FOR MANHOLE FRAME & COVER, SEE FED. SPEC. A−A−60005 FIG. 4, SIZE 28 AND FIG. 12, SIZE 28 RESPECTIVELY

BRICK COLLAR LINED UP WITH CEMENT MORTAR

DUCT ENTRANCE

LAP REINF. 24" (TYP.)

WATERSTOP AT ALL CONSTR. JTS. (TYP.)

GROUND ROD & CLAMP

NOTES:

1. FOR DETAILS OF CABLE RACKS, DUCT ENTRANCE AND PULLING−IN IRONS, SEE PLATE UG−7.

2. MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI.

MANHOLE DIMENSIONS

<table>
<thead>
<tr>
<th>TYPE</th>
<th>A</th>
<th>B</th>
<th>C (AT HIGH PT.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6'−0&quot;</td>
<td>6'−0&quot;</td>
<td>6'−6&quot;</td>
</tr>
<tr>
<td>2</td>
<td>6'−0&quot;</td>
<td>8'−0&quot;</td>
<td>6'−6&quot;</td>
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STANDARD ELECTRICAL MANHOLE (NONTRAFFIC)
TYPES 1 & 2

SKETCH DATE JUNE 2002 STYLE UG−1
MANHOLE AND COVERS ARE DESIGNED FOR MAXIMUM WHEEL LOAD IN ACCORDANCE WITH AASHTO HS20-44.

FOR DETAILS OF CABLE RACKS, DUCT ENTRANCE AND PULLING-IN IRONS, SEE PLATE UG-7.

MINIMUM CONCRETE COMpressive STRENGTH SHALL BE 3000 PSI.
1. MANHOLE AND COVERS ARE DESIGNED FOR MAXIMUM WHEEL LOAD OF 50,000 LB OR DUAL WHEEL LOAD OF 90,000 LB.

2. FOR DETAILS OF CABLE RACKS, DUCT ENTRANCE AND PULLING-IN IRONS, SEE PLATE UG-7.

3. COVER SHALL BE MADE OF STRUCTURAL STEEL CONFORMING TO ASTM A 36/A 36M.

4. MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI.
1/2" FLOOR PLATE RAISED PATTERN

HINGE—WELDED TO FRAME & COVER

PLAN OF COVER

2 1/2" X 3/8" SEAL WELDED TO ONE SIDE OF THE DOOR

SEAL DETAIL

1/2" PLUG WELD

HANDLE

SEAL, SEE DETAIL ABOVE

SECTION B—B

SECTION OF FRAME

1 3/4" X 1 1/2" X 1/2"
FLAT PLATE
1/2"Ø PLUG WELD
5/8" Ø ANCHOR ROD WELDED TO ANGLE FRAME (3 PER SIDE)

SECTION A—A

DUCT ENTRANCE

6"

SLOPE 1:40 TO SUMP

GROUNDRod & CLAMP

7/8" Ø PULLING-IN IRON

#4 Ø 12" EW, SIDES AND BOTTOM

WATERSTOP AT ALL CONSTR. JTS. (TYP.)

NOTES:

1. FOR DETAILS OF CABLE RACKS, DUCT ENTRANCE AND PULLING-IN IRONS, SEE PLATE UG-7.

2. MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI.

STANDARD ELECTRICAL HANDHOLE (NONTRAFFIC)
TYPES 1 & 2

SKETCH DATE JUNE 2002 STYLE UG-4
NOTES:
1. ENTRANCE OF DUCTS INTO HANDHOLE MAY BE MADE ON SIDE FACES OR CORNERS AS REQUIRED.
2. FOR DETAILS OF CABLE RACKS, DUCT ENTRANCE AND PULLING-IN IRONS, SEE PLATE UG-7.
3. HANDHOLE AND COVER IS DESIGNED FOR MAXIMUM SINGLE WHEEL LOAD OF 50,000 LB. OR DUAL WHEEL LOAD OF 90,000 LB.
4. COVER SHALL BE MADE OF STRUCTURAL STEEL CONFORMING TO ASTM A 36/A 36M.
5. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 3000 PSI.

<table>
<thead>
<tr>
<th>TYPE</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>3'-0&quot;</td>
</tr>
<tr>
<td>4</td>
<td>4'-0&quot;</td>
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</table>

STANDARD ELECTRICAL HANDHOLE (TRAFFIC/AIRFIELD) TYPES 3 & 4

SKETCH DATE: JUNE 2002  STYLE: UG-5
STAINLESS STEEL HEX BOLT AND WASHER
PULL SLOT
SKID RESISTANT SURFACE
SECTIONAL BOX WHEN REQUIRED

CONCRETE RING AROUND BOX

6"

COMPACTED EARTH

CRUSHED ROCK

<table>
<thead>
<tr>
<th>TYPE</th>
<th>HANDHOLE SIZING</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>12” X 12” X 24” DEEP</td>
</tr>
<tr>
<td>6</td>
<td>12” X 18” X 24” DEEP</td>
</tr>
<tr>
<td>7</td>
<td>12” X 24” X 24” DEEP</td>
</tr>
<tr>
<td>8</td>
<td>24” X 36” X 24” DEEP</td>
</tr>
<tr>
<td>9</td>
<td>30” X 48” X 24” DEEP</td>
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</tbody>
</table>

HANDHOLE REQUIREMENTS

1. HOUSING SHALL BE A POLYMER CONCRETE REINFORCED WITH A HEAVY WEAVE FIBERGLASS REINFORCING WITH COMPRESSIVE STRENGTH OF NO LESS THAN 10,000 PSI.

2. COVER AND BOX SHALL WITHSTAND A SERVICE LOAD OF NO LESS THAN 15,000 LBS OVER A 10” x 10” AREA.

3. PROVIDE STAINLESS STEEL BOLTS AND INSERTS.

4. PROVIDE WITH (2) 2 1/2” MOUSEHOLES.

5. PROVIDE LABEL "ELECTRICAL" FOR POWER HANDHOLES OR "TELEPHONE" FOR TELEPHONE HANDHOLES, OR AS INDICATED.

STANDARD ELECTRICAL HANDHOLE (NONTRAFFIC) (COMPOSITE/FIBERGLASS) TYPES 5, 6, 7, 8 & 9

SKETCH DATE JUNE 2002 STYLE UG-6
DETAIL OF PULLING-IN IRON

TYPICAL CABLE RACK

TYPICAL DUCT ENTRANCE

DETAILS
(PULLING-IN IRONS, CABLE RACK AND DUCT ENTRANCE)

SKETCH DATE  JUNE 2002  STYLE  UG-7

NOTE
ALL METAL PARTS SHALL BE HOT DIP GALVANIZED