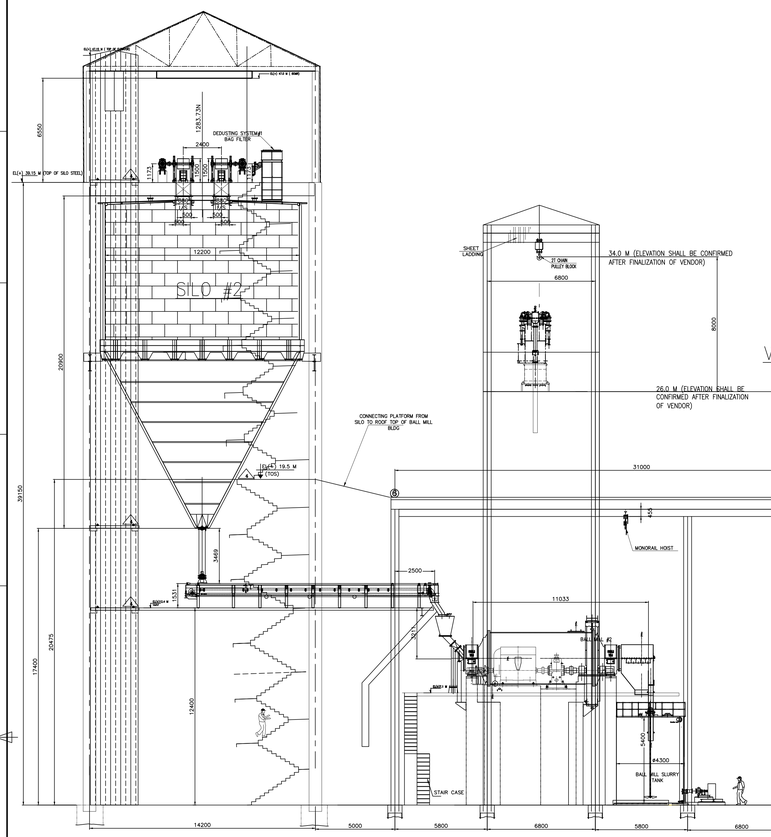
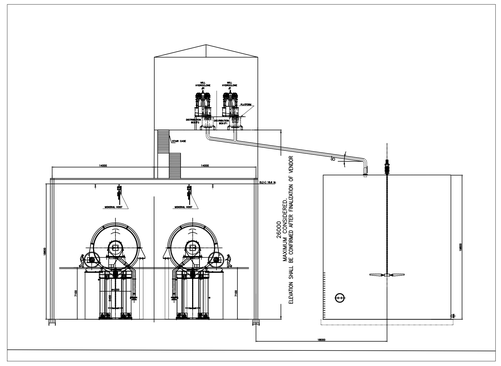
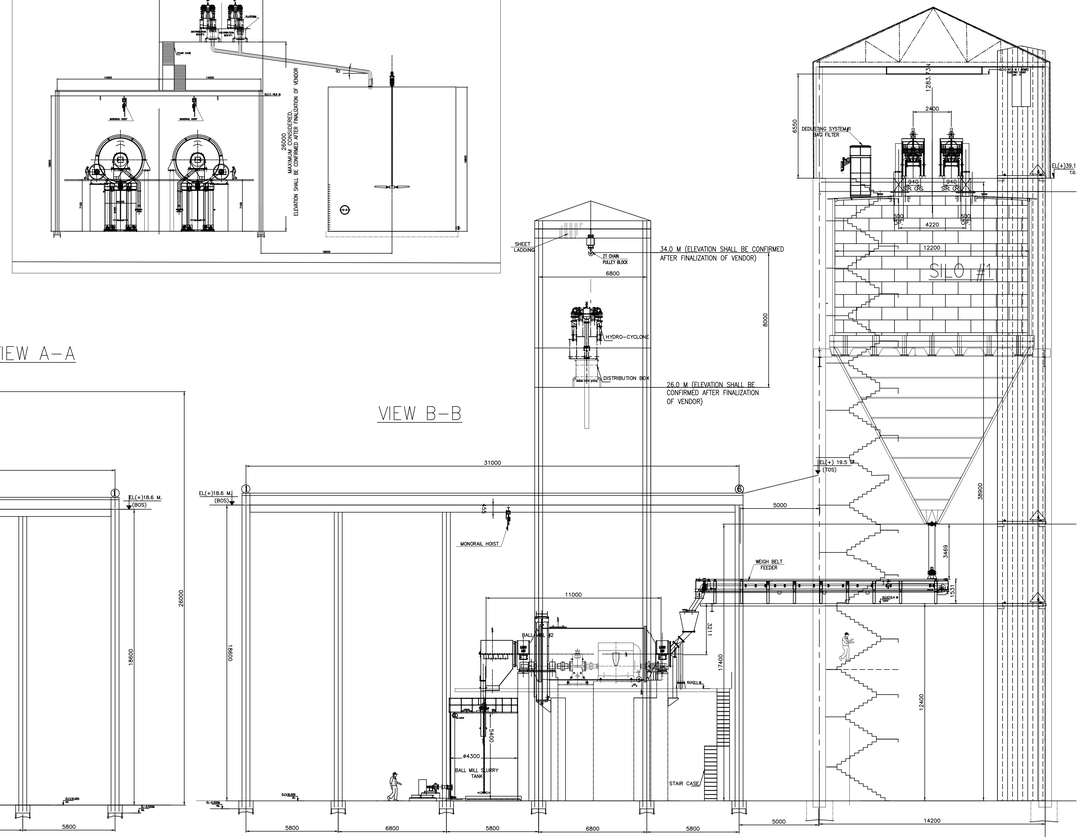
DRAWING NO. 0-FW-000-01084

