

Fig.1.CHAIN LINK FENCING DETAILS

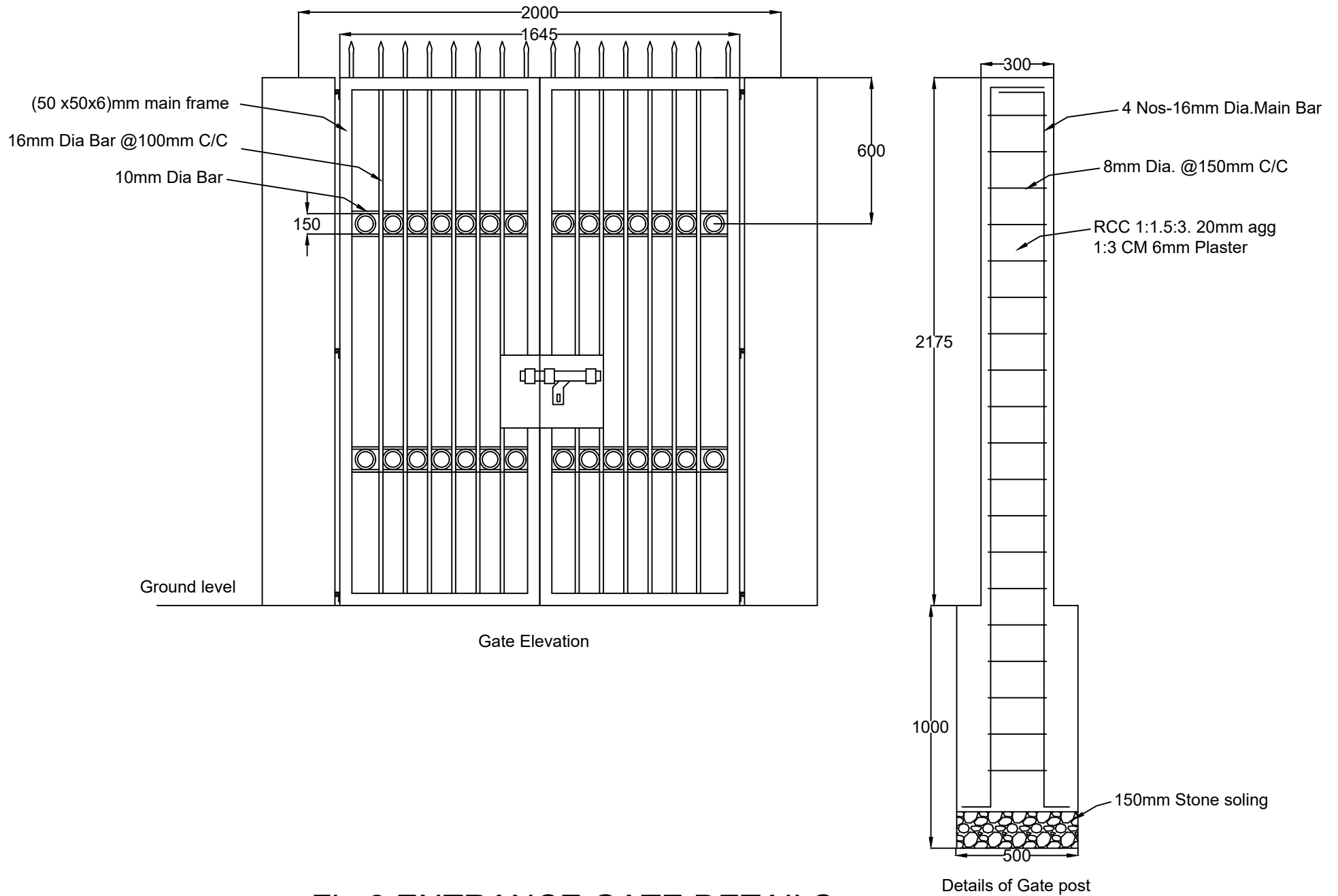


Fig.2.ENTRANCE GATE DETAILS

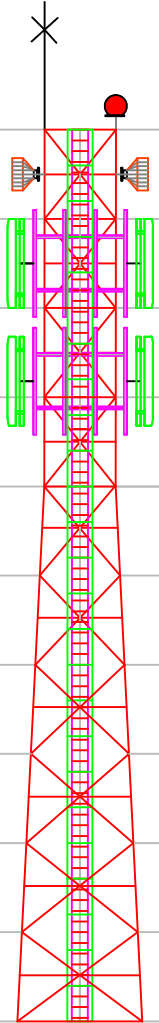
| LEVEL | FACE WIDTH | PLATFORM         |
|-------|------------|------------------|
| 25000 | 2000       |                  |
| 22500 | 2000       | Working Platform |
| 20000 | 2000       | Working Platform |
| 17500 | 2000       | Working Platform |
| 15000 | 2000       |                  |
| 12500 | 2250       |                  |
| 10000 | 2500       | Rest Platform    |
| 7500  | 2750       |                  |
| 5000  | 3000       |                  |
| 2500  | 3250       |                  |
| 0000  | 3500       |                  |

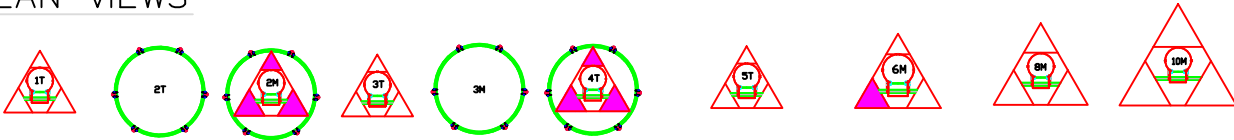
| LEG JOINT NAME | LEG LENGTH | LEGS SIZE  |
|----------------|------------|------------|
| A              | 2500       | 65x65x6    |
| B              | 2500       | 75x75x6    |
| C              | 2500       | 100x100x10 |
| D              | 2503       | 120x120x10 |
| E              | 2503       | 130x130x12 |
| F              | 2503       |            |

| PANEL NO | LENGTH(METER) | DIAGONALS | PANEL TOP- HORIZONTALS | PANEL MID- HORIZONTALS | PLAN BRACING | SEC. BRACING |
|----------|---------------|-----------|------------------------|------------------------|--------------|--------------|
| 1        | 2.5           | 50x50x4   | 50x50x4                | 45x45x04               | 45x45x04     |              |
| 2        | 2.5           | 55x5      | 50x50x4                | 45x45x04               | 45x45x04     |              |
| 3        | 2.5           | 60x60x5   | 50x50x4                | 50x50x4                | 50x50x4      |              |
| 4        | 2.5           | 50x5      | 50x50x4                | 50x50x4                | 50x50x4      |              |
| 5        | 2.5           | 50x5      | 50x50x4                | 50x50x4                | 50x50x4      |              |
| 6        | 2.5           | 50x50x5   | 50x50x4                | 50x50x4                | 50x50x4      |              |
| 7        | 2.5           | 55x55x5   | 50x50x4                | 50x50x4                | 50x50x4      |              |
| 8        | 2.5           | 50x50x5   | 50x50x4                | 50x50x4                | 50x50x4      |              |
| 9        | 2.5           | 55x55x5   | 50x50x4                | 50x50x4                | 50x50x4      |              |
| 10       | 2.5           | 50x50x5   | 50x50x4                | 50x50x4                | 50x50x4      |              |

