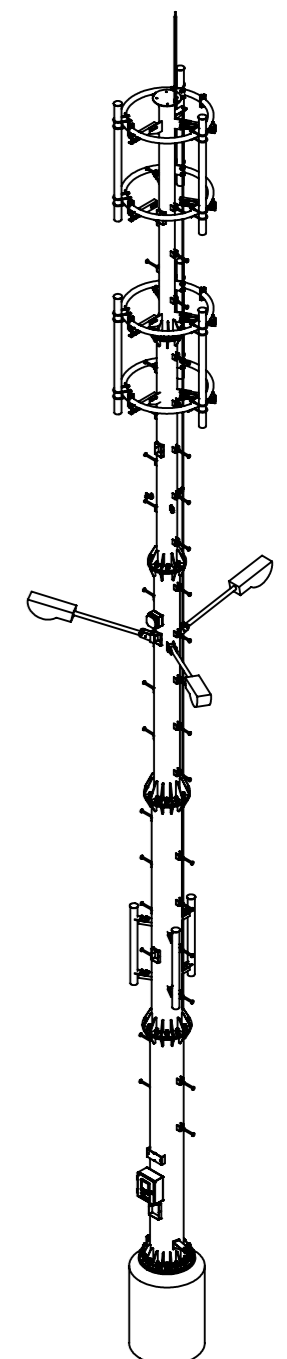
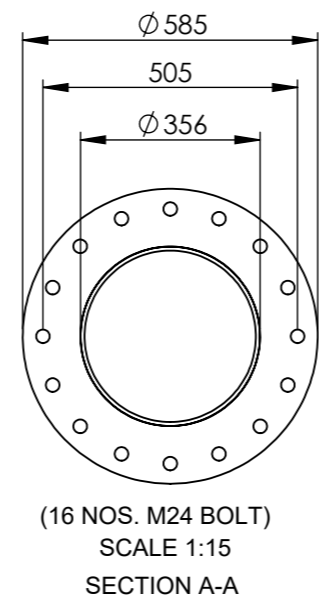
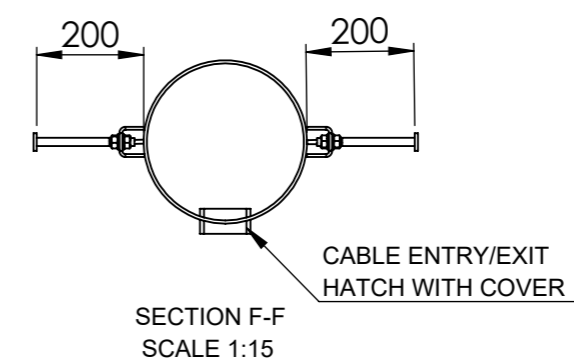