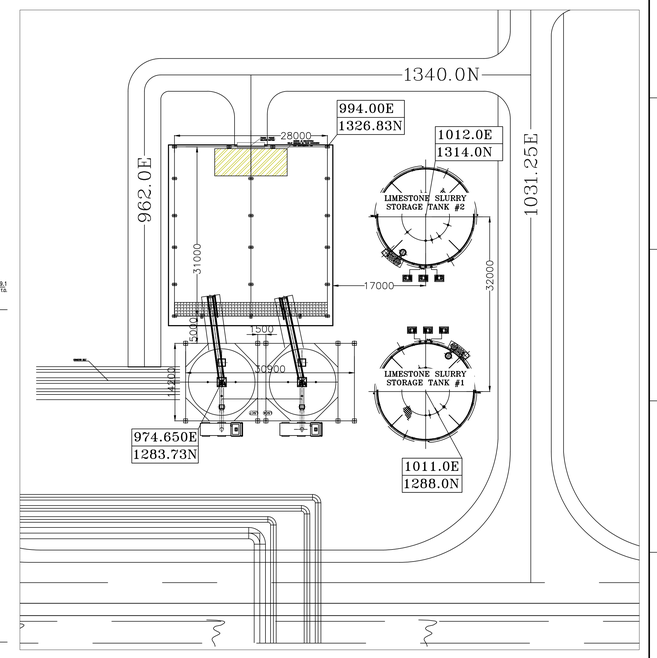


VIEW A–A

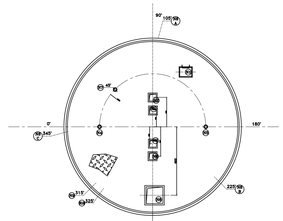




VIEW B–B



KEY PLAN



270° PLAN
FOR SILO#1 & SILO#2, EXCEPT FEED OPENING (PLEASE SEE NOZZLE SCHEDULE & SILO TOP OPENING AS PER RMC FLOOR PLAN 39.15 M)

NOZZLE SCHEDULE > PER SILO #1&2

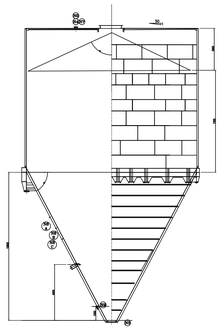
Nozzle. No.	Opening. Dim	Nos	Flange	Service	Projection	Remark
N1	650x650	01	750x650	ACCESS HATCH FRAME	100	
N2, N2A	1500x600 & 1600x600	04		LIMESTONE FEED	-	NOS TO BE DECIDED BY LS SILO-2
N3	500NB	01	ANSI B16.5/F150 WELDNECK FLANGE	DISCHARGE	-	
N4	150NB	01	ANSI B16.5/F150	LEVEL TRANSMITTER	150	
N5	150NB	01	ANSI B16.5/F150	LEVEL TRANSMITTER	150	
N6	1200x1200	01	1400x1400	BAG FILTER MOUNTING	200	
N7	150NB	01	ANSI B16.5/F150	SPARE NOZZLE	150	
N8A,B,C	150NB	03	ANSI B16.5/F150	AIR CANON	150	SHALL BE AT 90° AWAY FROM N9
N9	150NB	01	ANSI B16.5/F150	FOAMING NOZZLE	150	

