



FOR REFERENCE ONLY

POWERGRID CORPORATION LIMITED
400KV SUB-STATION PACKAGE, BAREILLY

OUT-DOOR AIR-CONDITIONED KIOSK FOR SUB-STATION AUTOMATION SYSTEM

CLIENT				POWERGRID CORPORATION INDIA LIMITED			
PROJECT				400KV SUB-STATION, BAREILLY			
MAIN CONTRACTOR				BHARAT HEAVY ELECTRICALS LIMITED			
				AVAIDS TECHNOVATORS PVT. LTD. MANESAR, GURGAON, HARYANA -			
DRAWING TITLE				OUT-DOOR KIOSK (COVER SHEET)			
	AFTER COMMENTS		D.	29.12.06	DRC. REF. LOA NO. - E-13104-S119A-3/ LOA-1 1572 OF 23.03.05		
	RV. 00	1ST SUBMISSION	D.	11.12.06	DRAWN DESIGNED CHECKED/ APPROVED SCALE		
	RV. NO.	DESCRIPTION	BY	DATE	DEEP R. P. PLANI R. P. PLANI N.T.S. 1 OF 8		
				05	04	03	02
				01	02	03	04
				05	06	07	08

DIMENSIONAL SPECIFICATION OF KIOSK PANELS

INTERNAL DIMENSIONS			QTY.
LENGTH	WIDTH	HEIGHT	
7000MM	3000MM	3000MM	5NOS.

CONSTRUCTIONAL SPECIFICATION OF KIOSK PANELS

ITEM	SUBJECT	DESCRIPTION
WALL/ROOF	PANEL THICKNESS & MATERIAL	80MM, POLYURETHENE FOAM(PUF)
	CLADDING	INNER--8MM(MIN.) POLYESTER PRECOATED CR. STEEL SHEET OUTER--8MM(MIN.) POLYESTER PRECOATED CR. STEEL SHEET
	ROOF SLOPE	1 IN 50, ONE SIDE, 100MM OVERHUNG ON ALL SIDES
	ROOF DESIGN LOAD	200KG/SQ. METRE
FLOOR	PANEL THICKNESS & MATERIAL	80MM, POLYURETHENE FOAM(PUF)
	CLADDING	INNER--8MM(MIN.) POLYESTER PRECOATED CR. STEEL SHEET OUTER--1.0MM GALVANISED STEEL SHEET
	FLOOR DESIGN LOAD	700KG/SQ. METRE
	REINFORCEMENT	ISCM FLOOR GRID BELOW THE PUF FLOOR PANELS
DOOR	ADDITIONAL FLOOR	18 MM BLOCK BOARD WITH 2MM THICK VINYL FLOORING
	TYPE & SIZE	MAIN DOOR--1200MM(W)X2400MM(H)--1NO. EMERGENCY EXIT--742MM(W)X2000MM(H)--1NO.
	DOOR PROFILE	STEEL EXTRUSIONS
	DOOR OPENING	MAIN DOOR--OPENING FROM OUT SIDE DOOR FLAPS OUT SIDE OPENABLE EMG. DOOR--OPENING FROM IN-SIDE DOOR FLAPS OUT SIDE OPENABLE
OVERALL DIMENSIONAL TOLERANCE	DOOR GASKETTING	NEOPRINE BASED RUBBER GASKET-- 15MM
	DOOR DIMENSIONAL TOLERANCE	± 50MM
	COLOUR SHADE	RAL -9003

PROPERTIES OF PUF MATERIAL

CHARACTERS	DESCRIPTION
THICKNESS	78.8MM
DENSITY	40KG ±2KG/CUB.METRE (CFC FREE)
COMPRESSIVE STRENGTH	1.2KG/SQ.CENTIMETRE
TENSILE STRENGTH	3.6KG/SQ.METRE
ADHESION STRENGTH	2.9KG/SQ.METRE
TEMPERATURE RANGE	AT -25°C: 0.1%; AT 38°C: 0.1%; AT 38°C: 0.4%
THERMAL CONDUCTIVITY	-15°C TO +95°C
FIRE RESISTANCE	0.02KILOCALORY/HOUR/METRE/°C
VAPOUR PERMEABILITY	AS PER BS-4735. HORIZONTAL BURN <125MM
SELF EXTINGUISHING	0.08/0.12/HOUR/SQ.METRE