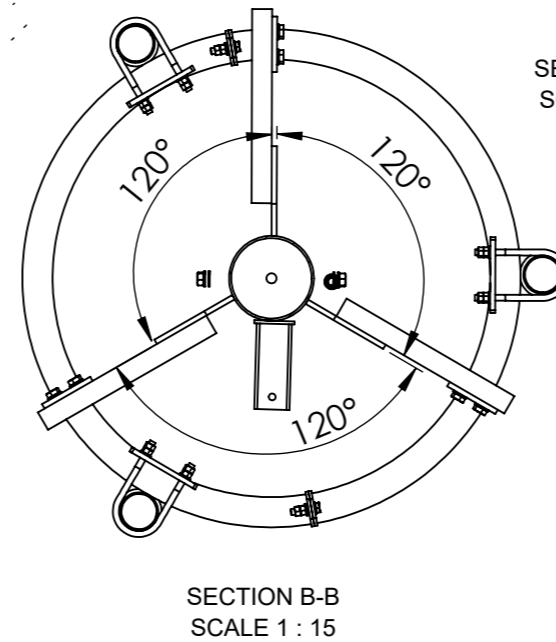
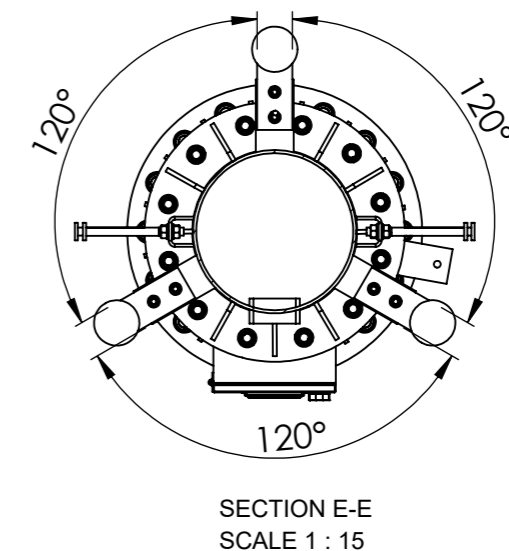
