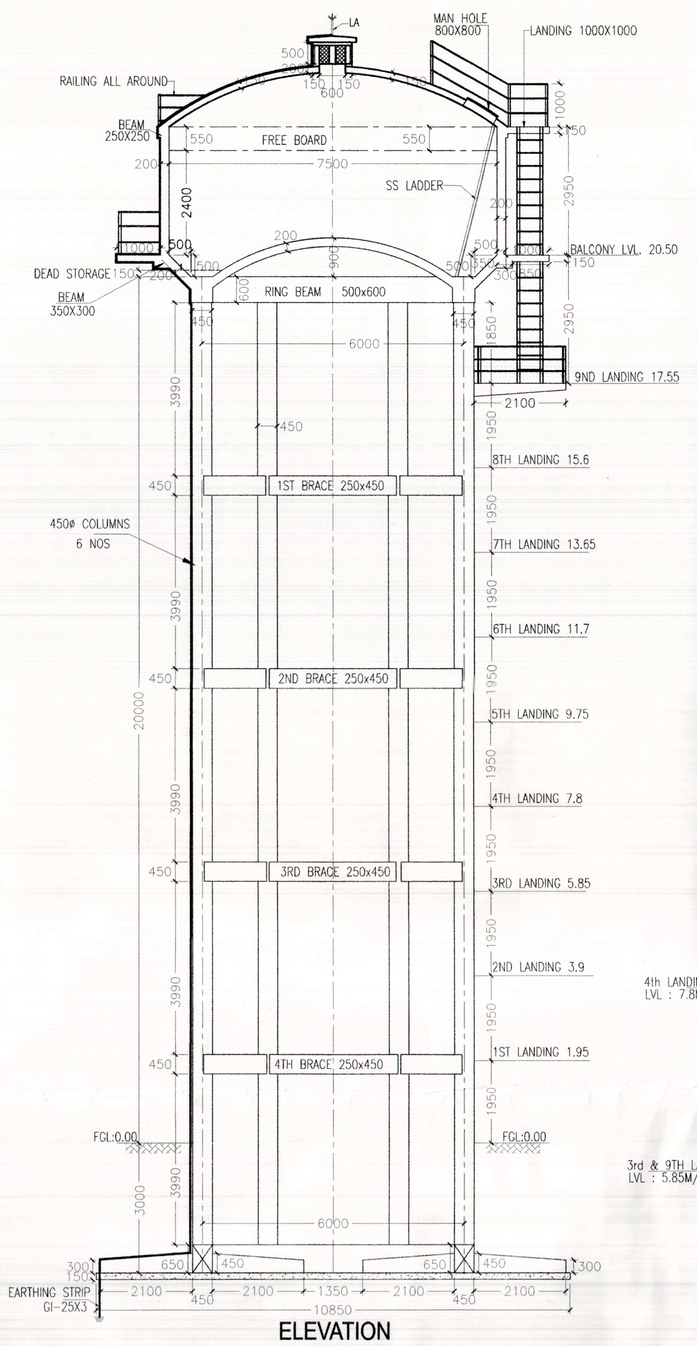
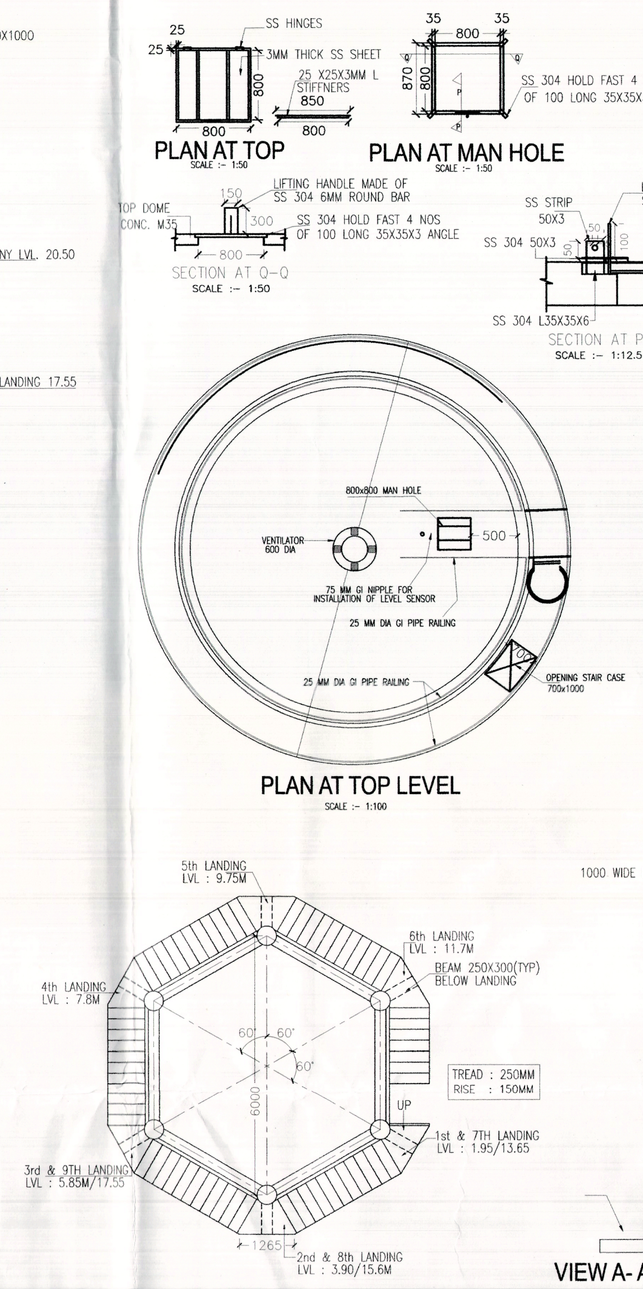