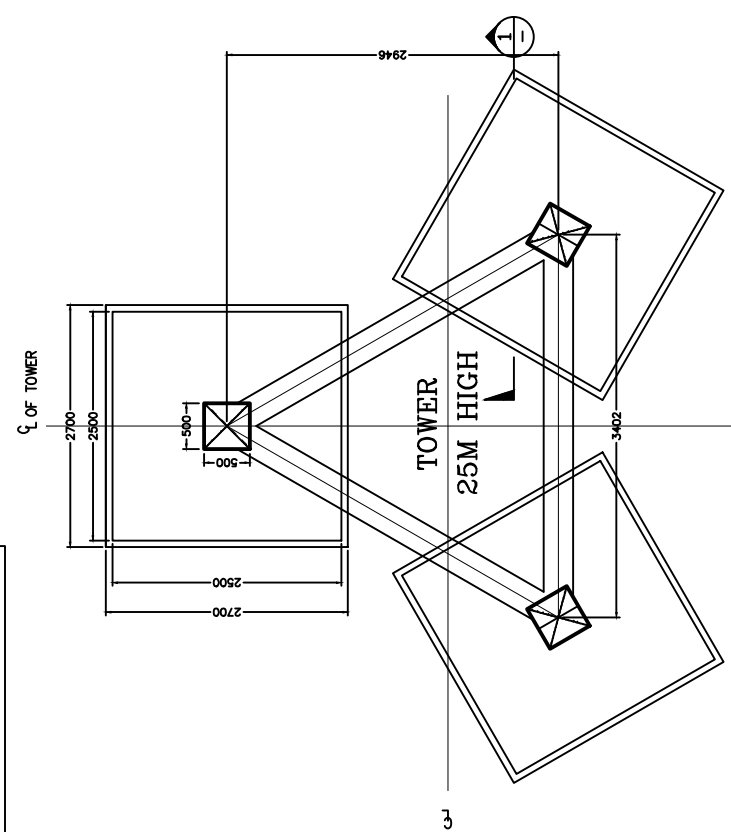


PLAN VIEWS

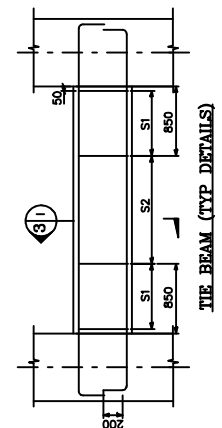


- 1) Remote Radio Head- 6+4nos (Total Weight 270kgs.)
- 2) Sectoral Antennas - 6+4nos (Total Weight 242kgs.)
- 3) Microwave Antennas (0.9m)-2nos (Total Weight 50kgs.)
- 4) Microwave Antennas (1.2m)-2nos (Total Weight 60kgs.)
- 5) Antennas Mounting Structure (Total Weight 270kgs.)

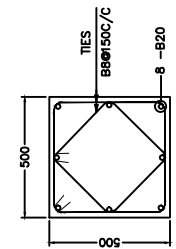
|                     |                          |            |                        |            |               |
|---------------------|--------------------------|------------|------------------------|------------|---------------|
| TITLE               | 25 METER TOWER           | Wind Speed | 180 KMPH               | Design     | TIA/EIA-222 G |
| SUB. TITLE          | TRIANGULAR ANGULAR TOWER | Deflection | < 1.0 Degree           | Rev.       |               |
| Drawing             | BT - 2024 Project        | Loading    | 892 kgs.               | Drawn Date | 08-12-2023    |
| BHUTAN TELECOM LTD. |                          |            | Tower Weight 4450 kgs. |            |               |



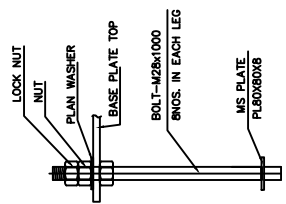
FOUNDATION KEY PLAN



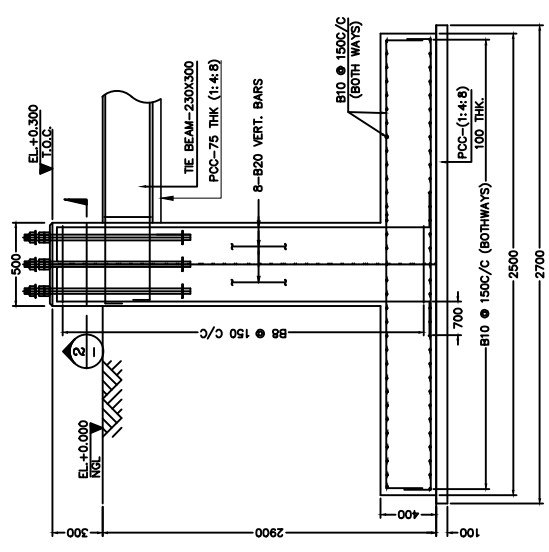
STIRRUP DETAILS  
 S1: -2 LEGGED Y8 @ 100 C/C  
 S2: -2 LEGGED Y8 @ 200 C/C



