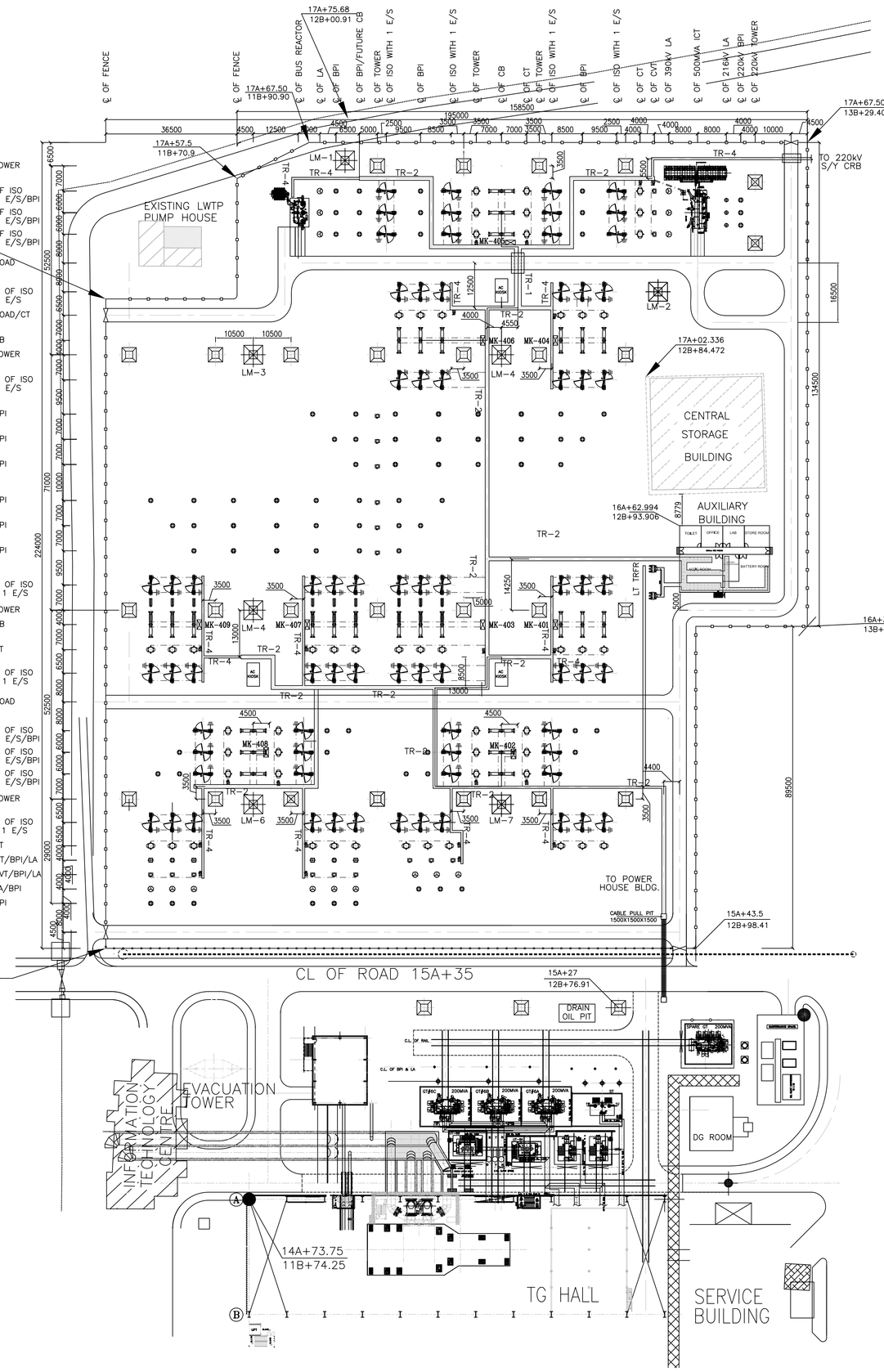
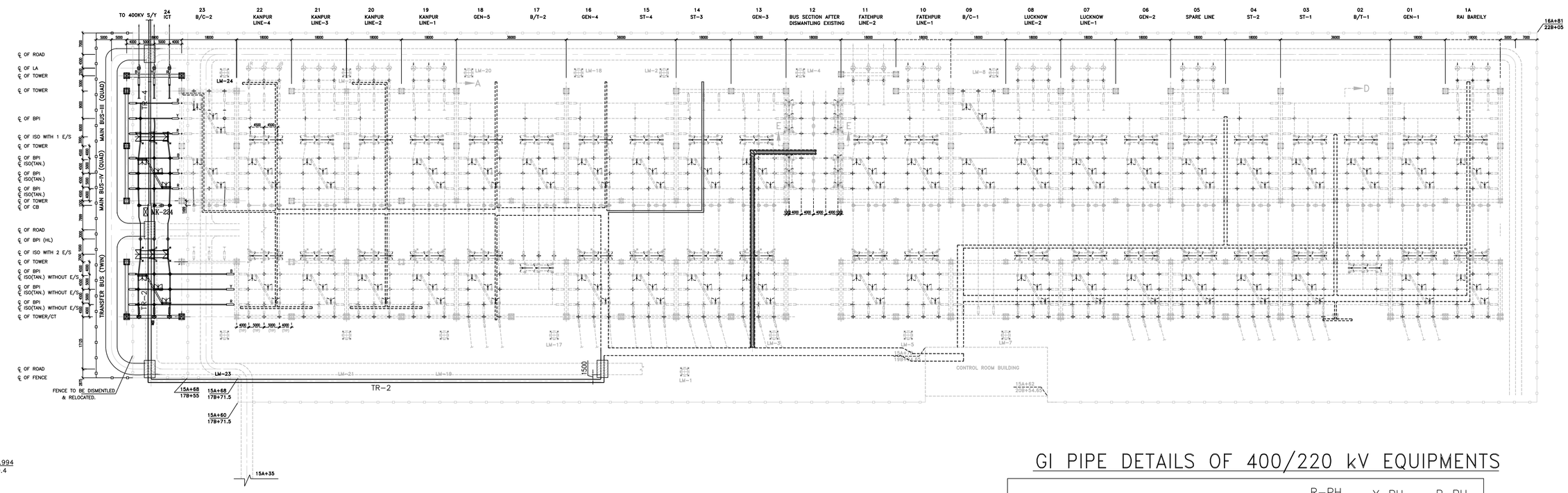
FIRST ANGLE PRJECTION