DETAIL OF ILLUMINATION

CHARACTERS	DESCRIPTION
MODEL	TCW 097/236 ELECTRONIC BALLAST
MAKE	PHILIPS
LAMP TYPE	2 X 36W TL
NOMINAL VOLTAGE	240VLTs
POWER FACTOR	>0.90
QUANTITY IN KIOSK	5NOS.

DETAIL OF SMOKE DETECTOR

CHARACTERS	DESCRIPTION
TYPE	IONISED TYPE SMOKE DETECTOR
QUANTITY IN KIOSK	2NOS.

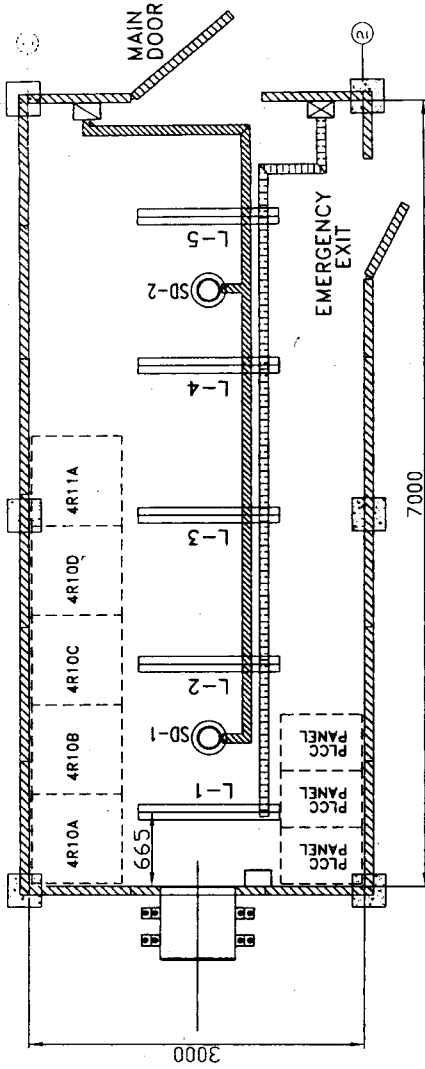
NOTES:-

01. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE MENTIONED.
02. KIOSK WILL BE DESPATCHED IN KNOCK DOWN CONDITION AND ASSEMBLED AT SITE.
03. ALL CUTOUTS OF THE PANELS WILL BE DONE AT SITE AFTER INSTALLATION OF THE KIOSK
04. ALL REQUIRED CIVIL WORK TO INSTALL THE KIOSK IS IN SCOPE OF M/S BHEL
05. DEGREE OF PROTECTION:-IP:55
06. FOR DETAIL OF AIR CONDITIONING UNIT(AC) PLEASE REFER LOAD SHEET.
07. BY HIGH PRESSURE INJECTION TECHNIQUES.
08. TECHNICAL SPECIFICATION INDICATING MODEL OF AIR-CONDITIONING UNIT SHALL BE SUBMITTED SEPARATELY AS PER APPROVED CALCULATION.
09. LOCKING ARRANGEMENT SHALL BE PROVIDED FOR MAIN & EMERGENCY DOOR
10. TECHNICAL DETAILS OF AC WILL BE SUBMITTED AFTER HEAT LOAD APPROVAL.
11. ALL VERTICALS & CEILING SUPPORT EXCEPT CORNERS WOULD BE 40x40x3 MM BOX SECTION
12. ALL FABRICATION & PAINTING WORKS WILL BE DONE AT SITE