DESIGN DATA

DESIGN CODE	–	IS:4178 (PART 1 TO PART 3)
STORAGE PRODUCT	–	CRUSHED LIMESTONE (1 INCH SIZE)
SILO CAPACITY	MT	1274.81
ROOF SLOPE	–	1 IN 50
BULK DENSITY (VOLUME CALCULATION)	KG/CUM	1400
BULK DENSITY (WEIGHT CALCULATION)	KG/CUM	1750
WIND CODE	–	AS PER CONTRACT SPECIFICATION
SEISMIC CODE	–	AS PER CONTRACT SPECIFICATION
NO. OF SILOS	NO.	02
DIAMETER (I.D)	MM	13200
CYLINDRICAL HEIGHT	MM	10350
CONICAL HOPPER HEIGHT	MM	10800
ROOF PLATE THICKNESS	MM	8
SHELL PLATE THICKNESS	MM	10
CONICAL HOPPER THICKNESS	MM	12
INSULATION	–	NOT APPLICABLE
WEAR LINING	–	250X4 MM THICK IN CONICAL PORTION ONLY

MATERIAL SPECIFICATION

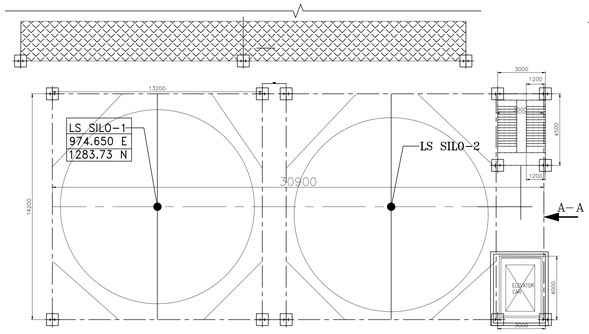
ITEM	MATERIAL
SHELL, ROOF, BASE AND SMITTLE PLATE	IS:2062 E250 GRADE BR
STRUCTURES	IS:2062 E250 GRADE A/BR
STAIRWAYS & PLATFORMS	IS:2062 E250 GRADE A/BR
MANHOLE	IS:2062 E250 GRADE BR
NOZZLE	A106 Gr B
NOZZLE FLANGES	IS:2062 E250 GRADE BR
NOZZLE REINFORCEMENT	IS:2062 E250 GRADE BR
HAND RAILING	IS:1161
BOLT	IS: 1367 CLASS 4.6
FITTINGS	A-105
ANCHOR BOLT	IS2062 E250 GRADE BR



NOTES:

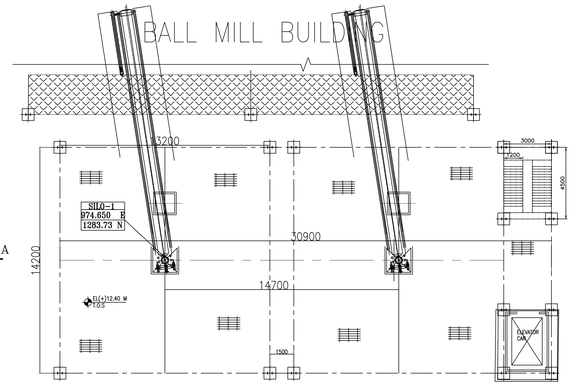
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES
2. FINISH FLOOR LEVEL = EL (+)375.50 M.CORRESPONDS TO PLANT EL 0.0M (GROUND FLOOR OF STG BUILDING) FINISHED GROUND LEVEL OF BOP AREAS AS MARKED.
3. THE EQUIPMENT / MACHINERY SIZES SHOWN IN THE DRAWING IS INDICATIVE ONLY AND WILL BE CONFIRMED AFTER VENDOR DATA. THE MAXIMUM ANTICIPATED SIZE AND LOADING IS PROVIDED IN THE DRAWING
4. FLOOR OPENINGS, PIPE CROSSINGS SHALL BE CONFIRMED DURING DETAIL ENGINEERING.
5. DETAILS OF STAIRCASE, SUITABLE DOORS, WINDOWS AND VENTILATORS SHALL BE CONSIDERED BY CIVIL DESIGNER FOR BALL MILL BUILDING.
6. Drg to be read in conjunction with BHEL ISG mech. GA drg of conv. LS 4A/B 9585-001-155-PVM-B-033
7. Hydrocyclone is vendor based items, therefore the actual height/size will be provided after finalization of vendor (PO Release). However, we have consider maximum height of hydrocylone in this drawing.

