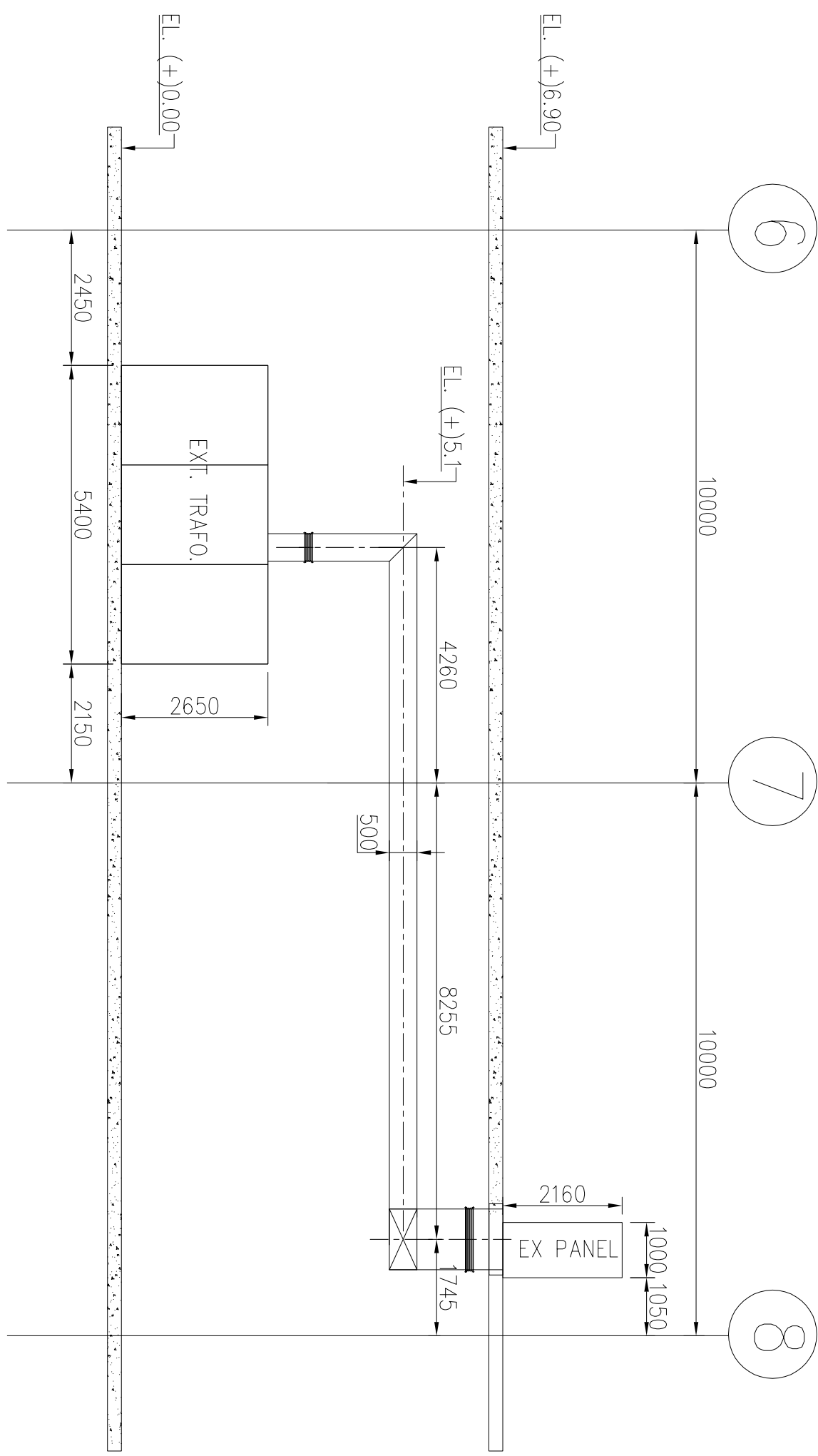