SECTION 2  
 COLUMN 500X500



ANCHOR BOLT



SECTION 1

- NOTES**
1. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
  2. USE M20 GRADE CONCRETE AND F8 500 GRADE FOR STEEL.
  3. CLEAR COVER TO MAIN REINFORCEMENT:-  
 (a) 50MM FOR FOUNDATION (b) 25MM FOR BEAMS  
 (c) 40MM FOR COLUMNS
  4. PRIOR TO AND DURING CONCRETING ALL BOLTS SHALL BE SECURELY HELD IN POSITION BY USE OF TEMPLATE.
  5. BEFORE COMMENCEMENT OF CONSTRUCTION USING THIS DESIGN, CLIENT/CONTRACTOR SHALL CARRY OUT DETAILED SOIL INVESTIGATION OF EVERY SITE.
  6. THIS FOUNDATION DESIGN SHALL NOT BE USED IN CASE HIGHLY SOIL ARE FOUND AT ANY DEPTH DURING SOIL INVESTIGATION.
  7. CONCRETE SHALL BE MECHANICALLY MIXED & VIBRATED.
  8. SPLICING OF BARS SHALL NOT BE MORE THAN 50% AT ANY LOCATION.
  9. PROPER CURING OF CONCRETE SHALL BE DONE.
  10. BENDING OF BARS SHALL BE AS PER IS:2502.
  11. ANY DISCREPANCY SHOULD BE BROUGHT TO THE CONSULTANT'S ATTENTION.

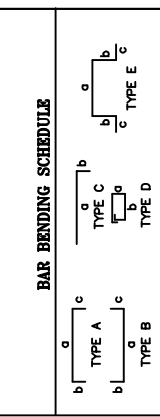
**GENERAL DETAILS**

| S.No | DESCRIPTION           | DETAILS      |
|------|-----------------------|--------------|
| 1    | SOIL BEARING CAPACITY | 10.00 T/SQM  |
| 2    | DRY DENSITY OF SOIL   | 1.8 T/SQM    |
| 3    | ANGLE OF REPOSE       | 30.00 DEGREE |

**BILL OF MATERIALS**

| ITEM        | UNIT | TOTAL |
|-------------|------|-------|
| EXCAVATION  | CUM  | 66.0  |
| PCC-(1:4:8) | CUM  | 2.45  |
| RCC-M20     | CUM  | 10.2  |
| STEEL-F8500 | KG   | 860   |

