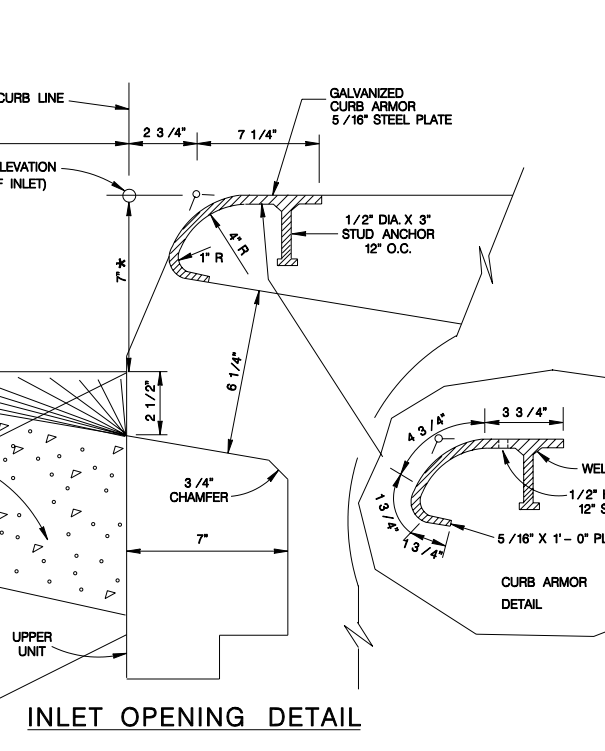


MANHOLE LID & RING DETAIL (ITEM 409)

- NOTES FOR MANHOLE LID AND RING**
1. FOR LID DESIGN OUTSIDE OF CITY OF SAN ANTONIO, DELETE "SAN ANTONIO PUBLIC WORKS DEPT."
 2. CASTING NUMBER AND MANUFACTURER'S I.D. ON LID AND RING.
 3. LOAD BEARING CAPABILITY OF HS-20 MINIMUM.
 4. THE LOAD BEARING SURFACES SHALL BE MACHINE GROUND.
 5. THE COMBINED WEIGHT OF THE MANHOLE RING AND COVER MUST BE AT LEAST 260 LBS.

SEE SHEET 1 OF 3 FOR GENERAL NOTES.



REINFORCING STEEL (FOR Hu=11")

| UPPER UNIT 10' X 3'-8" (TYPE I) | | | | | | UPPER UNIT 10' X 5' (TYPE II) | | | | | |
|---------------------------------|-----|------|-------|---------|-----------------|-------------------------------|-----|------|-------|---------|-----------------|
| BAR | NO. | SIZE | SPAC. | LENGTH | WEIGHT | BAR | NO. | SIZE | SPAC. | LENGTH | WEIGHT |
| A | 4 | #4 | — | 19'-10" | 53 | A | 4 | #4 | — | 22'-6" | 60 |
| B | 3 | #4 | — | 18'-10" | 38 | B | 3 | #4 | — | 21'-6" | 43 |
| C | 5 | #4 | 11" | 13'-2" | 44 | C | 7 | #4 | 11" | 13'-2" | 62 |
| D | 7 | #4 | 6" | 10'-10" | 51 | D | 11 | #4 | 6" | 10'-10" | 80 |
| E | 12 | #4 | 11" | 1'-2" | 9 | E | 16 | #4 | 11" | 1'-2" | 13 |
| F | 21 | #6 | 6" | 4'-8" | 147 | F | 21 | #6 | 6" | 5'-8" | 179 |
| G | 22 | #6 | 6" | 5'-8" | 187 | G | 22 | #6 | 6" | 7'-0" | 231 |
| H | 4 | #4 | — | 10'-10" | 29 | H | 4 | #4 | — | 10'-10" | 29 |
| J | 12 | #4 | 12" | 3'-6" | 28 | J | 12 | #4 | 12" | 3'-6" | 28 |
| L | 4 | #4 | — | 2'-0" | 5 | L | 4 | #4 | — | 2'-0" | 5 |
| M | 3 | #4 | — | 14'-8" | 29 | M | 3 | #4 | — | 14'-8" | 29 |
| TOTAL WEIGHT | | | | | 620 LBS. | TOTAL WEIGHT | | | | | 759 LBS. |

CLASS "A" CONCRETE QUANTITIES (FOR Hu = 11")

| DEPRESSION SLAB | C.Y. | UPPER UNIT (ONLY) | C.Y. |
|-----------------|------|------------------------|------|
| 10' INLET | 0.7 | 10' X 3'-8" CURB INLET | 1.9 |
| 10' EXTENSION | 0.7 | 10' X 5'-0" CURB INLET | 2.7 |
| | | 10' EXTENSION | 1.0 |

