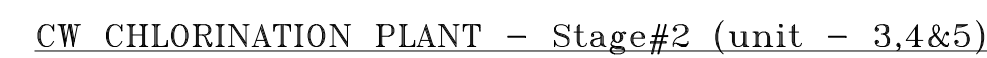
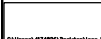


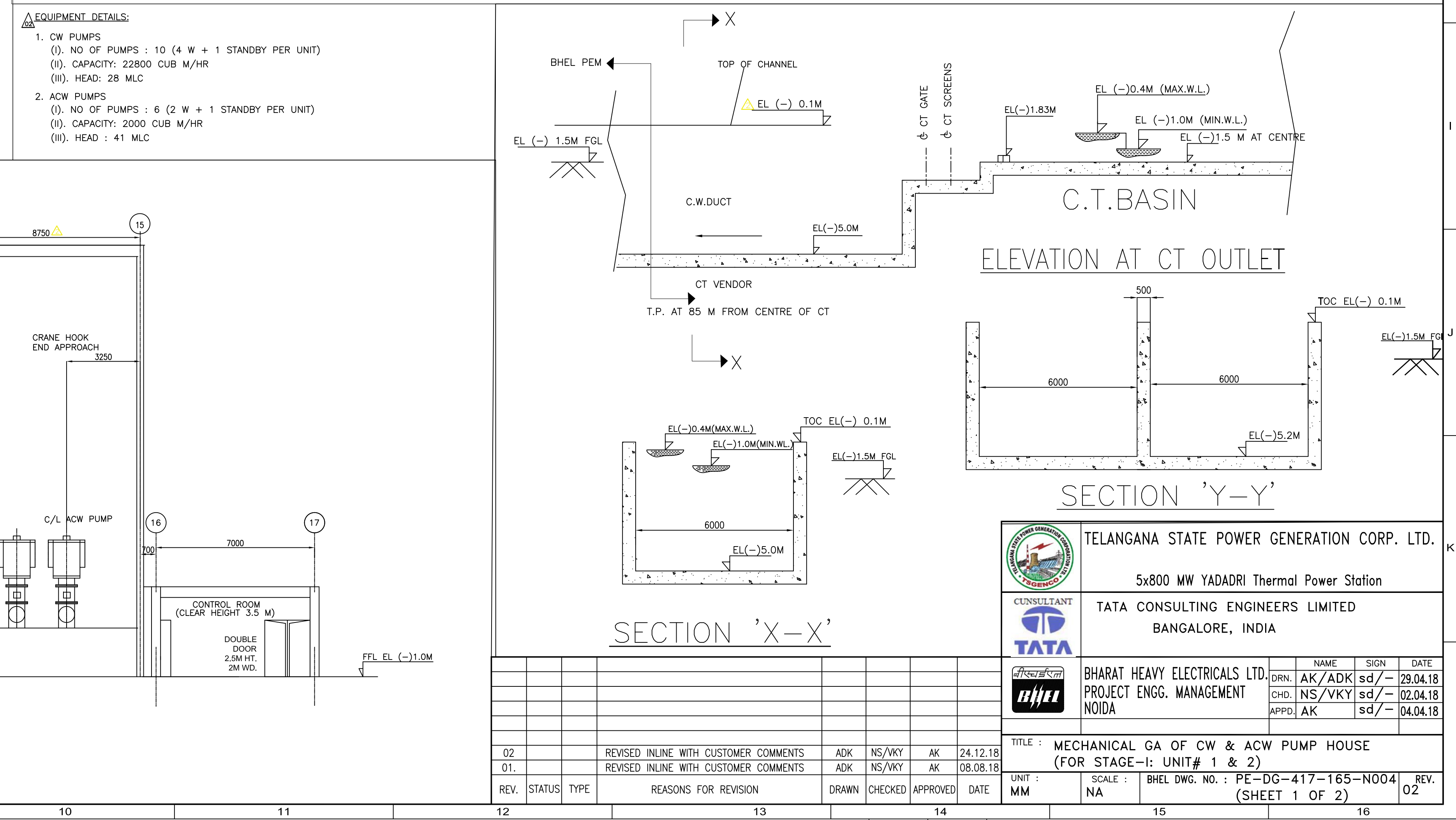
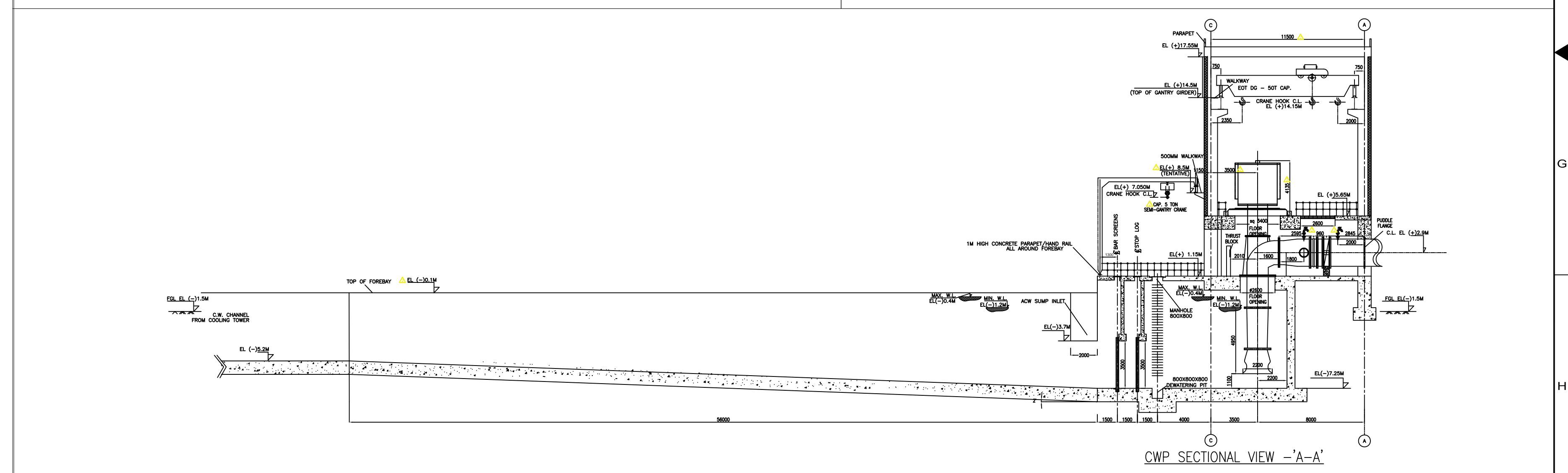
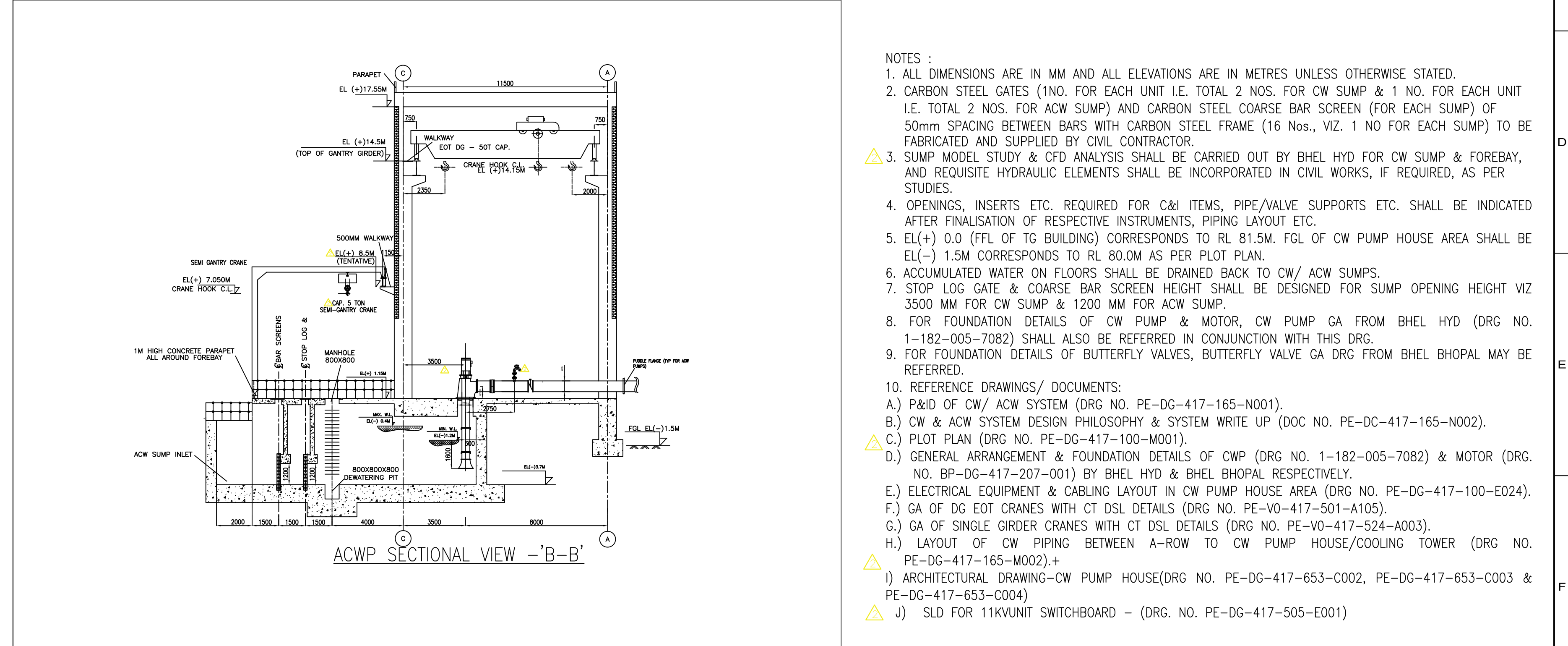
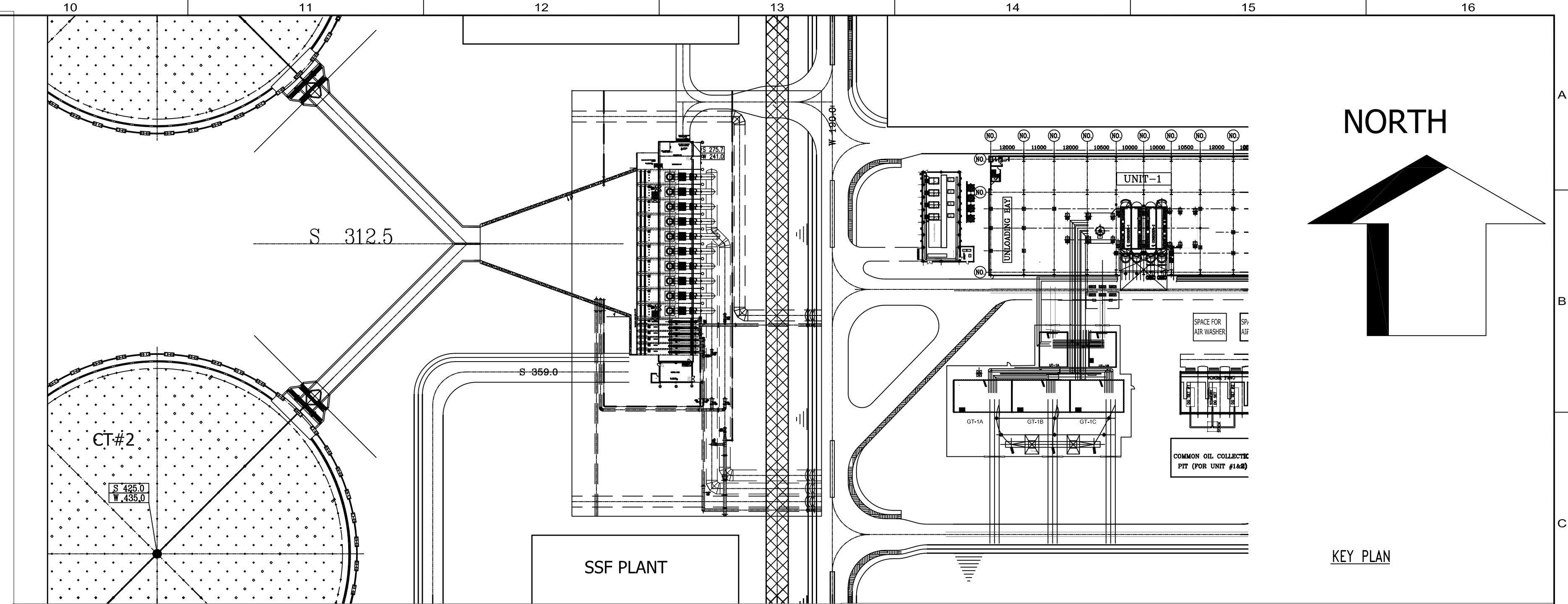
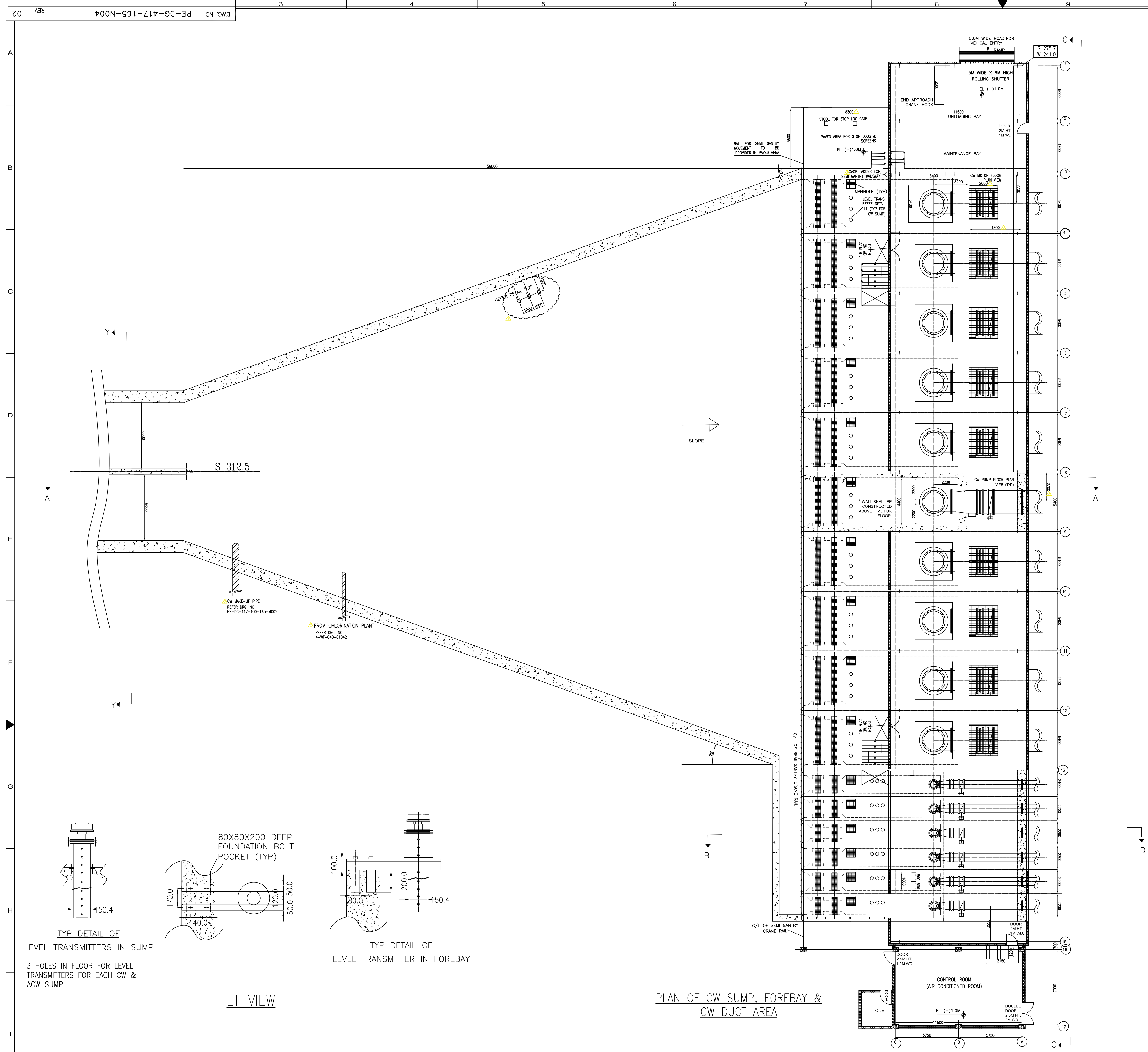
1. ALL DIMENSIONS ARE IN MM AND ELEVATIONS IN METRES.
2. ALL ELEVATIONS ARE TO THE FINISHED GROUND FLOOR LEVEL OF POWER HOUSE BUILDING
AS EL. + 0.00M WHICH CORRESPONDS TO RL. 81.5M ABOVE MAIN SEA LEVEL.
3. STANDARD CABLE TRAYS AND ACCESSORIES SHALL BE USED.
4. CABLE ROUTING SECTION DETAILS SHALL BE ADDED IN SUBSEQUENT REVISION WHILE CABLE ROUTING.
5. THIS DRAWING SHALL BE REFERRED ONLY FOR CABLING LAYOUT. FOR ALL OTHER MECHANICAL/ CIVIL DETAILS APPLICABLE DRAWINGS SHALL BE REFERRED.
6. ALL CABLE OPENINGS IN WALLS FLOORS SHALL BE SEALED WITH CABLE FIRE SEALING SYSTEM MATERIAL AFTER COMPLETION OF CABLE LAYING.
7. CABLE TRAYS & SUPPORTS INSTALLATION SHALL BE DONE AS PER REFERENCE DRG. SL. NO. 3, 4 & 5.
8. TOPMOST/ OUTERMOST ONE TRAY OF ALL RUNS SHALL BE PERFORATED TYPE.
9. DIMENSIONS INDICATED FOR EQUIPMENTS ARE PROVISIONAL. FINAL DIMENSION/ FOUNDATION DETAILS SHALL BE FURNISHED ON RECEIPT OF ACTUAL OGA'S DRAWINGS OF SWITCHGEAR & TRANSFORMERS.
10. CABLE TRAYS SUPPORT MEMBERS SHALL NOT HAVE ANY SHARP EDGES TO AVOID CABLE DAMAGE