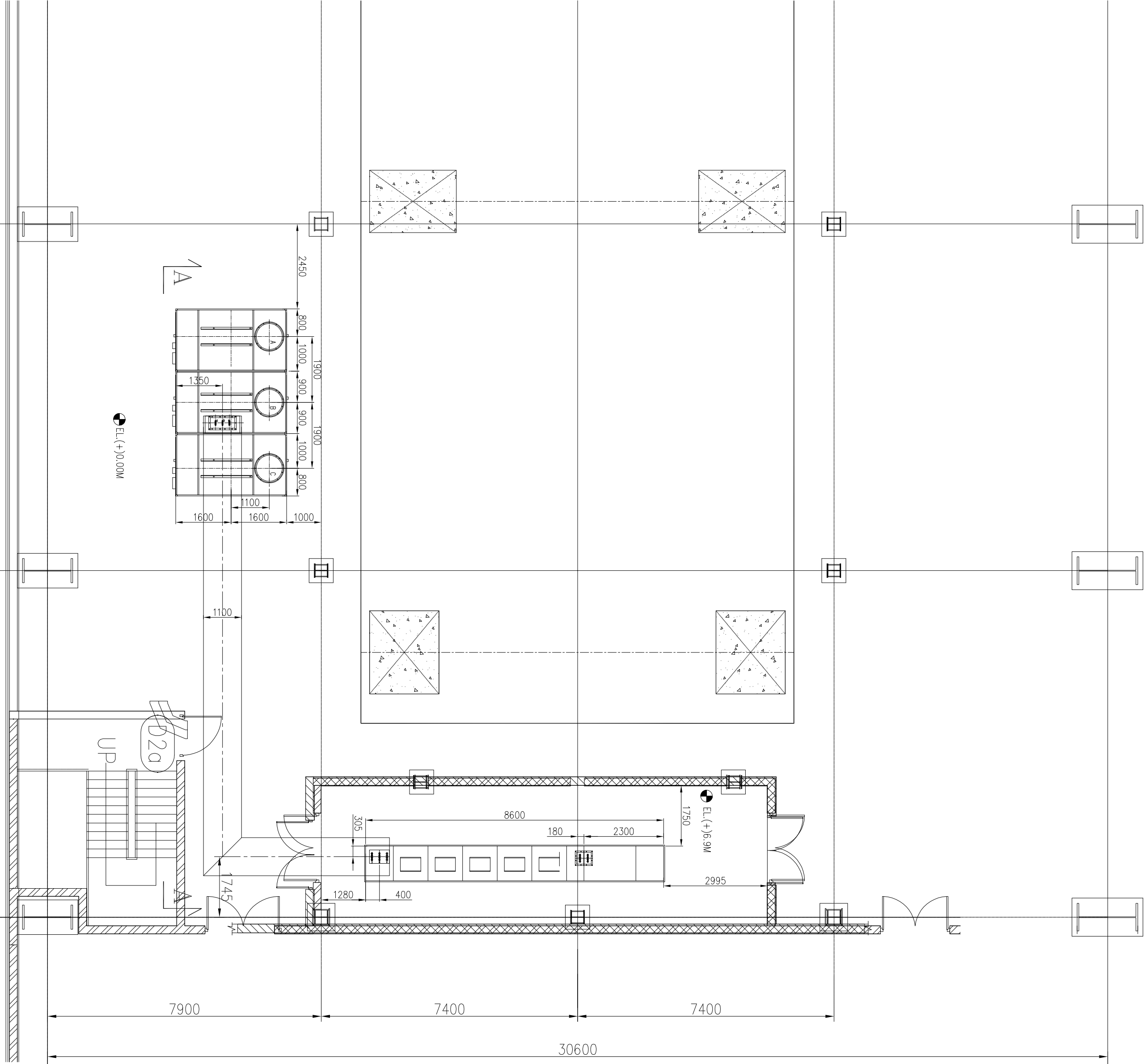




