NOTES

1 - TABLE of values for F are on this plan.
2 - CENTER OF MANHOLE SHAFT shall be located over center line of storm drain when diameter $D_i$ is 48" or less, in which case place E bars symmetrically around shaft at 45° with center line.
3 - LENGTH $L$ shall be 5'-6" unless shown otherwise on improvement plan. At option of Contractor $L$ may be increased or location of manhole shifted to meet pipe ends.
4 - DETAIL M: When depth of manhole from street grade to top of box is less than 2'-10" for paved streets or 3'-6" for unpaved streets, construct monolithic shaft as per Detail M. The Contractor shall have the option of constructing shaft as per Detail M for any depth of manhole. When diameter $D_i$ is 48" or less, center of shaft shall be located as per Note 2.
5 - THICKNESS OF DECK shall vary when necessary to provide level pipe seat, but shall not be less than tabular values for F shown on this plan.
6 - REINFORCING STEEL shall be round, deformed bars, $\frac{1}{2}"$ clear from face of concrete unless shown otherwise. Sizes and lengths are shown in table below.
7 - CONCRETE shall be class F.
8 - STEPS shall be 3" round, galvanized steel and anchored not less than 6 inches in the walls of structure. Unless otherwise shown the spacing shall be 1'-6" on centers. The lowest step shall be not more than 2'-6" above the invert.
9 - RINGS, REDUCER, AND PIPE for access shaft shall be seated in class B mortar and neatly pointed or wiped inside the shaft.
10 - STATIONS of manholes shown on improvement plan apply at center of shaft. Elevations shown at stations refer to prolonged invert grade lines.
11 - FLOOR of manhole shall be steel-troweled to springing line.
12 - BODY of manhole shall be poured in one continuous operation, except that the Contractor shall have the option of placing at the springing line a construction joint with a longitudinal keyway.

<table>
<thead>
<tr>
<th>STEEL TABLE FOR MANHOLE A-X</th>
<th>D bars</th>
<th>E bars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dia.</td>
<td>No. Req'd</td>
<td>Size</td>
</tr>
</tbody>
</table>
| 36" | 6 | $\frac{1}{2}"$ | 3'-0" | 4 | $\frac{5}{8}"$ | 2'-9"
| 39" | 6 | $\frac{1}{2}"$ | 4'-0" | 4 | $\frac{5}{8}"$ | 2'-11"
| 42" | 6 | $\frac{1}{2}"$ | 4'-6" | 4 | $\frac{5}{8}"$ | 3'-2"
| 45" | 6 | $\frac{1}{2}"$ | 4'-10" | 4 | $\frac{5}{8}"$ | 3'-5"
| 54" | 6 | $\frac{1}{2}"$ | 5'-9" | 6 | 6" | 5'-1"
| 62" | 6 | 6" | 6" | 6" | 5'-6"
| 72" | 6 | 6" | 6" | 6" | 5'-11"
| 84" | 6 | 6" | 6" | 6" | 6'-0"
| 90" | 6 | 6" | 6" | 6" | 6'-3"
| 96" | 6 | 6" | 6" | 6" | 6'-6"

D bars shall be spaced 3' o.c. E bars shall be spaced 4' o.c. Tie bars shall be $\frac{1}{2}"$, spaced 18' o.c. or closer.

When $L$ greater than 5'-6" is specified on improvement plan, continue D bars at 6' o.c.

Lengths shown in table are for longest bars. Where shorter bars are required, bend or cut to meet field requirements.