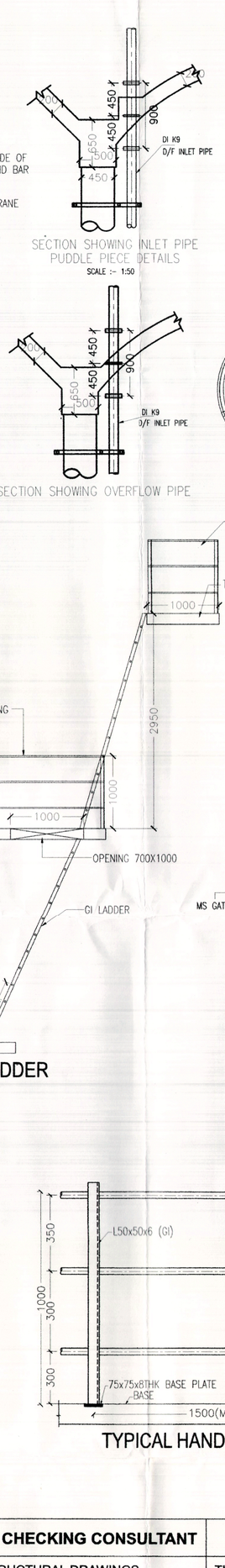
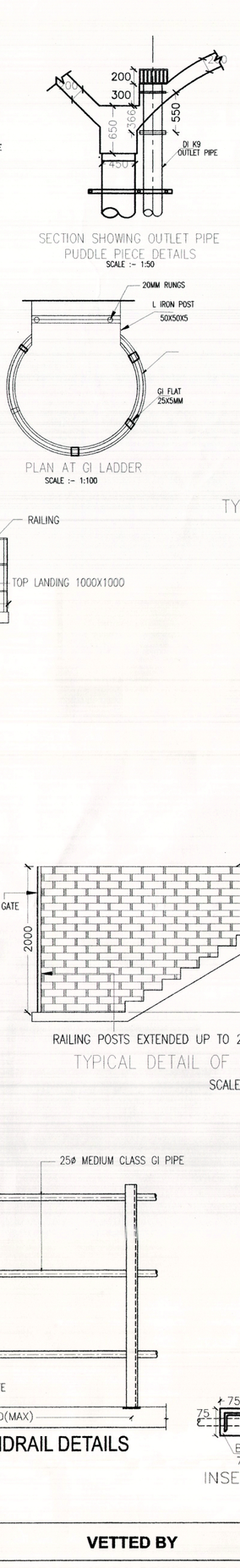
