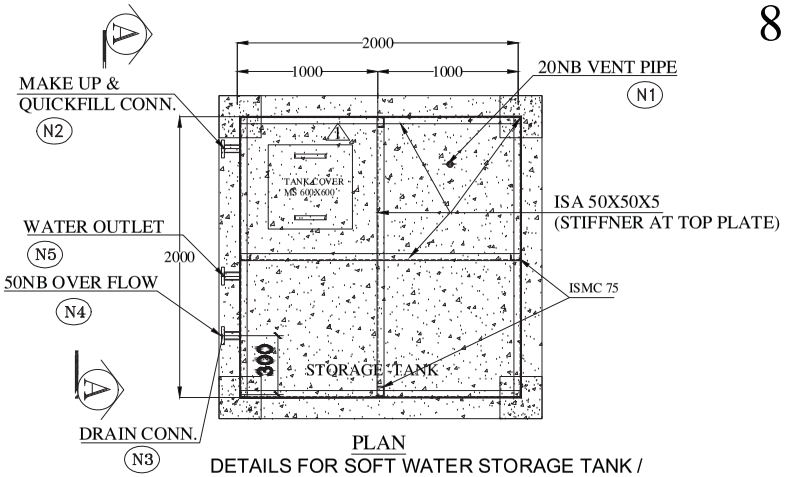
8 CUM TANK



PLAN

DETAILS FOR SOFT WATER STORAGE TANK /
MAKE UP WATER TANK
SIZE-2000(L)X2000(W)X2350(H)
EFFECTIVE VOLUME OF TANK-8 CUM

NOTES:-

1. ALL DIMENSIONS ARE IN MM.
2. PROJECTION OF PIPE CONN. FROM TANK SURFACE=100mm(TYP.)
   PROJECTION OF SOCKET CONN. FROM TANK SURFACE=60mm(TYP.)
3. MATERIAL OF CONSTRUCTION:-4.0THK.
4. WEIGHT OF TANK WITH WATER ~ 8840.00 KGS(APPROX.)
5. WEIGHT OF TANK WITHOUT WATER ~ 840.00 KGS(APPROX.)
6. NOZZLES ON THE TANK SHALL BE CUT AT SITE TO MATCH THE PIPING LAYOUT
7. MINIMUM TANK FOUNDATION REQUIRED IS SHOWN IN THE DRAWING.
   FOUNDATION SHALL BE PROVIDED AS PER APPROVED LAYOUT ONLY.
8. NOZZLES SHALL BE CUT AT SITE AS PER LAYOUT DRAWING.
9. REINFORCEMENT SHALL BE PROVIDED WHEREVER NOZZLES HAS BEEN PROVIDED.

LIST OF NOZZLES OF EACH TANK

	DESCRIPTION	SIZE	QTY
N1	VENT	20 NB	
N2	MAKE UP	50 NB	01 NO
N2	QUICK FILL	50 NB	01 NO
N3	DRAIN	40 NB	01 NO
N4	OVER FLOW	65 NB	01 NO
N5	OUTLET	65 NB	01 NO