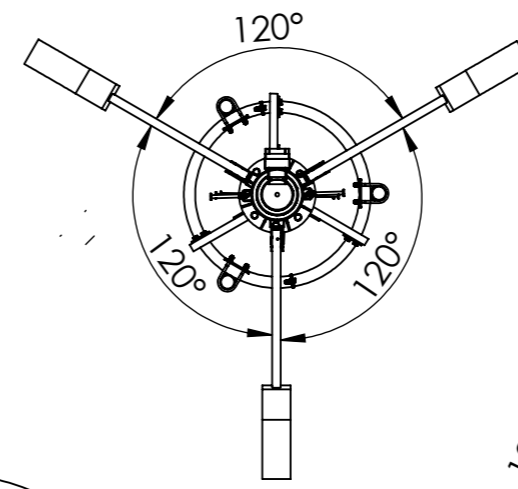
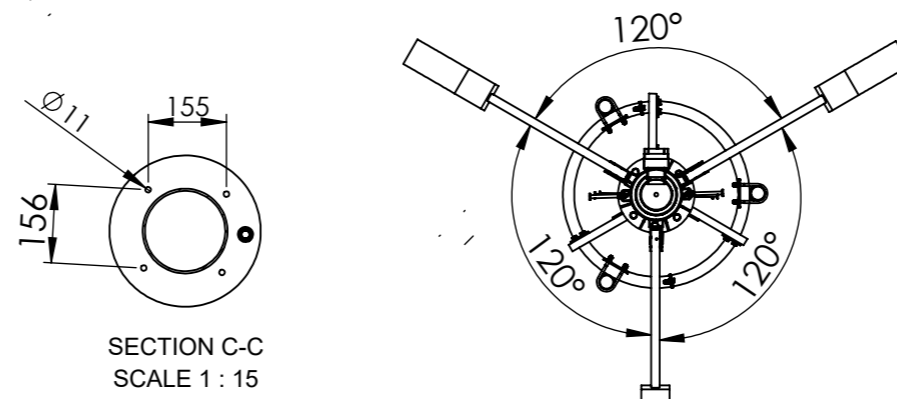
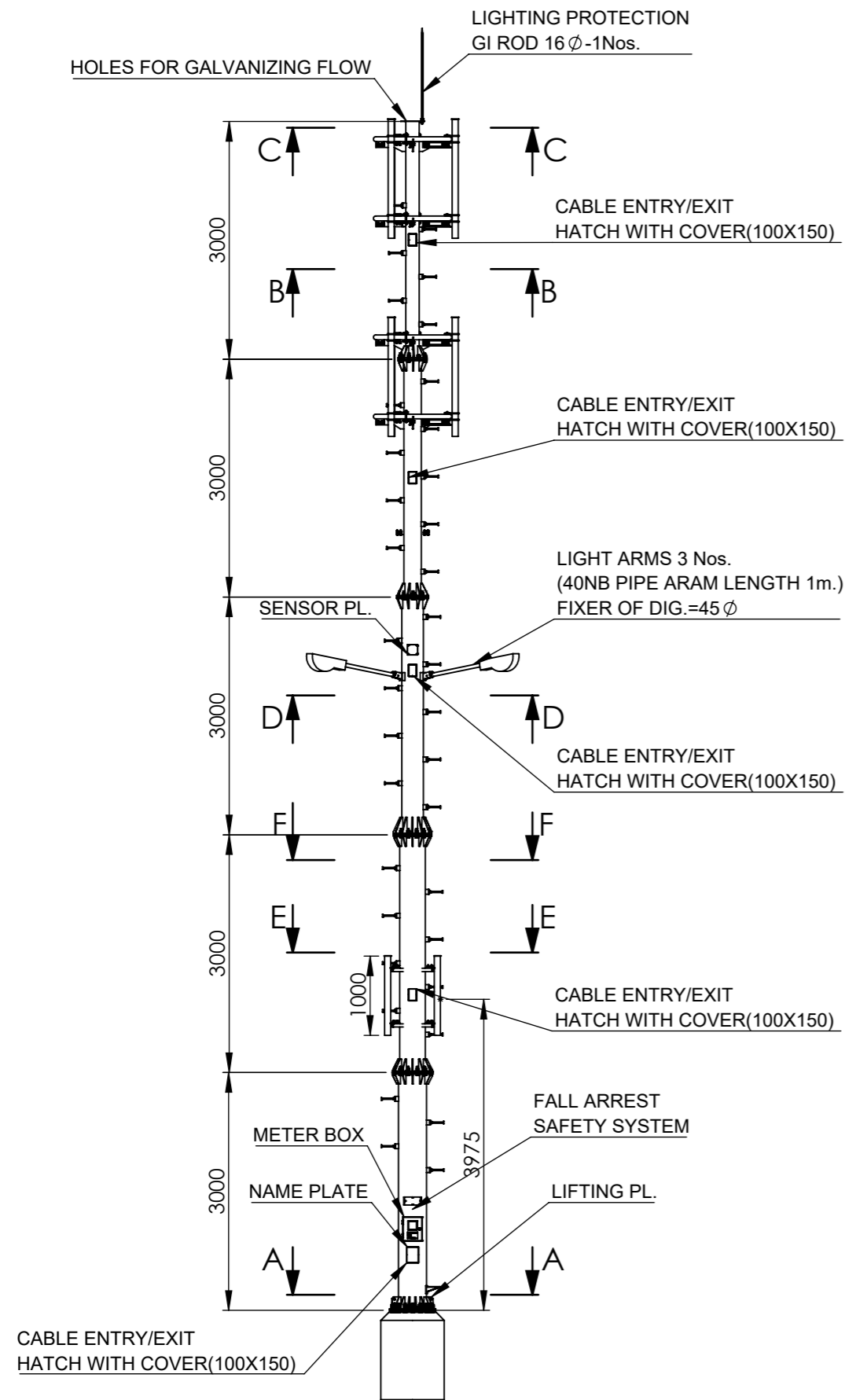


