SINGLE WING CATCH BASIN

PLAN
TOP OMITTED FOR CLARITY
N.T.S.

SECTION II-B
TOP OMITTED FOR CLARITY
N.T.S.

NOTE: FOR ALL CATCH BASINS, 1/2" EXPANSION JOINT MATERIAL SHALL BE PLACED AROUND THE CATCH BASIN WHERE SIDEWALK CURB OR PAVEMENT IS PLACED ADJACENT TO THE BASIN.

SECTION A-A
N.T.S.

CATCH BASIN STEP DETAIL
N.T.S.

NOTE: PLASTIC COATED STEEL STEPS ARE REQUIRED IN ALL CATCH BASINS.

DIMENSIONS FOR CATCH BASINS

<table>
<thead>
<tr>
<th>Inside Diameter of Pipe in Inches</th>
<th>Normal W or Wf</th>
<th>Minimum W</th>
</tr>
</thead>
<tbody>
<tr>
<td>18&quot;</td>
<td>5&quot; - 0&quot;</td>
<td>4&quot; - 10&quot;</td>
</tr>
<tr>
<td>24&quot;</td>
<td>5&quot; - 0&quot;</td>
<td>5&quot; - 6&quot;</td>
</tr>
<tr>
<td>30&quot;</td>
<td>5&quot; - 0&quot;</td>
<td>6&quot; - 2&quot;</td>
</tr>
<tr>
<td>36&quot;</td>
<td>4&quot; - 0&quot;</td>
<td>6&quot; - 10&quot;</td>
</tr>
<tr>
<td>42&quot;</td>
<td>5&quot; - 0&quot;</td>
<td>7&quot; - 4&quot;</td>
</tr>
<tr>
<td>48&quot;</td>
<td>5&quot; - 0&quot;</td>
<td>8&quot; - 0&quot;</td>
</tr>
<tr>
<td>54&quot;</td>
<td>6&quot; - 0&quot;</td>
<td>8&quot; - 6&quot;</td>
</tr>
<tr>
<td>60&quot;</td>
<td>6&quot; - 0&quot;</td>
<td>10&quot; - 2&quot;</td>
</tr>
</tbody>
</table>
DOUBLE WING CATCH BASIN

STD. 201

08/01/2015

NOTE:
For all catch basins, 1/2" expansion joint material shall be placed around the catch basin where sidewalk curb or pavement is placed adjacent to the basin.

PLAN
Top Viewed for Clarity
N.T.S.

SECTION A-A
N.T.S.

SECTION B-B
N.T.S.

CATCH BASIN STEP DETAIL
N.T.S.

DIMENSIONS FOR CATCH BASINS

<table>
<thead>
<tr>
<th>Inside Diameter of Pipe in Inches</th>
<th>Normal W or H</th>
<th>Minimum Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>18&quot;</td>
<td>3&quot; - 6&quot;</td>
<td>6&quot; - 10&quot;</td>
</tr>
<tr>
<td>24&quot;</td>
<td>3&quot; - 6&quot;</td>
<td>6&quot; - 10&quot;</td>
</tr>
<tr>
<td>30&quot;</td>
<td>3&quot; - 6&quot;</td>
<td>6&quot; - 10&quot;</td>
</tr>
<tr>
<td>36&quot;</td>
<td>4&quot; - 6&quot;</td>
<td>6&quot; - 10&quot;</td>
</tr>
<tr>
<td>42&quot;</td>
<td>5&quot; - 6&quot;</td>
<td>7&quot; - 10&quot;</td>
</tr>
<tr>
<td>48&quot;</td>
<td>5&quot; - 6&quot;</td>
<td>8&quot; - 10&quot;</td>
</tr>
<tr>
<td>54&quot;</td>
<td>6&quot; - 6&quot;</td>
<td>8&quot; - 10&quot;</td>
</tr>
<tr>
<td>60&quot;</td>
<td>6&quot; - 6&quot;</td>
<td>8&quot; - 10&quot;</td>
</tr>
</tbody>
</table>

ALPHARETTA
GEORGIA
SINGLE WING
CATCH BASIN, ONE FOOT OFFSET

NOTE:
For all catch basins, 1/2" expansion joint material shall be placed around the catch basin where sidewalk curbs or pavement is placed adjacent to the basin.

DIMENSIONS FOR CATCH BASINS

| INSIDE DIAMETER OF PIPE IN INCHES | NORMAL W or Wt | Minimum W
|-----------------------------------|----------------|------|
| 18"                               | 3" - 0"        | 4" - 10"
| 24"                               | 3" - 0"        | 5" - 6"
| 30"                               | 3" - 0"        | 6" - 2"
| 36"                               | 4" - 0"        | 8" - 10"
| 42"                               | 5" - 0"        | 7" - 4"
| 48"                               | 5" - 0"        | 8" - 0"
| 54"                               | 6" - 0"        | 8" - 6"
| 60"                               | 6" - 0"        | 9" - 2"
**Double Wing Catch Basin, One Foot Offset**

**Notes:**
1. For all catch basins, 1/2" expansion joint material shall be placed around the catch basin where sidewalk or median pavement is placed adjacent to the catch basin.
2. Plastic coated steel steps are required in all catch basins.
3. All poured in place concrete to be Class "A" 3000 P.S.I.
4. 8" concrete pedestal require 4 – 1/2" # bars each.