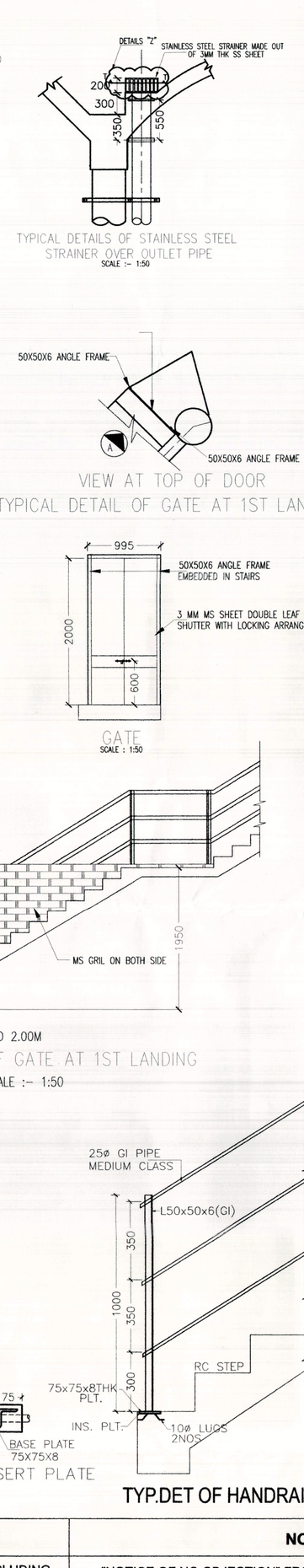
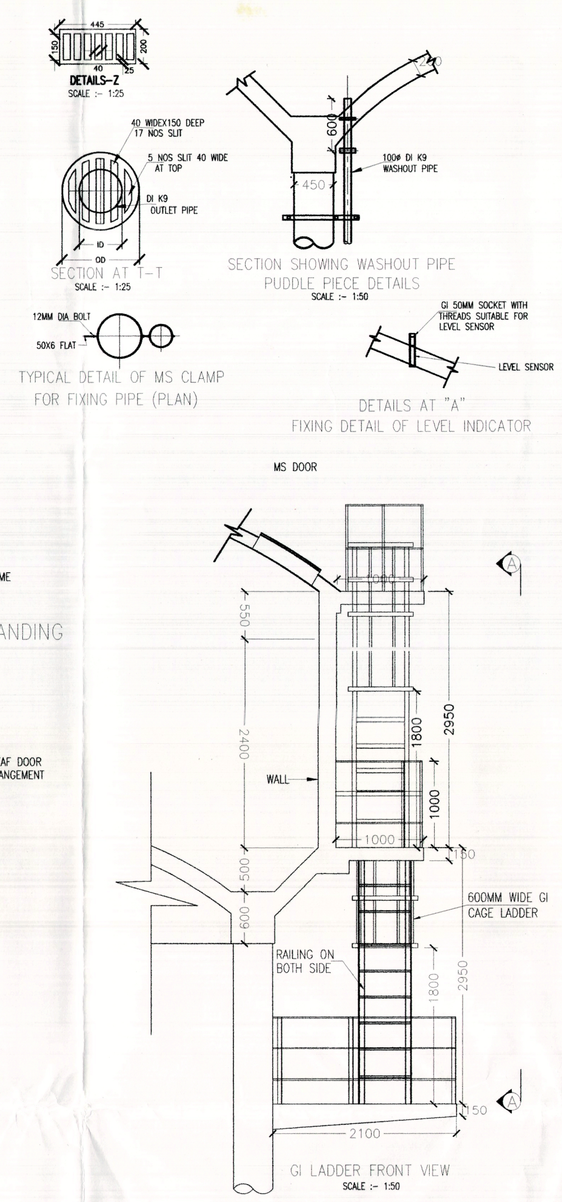