15MTR FLANGE MOUNT MONOPOLE 2024 PROJECT



DESIGN NOTE		
1	All Dimension are in Millimetre, Expected otherwise shown.	
2	Antenna Configuration:	
	750 mm below top level (150 kg)	3 Nos GSM Antenna : 3 x 25 = 75 kg 3 Nos Radio : 3 x 25 = 75 kg
	3250 mm below top level (330 kg)	6 Nos GSM Antenna : 6 x 25 = 150 kg 6 Nos Radio : 6 x 25 = 150 kg 1 No Microwave Antenna : 1 x 30 = 30 kg
	9150 mm below top level (65 kg)	1 No BBU : 1 x 25 = 25 kg 1 No Battery : 1 x 35 = 35 kg 1 No Rectifier : 1 x 5 = 5 kg
	Material:	
3	All Structure steel will be hot-dip galvanized confirming to IS standards Anchor bolts shall confirm as per 5.6 grade	
4	Fall Arrest safety system will be included along with all monopoles.	
5	Total Tower Weight : \geq 1350 kg	

FALL ARRESTER SYSTEM FOR MOPOPOLE

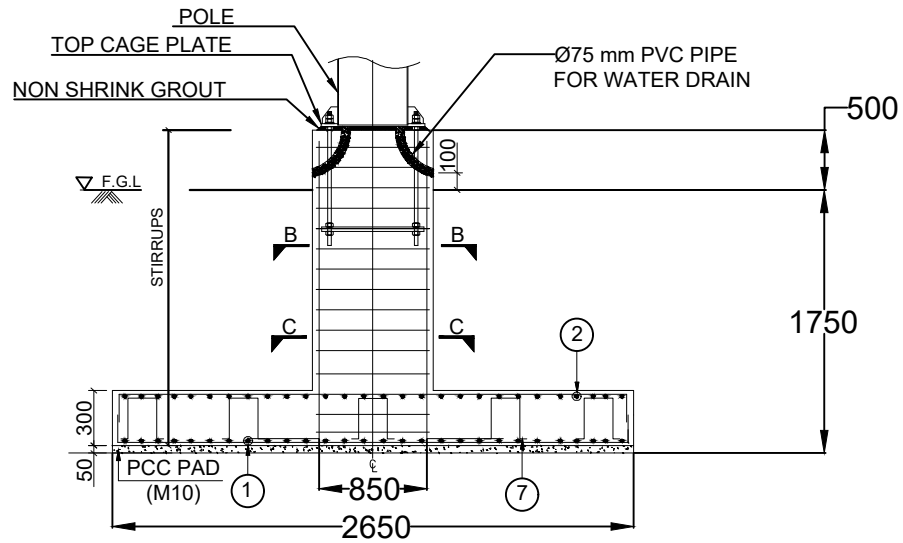
The Fall Arrestor System consists of a stainless steel rope grab that moves along with the user on a vertical lifeline made up of stainless steel wire rope. The rope grab should be able to connect to the attachment element of the user's harness. In the event of a fall, while the user is going up or down the ladder, the rope grab should automatically locks against the wire rope and should prevent the person from falling down. There should be a shock absorber system to reduce the impact force of the fall that would be imparted to the body of the user.

It should be a modular system consistency of different components, made up of Stainless steel to withstand heavy weather conditions & offer maximum corrosion resistance. The system should be able to install on monopole by trained personnel.

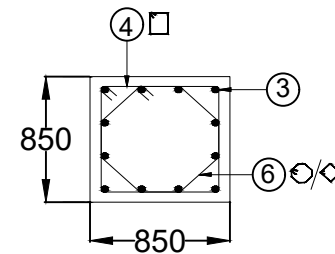
Component Chart

1. **Mounting Bracket:** Material Stainless Steel 316, Breaking Strength >23kN, Complies with EN 795 Type A
2. **Shock Absorber:** Shock Absorber should help to reduce the impact force in the event of a fall.
3. **Wire Rope (Cable Wire):** 8mm Dia Stainless steel 316 cable for vertical lifeline system should be installed on each monopole.
4. **Rope Grab:** The Rope Grab is the fall arrest device that slides through the cable while the user is ascending or descending. It should lock automatically in case of a fall. It should have gravity locking mechanism to ensure that it cannot be fitted to the Cable in the wrong direction.
5. **Set of U-Bolt and Thimble:** The Cable should be suitably terminated at the lower end using a thimble and two U-Bolts of Stainless Steel 316.
6. **Tensioner:** The Tensioner should be installed at the lower point of the Vertical Life Line between the end of the wire rope cable and the bottom mounting Bracket. The free end of the wire rope is suitably terminated by a thimble and two Stainless steel U bolts. Once installed, it can be easily used to regulate the tension in the cable line by simply rotating the central drum of the tensioner. The Tensioner should be Stainless steel to protect from Corrosion.

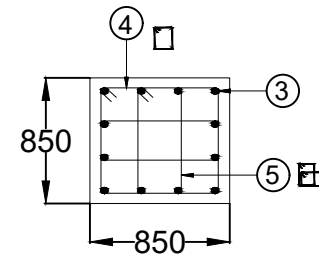
Civil Foundation Drawing - 15 Mtr Monopole