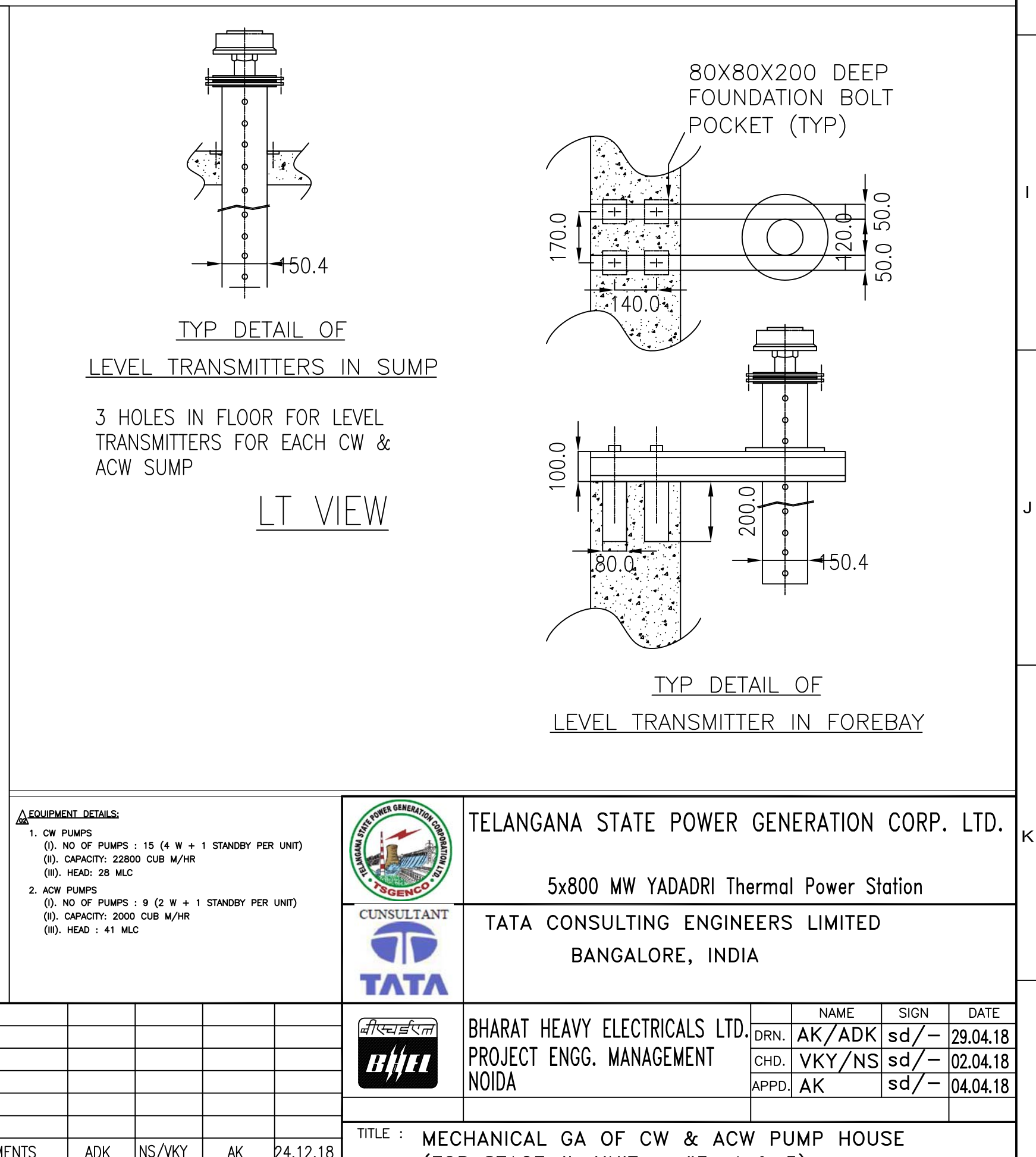
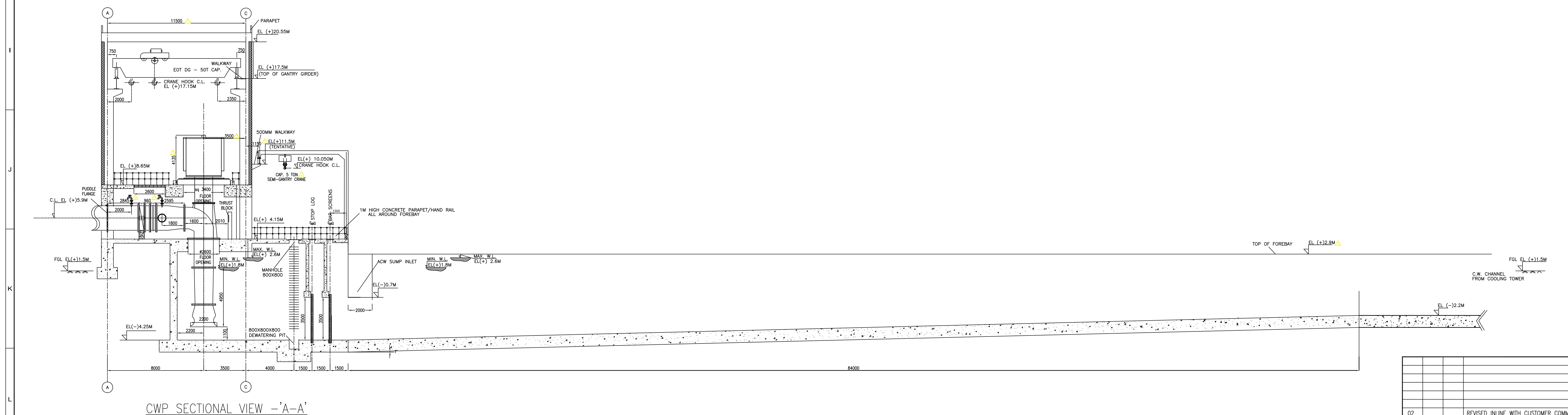
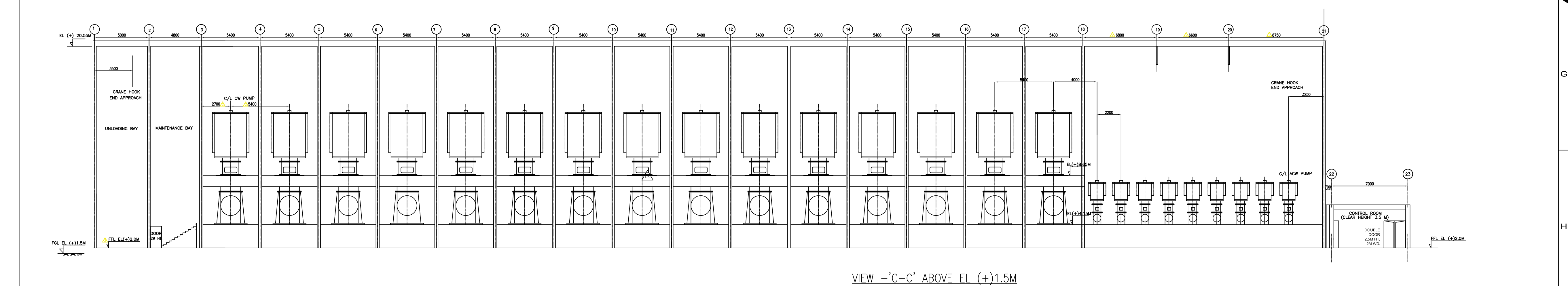
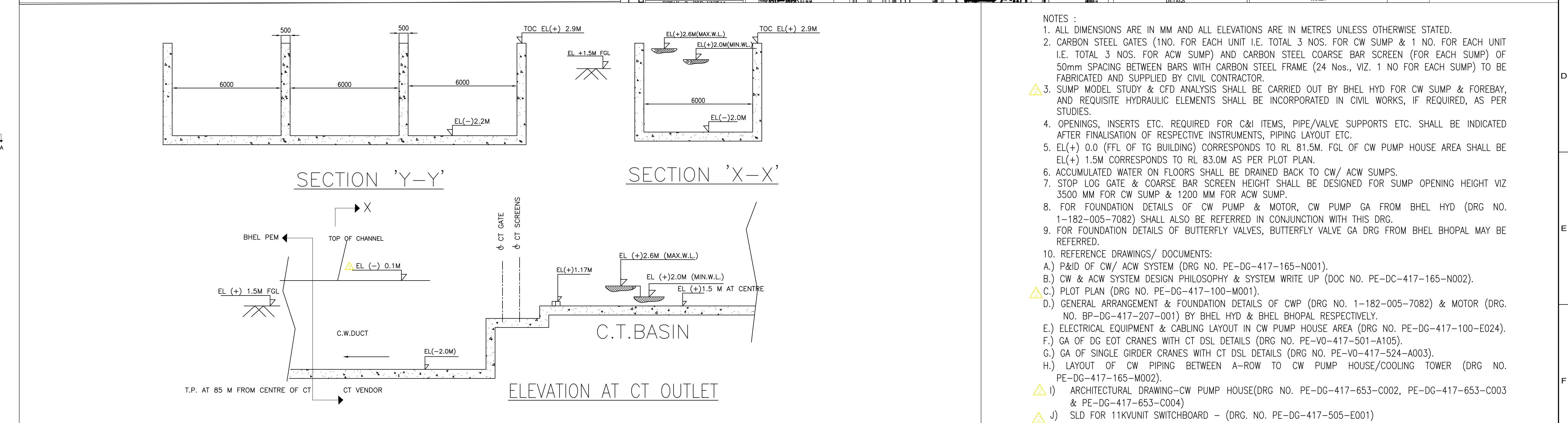
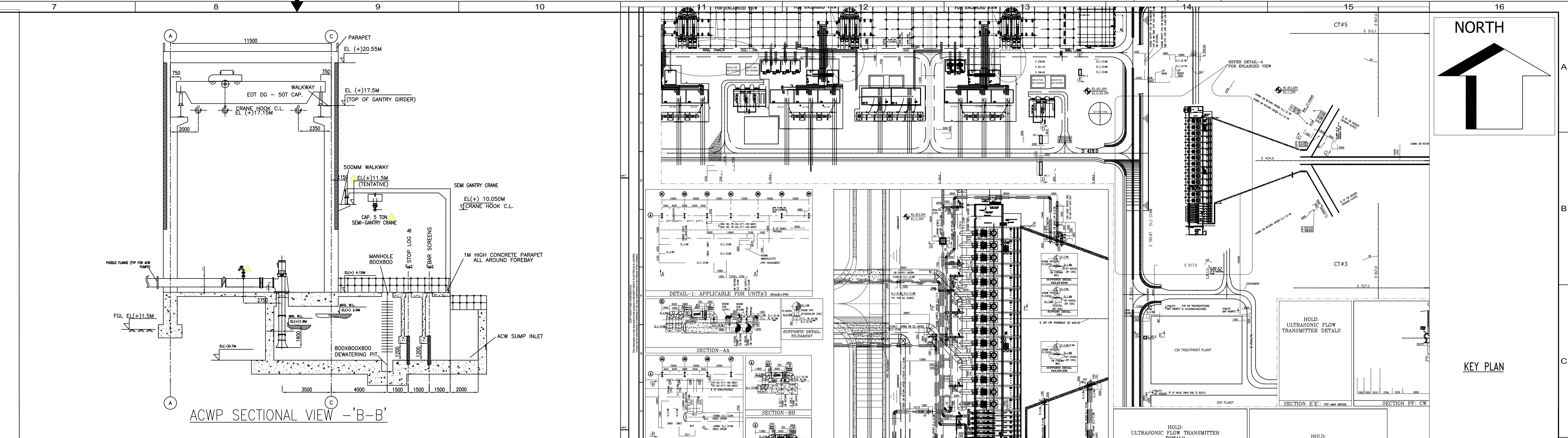
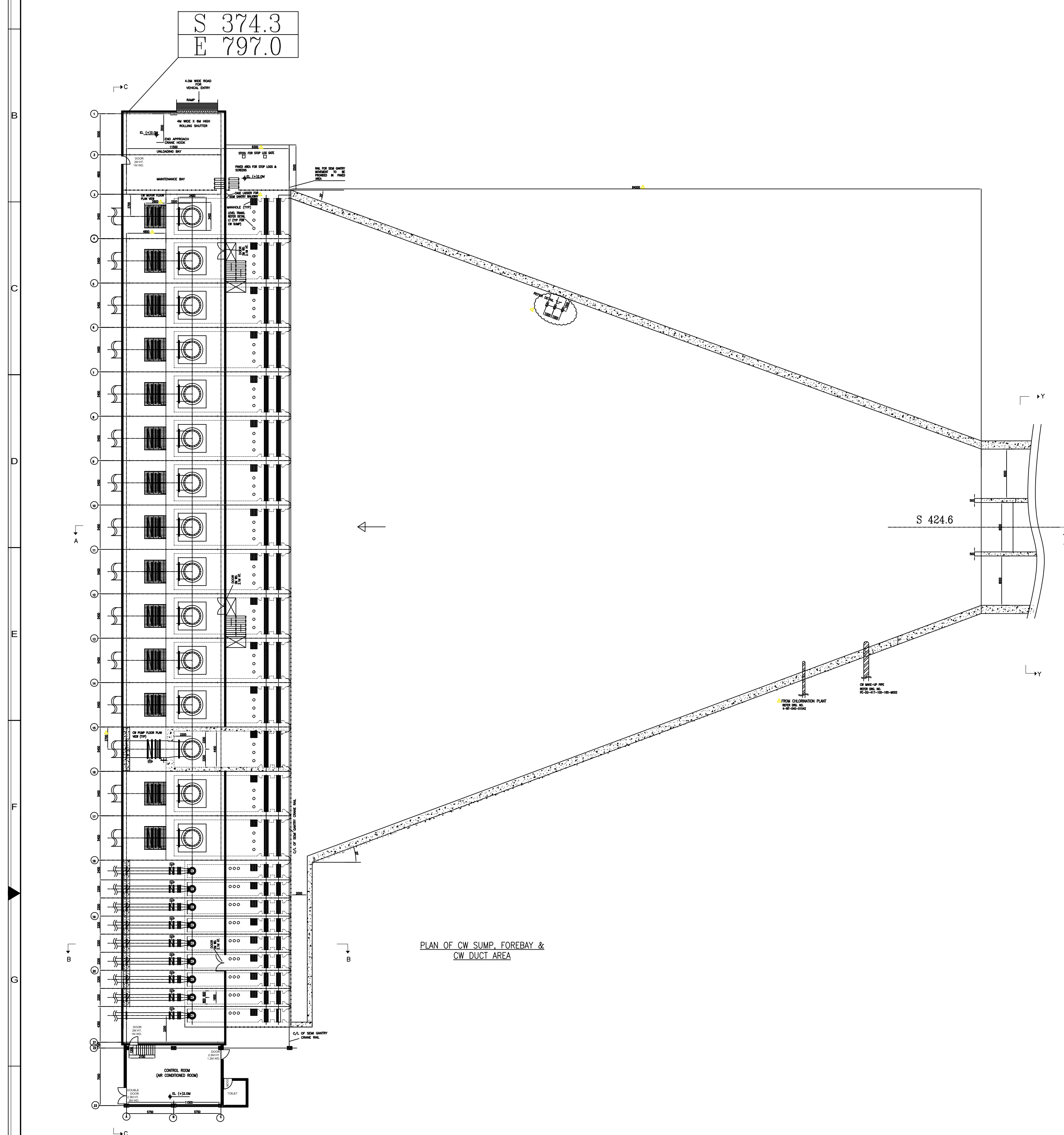
REV. 02	DATE 23.07.20	DRN MRS	CHD NRS	APPD DRO	REV. 01	DATE 02.06.20	ALTD NRS	CHD NRS	APPD DRO	The information on this document is the property of PRASHANT HEAVY ELECTRICALS LIMITED. It must not be used directly or indirectly in any way detrimental to the interest of the company. TITLE ELECTRICAL EQUIPMENT & CABLE TRAY LAYOUT IN AUXILIARY BOILER AREA DEPT. SCALE DRAWING NO. PE-DG-4110-00E-026 SHEET 01 OF 01 REV. 02
02	DRAWING REVISED AS PER CUSTOMER COMMENTS DTD. 23.07.20 REVISION IS MARKED AS 				02	DRAWING REVISED AS PER CUSTOMER COMMENTS DTD. 02.06.20 REVISION IS MARKED AS 				
13					14				15	