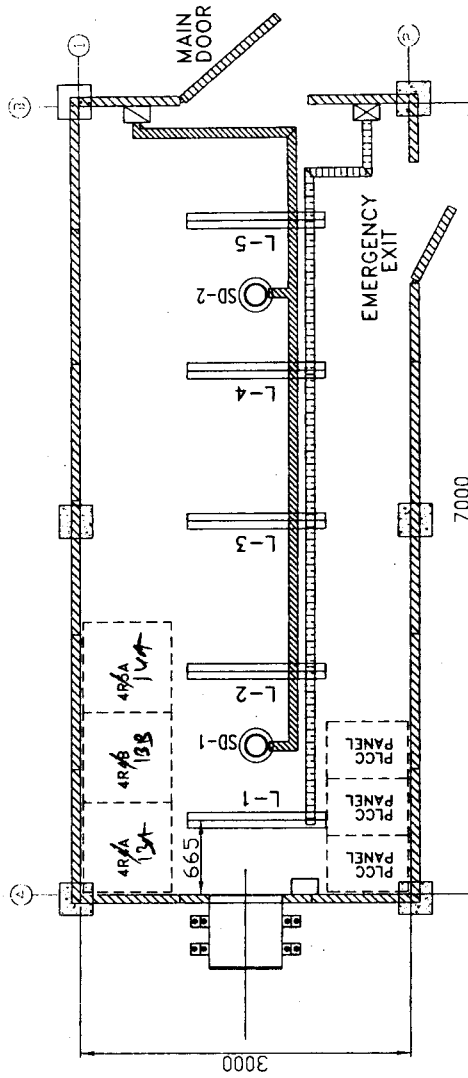
TECHNICAL SPECIFICATION OF AIR-CONDITIONER

CHARACTERS	DESCRIPTION
MODEL	TELEPAC-BLUE STAR
CAPACITY	2x2TR
AIR FLOW	2030 (CMH/CIRCUIT)
POWER SUPPLY	415V, 3PH, 50HZ
COMPRESSOR TYPE	SCROLL
CONTROLLER	MICRO-PROCESSOR CONTROL
COOLING CAP./CIRCUIT	5400 KILOCALORIE/HOUR
TOTAL COOLING/CIRCUIT	6000 KILOCALORIE/HOUR

CLIENT	POWERGRID CORPORATION INDIA LIMITED
PROJECT	400KV SUB-STATION,BAREILLY
MAIN CONTRACTOR	BHARAT HEAVY ELECTRICALS LIMITED
	AVAIDS TECHNOVATORS PVT. LTD. MANESSAR, GURGAON, HARYANA-
DRAWING TITLE	OUT-DOOR KIOSK TECHNICAL DETAILS
DRG. REF.	LOA NO - E-13104-S119A-3/ Ea-1 1572 DT 23.05.03
REV.	0
	ATV/PCCL/BHEL/BAREILLY/01
	DRAWN (DESIGNED) CHECKED (APPROVED) SCALE SHEET
	H.P. (R.PIPLANI) (R.PIPLANI) (R.PIPLANI) N.T.S. 2 OF 8
	11.12.06 11.12.06 11.12.06