**Dimensions for Catch Basins**

<table>
<thead>
<tr>
<th>Inside Diameter of Pipe in Inches</th>
<th>Normal W or Wt</th>
<th>Minimum 'H'</th>
</tr>
</thead>
<tbody>
<tr>
<td>18&quot;</td>
<td>5' - 10&quot;</td>
<td>4' - 10&quot;</td>
</tr>
<tr>
<td>24&quot;</td>
<td>3' - 10&quot;</td>
<td>5' - 6&quot;</td>
</tr>
<tr>
<td>30&quot;</td>
<td>3' - 6&quot;</td>
<td>6' - 2&quot;</td>
</tr>
<tr>
<td>36&quot;</td>
<td>4' - 2&quot;</td>
<td>6' - 10&quot;</td>
</tr>
<tr>
<td>42&quot;</td>
<td>5' - 6&quot;</td>
<td>7' - 4&quot;</td>
</tr>
<tr>
<td>48&quot;</td>
<td>6' - 2&quot;</td>
<td>8' - 0&quot;</td>
</tr>
<tr>
<td>54&quot;</td>
<td>6' - 6&quot;</td>
<td>8' - 6&quot;</td>
</tr>
<tr>
<td>60&quot;</td>
<td>8' - 2&quot;</td>
<td>9' - 2&quot;</td>
</tr>
</tbody>
</table>

**Section A-A**

- 8" concrete pedestal to be poured monolithic with throat slab
- 1/2" Expansion Joint (typ.)
- Maintain normal grade (typ.)
- Payment for catch basin includes all quantities between these lines

**Plan**

- Top dotted for clarity

**Section B-B**

- 4" P.V.C. Weep hole
- See Note 1

**Notes:**
- Plastic coated steel steps are required in all catch basins.
- 4 Foot Bar Detail

**Graphical Details:**
- Double Wing Catch Basin
- One Foot Offset
- STD. 203

**Alpharetta, Georgia**

**Double Wing Catch Basin, One Foot Offset**

**Revision Date:** 08/01/2015

**By:** GS 1/6/16
PRECAST STRUCTURE

SECTION A-A

NOTES:
1. ALL HOLES MUST BE PRECAST.
2. MAXIMUM HOLE SIZE = PIPE OUTSIDE DIAMETER + 4".
3. SEAL AROUND ALL JOINTS AND LIFTING HOLES.
4. PAVED INVERT REQUIRED.

REINFORCING TO BE 1/2 6x6 WELDED WIRE FABRIC

DEFLECTION ANGLE AS REQUIRED

PIPE TO BE 2/2 6x6 WELDED WIRE FABRIC
W/4-1/2" BARS DIAGONAL 4-1/2" DIA.

REINFORCING TO BE 3/3 6x6 WELDED WIRE FABRIC

MAX. 3 COURSES

TYPICAL INSTALLATION

TYPICAL JOINT

TYPICAL STEP

NOTE:
STEPS TO BE INSTALLED ON 15" VERTICAL SPACING.

BASE OF WALL REQUIRED ON ALL PRECAST MANHOLES.

SECTION B-B THRU ONE PIECE BASE UNIT

N.T.S.

48"x48" WALL ONE PIECE BASE UNIT

48" DIA. RISER SECTION

NOTES:
1. ALL HOLES MUST BE PRECAST.
2. MAXIMUM HOLE SIZE = PIPE OUTSIDE DIAMETER + 4".
3. SEAL AROUND ALL JOINTS AND LIFTING HOLES.
4. PAVED INVERT REQUIRED.

REINFORCING TO BE 1/2 6x6 WELDED WIRE FABRIC

DEFLECTION ANGLE AS REQUIRED

PIPE TO BE 2/2 6x6 WELDED WIRE FABRIC
W/4-1/2" BARS DIAGONAL 4-1/2" DIA.

REINFORCING TO BE 3/3 6x6 WELDED WIRE FABRIC

MAX. 3 COURSES

TYPICAL INSTALLATION

TYPICAL JOINT

TYPICAL STEP

NOTE:
STEPS TO BE INSTALLED ON 15" VERTICAL SPACING.

BASE OF WALL REQUIRED ON ALL PRECAST MANHOLES.

SECTION B-B THRU ONE PIECE BASE UNIT

N.T.S.

48"x48" WALL ONE PIECE BASE UNIT

48" DIA. RISER SECTION

NOTES:
1. ALL HOLES MUST BE PRECAST.
2. MAXIMUM HOLE SIZE = PIPE OUTSIDE DIAMETER + 4".
3. SEAL AROUND ALL JOINTS AND LIFTING HOLES.
4. PAVED INVERT REQUIRED.

REINFORCING TO BE 1/2 6x6 WELDED WIRE FABRIC

DEFLECTION ANGLE AS REQUIRED

PIPE TO BE 2/2 6x6 WELDED WIRE FABRIC
W/4-1/2" BARS DIAGONAL 4-1/2" DIA.

REINFORCING TO BE 3/3 6x6 WELDED WIRE FABRIC

MAX. 3 COURSES

TYPICAL INSTALLATION

TYPICAL JOINT

TYPICAL STEP

NOTE:
STEPS TO BE INSTALLED ON 15" VERTICAL SPACING.

BASE OF WALL REQUIRED ON ALL PRECAST MANHOLES.

SECTION B-B THRU ONE PIECE BASE UNIT

N.T.S.

48"x48" WALL ONE PIECE BASE UNIT

48" DIA. RISER SECTION

NOTES:
1. ALL HOLES MUST BE PRECAST.
2. MAXIMUM HOLE SIZE = PIPE OUTSIDE DIAMETER + 4".
3. SEAL AROUND ALL JOINTS AND LIFTING HOLES.
4. PAVED INVERT REQUIRED.

REINFORCING TO BE 1/2 6x6 WELDED WIRE FABRIC

DEFLECTION ANGLE AS REQUIRED

PIPE TO BE 2/2 6x6 WELDED WIRE FABRIC
W/4-1/2" BARS DIAGONAL 4-1/2" DIA.

REINFORCING TO BE 3/3 6x6 WELDED WIRE FABRIC

MAX. 3 COURSES

TYPICAL INSTALLATION

TYPICAL JOINT

TYPICAL STEP

NOTE:
STEPS TO BE INSTALLED ON 15" VERTICAL SPACING.

BASE OF WALL REQUIRED ON ALL PRECAST MANHOLES.

SECTION B-B THRU ONE PIECE BASE UNIT

N.T.S.

48"x48" WALL ONE PIECE BASE UNIT

48" DIA. RISER SECTION

NOTES:
1. ALL HOLES MUST BE PRECAST.
2. MAXIMUM HOLE SIZE = PIPE OUTSIDE DIAMETER + 4".
3. SEAL AROUND ALL JOINTS AND LIFTING HOLES.
4. PAVED INVERT REQUIRED.