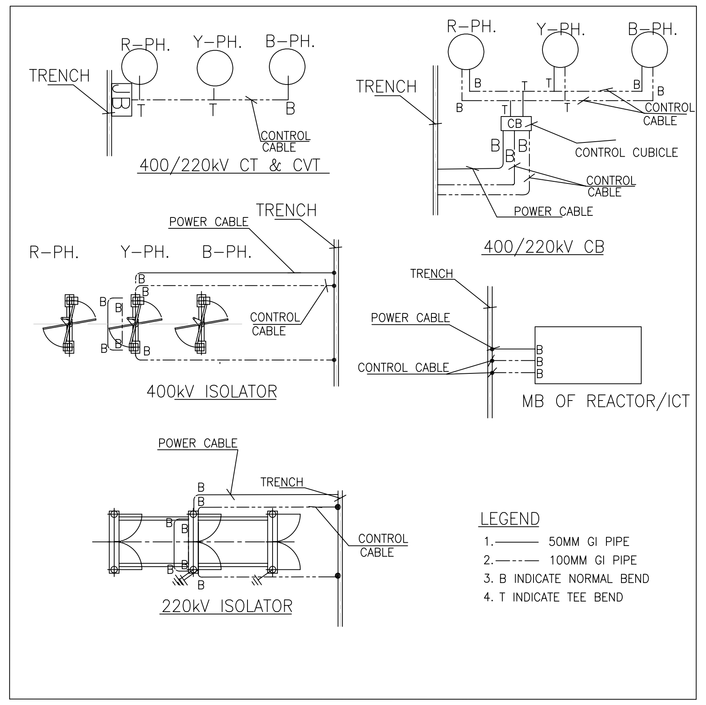
ALL DIMENSIONS ARE IN MM

DRAWING NO. TB-0-359-316-001



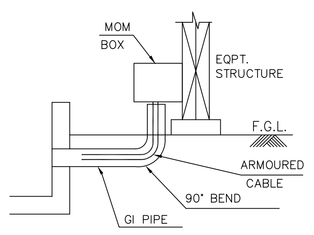


GI PIPE DETAILS OF 400/220 kV EQUIPMENTS

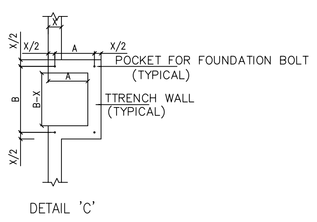


NOTES :-

1. ALL DIMENSIONS ARE IN mm.
2. THE LOCATION OF CABLE TRENCHES MARKED IN THIS DWG MAY BE SLIGHTLY MODIFIED TO SUIT SITE CONDITIONS.
3. OPENINGS FOR TAKING OUT GI PIPES TO EQUIPMENTS SHALL BE PROVIDED IN CABLE TRENCHES. OPENING OF SIZE SUITABLE TO DIA. 50/100 PIPE SHALL BE PROVIDED BELOW TOP CABLE SUPPORT.
4. MK = INDICATES MARSHALLING KIOSK. JB = INDICATES JUNCTION KIOSK.
5. MK/JB SHALL BE PLACED IN THE LOCATION SHOWN. EXACT COORDINATES TO BE SUITABLY DECIDED AT SITE.
6. 1.1kV CONTROL CABLE SHALL BE PLACED IN MULTILAYER ON GI CABLE RACK SUPPORT (ANGLE).
7. CABLE SUPPORT SHALL BE PROVIDED AT EVERY 600mm INTERVAL.
8. INSERTS MUST BE EMBEDDED AT EVERY 600mm INTERVAL FOR FIXING CABLE SUPPORT.
9. AUXILIARY POWER CABLES SHALL BE LAID IN TOP TIERS AND CONTROL CABLES IN BOTTOM TIERS,
10. FIBER OPTIC CABLE BETWEEN AC KIOSK AND CONTROL ROOM SHALL BE LAID IN 50mm DIA GI PIPE AND SAME SHALL BE ROUTED THROUGH BOTTOM OF CABLE TRENCH. 50mm DIA GI PIPE USED FOR FIBER OPITCS CABLES SHALL BE SUITABLY CLAMPED TO AVOID MOVEMENT.
11. CABLES FOR LIGHTING PURPOSE SHALL BE LAID IN GI PIPE/ TRENCH. SEPARATE DRAWING SHALL BE SUBMITTED FOR LIGHTING SYSTEM.
12. LOCATION OF CABLE TRENCHES INSIDE CONTROL ROOM SHALL BE SHOWN IN SEPARATE DRAWINGS.