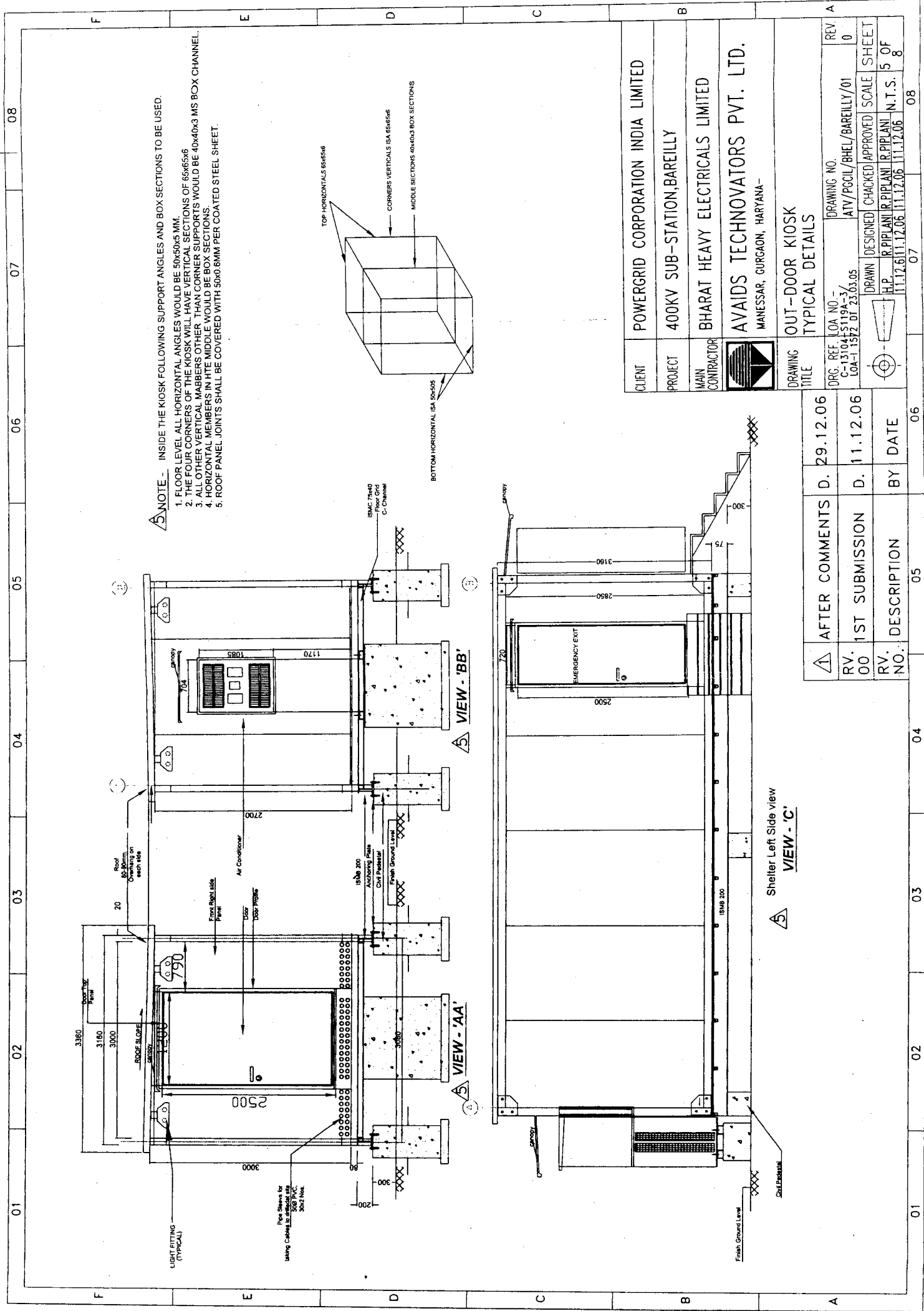
PLAN LAYOUT OF KIOSK FOR 400 KV BAREILLY S/S DIAMETER 101112
7000MM(L)X3000MM(H)X3000MM(W)-INTERNAL



PLAN LAYOUT OF KIOSK FOR 400 KV BAREILLY S/S DIAMETER 131415
7000MM(L)X3000MM(H)X3000MM(W)-INTERNAL

CLIENT	POWERGRID CORPORATION INDIA LIMITED
PROJECT	400KV SUB-STATION, BAREILLY
MAIN CONTRACTOR	BHARAT HEAVY ELECTRICALS LIMITED
	AVAIDS TECHNOVATORS PVT. LTD. MANESSAR, GURGAON, HARYANA-
DRAWING TITLE	OUT-DOOR KIOSK PLAN LAYOUT
DRG. REF.	LOA NO. - E-13104-3119A-3/ KOA-11572 DT 23.05.05
REV.	DRAWING NO. 0 ATV/PGCIL/BHEL/BAREILLY/01
	(DRAWN) (DESIGNED) (CHECKED) (APPROVED) SCALE SHEET
	H.P. R.P.I.P.L.A.N.I. R.P.I.P.L.A.N.I. N.T.S. 4 OF 8
	11.12.06 11.12.06 11.12.06 11.12.06