CHAIRS SHALL BE PROVIDED WHEREVER REQUIRED

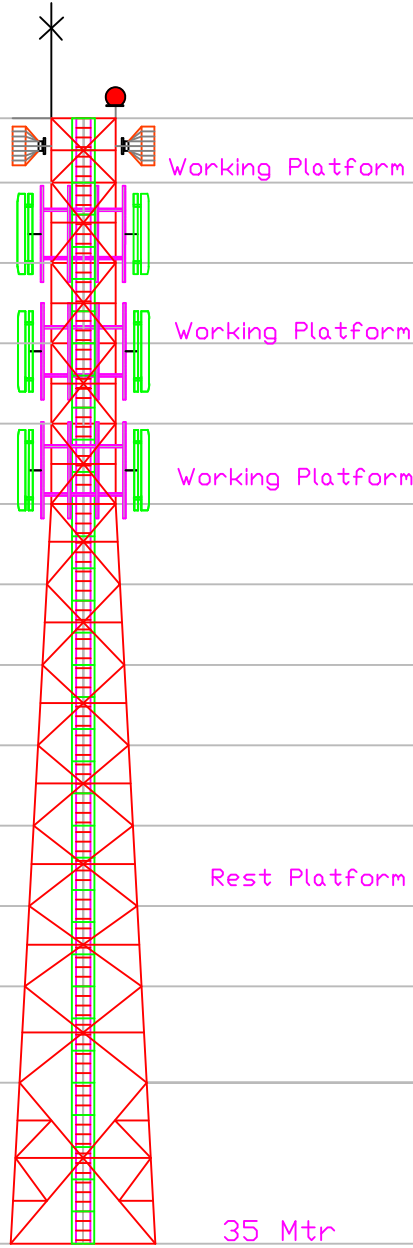


**REVISION NOTES**

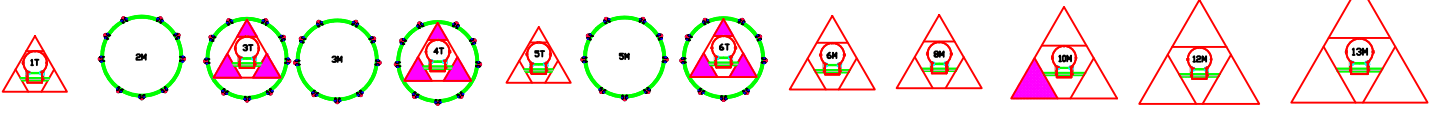
| REV. NO. | DESCRIPTION | DATE     | SIGN. |
|----------|-------------|----------|-------|
| DRAWN    | CHECKED     | APPROVED | DATE  |

Bhutan Telecom | Bhutan Telecom | Bhutan Telecom | 14-12-2023  
 CLIENT: BHUTAN TELECOM LTD.  
 DESIGN BY: BHUTAN TELECOM LTD.  
 PROJECT: GENERIC ISOLATED FOUNDATION DESIGN  
 BHUTAN  
 TITLE: FOUNDATION DETAILS FOR 25M HIGH TRIANGULAR TOWER  
 SEC: 10 T/SQM  
 DRAWING No. SH. NO. REV.  
 BT-2024 Project

| LEVEL                  | 35000    | 33000            | 30500   | 28000            | 25500      | 23000            | 20500      | 18000      | 15500   | 13000   | 10500         | 8000    | 5000    | 0000    |
|------------------------|----------|------------------|---------|------------------|------------|------------------|------------|------------|---------|---------|---------------|---------|---------|---------|
| FACE WIDTH             | 2000     | 2000             | 2000    | 2000             | 2000       | 2000             | 2272       | 2543       | 2815    | 3087    | 3359          | 3630    | 3957    | 4500    |
| PLATFORM               |          | Working Platform |         | Working Platform |            | Working Platform |            |            |         |         | Rest Platform |         |         |         |
| LEG JOINT NAME         | A        | B                | C       | D                | E          | F                | G          | H          | I       |         |               |         |         |         |
| LEG LENGTH             | 2000     | 2500             | 2500    | 2500             | 2500       | 2503             | 2503       | 2503       | 2503    | 3004    | 5006          |         |         |         |
| LEGS SIZE              | 65x65x6  | 75x75x6          | 100x8   | 100x10           | 120x120x10 | 130x130x12       | 150x150x12 | 150x150x16 |         |         |               |         |         |         |
| PANEL NO               | 1        | 2                | 3       | 4                | 5          | 6                | 7          | 8          | 9       | 10      | 11            | 12      | 13      |         |
| LENGTH (METER)         | 2        | 2.5              | 2.5     | 2.5              | 2.5        | 2.5              | 2.5        | 2.5        | 2.5     | 2.5     | 3             | 5       |         |         |
| DIAGONALS              | 50x50x4  | 50x50x4          | 50x5    | 60x5             | 55x55x5    | 55x55x5          | 55x55x5    | 60x60x5    | 70x70x5 |         |               |         |         |         |
| PANEL TOP- HORIZONTALS | 50x50x4  | 50x50x4          |         |                  |            |                  |            |            |         |         |               |         |         |         |
| PANEL MID- HORIZONTALS | 45x45x04 | 45x45x04         | 50x50x4 | 50x50x4          | 50x50x4    | 50x50x4          | 50x50x4    | 50x50x4    | 50x50x4 | 50x50x4 | 50x50x4       | 50x50x4 | 50x50x4 | 45x45x4 |
| PLAN BRACING           |          | 50x50x4          |         |                  |            |                  |            |            |         |         |               |         |         |         |
| SEC. BRACING           |          |                  |         |                  |            |                  |            |            |         |         |               |         |         |         |