REINFORCING TO BE 1/2 6x6 WELDED WIRE FABRIC

DEFLECTION ANGLE AS REQUIRED

PIPE TO BE 2/2 6x6 WELDED WIRE FABRIC
W/4-1/2" BARS DIAGONAL 4-1/2" DIA.

REINFORCING TO BE 3/3 6x6 WELDED WIRE FABRIC

MAX. 3 COURSES

TYPICAL INSTALLATION

TYPICAL JOINT

TYPICAL STEP

NOTE:
STEPS TO BE INSTALLED ON 15" VERTICAL SPACING.
CATCH BASIN TOPS

NOTE: TOP SLAB TO HAVE LIGHT BROOM FINISH

PLAN
N.T.S.

ELEVATION
N.T.S.

DETAIL OF TOP SLAB
N.T.S.

SECTION G-G
N.T.S.

SECTION H-H
N.T.S.

APPROXIMATE WEIGHTS:
CAST IRON RING 78 LBS
CAST IRON COVER 63 LBS

USE TWO #7 BARS AT FACE, 3" APART

USE TWO #7 BARS AT FACE, 3" APART

DIAGONAL BARS

# REBAR, 6" ON CENTER
15" = 1/2"
6 7/16"
6 1/4"
1/2" R CHAMBER

SLOPE AT SAME RATE AS ON CHAMBER

USE FOR OFFSET CATCH BASIN

3 1/4"
11 7/8"
7 1/2"
1 7/8"

1/2"
3/4"
3/4"
5/8"
5 1/2"
3/4" DEEP

1/2"
3/4"
5/16"
NOTES:
1. ALL REINFORCING STEEL SHALL BE 1/2 # AND COVERED NO LESS THAN 2".
2. HORIZONTAL REINFORCING STEEL SHALL BE AT 6" ON CENTER (MAXIMUM).
3. VERTICAL ROW STEEL SHALL BE AT 12" ON CENTER (MAXIMUM).
4. SEE STD. 213 FOR DIMENSIONS.
5. GRATE SLOTS SHALL BE PERPENDICULAR TO THE FLOW OF TRAFFIC OR AN ALTERNATE "BICYCLE SAFE GRATE" SHALL BE USED.

NOTE:
USE ROUND TO SQUARE ADJUST W/GRATE CAST IN IF ROUND BOX OR USE SLAB WITH GRATE CAST IN.
PEDESTAL INLET

STD. 212

08/01/2015

REVISION BY

GS 1/6/16

NOTE:
OPENINGS OPTIONAL ON 1 TO 4 SIDES

STANDARD MANHOLE FRAME & COVER
SEE STANDARD 220 FOR DETAILS

FRONT VIEW
N.T.S.

8" BRICK OR 6" REINF. CONC.

6" - 3000 PSI CONCRETE

1/2 LARGEST PIPE DIAMETER
(10" Min.)

BRICK OR CONCRETE PILLARS

NOTES:
1. PAVED INVERT REQUIRED.
2. DROP INLET BOX TO BE CONSTRUCTED PER STD.
   210 OR 211 AS APPLICABLE.

TOP VIEW
N.T.S.

#4 BARS 12" O.C.

4-1/2" GUTTER LINE

6"

SQUARE TO ROUND ADAPTER

MIN. 4"

ALTERNATE FRONT VIEW FOR
ROUND PRECAST BOX
N.T.S.

4'-0"

NOTE:
FOR DETAILS ON SQUARE TO
ROUND ADAPTER SEE STD. 204

ALPHARETTA
GEORGIA

08/01/2015

STD. 212

PEDESTAL INLET

GS 1/6/16

REVISION DATE
## BRICK DROP INLET (STD. 210)

<table>
<thead>
<tr>
<th>D</th>
<th>W1</th>
<th>MN-#2</th>
<th>W3</th>
<th>a</th>
<th>b</th>
<th>MN-H</th>
</tr>
</thead>
<tbody>
<tr>
<td>18&quot;</td>
<td>2&quot;-2&quot;</td>
<td>2'-0&quot;</td>
<td>3'-1 1/2&quot;</td>
<td>0'-4 1/2&quot;</td>
<td>0'-8&quot;</td>
<td>4'-1&quot;</td>
</tr>
<tr>
<td>24&quot;</td>
<td>2'-8&quot;</td>
<td>3'-3&quot;</td>
<td>3'-3&quot;</td>
<td>0'-7 1/2&quot;</td>
<td>1'-1 1/4&quot;</td>
<td>4'-8&quot;</td>
</tr>
<tr>
<td>30&quot;</td>
<td>3'-7 1/4&quot;</td>
<td>4'-0&quot;</td>
<td>5'-10&quot;</td>
<td>1'-10&quot;</td>
<td>1'-9&quot;</td>
<td>5'-10&quot;</td>
</tr>
<tr>
<td>36&quot;</td>
<td>4'-2&quot;</td>
<td>6'-0 1/2&quot;</td>
<td>4'-9&quot;</td>
<td>1'-4 1/2&quot;</td>
<td>2'-2 1/4&quot;</td>
<td>6'-11&quot;</td>
</tr>
<tr>
<td>42&quot;</td>
<td>4'-5&quot;</td>
<td>7'-1 3/4&quot;</td>
<td>5'-6&quot;</td>
<td>1'-8&quot;</td>
<td>2'-2 1/4&quot;</td>
<td>8'-0 1/4&quot;</td>
</tr>
<tr>
<td>48&quot;</td>
<td>5'-0&quot;</td>
<td>8'-2 3/4&quot;</td>
<td>5'-7&quot;</td>
<td>1'-9 1/2&quot;</td>
<td>3'-1 1/4&quot;</td>
<td>9'-1 1/4&quot;</td>
</tr>
<tr>
<td>54&quot;</td>
<td>5'-7&quot;</td>
<td>9'-4&quot;</td>
<td>6'-2&quot;</td>
<td>2'-1&quot;</td>
<td>3'-7 1/2&quot;</td>
<td>10'-2 1/2&quot;</td>
</tr>
<tr>
<td>60&quot;</td>
<td>6'-2&quot;</td>
<td>10'-5&quot;</td>
<td>6'-8&quot;</td>
<td>2'-4 1/2&quot;</td>
<td>4'-1 1/2&quot;</td>
<td>11'-3 1/4&quot;</td>
</tr>
<tr>
<td>66&quot;</td>
<td>6'-8&quot;</td>
<td>11'-6&quot;</td>
<td>7'-4&quot;</td>
<td>2'-5&quot;</td>
<td>4'-7 1/2&quot;</td>
<td>12'-4 1/4&quot;</td>
</tr>
<tr>
<td>72&quot;</td>
<td>7'-4&quot;</td>
<td>12'-7&quot;</td>
<td>7'-11&quot;</td>
<td>2'-11 1/2&quot;</td>
<td>5'-2&quot;</td>
<td>13'-5 1/2&quot;</td>
</tr>
</tbody>
</table>