△	AFTER COMMENTS	D. 29.12.06
RV. 00	1ST SUBMISSION	D. 11.12.06
RV. NO.	DESCRIPTION	BY DATE



- NOTE -** INSIDE THE KIOSK FOLLOWING SUPPORT ANGLES AND BOX SECTIONS TO BE USED.
1. FLOOR LEVEL ALL HORIZONTAL ANGLES WOULD BE 50x50x5 MM.
 2. THE FOUR CORNERS OF THE KIOSK WILL HAVE VERTICAL SECTIONS OF 65x65x6
 3. ALL OTHER VERTICAL MEMBERS OTHER THAN CORNER SUPPORTS WOULD BE 40x40x3 MS BOX CHANNEL.
 4. HORIZONTAL MEMBERS IN THE MIDDLE WOULD BE BOX SECTIONS.
 5. ROOF PANEL JOINTS SHALL BE COVERED WITH 50x0 6MM PER COATED STEEL SHEET.

CLIENT	POWERGRID CORPORATION INDIA LIMITED
PROJECT	400KV SUB-STATION, BAREILLY
MAIN CONTRACTOR	BHARAT HEAVY ELECTRICALS LIMITED
	AVAIDS TECHNOVATORS PVT. LTD. MANESSAR, GURGAON, HARYANA-
DRAWING TITLE	OUT-DOOR KIOSK TYPICAL DETAILS
ORG. REF. NO.	LOA NO. - C-13104-S119A-3/ LOA-1 1572 DT 23.03.05
DRAWING NO.	ATV/PGOU/BHEL/BAREILLY/01
REV	0
DRAWN	DESIGNED
CHECKED	APPROVED
SCALE	SHEET
H.P.	R.PIPLANI R.PIPLANI
N.T.S.	5 OF 8

