# GENERAL FOUNDATION AND CONSTRUCTION NOTES

- 1. CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS.
- 2 MAXIMUM ALLOWED WATER/CEMENT RATIO = 0.45
- 3. REINFORCED CONCRETE CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH ACI STANDARDS 318.
- 4. MINIMUM CONCRETE COVER OVER REBAR IS 3", OR AS NOTED.
- 5. BACKFILL SHALL BE SELECTED MATERIAL, WELL COMPACTED IN LAYERS NOT EXCEEDING 12".
- 6. BACKFILL SHALL BE PLACED SO AS TO PREVENT ACCUMULATION OF WATER AROUND THE
- 7. REINFORCING MATERIAL SHALL BE IN ACCORDANCE WITH ASTM SPECIFICATION A615.
- 8. ALL REBAR TO BE GRADE 60 (UNLESS NOTED OTHERWISE).
- 9. ALL REBAR (HORIZONTAL & VERTICAL) SHALL BE SECURELY WIRE TIED TO PREVENT DISPLACEMENT DURING POURING OF CONCRETE.
- 10. GROUT ALL REBAR DOWELS INTO EXISTING FOUNDATION WITH HILTI HIT-RE 500 V3 EPOXY.
- 11. EMBEDDED STRUCTURAL ANCHOR STEEL SUPPLIED BY AMERICAN TOWER.
- 12. COLD CONSTRUCTION JOINTS TO BE THOROUGHLY CLEANED AND WETTED PRIOR TO SECOND

# FOUNDATION AND ANCHOR TOLERANCES

### ALL TOWERS

- 1 CONCRETE DIMENSIONS: PLUS OR MINUS 1"
- 2. DEPTH OF FOUNDATION: PLUS 3" OR MINUS 0"
- 3. DRILLED FOUNDATIONS OUT OF PLUMB: 1.0 DEGREE
- 4. REINFORCING STEEL PLACEMENT: PLUS OR MINUS 1/2" INCLUDING CONCRETE COVER
- 5. PROJECTIONS OF EMBEDMENTS: PLUS OR MINUS 1/4"
- 6. VERTICAL EMBEDMENTS OUT OF PLUMB: 1.0 DEGREE
- 7. SEE CHART BELOW FOR THE MINIMUM OVERLAP LENGTHS OF REBARS IF REQUIRED.

### SELF SUPPORT TOWERS

- 8. FACE SPREAD DIMENSION CENTER TO CENTER OF ANCHOR BOLT CIRCLES: PLUS OR MINUS 1/8" PER 5'-0" OF FACE SPREAD
- 9. MAXIMUM DISTANCE FROM CENTERLINE OF ANCHOR BOLT TO CENTERLINE OF FOUNDATION: 1/24TH OF PIER DIAMETER UP TO A MAXIMUM OF 2"
- 10 MAXIMUM DIFFERENCE BETWEEN ANY TWO FOUNDATION FLEVATIONS: 2"
- 11 ANCHOR BOLT SPACING: PLUS OR MINUS 1/8"
- 12. ANCHOR BOLT CIRCLE ORIENTATION: PLUS OR MINUS 0.5 DEGREES
- 13. ANCHOR BOLT CIRCLE DIAMETER: PLUS OR MINUS 1/8"

#### GUYED TOWERS

- 14. GUY RADIUS: PLUS OR MINUS 3% OF TOWER HEIGHT
- 15. ANCHOR ELEVATION: 3% OF TOWER HEIGHT ABOVE OR BELOW TOWER BASE. IF ELEVATIONS OF ANCHORS VARY BY MORE THAN 3%, ANCHOR RADIUS IS TO BE CHANGED TO KEEP THE ANCHOR LOCATED ON THE GUY FORCE RESULTANT. CALL AMERICAN TOWER FOR ASSISTANCE IF REQUIRED
- 16. ANCHOR ALIGNMENT: (PERPENDICULAR TO GUY RADIUS): PLUS OR MINUS 1 DEGREE.
- 17. ANCHOR ROD SLOPE: PLUS OR MINUS 1 DEGREE
- 18. ANCHOR ROD ALIGNMENT: TOWARDS TOWER CENTER POINT, PLUS OR MINUS 0.25 DEGREE
- 19. GUY ANCHOR HEAD SIDES VERTICAL: PLUS OR MINUS 1 DEGREE.

| STANDARD REBAR CHART |                          |                   |                          |                               |                      |  |  |  |  |
|----------------------|--------------------------|-------------------|--------------------------|-------------------------------|----------------------|--|--|--|--|
| BAR<br>SIZE          | BAR<br>DIAMETER<br>(in.) | WEIGHT<br>(lb/ft) | INSIDE<br>BEND<br>RADIUS | MINIMUM<br>OVERLAP<br>LENGTHS | DRILLED<br>HOLE DIA. |  |  |  |  |
| 3                    | 0.375                    | 0.376             | 1 1/8"                   | 1'-0"                         |                      |  |  |  |  |
| 4                    | 0.500                    | 0.668             | 1 1/2"                   | 1'-6"                         | 5/8"                 |  |  |  |  |
| 5                    | 0.625                    | 1.043             | 1 7/8"                   | 2'-0"                         | 3/4"                 |  |  |  |  |
| 6                    | 0.750                    | 1.502             | 2 1/4"                   | 2'-0"                         | 7/8"                 |  |  |  |  |
| 7                    | 0.875                    | 2.044             | 2 5/8"                   | 2'-4"                         | 1 1/8"               |  |  |  |  |
| 8                    | 1.000                    | 2.670             | 3"                       | 2'-8"                         | 1 1/4"               |  |  |  |  |
| 9                    | 1.128                    | 3.400             | 4 1/2"                   | 3'-0"                         | 1 3/8"               |  |  |  |  |
| 10                   | 1.270                    | 4.303             | 5"                       | 3'-6"                         | 1 1/2"               |  |  |  |  |
| 11                   | 1.410                    | 5.313             | 5 1/2"                   | 4'-0"                         | 1 5/8"               |  |  |  |  |