**NOTE:**

Maximum vertical depth for drop inlet = H=15'-0"

## CONCRETE DROP INLET (STD. 211)

### TYPE A

<table>
<thead>
<tr>
<th>D</th>
<th>W1</th>
<th>MN-#2</th>
<th>W3</th>
<th>a</th>
<th>b</th>
<th>MN-H</th>
</tr>
</thead>
<tbody>
<tr>
<td>18&quot;</td>
<td>2&quot;-0&quot;</td>
<td>2'-9 1/2&quot;</td>
<td>3'-7&quot;</td>
<td>0'-4&quot;</td>
<td>3'-8&quot;</td>
<td>2'-3&quot;</td>
</tr>
<tr>
<td>24&quot;</td>
<td>2'-8&quot;</td>
<td>3'-3&quot;</td>
<td>3'-1 1/2&quot;</td>
<td>1'-1&quot;</td>
<td>4'-9&quot;</td>
<td>3'-8&quot;</td>
</tr>
<tr>
<td>30&quot;</td>
<td>3'-4&quot;</td>
<td>5'-1 1/2&quot;</td>
<td>3'-11&quot;</td>
<td>0'-11 1/2&quot;</td>
<td>1'-8&quot;</td>
<td>5'-10&quot;</td>
</tr>
<tr>
<td>36&quot;</td>
<td>3'-10&quot;</td>
<td>6'-1 1/2&quot;</td>
<td>4'-5&quot;</td>
<td>1'-2 1/2&quot;</td>
<td>2'-1 1/4&quot;</td>
<td>6'-10&quot;</td>
</tr>
<tr>
<td>42&quot;</td>
<td>4'-5&quot;</td>
<td>7'-2 1/2&quot;</td>
<td>5'-2&quot;</td>
<td>1'-8&quot;</td>
<td>2'-7 1/2&quot;</td>
<td>7'-11&quot;</td>
</tr>
<tr>
<td>48&quot;</td>
<td>5'-0&quot;</td>
<td>8'-3 1/2&quot;</td>
<td>5'-7&quot;</td>
<td>1'-9 1/2&quot;</td>
<td>3'-1 1/4&quot;</td>
<td>9'-0&quot;</td>
</tr>
<tr>
<td>54&quot;</td>
<td>5'-7&quot;</td>
<td>9'-4 1/2&quot;</td>
<td>6'-2&quot;</td>
<td>2'-1&quot;</td>
<td>3'-7 1/4&quot;</td>
<td>10'-1&quot;</td>
</tr>
<tr>
<td>60&quot;</td>
<td>6'-2&quot;</td>
<td>10'-5&quot;</td>
<td>6'-8&quot;</td>
<td>2'-4 1/2&quot;</td>
<td>4'-1 1/2&quot;</td>
<td>11'-2&quot;</td>
</tr>
<tr>
<td>66&quot;</td>
<td>6'-8&quot;</td>
<td>11'-6&quot;</td>
<td>7'-4&quot;</td>
<td>2'-5&quot;</td>
<td>4'-7 1/2&quot;</td>
<td>12'-3&quot;</td>
</tr>
<tr>
<td>72&quot;</td>
<td>7'-4&quot;</td>
<td>12'-7&quot;</td>
<td>7'-11&quot;</td>
<td>2'-11 1/2&quot;</td>
<td>5'-2&quot;</td>
<td>13'-5 1/2&quot;</td>
</tr>
</tbody>
</table>

### TYPE B

<table>
<thead>
<tr>
<th>D</th>
<th>W1</th>
<th>MN-#2</th>
<th>W3</th>
<th>a</th>
<th>b</th>
<th>MN-H</th>
</tr>
</thead>
<tbody>
<tr>
<td>18&quot;</td>
<td>2&quot;-0&quot;</td>
<td>2'-9 1/2&quot;</td>
<td>3'-7&quot;</td>
<td>0'-4&quot;</td>
<td>3'-8&quot;</td>
<td>2'-3&quot;</td>
</tr>
<tr>
<td>24&quot;</td>
<td>2'-8&quot;</td>
<td>3'-3&quot;</td>
<td>3'-1 1/2&quot;</td>
<td>1'-1&quot;</td>
<td>4'-9&quot;</td>
<td>3'-8&quot;</td>
</tr>
<tr>
<td>30&quot;</td>
<td>3'-4&quot;</td>
<td>5'-1 1/2&quot;</td>
<td>3'-11&quot;</td>
<td>0'-11 1/2&quot;</td>
<td>1'-8&quot;</td>
<td>5'-10&quot;</td>
</tr>
<tr>
<td>36&quot;</td>
<td>3'-10&quot;</td>
<td>6'-1 1/2&quot;</td>
<td>4'-5&quot;</td>
<td>1'-2 1/2&quot;</td>
<td>2'-1 1/4&quot;</td>
<td>6'-10&quot;</td>
</tr>
<tr>
<td>42&quot;</td>
<td>4'-5&quot;</td>
<td>7'-2 1/2&quot;</td>
<td>5'-2&quot;</td>
<td>1'-8&quot;</td>
<td>2'-7 1/2&quot;</td>
<td>7'-11&quot;</td>
</tr>
<tr>
<td>48&quot;</td>
<td>5'-0&quot;</td>
<td>8'-3 1/2&quot;</td>
<td>5'-7&quot;</td>
<td>1'-9 1/2&quot;</td>
<td>3'-1 1/4&quot;</td>
<td>9'-0&quot;</td>
</tr>
<tr>
<td>54&quot;</td>
<td>5'-7&quot;</td>
<td>9'-4 1/2&quot;</td>
<td>6'-2&quot;</td>
<td>2'-1&quot;</td>
<td>3'-7 1/4&quot;</td>
<td>10'-1&quot;</td>
</tr>
<tr>
<td>60&quot;</td>
<td>6'-2&quot;</td>
<td>10'-5&quot;</td>
<td>6'-8&quot;</td>
<td>2'-4 1/2&quot;</td>
<td>4'-1 1/2&quot;</td>
<td>11'-2&quot;</td>
</tr>
<tr>
<td>66&quot;</td>
<td>6'-8&quot;</td>
<td>11'-6&quot;</td>
<td>7'-4&quot;</td>
<td>2'-5&quot;</td>
<td>4'-7 1/2&quot;</td>
<td>12'-3&quot;</td>
</tr>
<tr>
<td>72&quot;</td>
<td>7'-4&quot;</td>
<td>12'-7&quot;</td>
<td>7'-11&quot;</td>
<td>2'-11 1/2&quot;</td>
<td>5'-2&quot;</td>
<td>13'-5 1/2&quot;</td>
</tr>
</tbody>
</table>