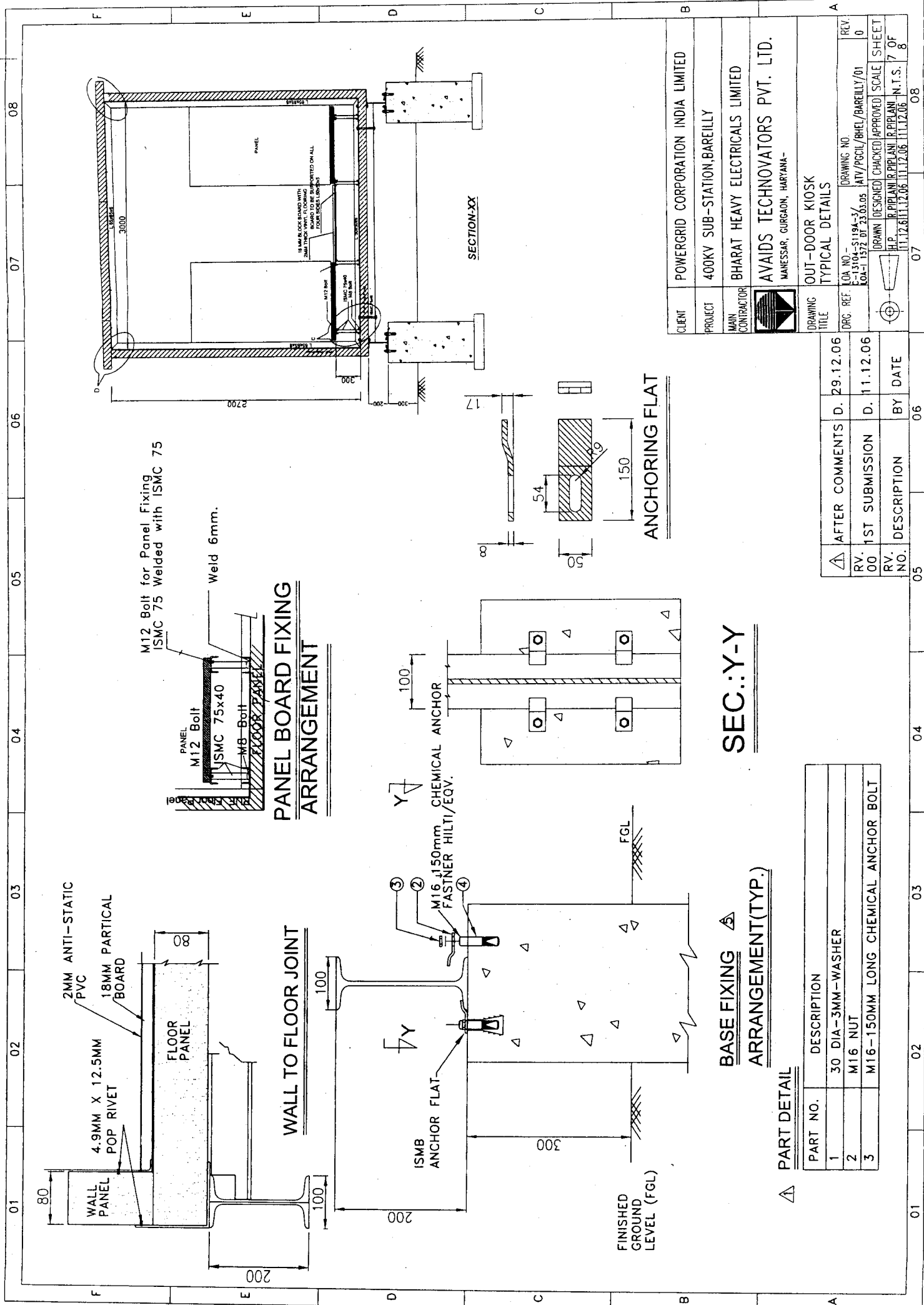
RV. 00	AFTER COMMENTS	D. 29.12.06
RV. 00	1ST SUBMISSION	D. 11.12.06
RV. NO.	DESCRIPTION	BY DATE

Shelter Left Side view
VIEW - 'C'


VIEW - 'BB'

VIEW - 'AA'





CLIENT	POWERGRID CORPORATION INDIA LIMITED
PROJECT	400KV SUB-STATION, BAREILLY
MAIN CONTRACTOR	AVADS TECHNOVATORS PVT. LTD.
	MANESSAR, GURGAON, HARYANA

DRAWING TITLE		OUT-DOOR KIOSK TYPICAL DETAILS				
DRG. REF.	LOA NO. - C-13104-S1194-3/ LOA-1 1572 DT 23.03.05	DRAWING NO. ATV/PGCIL/BHEL/BAREILLY/01			REV.	0
		DRAWN (DESIGNED)		CHECKED	APPROVED	SCALE
H.P.		R.PIPLANI		R.PIPLANI	R.PIPLANI	7 OF 8
11.12.06		11.12.06		11.12.06	11.12.06	N.T.S.
07		08				