PRELIMINARY DRAWING FOR REFERENCE ONLY

CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF TELANGANA STATE POWER GENERATION CORPORATION LIMITED. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY			PRO. ECT.		YADADRI THERMAL POWER STATION (5X800 MW)					
					OWNER		TELANGANA STATE POWER GENERATION CORPORATION LIMITED			
					OWNER'S CONSULTANT		TATA CONSULTING ENGINEERS LIMITED BANGALORE			
					EPIC CONTRACTOR		BHARAT HEAVY ELECTRICALS LIMITED, NEW DELHI UNIT : BOILER AUXILIARIES PLANT : RANIPET PAC : AGE : CW CHLORINATION PLANT STAGE : II			
			TITLE		EQUIPMENT LAYOUT FOR CW CHLORINATION (UNIT 3,4&5)					
REV.	DATE	ALTERED: CHECKED:								
ZONE										
		ALL DIMENSIONS ARE IN MILLIMETRES		(SHEET DRAWING NO.)		1-WT-040-01087		REV		
		PRO. ECTION		SCALE N.T.S.				00		



[illegible]

96710-005-1M-1
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

N-333.500M

NORTH

SECTION C-C

SECTION A-A

SECTION B-B

KEY PLAN

SLNO	DESCRIPTION	QUANTITY	MOC	APPROX. SIZE
01	DMF FEED PUMP	7nos(5W+2S)	Ni hard Cl	0.65Mx0.45Mx0.45M HT
02	DUAL MEDIA PRESSURE FILTER (DMF)	7nos(5W+2S)	CSEP	ø3.1Mx2.8M Hos
03	DMF AIR BLOWER	4nos(2W+2S)	O	ø1.0Mx1.0Mx0.3 HT
04	FILTER BACKWASH WATER TANK	1 No	RCC	12.0 Mx12.0 Mx2.6 M
05	FILTER BACKWASH WATER PUMP	4nos(2W+2S)	Ni hard Cl	ø0.90Mx0.50Mx0.3HT
06	POTABLE WATER TRANSFER PUMP	2nos(1W+1S)	Cl with SS304	0.65Mx0.45Mx0.3MHT
07	FILTER BACKWASH WATER SUMP	2 Compartment	RCC	10.5Mx10.5Mx2.0 SWD
08	BACKWASH WATER DISPOSAL PUMP	2nos(1W+1S)	Ni hard Cl	ø0.90Mx0.50Mx0.3HT
09	ACTIVATE CARBON FILTER (ACF)	7nos(5W+2S)	CSEP	ø2.4Mx3.3M Hos
10	WEAK ACID CATION EXCHANGER (WAC)	7nos(5W+2S)	CSRL	ø1.5Mx2.1M Hos
11	STRONG ACID CATION EXCHANGER(SAC)	7nos(5W+2S)	CSRL	ø1.5Mx2.1M Hos
12	DEGASER TOWER	5Nos	CSRL	ø1.2Mx3.3M Hos
13	DEGASER AIR BLOWER	10nos(5W+2S)	O/CS	ø1.2Mx3.3M Hos
14	DEGASSED WATER STORAGE TANK	5Nos	CSRL	ø5.5Mx4.7M HT
15	DEGASSED WATER TRANSFER PUMP	7nos(5W+2S)	SS316	0.90Mx0.45Mx0.3M HT
16	WEAK BASE ANION EXCHANGER (WBA)	7nos(5W+2S)	CSRL	ø1.5Mx2.1M Hos
17	STRONG BASE ANION (SBA)	7nos(5W+2S)	CSRL	ø1.5Mx2.1M Hos
18	MIXED BED EXCHANGER (MB)	7nos(5W+2S)	CSRL	ø1.2Mx2.0M HT
19	AIR BLOWER FOR MB & N-PIT	4nos(2W+2S)	O	ø1.0Mx1.0Mx0.3 HT
20	REGEN. WATER TRANSFER PUMP	4nos(2W+2S)	SS316	0.90Mx0.45Mx0.3M HT
21	ACID UNLOADING PUMP	2nos(1W+1S)	PP	0.80Mx0.40Mx0.3M HT
22	BULK ACID STORAGE TANK	4nos	CSRL	ø2.5Mx6.0 HOS
23	ACID MEASURING TANK FOR SAC	4nos(2W+2S)	CSRL	ø1Mx1.3HT
24	ACID MEASURING TANK FOR MB	2Nos	CSRL	ø1Mx1.3HT
25	ACID MEASURING TANK FOR N-PIT	1No	CSRL	ø0.6Mx0.65HT
26	CAUSTIC UNLOADING PUMP	2nos(1W+1S)	SS316	0.80Mx0.40Mx0.3M HT
27	BULK CAUSTIC STORAGE TANK	3Nos	CSRL	ø2.0Mx6.0HOS
28	CAUSTIC MEASURING TANK FOR SBA	4nos	CSRL	ø1.0Mx1.2HT
29	CAUSTIC MEASURING TANK FOR MB	2nos(2W+2S)	CSRL	ø0.6Mx0.9HT
30	CAUSTIC MEASURING TANK FOR N-PIT	1No	CSRL	ø0.6Mx0.65HT
31	ACTIVATE CARBON FILTER FOR AKAU	1No	CSEP	ø1.0Mx2.7Hos
32	BRINE SOLUTION PREPARATION TANK	2nos	CSRL	ø1.9Mx2.3HT
33	HOT WATER TANK	2Nos	SS316	ø2.0Mx2.3HT
34	NEUTRALIZATION PIT	2 Compartment	RCC	9.5Mx9.5Mx2.0M SWD
35	PRIMING CHAMBER	2nos(1W+1S)	CSRL	ø0.6Mx1.0HT
36	N-PIT EFFLUENT DISPOSAL PUMPS	2nos(1W+1S)	SS316	6.5Mx6.5Mx3.15M
37	CAUSTIC TRANSFER CUM RECIRCULATION PUMP	2nos(1W+1S)	SS316	0.85Mx0.45Mx0.3MHT

SLNO	DESCRIPTION	QUANTITY	MOC	APPROX. SIZE
38	UF FEED TANK - A 240 CUM.	1No	MSEP	ø7.0Mx6.8M HT
39	UF FEED TANK - B 360 CUM.	1No	MSEP	ø8.5Mx6.8M HT
40	UF FEED PUMPS	7nos(5W+2S)	SS316	0.90Mx0.45Mx0.3MHT
41	PRE FILTER	7nos(5W+2S)	-	-
42	UF SKIDS	7nos(5W+2S)	65 m ² /hr (NET)	-
43	UF BACK WASH PUMPS	2nos(1W+1S)	SS316	0.90Mx0.45Mx0.3MHT
44	CARTIDGE FILTER	1No	-	-
45	OP TANK	2Nos	MSRL	ø2.0Mx2.0M Hos
46	UF (OP) CLEANING PUMPS	2nos(1W+1S)	SS316	0.90Mx0.45Mx0.3MHT
47	CARTIDGE FILTER	1No	-	-
48	ACID (HCl) DOSING TANK FOR UF	1No	MSRL	ø0.8Mx1.0M Hos
49	CAUSTIC (NaOH) DOSING TANK FOR UF	1No	MSRL	ø0.8Mx1.0M Hos
50	HYPOCHLORITE (NaOCl) DOSING TANK FOR UF	1No	MSRL	ø0.8Mx1.0M Hos
51	ACID (HCl) DOSING PUMPS FOR UF	2nos(1W+1S)	PP	200 lph @ 20 MWC
52	CAUSTIC(NaOH) DOSING PUMPS FOR UF	2nos(1W+1S)	PP	200 lph @ 20 MWC
53	HYPOCHLORITE(NaOCl) DOSING PUMPS FOR UF	2nos(1W+1S)	PP	200 lph @ 20 MWC

NOTES:

1. ALL DIMENSIONS ARE IN mm AND LEVELS ARE IN METER UNLESS OTHERWISE NOTED.
2. THE FINISHED FLOOR LEVEL (F.F.L) OF POWER HOUSE BUILDING GROUND FLOOR IS (+)0.00M WHICH CORRESPONDS TO RL (+)81.5M.
3. DM PLANT FINISHED GRADE LEVEL IS (+)4.0M AND FINISHED FLOOR LEVEL (F.F.L) IS (+)4.5M.
4. EQUIPMENT LOCATION ARE TENTATIVE AND SUBJECT TO MINOR CHANGES DURING DETAIL ENGINEERING.
5. EQUIPMENT SIZE ARE INDICATIVE AND WILL BE FINALIZED AFTER ORDERING OF EQUIPMENT.
6. PLC AND BATTERY ROOM SHALL BE AIR CONDITIONED (PEW SCOPE).
7. REFERENCES DRAWINGS:
(I) PLOT PLAN: PE-000-017-100-MOD(LATEST REVISION).
(II) P&ID FOR DM PLANT: 1-WT-500-01295.