**NOTE:**

Normal W or W1: 3'-6 1/2" or 4'-2 1/2" or 5'-4 1/2" or 6'-6 1/2"
BRICK MANHOLE DETAIL AND MH FRAME AND COVER

STANDARD 220

08/01/2015

ELEVATION AT 8 MANHOLE

N.T.S.

PAVED INVERT REQUIRED

3,000 PSI CONC.

TYPICAL STEPS

N.T.S.

EPOXY GROUT

3 1/2"

5 1/2"

5 3/8"

2"-0"

2'-8"

2'-0/4"

4"

1'-11/2"

1'-11"

COVER

RUBBER GASKET

NOTE: WATER-TIGHT MANHOLE FRAME AND COVER TO BE CLOTH T-S-S70 OR EQUAL MINIMUM TOTAL WEIGHT 370 LBS.

WATER-TIGHT CAST IRON MANHOLE FRAME AND COVER

N.T.S.

PLASTER 1/2 MORTAR 3/4" THICK ON OUTSIDE

1 3/8"

1 3/4"

1/4"

1/8"

1"

1"

3/16"

3/16"

5/16"

5/16"

5/16"

3/16"

8"

1/2 MAX TO TOP OF FRAME

8" COAT OUTSIDE 1/2-3/4" THICK MORTAR

NOTE: SEATING SURFACE OF FRAME AND COVER TO BE MACHINE FIT

8" FRAME & COVER

8"

350 LB

9"

460 LB

NOTE: SEATING SURFACE OF FRAME AND COVER TO BE MACHINE FIT

FRAME = 282 LB

COVER = 178 LB

TOTAL = 460 LB.

460 MANHOLE FRAME AND COVER

N.T.S.

NOTES:

1. 350 LB. FRAMES AND COVERS MAY BE USED OUTSIDE OF STREETS & ROADS. COVERS TO BE SIMILAR TO 460 LB. FRAME, BUT REDUCED IN HEIGHT AND THICKNESS.

2. ALL COVERS TO BE VENTED UNLESS OTHERWISE NOTED.

WALL DETAIL FOR DEPTH OVER 12'-20'

N.T.S.

NOTE: FOR DEPTH OVER 20', INCREASE WALL THICKNESS TO 16".

NOTES:

1. 6" SLAB FOR 4'-0" DUA.

2. 8" SLAB FOR 5'-0" AND 6'-0" DUA.
CONSTRUCT NEW CATCH INLET

NEW EXTENSION NEW GUTTER LINE
CONVERT CATCH INLET TO MANHOLE

STREET WIDENING
CONVERTING CATCH INLET TO MANHOLE
N.T.S.

NOTES:
1. REMOVE EXISTING TOP & THROAT OF CATCH INLET.
2. ADD BRICK COURSES FOR GRADE ADJUSTMENT.
3. COMPLETE BY ADDING STANDARD MANHOLE FRAME COVER, PER STD. 220 AND 401.
### PIPE CULVERT DATA

**STD. 231**

**08/01/2015**

<table>
<thead>
<tr>
<th>TABLE NO. 3 ROUND PIPE - CONCRETE</th>
<th>CORRUGATION PROFILE 2 2/3&quot; X 1 1/2&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN. THICKNESS (IN.)</td>
<td>CORR. STEEL</td>
</tr>
<tr>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>22</td>
<td>28</td>
</tr>
<tr>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>30</td>
<td>42</td>
</tr>
<tr>
<td>40</td>
<td>51</td>
</tr>
<tr>
<td>45</td>
<td>57</td>
</tr>
<tr>
<td>60</td>
<td>77</td>
</tr>
<tr>
<td>75</td>
<td>85</td>
</tr>
<tr>
<td>90</td>
<td>103</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE NO. 3 (CONTD.)</th>
<th>CORR. METAL</th>
<th>EQUIVALENT GAUGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN. THICKNESS (IN.)</td>
<td>CORR. STEEL</td>
<td>CORR. ALUMINUM</td>
</tr>
<tr>
<td>3/16</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>3/32</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>3/64</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>1/8</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>1/16</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>1/32</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

### PIPE CULVERT DATA

**STD. 231**

**08/01/2015**

<table>
<thead>
<tr>
<th>TABLE NO. 4 ROUND PIPE - CONCRETE</th>
<th>CORRUGATION PROFILE 2 2/3&quot; X 1 1/2&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN. THICKNESS (IN.)</td>
<td>CORR. STEEL</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE NO. 4 (CONTD.)</th>
<th>CORR. METAL</th>
<th>EQUIVALENT GAUGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN. THICKNESS (IN.)</td>
<td>CORR. STEEL</td>
<td>CORR. ALUMINUM</td>
</tr>
<tr>
<td>1/16</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>1/32</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1/64</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1/128</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