RV. NO.	DESCRIPTION	BY	DATE
00	1ST SUBMISSION	D.	11.12.06
01	AFTER COMMENTS	D.	29.12.06

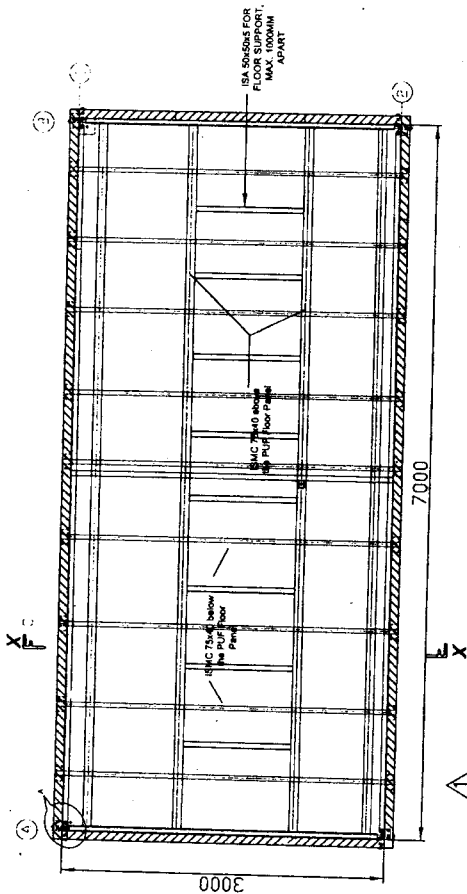
SEC.:Y-Y

BASE FIXING ARRANGEMENT(TYP.)

PART DETAIL

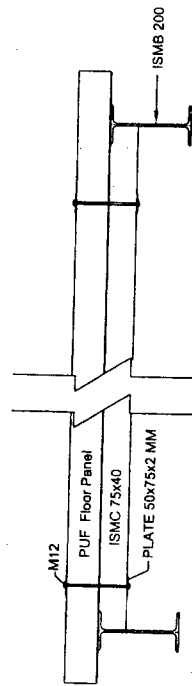
PART NO.	DESCRIPTION
1	30 DIA-3MM-WASHER
2	M16 NUT
3	M16-150MM LONG CHEMICAL ANCHOR BOLT

KIOSK FRAME DETAIL

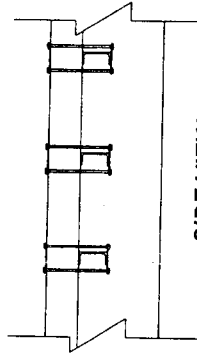


* SPACING OF ISMC 75X40 BELOW PUF PANEL WITH BE>600 MM APPROXIMATE

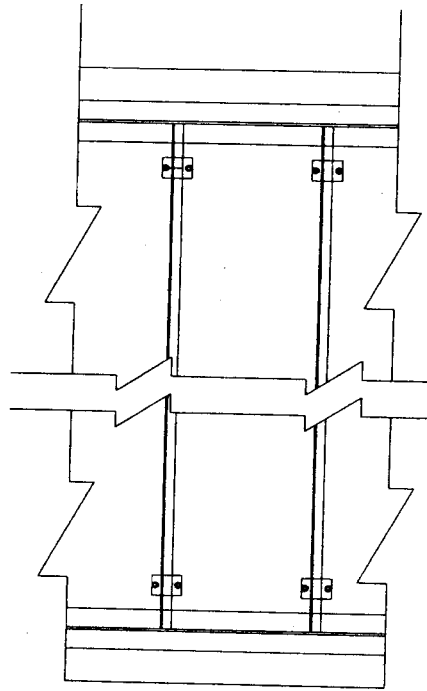
FRONT VIEW






SIDE VIEW



TOP VIEW



DETAIL OF KIOSK FIXING

CLIENT	POWERGRID CORPORATION INDIA LIMITED
PROJECT	400KV SUB-STATION,BAREILLY
MAIN CONTRACTOR	BHARAT HEAVY ELECTRICALS LIMITED
	AVAIDS TECHNOVATORS PVT. LTD. MANASSAR, GURGAON, HARYANA-
DRAWING TITLE	OUT-DOOR KIOSK TYPICAL DETAILS- FRAME WORK
DRG. REF.	LOA NO. - S119A-3/ LOA-13572 DT 23.03.05
	DRAWING NO. AT/PGCIL/BHEL/BAREILLY/01
	DRAWN DESIGNED CHECKED APPROVED SCALE SHEET R.P. R.PIPLANI R.PIPLANI R.PIPLANI 11.12.05 11.12.05 11.12.05 N.T.S. 8 OF 8
	07

△	AFTER COMMENTS	D.	29.12.06
RV. 00	1ST SUBMISSION	D.	11.12.06
RV. NO.	DESCRIPTION	BY	DATE
05			06