13. EARTH CONDUCTOR 50X6 GI FLAT TO BE WELDED IN VERTICAL ON THE CABLE SUPPORT BEFORE INSTALLATION OF CABLES.
14. CABLES CROSSING ROAD SHALL BE LAID IN PIPE CULVERT.
15. FOR POWER & CONTROL CABLES, SEPARATE PIPES SHALL BE USED CONSIDERING 60% VOID FOR EACH PIPE I.E., 40% FILLING CRITERIA.
16. — - - - — INDICATES CABLES LAID IN GI PIPES OF 50/100mm OUTER DIA AT DEPTH OF 300mm (MAX.) CABLE FROM EQUIPMENT TO CABLE TRENCH SHALL RUN IN GI PIPES.
17. MARKED THUS (.) INDICATES CABLE ENTRY/EXIT FROM EQUIPMENT.
18. ALL OTHER DETAILS PERTAINING TO CIVIL WORKS SHALL BE REFLECTED IN THE RESPECTIVE CIVIL DRAWINGS
19. GI PIPES SHALL BE SECURELY FIXED AT BOTH ENDS.
20. AFTER LAYING THE CABLES THE ENDS OF GI PIPES SHALL BE FULLY SEALED TO PREVENT INGRESS OF WATER INSIDE THE PIPE.
21. CONTROL CABLES & POWER CABLES MUST BE LAID IN SEPARATE GI PIPES.
22. THE PURPOSE OF TRENCH LAYOUT DRAWING IS FOR USE AS FOLLOWS:
    - TO BE USED AS CIVIL INPUT FOR CABLE TRENCHES.
    - FOR ERECTION OF CABLE RACKS AT SITE.
    - FOR CABLE LAYING AND ROUTING AT SITE.
23. THE CABLE OF CT /CVT BETWEEN SECONDARY TERMINAL BOX AND JUNCTION BOX SHALL BE LAID IN 100MM GI PIPE.
24. INDICATE CULVERT. CABLES CROSSING ROAD SHALL BE LAID IN BOX CULVERT/HUME PIPE.
25. THE CABLE RACK ASSEMBLY SHALL BE WELDED TO EMBEDED INSERT PLATE AS MENTIONED BELOW.
27. SUMP AND DRAINAGE SHALL BE SHOWN IN SEPARATE CIVIL DRAWING.