S.NO.	LOCATION	QTY
01	LOCATION – 1	02
02	LOCATION – 1	02
03	LOCATION – 1	02

PAINTING DETAILS (BOTH INSIDE & OUTSIDE):
1. SURFACE PREPARATION : BLAST CLEANING TO SA 2.5
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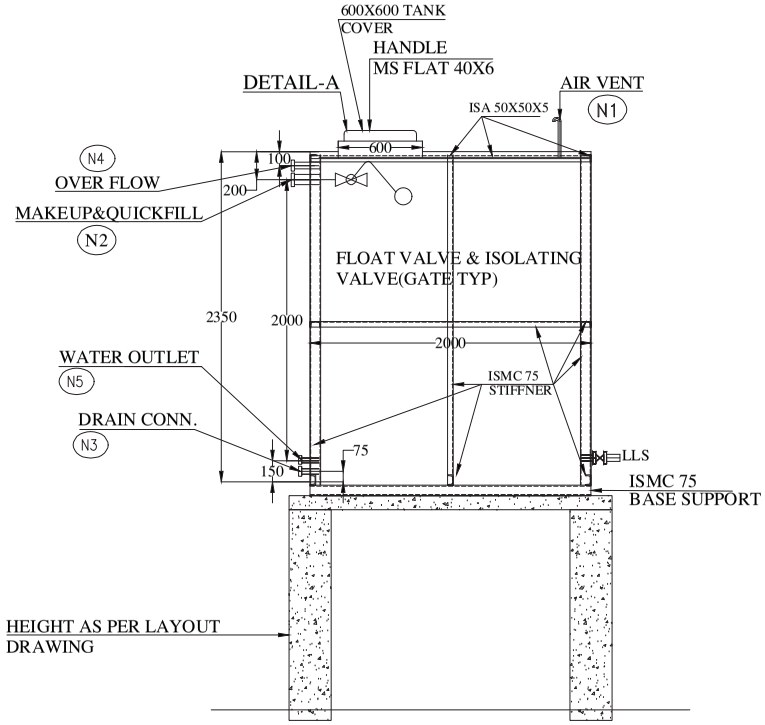
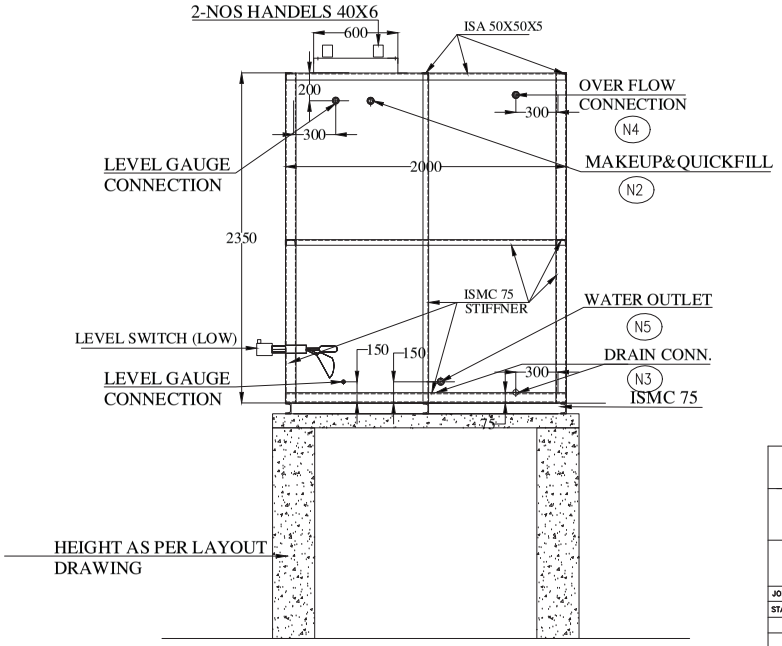
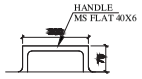


ELEVATION



VIEW-A-A



DETAIL-A

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	CUSTOMER : MAHAGENCO		
	EPC SUPPLIER BHARAT HEAVY ELECTRICALS LTD, PS-PEM, BHEL SADAN, SECTOR-16A, PLOT NO. 25, NOIDA-201301		
JOB NO. 527			
STATUS CONTRACT	BHEL Doc. No: PE-DG-527-553-A008		REV: 00
PACKAGE	AC SYSTEM		SHEET NO. OF 2
TITLE	TYPICAL DETAILS OF DUCT FABRICATION DRAWING / SUPPORT / ERECTION		
PREPARED BY	VN	-SD-	15/10/2025
CHECKED BY	VN	-SD-	15/10/2025
APPROVED BY	VN	-SD-	15/10/2025
			A1 SIZE

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