### PIPE CULVERT DATA

**STD. 231**

**08/01/2015**

<table>
<thead>
<tr>
<th>TABLE NO. 5 ROUND PIPE - CONCRETE</th>
<th>CORRUGATION PROFILE 2 2/3&quot; X 1 1/2&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN. THICKNESS (IN.)</td>
<td>CORR. STEEL</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE NO. 5 (CONTD.)</th>
<th>CORR. METAL</th>
<th>EQUIVALENT GAUGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN. THICKNESS (IN.)</td>
<td>CORR. STEEL</td>
<td>CORR. ALUMINUM</td>
</tr>
<tr>
<td>1/16</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>1/32</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1/64</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1/128</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
CONCRETE PIPE FLARED END SECTION

SECTION X-X

REINFORCING CAGE NOTES:
1. Wire fabric having equal steel area as inner cage for Class II pipe, AASHTO M-170.
2. Alternate: AAS spaced 12" longitudinally with #2 bars transversely at 6" O.C. Wax spacing, spot welded or tied to front cage. (Back rods may be omitted.)

GENERAL NOTES:
1. Trenches are for outlets of storm drains, except where concreteitch paving or other erosion protection is provided or where the outlet velocity is less than 1.5 ft/sec. Trenches are not required for storm drains. Slope drains, or inlets of storm drains, this criteria may be varied where specified by the designer.
2. Trench dimensions are nominal. Trenches constructed with alternate materials to have approximately the same dimensions as indicated for riprap. Trenches constructed with concrete may be trench formed, placement of riprap may differ from details shown if approved by engineer of record.
3. Contractor will inform producer if concrete flared end section is for inlets or outlet end. Socket (tongue on spigot end) is required for inlets. Hub (groove on bell) end is required for outlets. Socket to socket or hub to hub joint will not be accepted unless a reinforced concrete collar is built around the joint. Flared end sections shall be jointed to pipe with all space in the joint filled with either bituminous plastic cement or preformed plastic gasket.
4. Wall thickness (T) is shown as nominal and may be increased at producer's option for desired joint design or to allow a flat outside bottom of the flared with the inside dimensions of flake retained as shown. (T=pipe wall thickness 0.0032D+1/4" typical).
5. Centerline of flared end section will align with centerline of pipe. If pipe is skewed, the embankment slope will be warped to conform with end section.

Dimensions and reinforcing for concrete flared end section (±1")

<table>
<thead>
<tr>
<th>Flare Bar</th>
<th>Flare Bar</th>
<th>Taper</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>P</th>
<th>M</th>
<th>K</th>
<th>R</th>
<th>Tolerances</th>
</tr>
</thead>
<tbody>
<tr>
<td>12&quot;</td>
<td>6&quot;</td>
<td>10&quot;</td>
<td>6</td>
<td>9</td>
<td>12</td>
<td>10</td>
<td>12</td>
<td>10</td>
<td>12</td>
<td>16</td>
<td>12</td>
<td>±1/8&quot;</td>
</tr>
<tr>
<td>18&quot;</td>
<td>12&quot;</td>
<td>24&quot;</td>
<td>9</td>
<td>9</td>
<td>12</td>
<td>16</td>
<td>12</td>
<td>16</td>
<td>16</td>
<td>20</td>
<td>16</td>
<td>±1/8&quot;</td>
</tr>
<tr>
<td>24&quot;</td>
<td>12&quot;</td>
<td>30&quot;</td>
<td>12</td>
<td>12</td>
<td>16</td>
<td>20</td>
<td>16</td>
<td>20</td>
<td>20</td>
<td>24</td>
<td>16</td>
<td>±1/8&quot;</td>
</tr>
<tr>
<td>30&quot;</td>
<td>18&quot;</td>
<td>36&quot;</td>
<td>16</td>
<td>16</td>
<td>20</td>
<td>24</td>
<td>16</td>
<td>24</td>
<td>24</td>
<td>30</td>
<td>16</td>
<td>±1/8&quot;</td>
</tr>
<tr>
<td>36&quot;</td>
<td>24&quot;</td>
<td>42&quot;</td>
<td>20</td>
<td>20</td>
<td>24</td>
<td>30</td>
<td>16</td>
<td>30</td>
<td>30</td>
<td>36</td>
<td>16</td>
<td>±1/8&quot;</td>
</tr>
</tbody>
</table>

Table of alternate materials and quantities:

<table>
<thead>
<tr>
<th>Pipe End</th>
<th>Flare Bar</th>
<th>Flare Bar</th>
<th>Taper</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>P</th>
<th>M</th>
<th>K</th>
<th>R</th>
<th>Weight (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12&quot;</td>
<td>6&quot;</td>
<td>10&quot;</td>
<td>6</td>
<td>9</td>
<td>12</td>
<td>10</td>
<td>12</td>
<td>10</td>
<td>12</td>
<td>16</td>
<td>12</td>
<td>2033</td>
<td></td>
</tr>
<tr>
<td>18&quot;</td>
<td>12&quot;</td>
<td>24&quot;</td>
<td>9</td>
<td>9</td>
<td>12</td>
<td>16</td>
<td>12</td>
<td>16</td>
<td>16</td>
<td>20</td>
<td>16</td>
<td>3333</td>
<td></td>
</tr>
<tr>
<td>24&quot;</td>
<td>12&quot;</td>
<td>30&quot;</td>
<td>12</td>
<td>12</td>
<td>16</td>
<td>20</td>
<td>16</td>
<td>20</td>
<td>20</td>
<td>24</td>
<td>16</td>
<td>4666</td>
<td></td>
</tr>
<tr>
<td>30&quot;</td>
<td>18&quot;</td>
<td>36&quot;</td>
<td>16</td>
<td>16</td>
<td>20</td>
<td>24</td>
<td>16</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>36</td>
<td>6000</td>
<td></td>
</tr>
<tr>
<td>36&quot;</td>
<td>24&quot;</td>
<td>42&quot;</td>
<td>20</td>
<td>20</td>
<td>24</td>
<td>30</td>
<td>16</td>
<td>30</td>
<td>30</td>
<td>36</td>
<td>16</td>
<td>9000</td>
<td></td>
</tr>
</tbody>
</table>
NOTES:

1. STRUCTURES SHALL NOT BE ADJUSTED FOR A PERIOD OF AT LEAST 24 HOURS AFTER RESURFACING IS COMPLETED IN THAT AREA.

2. ASPHALT SHALL BE CUT SO AS TO MAKE A SMOOTH, EVEN EDGE.

3. STRUCTURE COVER SHALL BE ADJUSTED TO FIT FLUSH WITH STREET SURFACE.

4. ALL CONCRETE SHALL BE 4000 P.S.I. HIGH EARLY STRENGTH UNLESS NOTED OTHERWISE.

5. CONCRETE SHALL BE USED TO BACKFILL THE ENTIRE WORKING AREA BETWEEN BACKS OF CURBS.

6. FINISHING CONCRETE SHALL BE DONE BY USE OF TROMMEL OR FLOAT.

7. SANITARY SEWER MANHOLES MUST BE VENTED IMMEDIATELY AFTER BEING PAIRED OVER. THEREFORE, WHEN MORE THAN ONE LIFT OF ASPHALT IS TO BE PLACED, THE CONTRACTOR MAY ADJUST STRUCTURE PRIOR TO PAVING.

8. ALL STREET CUTS MUST BE COVERED WITH STEEL PLATES OF SUFFICIENT THICKNESS TO SPAN THE CUT WITHOUT NOTicable DEFLECTION. PLATES TO REMAIN IN PLACE UNTIL THE CONCRETE BASE HAS GAINED SUFFICIENT STRENGTH TO WITHSTAND TRAFFIC LOADS (24 HR. MINIMUM).

MANHOLE  

USE UP TO THREE COURSES OF BRICK FOR ADJUSTMENT. IF MORE THAN 3 BRICKS REQUIRED, USE TIED SECTIONS.

MIN ANGLE 30°

NEW PAVEMENT

OLD PAVEMENT

SUB BASE

50'

SAW CUT

100' CONCRETE

4000 P.S.I. HIGH EARLY STRENGTH

SAW CUT

WILL IN RESURFACE 1.5'

50' ON EACH SIDE OF CUT

WILL IN RESURFACE 1.5'

50' ON EACH SIDE OF CUT

WITH 12.5 MW SUPERPAVE

WITH 12.5 MW SUPERPAVE

BACKFILL — TAMP IN MAXIMUM 6" LAYERS TO MINIMUM SUGGESTED AT OPTIMUM MOISTURE; 98% TO 100% FOR TOP 12".

BENCH BACK A MINIMUM OF 9''

ON EACH SIDE OF TRENCH

PIPE

CONDITIONAL UTILITY CUTS:

ALL CONDITIONAL UTILITY CUTS SHALL BE REQUIRED TO MILL AND RESURFACE THE ENTIRE LANE OF TRAVEL FOR THE LENGTH OF THE TRENCH PLUS 50' ON EACH END OF THE TRENCH. CONDITIONAL UTILITY TRENCHES ALONG THE CENTRELINE OF A ROADWAY SHALL BE REQUIRED TO MILL AND RESURFACE BOTH TRAVEL LANES FOR THE LENGTH OF THE TRENCH PLUS 50' ON EACH END OF THE TRENCH. THE REQUIRED DEPTH OF MILLING SHALL BE 1.5" AND RESURFACING SHALL BE PERFORMED WITH 12.5 MW SUPERPAVE.
**STREET NAME SIGN**

**OVERHEAD SIGN**

1. Refer to table below for primary sizing.
2. Refer to table below for suffix & prefix sizing.
3. Provide 1/2" white border around edge.
4. Street name sign shall be 3M high intensity prismatic (3M 3932) or equal.
5. Street name sign shall have electro-cuttable (EC, FLM) transparent green material installed over backing.
6. Vulcan VS-4 U.C. cap for 2" square post or equal.
7. Vulcan VS-4 cross or equal.
8. Base post square 2-1/4" x 5, 12 gauge.
9. Base post shall not extend more than 6" above grade.
10. Square post 2" x 10", 12 gauge.
11. Base post shall be driven 3-0" below finished grade.

<table>
<thead>
<tr>
<th>Type of Mounting</th>
<th>Type of Street or Highway</th>
<th>Speed Limit</th>
<th>Initial Upper-Case Height</th>
<th>Initial Lower-Case Height</th>
<th>Suffix &amp; Prefix Upper-Case Height</th>
<th>Suffix &amp; Prefix Lower-Case Height</th>
<th>Font</th>
<th>Sign Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overhead</td>
<td>All Types</td>
<td>All Speed Limits</td>
<td>12 inches</td>
<td>9 inches</td>
<td>6 inches</td>
<td>4.5 inches</td>
<td>FHA Series D 2000</td>
<td>21&quot; x varies*</td>
</tr>
<tr>
<td>Post-Mounted</td>
<td>Multi-Lane</td>
<td>More Than 40 MPH</td>
<td>8 inches</td>
<td>6 inches</td>
<td>4 inches</td>
<td>3 inches</td>
<td>FHA Series C 2000</td>
<td>9&quot; x varies*</td>
</tr>
<tr>
<td>Post-Mounted</td>
<td>Multi-Lane</td>
<td>40 MPH or Less</td>
<td>6 inches</td>
<td>4.5 inches</td>
<td>3 inches</td>
<td>2.25 inches</td>
<td>FHA Series C 2000</td>
<td>9&quot; x varies*</td>
</tr>
<tr>
<td>Post-Mounted</td>
<td>2-Lane</td>
<td>All Speed Limits</td>
<td>6 inches</td>
<td>4.5 inches</td>
<td>3 inches</td>
<td>2.25 inches</td>
<td>FHA Series C 2000</td>
<td>9&quot; x varies*</td>
</tr>
</tbody>
</table>

*Sign width shall be determined by the length of sign legend.