ROLLING SHUTTER & DOOR SIZE DETAILS

TAG	DESCRIPTION	WIDTH IN M	HEIGHT IN M
RS-1	ROLLING SHUTTER	4.0 X 6.0	
RS-2	ROLLING SHUTTER	3.0 X 3.5	
DD	DOUBLE DOOR	2.2 X 2.1	
SD	SINGLE DOOR	1 X 2.1	
W	WINDOW	1.2 X 1.5	
GW	GLASS PANED WINDOW		
SD	SLIDING DOOR		

LEGEND:	- FINISHED GROUND LEVEL.	- DRAIN CHANNEL
F.F.L.	- FINISHED FLOOR LEVEL.	- OPERATING AREA
E.L.	- ELEVATION.	- FLINTH PROTECTION
I.L.	- INVERT LEVEL.	- FIRE BARRIER WALL
-	- CHEMICAL RESISTANT TILED FLOOR	
-	- DWARF WALL - 1.0 M HT. FROM FFL	

PRELIMINARY DRAWING FOR REFERENCE ONLY

EQUIPMENT LAYOUT-PLAN

N-194.000M

REV	DATE	ALTERED:
ZONE		CHECKED:

PROJECT	YADADRI THERMAL POWER STATION (5X800 MW)		
OWNER	TELENGANA STATE POWER GENERATION CORPORATION LIMITED		
OWNER'S CONSULTANT	TATA CONSULTING ENGINEERS LIMITED BANGALORE		
EPC CONTRACTOR	BHARAT HEAVY ELECTRICALS LIMITED, NEW DELHI UNIT : BOILER AUXILIARIES PLANT ; RANIPET PACKAGE : DM PLANT		
TITLE	EQUIPMENT LAYOUT OF DM PLANT		
DRAWN	BB SAHU	Sd/-	29.12.18
CHECKED	G RANENDRAN	Sd/-	29.12.18
APPROVED	MSHANKAR	Sd/-	29.12.18
ALL DIMENSIONS ARE IN MILLIMETRES		BHEL DRAWING NO.	
PROJECTION		SCALE N.T.S	
1-WT-500-01296		REV 00	

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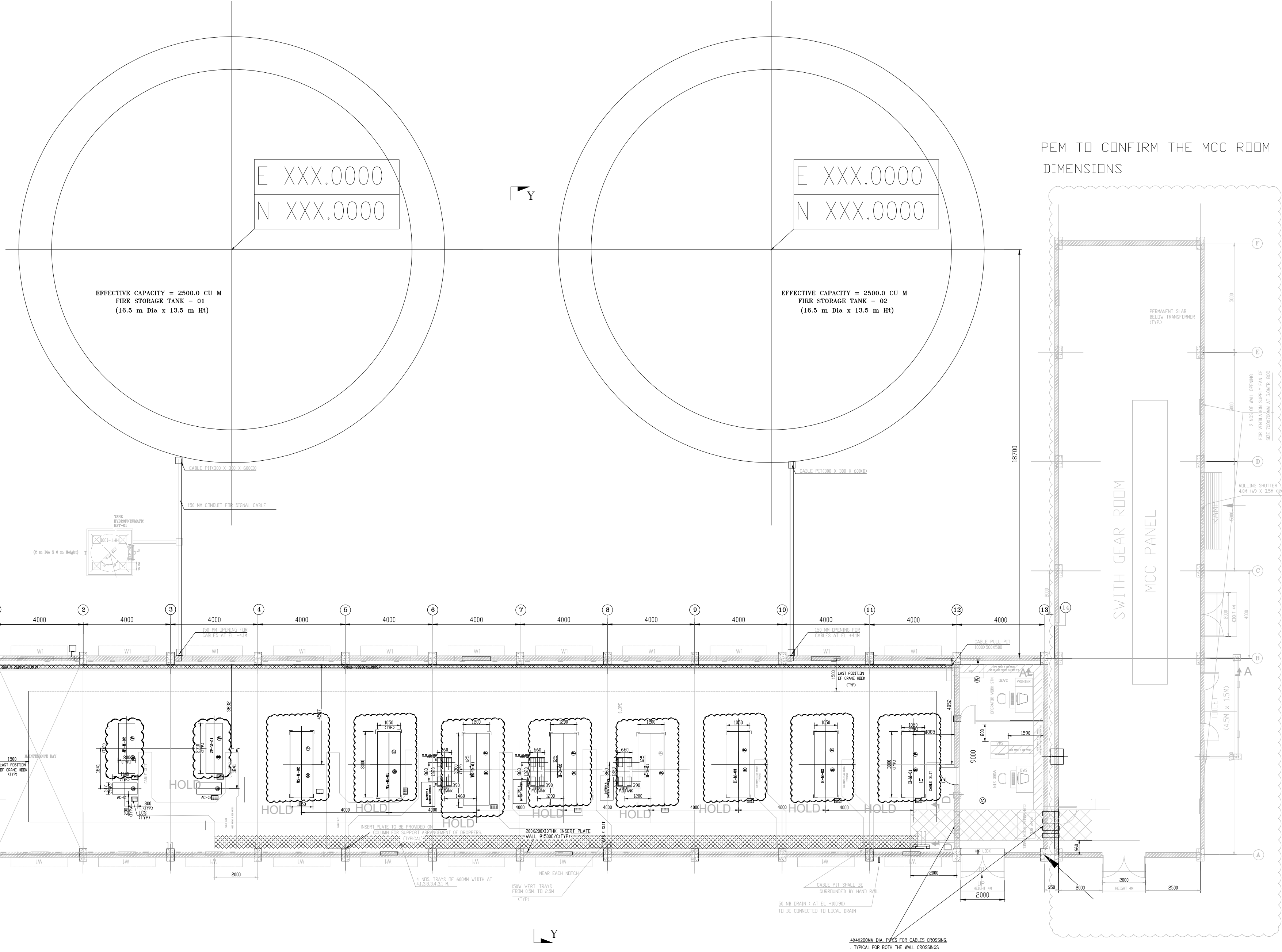
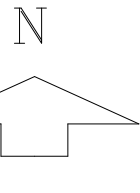
INVENTORY NO
SIGN AND DATE
REF. DRG. NO.
COMPUTER FILE NAME