SECTION: A-A

REV.	DATE	DESCRIPTION	DRAWN	DESIGN	CHKD	APPD

PROJECT: 2 X 660 MW NCC POWER PROJECT
Painampuram , Muthukur Mandal, S.P.S.R.Nellore District, A.P.

OWNER: NCC POWER PROJECTS LIMITED

OWNER'S CONSULTANT: TATA CONSULTING ENGINEERS LIMITED, BENGALURU

CONTRACTOR: NCC Limited

CONTRACTOR'S CONSULTANTS: L & T - SARGENT & LUNDY LIMITED, Kolkata

SUB-CONTRACTOR: ABB INDIA

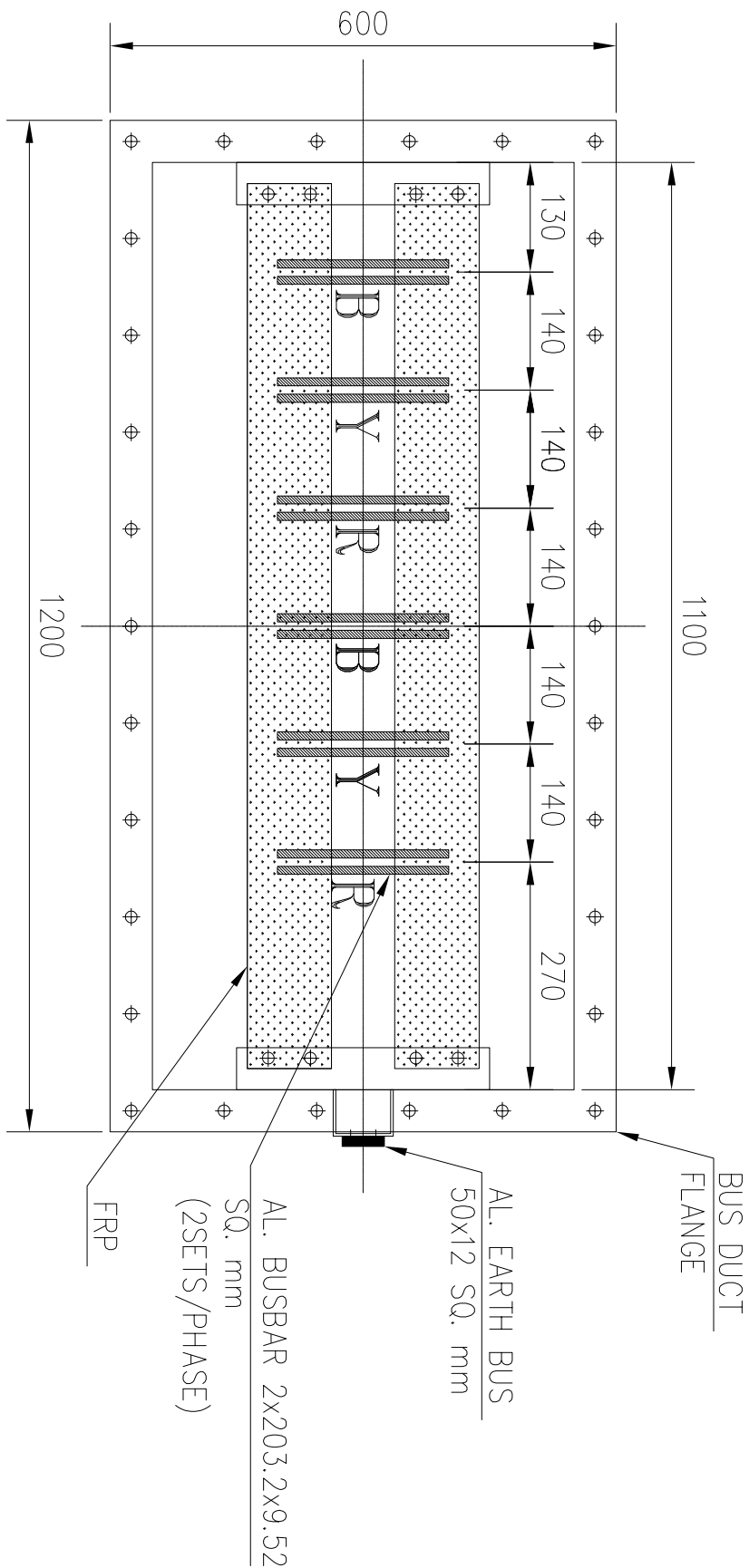
DATE	NAME	TITLE:
		LAYOUT A.C NSPBD

DESIGN					
DRAWN					
CHECKED					
APPROVED					

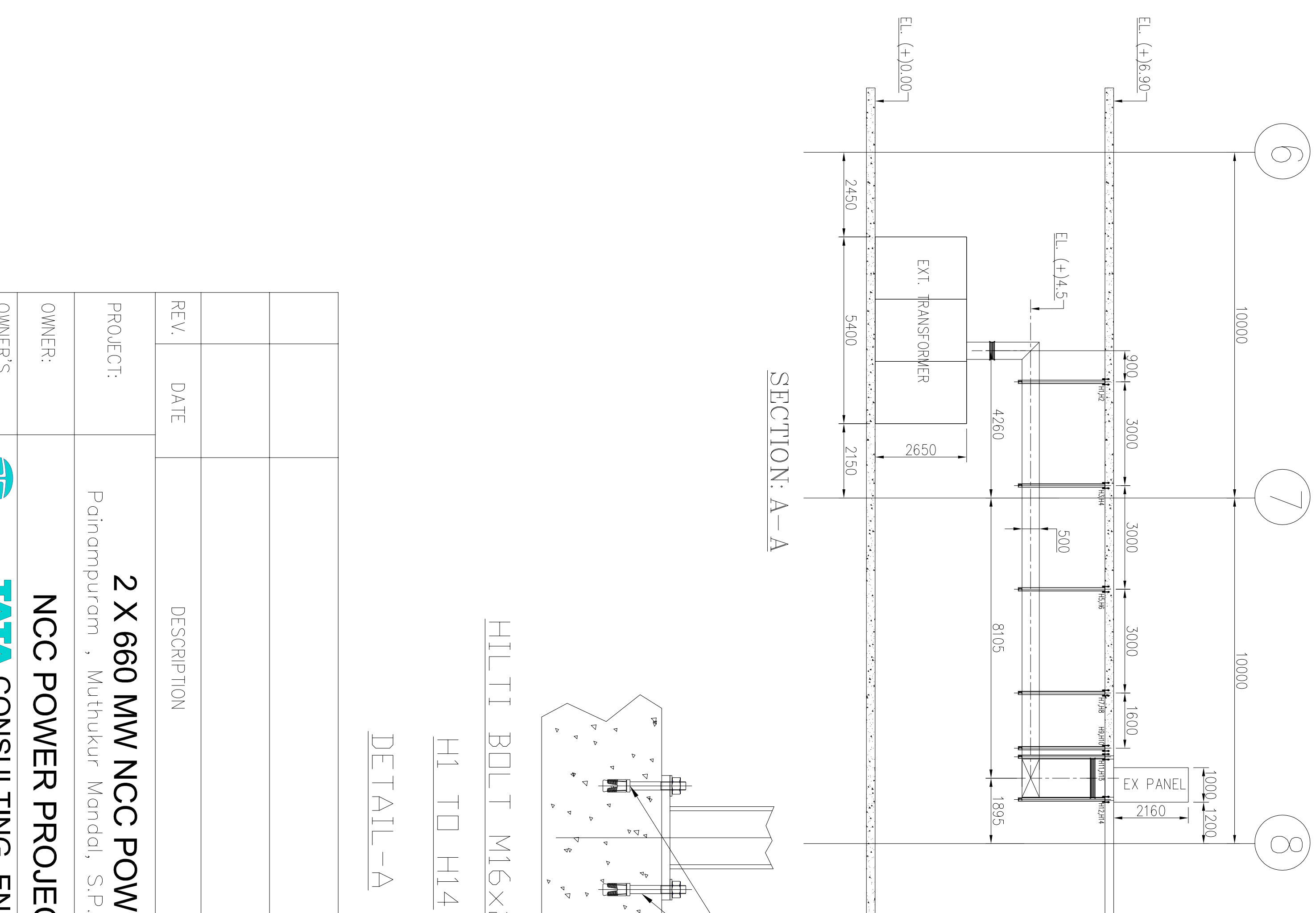
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VENDOR DRG. NO.: BHEL/RU/NSPBD/AC/001

REV.01
REV.01

GROSS SECTION OF NSPBD (A.C.)



SCALE - SHEET: 1 OF 1



HILTI BOLT M16x200 LG.

H1 T O H1 4

DETAIL-A

PROJECT:	2 X 660 MW NCC POWER PROJECT Painampuram , Muthukur Mandal, S.P.S.R.Nellore District, A.P.			
OWNER:	NCC POWER PROJECTS LIMITED			
OWNER'S CONSULTANT:	 TATA CONSULTING ENGINEERS LIMITED, BENGALURU			
CONTRACTOR:	 NCC Limited			
CONTRACTOR'S CONSULTANTS:	 L & T - SARGENT & LUNDY LIMITED, Kolkata			
SUB-CONTRACTOR:	ABB INDIA			
	DATE	NAME	TITLE:	
DESIGN			FOUNDATION LAYOUT A.C NSPBD	
DRAWN				
CHECKED				
APPROVED				
	NCC.DRG. NO.: NPT10111-PE-V-GA-440499-010		REV.00	
	VENDOR DRG. NO.: BHEL/RU/NSPBD/AC/002		REV.00	
SCALE -		SHEET: 1 OF 1		