PLAN VIEWS



|  |                    |                          |            |                        |            |               |
|--|--------------------|--------------------------|------------|------------------------|------------|---------------|
| <b>1) Remote Radio Head- 12nos</b> (Top 20m to 35m Height)<br>(Total Weight 315kgs.)<br><b>2) Sectoral Antennas - 12nos</b> (Top 20m to 40m Height)<br>(Total Weight 303kgs.)<br><b>3) Microwave Antennas 0.6m-4nos</b> (Top 25m to 30m Height)<br>(Total Weight 100kgs.)<br><b>4) Microwave Antennas 0.9m-3nos</b> (Top 20m to 35m Height)<br>(Total Weight 90kgs.)<br><b>5) Microwave Antennas 1.2m-2nos</b> (Top 20m to 25m Height)<br>(Total Weight 60kgs.)<br><b>6) Microwave Antennas 1.8m-1nos</b> (Top 20m to 25m Height)<br>(Total Weight 40kgs.)<br><b>3) Antennas Mounting Structure</b> (Total Weight 360kgs.) | TITLE              | 35 METER TOWER           | Wind Speed | 180 KMPH               | Design     | TIA/EIA-222 G |
|  | SUB. TITLE         | TRIANGULAR ANGULAR TOWER | Deflection | < 1.0 Degree           | Rev:       |               |
|  | Drawing            | BT - 2024 Project        | Loading    | 1268 kgs.              | Drawn Date | 08-12-2023    |
|  | BHUTAN TELECOM LTD |                          |            | Tower Weight 7750 kgs. |            |               |

**NOTES**

1. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
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(a) 50MM FOR FOUNDATION (b) 25MM FOR BEAMS  
(c) 40MM FOR COLUMNS
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**GENERAL DETAILS**

| S.No | DESCRIPTION           | DETAILS      |
|------|-----------------------|--------------|
| 1    | SOIL BEARING CAPACITY | 10.00 T/SQM  |
| 2    | DRY DENSITY OF SOIL   | 1.8 T/SQM    |
| 3    | ANGLE OF REPOSE       | 30.00 DEGREE |

**BILL OF MATERIALS**

| ITEM        | UNIT | TOTAL |
|-------------|------|-------|
| EXCAVATION  | CUM  | 93.0  |
| PCC-(1:4:8) | CUM  | 3.40  |
| RCC-M20     | CUM  | 17.46 |
| STEEL-F8500 | KG   | 1460  |

CHAIRS SHALL BE PROVIDED WHEREVER REQUIRED

**BAR BENDING SCHEDULE**

**REVISION NOTES**

| REV. NO. | DESCRIPTION | DATE | SIGN. |
|----------|-------------|------|-------|
|          |             |      |       |

| DRAWN          | CHECKED        | APPROVED       | DATE       | SCALE |
|----------------|----------------|----------------|------------|-------|
| Bhutan Telecom | Bhutan Telecom | Bhutan Telecom | 14-12-2023 | NTS   |

CLIENT: BHUTAN TELECOM LTD.