GENERAL DIMENSIONAL LIMITS, FITS & TOLERANCES AS PER HY0230361

FIRST ANGLE PROJECTION

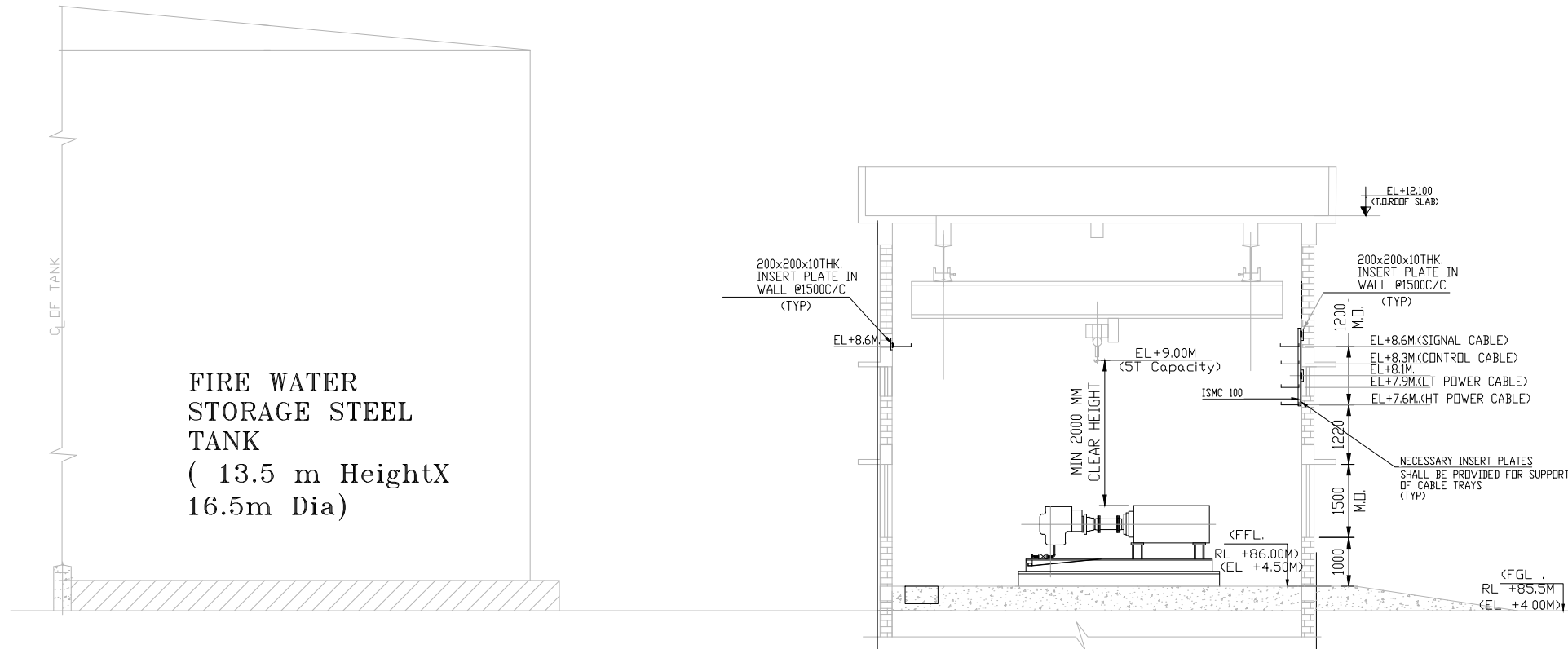
(ALL DIMENSIONS ARE IN mm)

60-1999-1-M081-8661-09
PY-DP-1-M081-8661-09
DRG. NO.
SHT. 01 OF 01

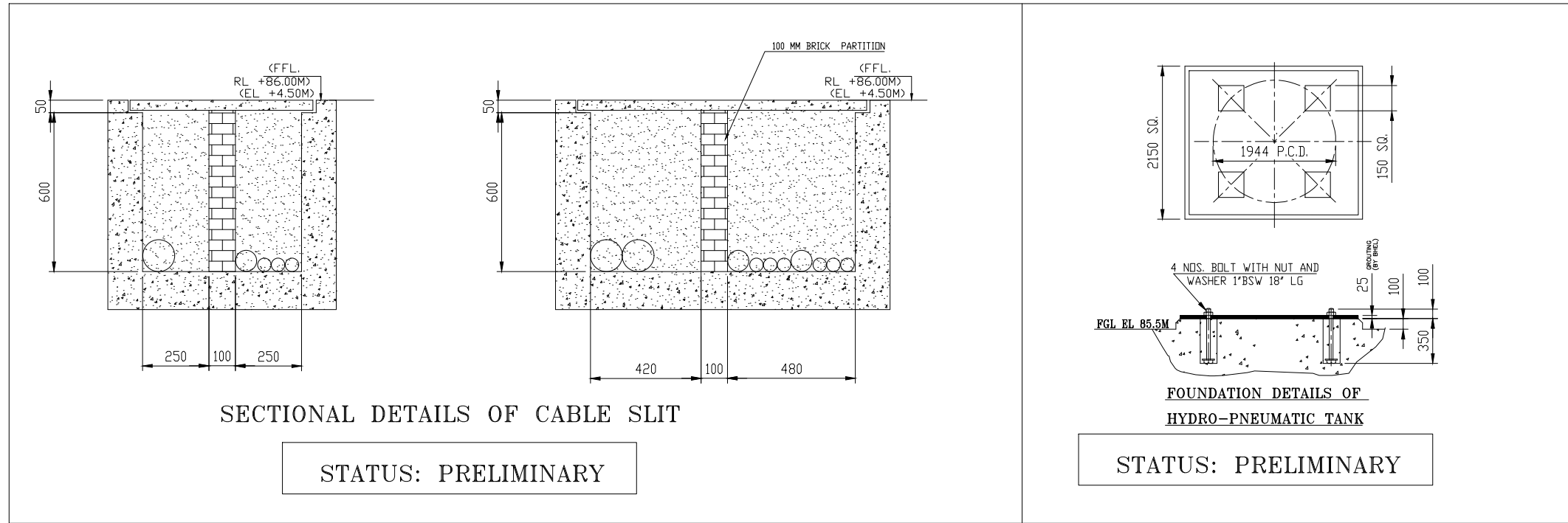


E 564.0000
N 170.0000

FIRE WATER PUMP HOUSE



SECTION : Y-Y



SECTIONAL DETAILS OF CABLE SLIT

STATUS: PRELIMINARY

FOUNDATION DETAILS OF HYDRO-PNEUMATIC TANK

STATUS: PRELIMINARY

LEGEND-

Sr. No.	SYMBOL	DESCRIPTION
1	⊗	AIR CONDITIONING REQUIRED
2	⊗	CABLE TREY
3	⊗	CABLE TRENCH
4	VMS	VIBRATION MONITORING SYSTEM
5	⊗	LOCAL CONTROL STATION
6	⊗	MOTOR SIDE
7	⊗	PUMP SIDE
8	⊗	DIESEL ENGINE SIDE

NOTE:

- ALL DIMENSIONS ARE IN mm.
- THE FINISHED FLOOR LEVEL (FFL) OF POWER HOUSE BUILDING GROUND FLOOR IS EL. 0.00M WHICH CORRESPONDS TO 0.5M (RL. 81.5M) ABOVE FGL.
- THE TRENCH SHALL BE SAND FILLED AFTER THE ERECTION OF CABLE.
- FOR PIPING LAYOUT AND SUPPORT DETAILS INSIDE THE PUMP HOUSE REFER THE PIPING LAYOUT DRAWING.
- CABLE TRAY SHALL BE SUPPORTED FROM STRUCTURAL STEEL MEMBERS AVAILABLE ALONG THE TRAY PATH. WHERE EVER STRUCTURAL STEEL MEMBERS NOT AVAILABLE SUITABLE STRUCTURAL MEMBERS (ISMB/ISMC) SHALL BE FIRST BE WELDED TO THE NEAREST STRUCTURAL STEEL & THE CABLE TRAY SHALL THEN BE SUPPORTED FROM THESE MEMBERS.
- ALL THE CABLE OPENINGS IN WALLS FLOORS SHALL BE SEALED WITH CABLE FIRE SEALING SYSTEM MATERIAL AFTER THE COMPLETION OF THE CABLE LAYING.
- LOCAL CABLING TO ALL OTHER EQUIPMENT SHALL BE ADJUSTED AT SITE TO SUIT CONDITIONS.
- FALSE CEILING SHALL BE PROVIDED FOR THE CONTROL ROOM (IN BETWEEN 12-13 BAY) AT A HEIGHT OF 5 METER.
- THE FOUNDATION DETAILS OF THE PUMP HOUSE EQUIPMENTS ARE PRELIMINARY. THE FINAL DETAILS DIMENSIONS SHALL BE UPDATED AFTER RECEIPT OF THE VENDOR GA DRAWINGS.
- THE OUTER DIMENSIONS OF THE MCC ROOM IS FINALIZED. HOWEVER THE INTERNAL DIMENSIONS SHALL BE FINALIZED BASED ON THE FINAL MCC GA RECEIVED FROM VENDORS.