BALL MILL BUILDING



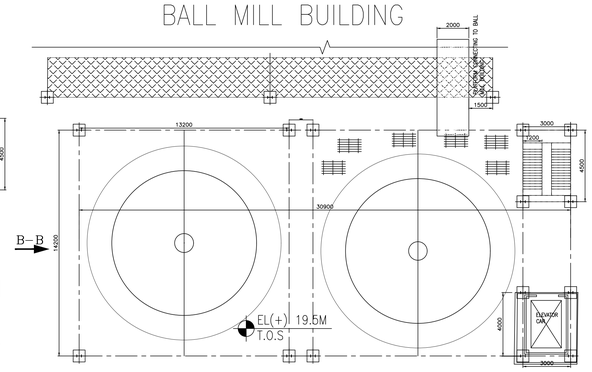
RCC FLOOR PLAN AT EL+0.00M

BALL MILL BUILDING



PLAN @ EL(+)12.40M

BALL MILL BUILDING



PLAN AT EL+19.5M

LEGEND:–

FGL	–	FINISHED GROUND LEVEL
FFL	–	FINISHED FLOOR LEVEL
T.O.PF	–	TOP OF PLATFORM
TOS/T.O.S	–	TOP OF STEEL SECTION
B.O.S	–	BOTTOM OF STEEL
TOC	–	TOP OF CONCRETE
BOB	–	BOTTOM OF BASE PLATE
OPENG.	–	OPENING
TYP	–	TYPICAL
LS SILO	–	LIMESTONE STORAGE SILO
BMB	–	BALL MILL BUILDING
BOMR	–	BOTTOM OF MONORAIL
T.O.G	–	TOP OF GRATING

SL.No.	EQUIPMENTS	QUANTITY
01	SILO	02
02	WET BALL MILL	02
03	MILLCIRCUIT TANK	02
04	WEIGHT BELT FEEDER	02
05	WET BALL MILL'S MAIN MOTOR	02
06	MILL HYDRO CYCLONE	02
07	DEDUSTING SYSTEM	02

CUST NO. R4R3 R4S3 R434

NTPC DRG NO: 9585-001-109-PVM-B-047

NTPC LTD.

PROJECT: PATRATU SUPER THERMAL POWER STATION EXPANSION PHASE – I (2X 800MW)

BHARAT HEAVY ELECTRICALS LIMITED
UNIT: HEAVY POWER EQUIPMENT PLANT
RAMACHANDRAPURAM, HYDERABAD-502032

DEPT CODE		NAME	SIGN	DATE
M	DRN	ABUL/UDAY		11.05.2020
	CHD	AMAN SURIN		11.05.2020
	APPD	SATISH GHATGE		11.05.2020

TITLE: LAYOUT AND ELEVATION DETAILS OF BALL MILL BUILDING AND LIMESTONE SLURRY PREPARATION SYSTEM

DRAWING NO. 0-FW-000-01084

SCALE : NTS

SHEET 1 OF 2

REV 04

Size A0

REV.	DATE	ALTD.	CKD.	APPD.	REMARKS
03	20.08.2020	ABUL/UDAY	AMAN SURIN	SATISH GHATGE	DRG IS REVISED AS PER NTPC COMMENTS VIDE TRANSMITTAL No– null109:9295 DATED 06.06.2020.
02	11.05.2020	ABUL KALAM	AMAN SURIN	S. GHATGE	DRG IS REVISED AS PER NTPC COMMENTS VIDE TRANSMITTAL No– null109:6288 DATED 21.11.2019.

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