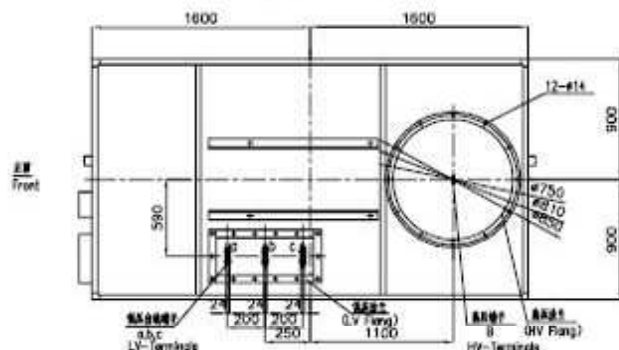
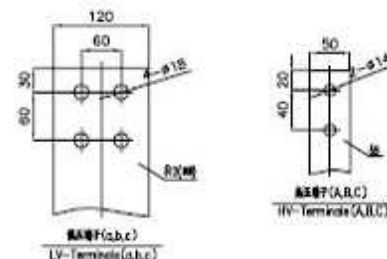
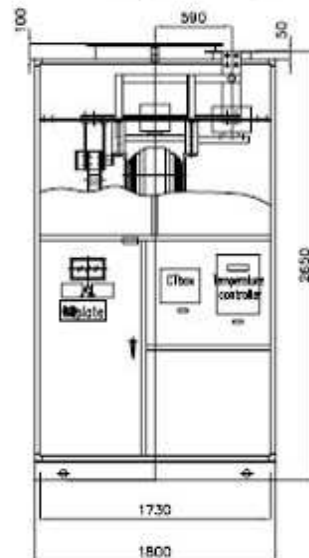
DATA SHEET FOR NON SEGREGATED PHASE BUSDUCT (850V AC, 5500A TP)

Sl. No.	Item Description	Units	Values & Details
1.0	Busduct		
1.1	Applicable Standard		IS - 8623, Part - 2
1.2	Type of Busduct		Non Phase Segregated
1.3	Type of Cooling		Natural
1.4	Operating Voltage	V	850V
1.5	Rated Voltage Class	kV	1.1kV
1.6	Frequency	Hz	50Hz
1.7	Degree of Protection		IP - 54 for Indoor & IP - 55 for Outdoor
1.8	One minute power frequency withstand Voltage	kV	3.5kV
1.9	Design Ambient Temperature	*C	50*C
1.10	Phase to earth clearance (minimum)	mm	25mm
1.11	Rated Symmetrical short-circuit current (minimum) for one sec	kA (rms)	50kA/1Sec
1.12	Momentary current rating	kAp	105kAp
1.13	Weight (three phase)		
	5500A	Kg/M	Approx. 110Kg.
1.14	Standard section length	M	2.45m
1.15	Finish		
	a) Exterior		RAL 7032 for indoor & 632 of IS-5 for Outdoor
	b) Interior		Matt Black
2.0	Bus Conductor		
2.1	Materials & Grade		Alumium Alloy, Grade 63401
2.2	Shape & Dimensions		Rectangular
2.3	Continuous Current Rating at design ambient : 50 Deg C	Amp	100% of rated current
2.4	Size	mm	
	5500A		203.2 x 9.35 x 2 per Phase
2.5	Conductor wall thickness	mm	
	5500A		9.35mm
2.6	Method of joining adjacent sections		Bolted
2.7	Maximum allowable temperature rise at Bus conductor (Hot Spot)	Deg. C	40* Deg for Bolted Joints (Plain)
2.8	Bus spacing (Phase to Phase)	mm	Min. 25mm
2.9	Bus spacing (Phase to Neutral)	mm	Min. 25mm
2.10	Conductor to enclosure clearance	mm	Min. 25mm
2.11	Clearances between live point and earth	mm	Min. 25mm
3.0	Bus Enclosure		
3.1	Material and Grade		Alumium Alloy
3.2	Shape		Rectangular
3.3	Wal thickness	mm	3mm
3.4	Outside Cross Section (Width x Height)		
	5500A	mm x mm	1100 x 500 (± 1%)
3.5	Method of joining adjacent sections		Bolted
3.6	Maximum allowable temperature of the enclosure	Deg. C	70* Deg.
5.0	Flexible Connections		
5.1	Material and Grade		Copper
5.2	Continuous Current Rating	Amps.	100% of rated current
6.0	Adapter Box		

DATA SHEET FOR NON SEGREGATED PHASE BUSDUCT (850V AC, 5500A TP)