DETAIL SHOWING ROUTING OF CABLE INSIDE GI PIPE CABLE TRENCH TO EQUIPMENT



MK/JB FIXING DETAIL ON TRENCH
A & B DIMENSIONS ARE AS PER MK DRAWING.
X-TRENCH WALL THICKNESS.

REFERENCE DRG.

1450-001R-SWYD-PVE-B-046	(DETAIL OF CABLE TRENCH CROSSING ROAD)
1450-001R-SWYD-PVE-B-044	(RCC DETAILS OF SWITCHYARD TRENCHES)
1140-108-2715-PVE-F-005 REV. 03	(TRENCH Layout Plan)
1450-001R-SWYD-PVE-F-002 REV. 01	(220kV Layout Plan & Section)
1450-001R-SWYD-PVE-F-001 REV. 02	(400kV Layout Plan & Section)
PE-DG-401-100-M001 Rev. 04	(PLOT PLAN)

NTPC DRG. No. 1450-001R-SWYD-PVC-F-001

NBPPL DRG. No.

PROJECT: FEROZE GANDHI UNCHAHAR THERMAL POWER PROJECT STAGE-IV 1X500MW

OWNER: NTPC Limited (A GOVERNMENT OF INDIA ENTERPRISE)

EPC VENDOR: NBPPL — NTPC BHEL Power Projects Private Limited (A Joint Venture Company of NTPC & BHEL) Y.S.R. Puram, Village Mannavaram, Sri Kalahasti Mandal, Distt. Chittoor - 517620 (A.P.)

QBTGM: BHARAT HEAVY ELECTRICALS LTD, TRANSMISSION BUSINESS GROUP NOIDA

JOB NO. 401

STATUS CONTRACT

DISTRIBUTION

REV.	DATE	ALTD	CHD	APPD
01	10.02.15	MS	AS	AS

REVISED IN LINE WITH NTPC COMMENTS DATED 27.01.15.

DEPT CODE		NAME	SIGN	DATE
M	DRN	MS		
	DESN	MS		
	CHD	AS		
	APPD	AS		

TITLE: 400/220 kV – Cable Trench Layout

DEPT. / SCALE / SIGN / DATE

DRAWING NO. TB-0-359-316-F-001

SHEET 01 OF 01 REV. 01

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