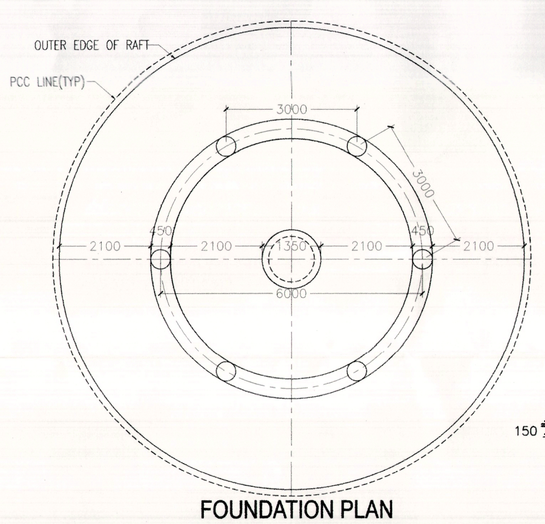


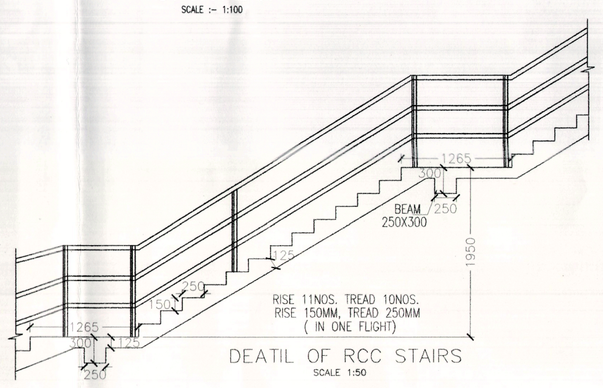


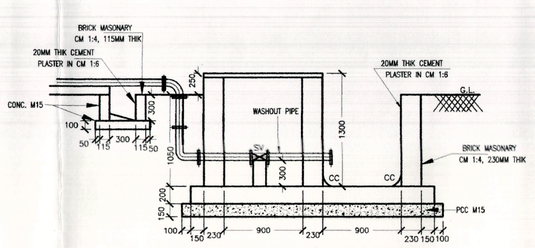


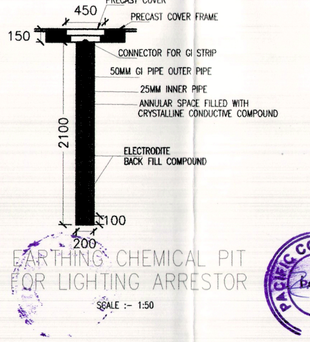












TYPE PLAN NO.:	W-99
N.R.H.Q.E. PLAN NO.:	HQ/18/11-2025
CANCELLED PLAN NO.:	W-41 (HQ/06/04-98/R1)

SPECIFICATIONS:-

1. LADDER
A PORTABLE LADDER TO BE PROVIDED FROM GROUND LEVEL TO FIRST LANDING LEVEL (RL 1.65 M).

2. RAILING
HAND RAILING AROUND THE WALKWAY, STAIRS, TOP DOME AND LANDING SHALL BE FIXED ON SIDES REQUIRING SAFETY. RALLING SHALL CONSIST OF 25 MM DIAMETER CLASS B GI PIPES (IS 1239) IN TWO
ROWS (ONE AT THE TOP AND OTHER 550MM ABOVE FINISHED FLOOR LEVEL) AND 1000 MM HIGH, 50X50X6 MM ANGLE IRON VERTICAL POSTS AT A MAXIMUM DISTANCE OF 1500 MM CENTERS (AT LEAST TWO VERTICAL POSTS SHALL BE PROVIDED WHENEVER DISTANCE IS LESS). ALL ACCESSORIES INCLUDING WELDING, THREADING ETC THE RAILING SHALL BE FIXED IN CONCRETE SECTION BY LEAVING POCKET OF MINIMUM 80 X 80 X 100(DEEP) & GROUTING IT OR BY BOLTING IT TO 6 MM THICK. MS PLATE GROUTED IN CONCRETE AT THE TIME OF CASTING IN CEMENT CONCRETE FLOOR. RALLING SHALL BE PAINTED AFTER WELDING TO PROTECT IT AGAINST CORROSION.FIXED CONCRETE 100 MM DEEP AND GROUTED OR BOLTED TO THE MS PLATE EMBEDDED IN CONCRETE.

3. VENTILATOR
SS 304 3 MM THICK SHEET VENTILATOR AS PER STANDARD GA DRAWING WITH SS WIRE MESH WRAPPED AROUND IT.

4. PUDDLE COLLARS
CI/DI PUDDLE COLLARS SHALL BE FIXED IN THE BOTTOM DOME / SLAB FOR CONNECTING THE INLET, OUTLET OVERFLOW, AND WASH OUT PIPES OF THE RESERVOIR. THE MINIMUM LENGTH SHALL BE AT LEAST 100 MM MORE THAN THE FINISHED THICKNESS OF WATER FACE AND SIZE OF PUDDLES SHALL BE EQUAL
TO THE SIZE OF THE RESPECTIVE PIPE.PUDDLE COLLARS SHALL BE PROCURED BEFORE CONCRETING TAKE PLACE AND FIXED DURING CASTING OF THE BOTTOM DOME/SLAB.

5. LIGHTENING ARRESTER
THE CONICAL COVER OF STAINLESS STEEL OF VENTILATOR SHALL ACT AS LIGHTENING ARRESTER. IT SHALL BE CONNECTED WITH 2 GI STRIPS OF 25MM X3MM WHICH WOULD BE TAKEN DOWN SEPARATELY AND
CONNECTED TWO SEPARATE CHEMICAL EARTHLING SYSTEM CONSISTING OF 50 MM GI CLASS B PIPE, 2 METER IN LENGTH WITH BACK FILL COMPOUND AS PER THE STANDARD GA DRAWING.