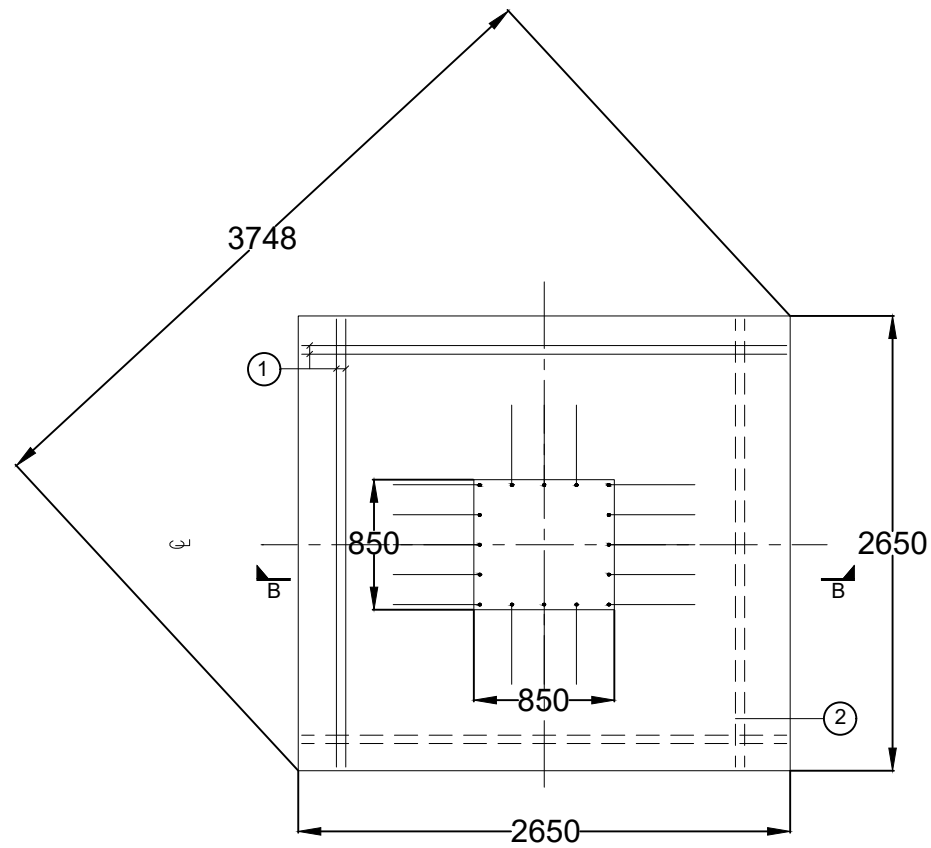
**Foundation DETAIL
(SECTION "A-A")**



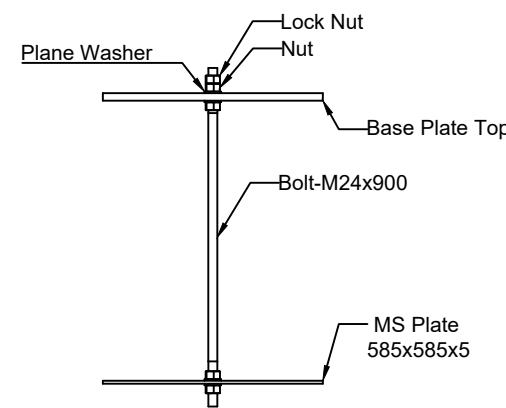
SECTION "B-B"



SECTION "C-C"



**Foundation Plan
(Showing Bottom & Top Reinforcement details)**



ANCHOR BOLT-16 Qty, Per Set

BAR BENDING SCHEDULE							
#	SHAPE OF BAR	LENGHT OF BAR (mm)	DIA. OF BAR (mm)	SPACING (mm)	NO. OF BARS	UNIT WEIGHT	TOTAL WEIGHT PER POLE
1		2800	16	130	42	1.58	185.8
2		2800	16	250	24	1.58	106.1
3		2800	25	-	12	3.86	130.0
4		3200	8	150	15	0.39	18.7
5		2250	8	150	18	0.39	15.8
6		2600	8	150	6	0.39	6.1
7		800	16	750	16	1.58	20.2
Weight of steel (kg)							482.7

Foundation Quantiy		
Item	Pole	Units
Concrete	3.16	cum
PCC	0.4	cum
Steel	482.7	kg
Shuttering	9.3	sq.m
Excavstior	23.4	cum

NOTE:-
ALL DIMENSIONS ARE IN MM

DRW. NAME:
15 Mtr MONOPOLE FOUNDATION DRAWING
PROJECT NAME:
BT - 2024 PROJECT