| QTY<br>REQ'D | REBAR<br>SIZE | LENGTH      | TOTAL<br>WEIGHT<br>(LBS) | TYPE BENDING DIAGRAM |         |         |          |         | vI               |                   |
|--------------|---------------|-------------|--------------------------|----------------------|---------|---------|----------|---------|------------------|-------------------|
|              |               |             | , ,                      |                      | Α       | В       |          |         |                  |                   |
|              |               |             |                          |                      |         |         |          |         |                  |                   |
|              |               |             |                          |                      |         |         |          |         |                  |                   |
|              |               |             |                          | ROUND<br>TIE         |         |         | -        |         | /                |                   |
|              |               |             |                          | ]                    |         |         |          |         |                  | ,                 |
|              |               |             |                          | ] [                  |         |         |          |         | J                | 4B J              |
|              |               |             |                          | -                    |         |         | -        |         |                  |                   |
|              |               |             |                          |                      | A       | В       | С        | INSIDE  |                  | WAIRE RADIUS      |
|              |               |             | I                        |                      |         |         |          | RADIUS  |                  | INSIDE RADIUS     |
|              |               |             |                          | SQUARE               |         |         |          |         |                  |                   |
|              |               |             |                          | OR                   |         |         |          |         |                  |                   |
|              |               |             |                          | RECTANGULAR          |         |         |          |         |                  |                   |
|              |               |             |                          | TIE                  |         |         |          |         |                  |                   |
|              |               |             |                          |                      |         |         |          |         |                  | <u>В</u>          |
|              |               |             |                          |                      |         |         |          |         | INSIDE           |                   |
|              |               |             |                          | VEDTICAL             | Α       | В       | С        | D       | RADIUS           |                   |
|              |               |             |                          | VERTICAL<br>90° BEND |         |         |          |         |                  |                   |
|              |               |             |                          |                      |         |         |          |         |                  | A I INSIDE RADIUS |
| 22           | #8            | 3 '- 3 1/2" | 193                      |                      | 2' - 9" | 0' - 9" | 0 ' - 5" | 2 '- 5" | 3"               |                   |
|              |               |             |                          | L-SHAPE              |         |         |          |         |                  |                   |
|              |               |             |                          | 90° BEND             |         |         |          |         |                  | \rangle c \rangle |
|              |               |             |                          |                      |         |         |          |         |                  | <u></u> Б_В}      |
|              |               |             |                          |                      | А       | В       | С        | D       | INSIDE<br>RADIUS |                   |
|              |               |             |                          |                      |         |         |          |         | NADIGS           | INSIDE RADIUS     |
|              |               |             |                          |                      |         |         |          |         |                  |                   |
|              |               |             |                          | U-SHAPE              |         |         |          |         |                  | D A               |
|              |               |             |                          | 90° BEND             |         |         |          |         |                  |                   |
|              |               |             |                          |                      |         |         |          |         |                  | └──c ──           |
|              |               |             |                          |                      |         |         |          |         |                  | <b>}</b> ——в——}   |
|              |               |             |                          |                      | _       |         | С        |         | INSIDE           |                   |
|              |               |             |                          |                      | Α       | В       | ·        | D       | RADIUS           | INSIDE RADIUS     |
|              |               |             |                          | -                    |         |         |          |         |                  |                   |
|              |               |             |                          | U-SHAPE              |         |         |          |         |                  |                   |
|              |               |             |                          | 60° BEND             |         |         |          |         |                  |                   |
|              |               |             |                          |                      |         |         |          |         |                  |                   |
|              |               |             |                          |                      |         |         |          |         |                  | В                 |
|              |               |             |                          |                      |         |         |          |         |                  |                   |
|              |               |             |                          |                      | 4       | A       |          |         |                  |                   |
| 6            | #8            | 10 '- 0"    | 160                      |                      | 10      | ' - 0"  |          |         |                  |                   |
|              |               |             |                          |                      |         |         | -        |         |                  |                   |
|              |               |             |                          |                      |         |         | 1        |         |                  |                   |
|              |               |             |                          | STRAIGHT             |         |         |          | F       |                  |                   |
|              |               |             |                          | -                    |         |         | -        | با      |                  | _ A               |
|              |               |             |                          | 1                    |         |         | 1        |         |                  |                   |
|              |               |             |                          | ]                    |         |         | ]        |         |                  |                   |
|              |               |             | -                        | -                    |         |         | -        |         |                  |                   |
|              |               |             |                          |                      |         |         |          |         |                  |                   |



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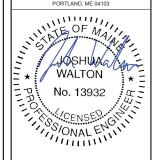
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