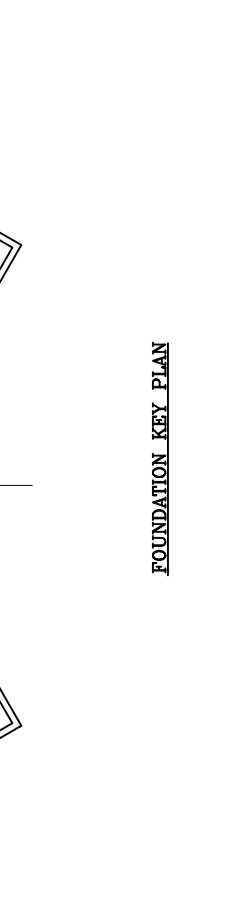
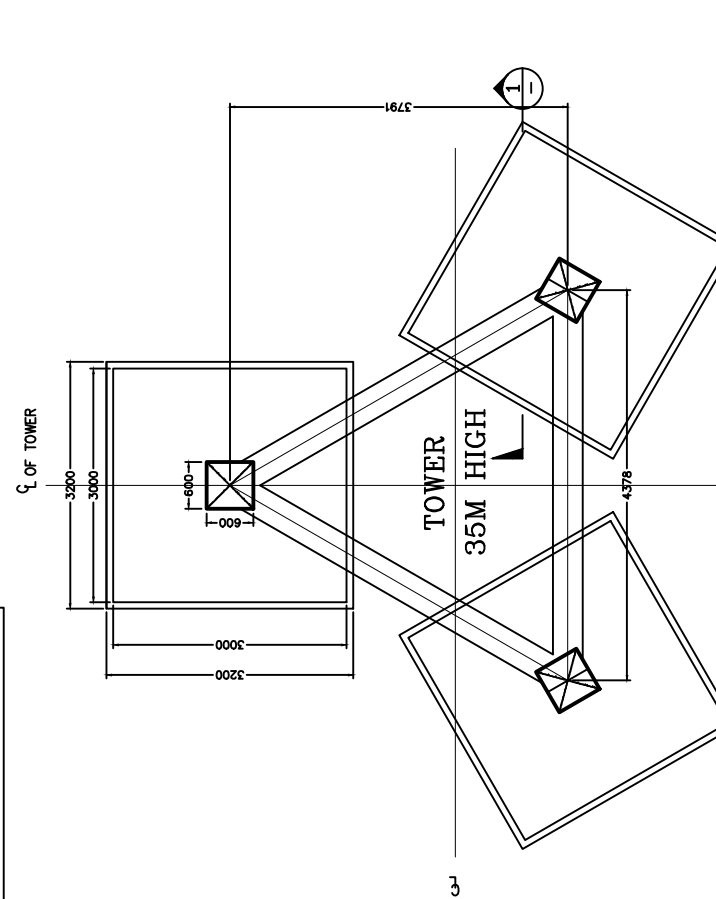
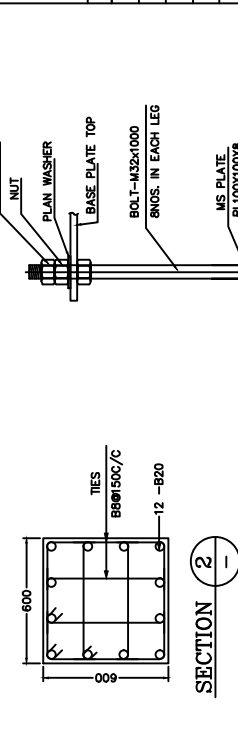
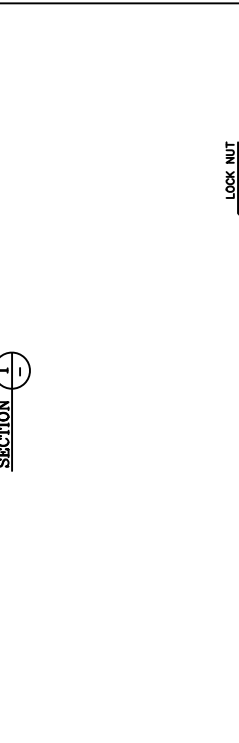
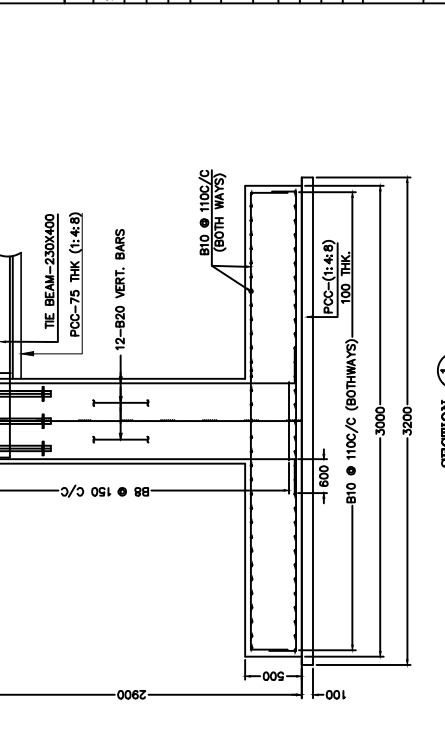
DESIGN BY: BHUTAN TELECOM LTD.

PROJECT: GENERIC ISOLATED FOUNDATION DESIGN  
BHUTAN

TITLE: FOUNDATION DETAILS FOR 35M HIGH TRIANGULAR TOWER  
SBC : 10 T/SQM

DRAWING No. SH. NO. REV.

BT-2024 Project



**FOUNDATION KEY PLAN**