Sl. No.	Item Description	Units	Values & Details
6.1	Material of Enclosure		Alumium Alloy
6.2	Thickness of Enclosure	mm	3mm
7.0	Bellows		
7.1	Manufacturer		Reputed
7.2	Material and Grade		Neoprene
7.3	Maximum permissible expansion	mm	50 - 60mm
7.4	Material and grade of gaskets used for inspection covers		EPDM
8.0	Seal - Off Bushings		Seal off Plate (FRP)
8.1	Manufacturer		Reputed
8.2	Type Designation		
8.3	Material		FRP
8.4	Voltage Class	kV	1.1kV
8.5	Greepage Distance	mm/kV	Not Applicable
8.6	Quantity	Nos.	2nos. (Bottom & Top)
9.0	Bus Insulators		
9.1	Manufacturer		Reputed
9.2	Material		FRP / SMC / DMC
9.3	Applicable Standard		IS 10192 - 1982 / IS 2824 - 07
9.4	Voltage Class	kV	1.1kV
9.5	Minimum Creepage distance	mm/kV	Min. 25mm
9.6	Number of insulators at each point of support	Nos.	2nos.
10.0	Space Heaters		
10.1	Manufacturer		Reputed
10.2	Rating	kW	100Watt
10.3	Quantity	Nos.	1no. of Every 5 meters
11.0	Dimension & Weight of the Largest shipping Piece		
11.1	Length	m	3m Approx.

富士与德皇婚子正殿图(局部)
Front view of fujige and terracotta(2) phone



EQUIPMENT & MATERIAL LIST

序号 No.	名称 NAME	规格及数量 SPECIFICATION	单位 UNIT	数量 QTY	备注 NOTE
1	励磁变压器 Excitation transformer	0029-2600/20/1/3/0.35 30.0kV=69kV/IP2	台 SET	6	每台中3台 3 set per Unit
2	槽钢 Channel steel	[10	米 M	60	用于式励磁变压器, 槽钢 Use for solid excitation transformer, channel

22

1. 德商新嘉坡中法统计暨资产评估有限公司披露。
2. 本财务报表未经会计师事务所审计。

Notes

- 1.The quantity in equipment & material list is for both Unit 1 and Unit 2.
2.This drawing is designed according to SUNTEN's drawing.

[illegible]

INDIA: NEETPL, SURROUNDED IDEAL-FREE POWER PLANT PROJECT

DETAIL DRAWING

APPROVED BY _____

10. *Journal of the American Medical Association*, 2000; 284: 2689-2695.

2000

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RECEIVED BY:

1000000

DATE	2013.08.1
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SCALE	
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[illegible][illegible]

EXCITATION TRANSFER

[illegible]

HV FLANG, LV FLANG, IN-TERMINALS, LV-TER

100

DOC NO	85015-00202-02	
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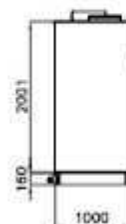
DRG. NO.:

SPEC	SON	DATE
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JOB NO.	
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INDEX

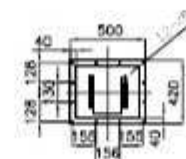
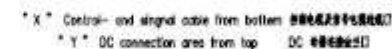
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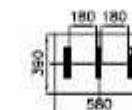
序号 No.	名称 NAME	规格及数量 SPECIFICATION	单位 UNIT	数量 QTY	备注 NOTE
1	+ER : 空气开关 AVR outside		套 SET	2	断路器/空气开关 Circuit breaker manufacture's cabinet
2	+EE : 灭弧器 DC field breaker outside DC connection outside field-suppression		套 SET	2	断路器/空气开关 Circuit breaker manufacture's cabinet
3	+EG1-5 : 逆变器 Converter		套 SET	10	断路器/空气开关 Circuit breaker manufacture's cabinet
4	+EA : AC 连接器 AC Connection outside		套 SET	2	断路器/空气开关 Circuit breaker manufacture's cabinet
5	导轨 Channel steel	[10	米 M	50	用于安装断路器/空气开关、等 Circuit breaker cabinet, etc.

Notes:

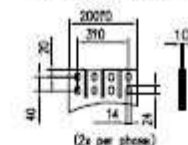
1. This drawing is designed according to explosion manufacture's drawing.
2. The quantity in equipment & material list is for both Unit 1 and Unit 2.



* 2 * AC connection from top AC 電線接続口



DETAILS, COPPER BARS. 40000

[illegible]