REFERENCE DRAWING:-

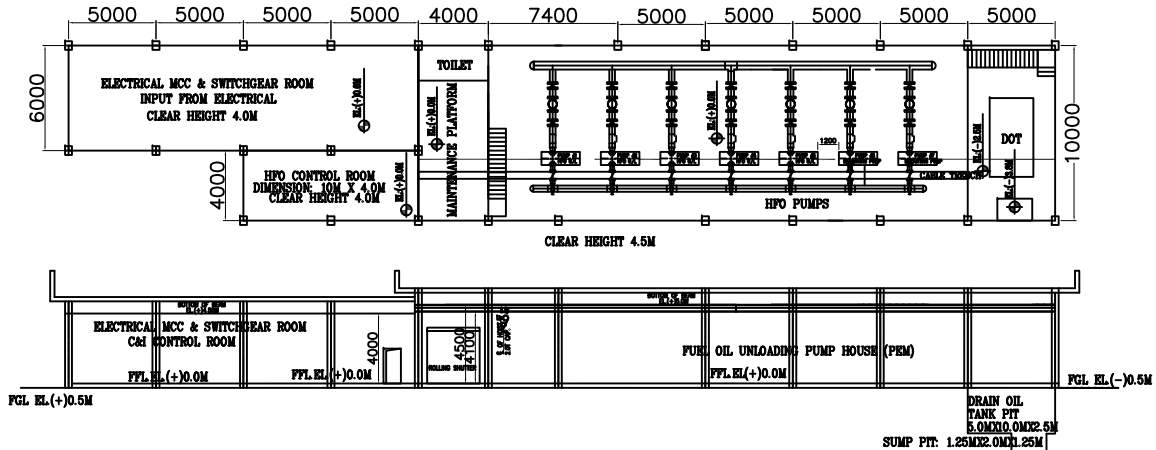
- PLOT PLAN : PE-DG-417-100-M001
- P&ID FOR FIRE WATER PUMP HOUSE : PY-DP-1-M081-8661-02

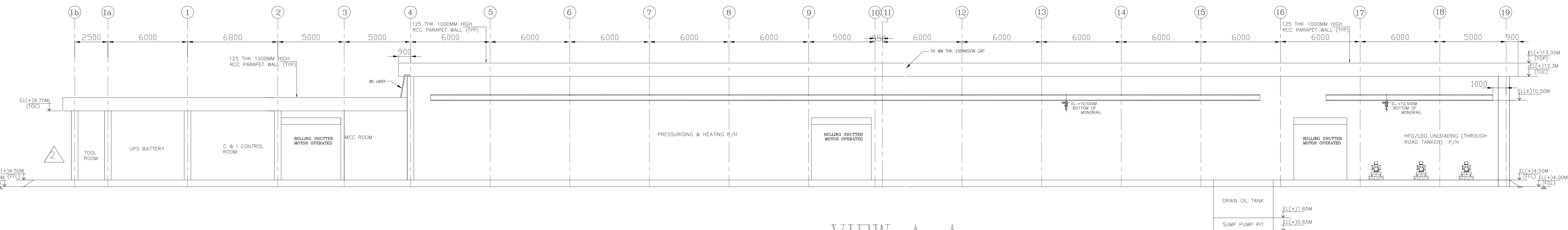
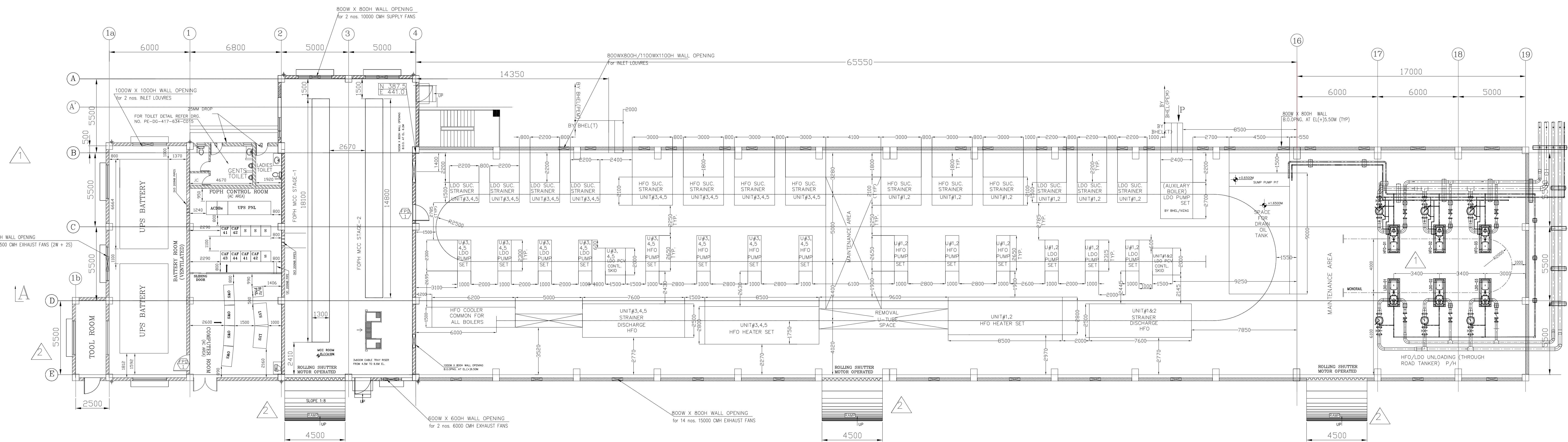
HOLD:

- ALL THE PUMP FOUNDATIONS.
- WALL OPENING DETAILS.

OP	15.07.2020	INITIAL SUBMISSION
REV	DATE	DESCRIPTION
CUSTOMER	TELANGANA STATE POWER GENERATION CORPORATION LTD. TELANGANA, INDIA YADADRI TPS 5 X 800 MW	
CONSULTANT	TATA CONSULTING ENGINEERS LIMITED BANGALORE, INDIA BHARAT HEAVY ELECTRICALS LIMITED PE&SD, HYDERABAD	
DEPT. CODE	DRN. R ALAM	SD- 14.07.20
	CHD. PRADEEP	SD- 15.07.20
	APPD. KALYAN	SD- 15.07.20
TITLE	EQUIPMENT LAYOUT OF FIRE WATER PUMP HOUSE	
DEPT. PESD	UNTOOL. DML	DOCUMENT NO
CODE 450	GP	PY-LP-1-M081-8661-09
	SHYMF	SHT No. 01 OF 01
		REV. OP

HFO UNLOADING PUMP HOUSE – NEAR RAIL AREA





VIEW A-A

REF. DRGS.

1. PLOT PLAN
2. FOUNDATION & TP DETAILS- FOPPH & HEATER SET
3. PROCESS & INSTRUMENTATION DIAGRAM FOR FOHS
4. ELECTRICAL EQUIPMENT & CABLE TRAY LAYOUT IN FO (P & H) AREA (STAGE-I & II)
5. FUEL OIL PRESSURISING PUMP HOUSE-ARCHITECTURAL PLAN
6. FUEL OIL PUMP HOUSE- GA AND RC DETAILS OF GRADE SLAB

DRG NO

- PE-DG-417-100-M001
0-00-056-11165
PE-DG-417-166-A001
PE-DG-417-100-E020
PE-DG-417-634-C013
PE-DG-417-634-C022

NOTES

1. ALL DIMENSIONS ARE IN MM. AND ELEVATIONS IN METRES.
2. THE FINISHED FLOOR LEVEL (FFL) OF POWER HOUSE BUILDING GROUND FLOOR IS EL. + 0.00M WHICH CORRESPONDS TO RL. 81.5M, i.e., 0.5M ABOVE FGL (RL81.0M) IN MAIN PLANT AREA.
3. EQUIPMENT DETAILS, PIPING, VALVES & INSTRUMENTS SHALL BE INCORPORATED AFTER FINALISATION OF FOHS SUPPLIER FOR HFO/LDO UNLOADING (THROUGH ROAD TANKER) PUMP HOUSE.

TABLE : VENTILATION FANS DETAILS

TYPE OF VENTILATION	CAPACITY	NO OF FANS
WALL MOUNTED SUPPLY FANS FOR THE MCC ROOM.	10000 CMH	2
WALL MOUNTED EXHAUST FANS (BIFURCATED TYPE) FOR THE PUMP HOUSE	15000 CMH	14
WALL MOUNTED EXHAUST FANS (BIFURCATED TYPE) FOR THE BATTERY ROOM	7500 CMH	4

CUSTOMER: 		TELANGANA STATE POWER GENERATION CORPORATION LTD TELANGANA, INDIA 5 x 800 MW YADADRI TPS, NALGONDA			
CONSULTANT: 		TATA CONSULTING ENGINEERS LIMITED BANGALORE			
 Bharat Heavy Electricals Corporation		BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA			
COPY RIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED - must not be used directly or indirectly in any way detrimental to the interest of the company.		DEPT CODE	NAME BRN YR	SIGN -SD-	DATE 29/11/11
		CHB	SR	-SD-	29/11/11
		CHP	HK	-SD-	29/11/11
TITLE		GA DRAWING FOR COMBINED FUEL OIL PUMP HOUSING (UNLOADING THROUGH ROAD TANKER CUM PRESSURISING & HEATING P/H)			
		DEPT. SIGN	SCALE	DRAWING NO. PE - DG - 417 - REV. - A003	
				SHEET 01 OF 01 REV. 03	