6. PLINTH PROTECTION
THERE SHALL BE ADEQUATE PLINTH PROTECTION ALL AROUND THE STRUCTURE IN A WIDTH STARTING FROM EDGE OF STRUCTURE AT GL AND EXTENDING AT LEAST UP TO 1.0M BEYOND THE EDGE OF OUTER MOST PROJECTION OF OHSR. THE PLINTH PROTECTION SHALL CONSISTS OF 150MM THICK LAYER OF COMPACTED SAND FILL AND TOP P.C.C 150MM THICK M15.

7. PIPE CLAMP
AT LEAST TWO CLAMP ON EACH D/F PIPE LENGTH SHALL BE PROVIDED FOR ANCHORING IT WITH COLUMNS OF MS CLAMP SHALL BE MADE OF 50MM X 6MM M5 FLAT PIPE & COLUMN.

8. MAN-HOLE COVER
THE COVER SHALL BE MADE OF 3 MM THICK SS SHEET WITH PROPER BRACES. THE FRAME SHALL BE MADE OF SS SECTIONS OF 25X3MM. THE COVER SHALL BE CONNECTED TO THIS FRAME BY USING TWO NOS. STRUNG HINGES MADE OUT SS304. COVER NEEDS TO HAVE PROPER LOCKING ARRANGEMENT TO RESTRICT UNAUTHORISED ACCESS.

9. WATER BAR:
150 MM WIDE WATER STOP SHALL BE PROVIDED IN THE CONSTRUCTION JOINTS IN THE CONTAINER (CONE WALL AND VERTICAL WALL) OR IT SHALL BE EITHER OF THE BAR TYPE, SERRATED WITH CENTER BULB AND
END GRIPS FOR USE WITHIN THE CONCRETE ELEMENTS.

STRUCTURAL DESIGNER	PROOF CHECKING CONSULTANT	VETTED BY	NORTHERN RAILWAY HEAD QUATERS			
THIS STRUCTURAL DESIGN HAS BEEN PREPARED BY ME. THE RESPONSIBILITY OF CONTROL, CHECK AND VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION AND FULL COMPLIANCE OF RELEVENT PROVISION OF CODES AND DBR REST WITH ME.	THESE STRUCTURAL DRAWINGS INCLUDING ITS DESIGN AND DETAILING HAS BEEN PROOF CHECKED 100% BY ME. THE SAME IS FOUND SUITABLE FOR THE EXECUTION PURPOSE.	THESE STRUCTURAL DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN CHECKED 100% BY ME. THE SAME IS VETTED INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE.	"NOTICE OF NO OBJECTION" FROM NR-HQ IS BEING ACCORDED FOR DESIGN PRINCIPLES BASED ON RECOMMENDATION OF THE PROOF CHECKING CONSULTANTS (**ACHINTYA MOHNISH** , CEO & DESIGN DIRECTOR, PACIFIC CONSULTANTS, PATNA) AND VETTING BY PROFESSOR R.N DUBEY/IITR. HOWEVER, THE RESPONSIBILITY FOR DESIGN ACCURACY LIES WITH THE DESIGNER (RAJIV SHARMA, A ONE INFRACONSULTANTS PVT.LTD , JAIPUR). OVERALL RESPONSIBILITY FOR PROPER QUALITY WORK AND SAFETY OF THE STRUCTURE WILL BE ON THE EXECUTING AGENCY I.E, CONCERENED SR.DEN			
RAJIV KUMAR SHARMA	ACHINTYA MOHNISH	PROF. R.N DUBEY	Monu Kumar	Akash deep	(Suneel Kumar)	Mantesh Kumar Meena
A ONE INFRACONSULTANTS PVT. LTD.	PACIFIC CONSULTANTS, PATNA	IIT ROORKEE	JE/DRG	SSE/Design	AEN/Design/P&D	Dy. CE/P&D

NORTHERN RAILWAY

PROJECT: TYPE PLAN OF RCC OVERHEAD TANK 110 KL CAPACITY WITH 20M HIGH STAGING FOR SEISMIC ZONE IV (SBC OF 8 T/m²).

DRAWING TITLE : GENERAL ARRANGEMENT DRAWINGS

SCALE: AS MENTIONED		SHEET SIZE : A1
N.R.H.Q.E PLAN NO.	HQ/18/11-2025	SHEET NO. - 01/03