**NOTE:** Where applicable, street name sign shall be installed in conjunction with stop sign. Refer to MUTCD standards.
### TYPE I PAVEMENT SECTION: AVERAGE DAILY TRAFFIC (ADT) – 1000 VPD (LOCAL RESIDENTIAL STREET)

<table>
<thead>
<tr>
<th>MATERIAL TYPE</th>
<th>TOTAL THICKNESS (INCHES)</th>
<th>MAX LIFT THICKNESS (INCHES)</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>12.5 mm SUPERPAVE</td>
<td>1.5</td>
<td>2.5*</td>
</tr>
<tr>
<td>B</td>
<td>19 mm SUPERPAVE</td>
<td>2.0</td>
<td>3*</td>
</tr>
<tr>
<td>C</td>
<td>25 mm SUPERPAVE</td>
<td>-</td>
<td>5*</td>
</tr>
<tr>
<td>D</td>
<td>GRADED AGGREGATE BASE</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>E</td>
<td>UPPER 12 INCHES SOL SUBGRADE</td>
<td>12</td>
<td>-</td>
</tr>
</tbody>
</table>

*ALLOW UP TO 4 INCHES THICK FOR DRAINAGE AND SIDE ROAD TRANSITION

### TYPE II PAVEMENT SECTION: AVERAGE DAILY TRAFFIC (ADT) – 5000, 12000 & 16000 VPD (LOCAL RESIDENTIAL, 2 LANE RESIDENTIAL COLLECTOR & 2–3 LANE COLLECTOR STREETS)

<table>
<thead>
<tr>
<th>MATERIAL TYPE</th>
<th>TOTAL THICKNESS (INCHES)</th>
<th>MAX LIFT THICKNESS (INCHES)</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>12.5 mm SUPERPAVE</td>
<td>1.5</td>
<td>2.5*</td>
</tr>
<tr>
<td>B</td>
<td>19 mm SUPERPAVE</td>
<td>4</td>
<td>3*</td>
</tr>
<tr>
<td>C</td>
<td>25 mm SUPERPAVE</td>
<td>-</td>
<td>5*</td>
</tr>
<tr>
<td>D</td>
<td>GRADED AGGREGATE BASE</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>E</td>
<td>UPPER 12 INCHES SOL SUBGRADE</td>
<td>12</td>
<td>-</td>
</tr>
</tbody>
</table>

*ALLOW UP TO 4 INCHES THICK FOR DRAINAGE AND SIDE ROAD TRANSITION

### TYPE III PAVEMENT SECTION: AVERAGE DAILY TRAFFIC (ADT) – 18000 & 24000 VPD (4 LANE COLLECTOR & 5 LANE ARTERIAL STREETS)

<table>
<thead>
<tr>
<th>MATERIAL TYPE</th>
<th>TOTAL THICKNESS (INCHES)</th>
<th>MAX LIFT THICKNESS (INCHES)</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>12.5 mm SUPERPAVE</td>
<td>1.5</td>
<td>2.5*</td>
</tr>
<tr>
<td>B</td>
<td>19 mm SUPERPAVE</td>
<td>3</td>
<td>3*</td>
</tr>
<tr>
<td>C</td>
<td>25 mm SUPERPAVE</td>
<td>5</td>
<td>5*</td>
</tr>
<tr>
<td>D</td>
<td>GRADED AGGREGATE BASE</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>E</td>
<td>UPPER 12 INCHES SOL SUBGRADE</td>
<td>12</td>
<td>-</td>
</tr>
</tbody>
</table>

*ALLOW UP TO 4 INCHES THICK FOR DRAINAGE AND SIDE ROAD TRANSITION

Curb and Gutter Notes:
1. All pre-formed expansion joint required at all structures and radius points.
2. Surf. maximum distance between expansion joints.
4. Concrete strength shall be 3000 psi with a maximum slump of 3”.
5. Concrete finish shall be smoothed and keyed with a wooden float.
6. Curb shall extend a minimum of 8’ beyond edge of curb.
7. At contractor’s option, the curb thickness may be increased at edge of pavement to make bottom of curb parallel with paving base course, but the curb thickness must not be less than the specified 6” or at any point during construction, the contractor’s materials testing agency will be required to perform test cylinders and provide the visual results of said cylinders to the city inspectors. A minimum of one (1) set per pour per day is required. Pours in excess of fifty (50) cubic yards require one (1) set per fifty (50) cubic yards or fraction thereof.

### ROADWAY PAVEMENT SPECIFICATIONS, CURB AND GUTTER DETAILS

**08/01/2015**

**ALPHARETTA GEORGIA**

**STD. 901**
BRICK SIDEWALK NOTES:

1. UNIT CLAY PAVER SHALL CONFORM TO ASTM SPECIFICATION STANDARDS C902, CLASS SX, TYPE 1, APPLICATION PX.
2. UNITS SHALL BE 4" X 8" X 2-1/4" SIZE HAVING SQUARE EDGES, 10,000 PSI MINIMUM COMPRESSIVE STRENGTH AND BELOW 6% COLD WATER ABSORPTION.
3. PAVER COLORS SHALL BE A 60/40 MIX OF 60% PATHWAY FULL RANGE AND 40% PATHWAY COCOA BRICK PAVERS AS MANUFACTURED BY PINE HALL BRICK CO., INC., WINSTON-SALEM, NORTH CAROLINA OR APPROVED EALES.
4. DETECTABLE WARNING STRIPS SHALL BE 12" X 12" GEORGIA GREY GRANITE TRUNCATED DOME TILES AS MANUFACTURED BY COLD SPRING GRANITE COMPANY, COLD SPRING, MINNESOTA OR APPROVED EQUAL.
5. CONCRETE SLAB SHALL BE CONSTRUCTED PER CITY OF ALPHARETTA STANDARD DETAIL 902 – CONCRETE SIDEWALK DETAILS.
6. BRICK PAVER BANDS ADJACENT TO LANDSCAPE AREAS SHALL BE SET IN MORTAR. BRICK PAVER BAND SHALL BE FLUSH WITH ADJACENT BRICK PAVER FIELD.

BRICK PAVER SIDEWALK DETAIL
FOR DOWNTOWN ALPHARETTA

STD. 904

08/01/2015
NOTE:
RESIDENTIAL DRIVEWAYS SHALL COMPLY WITH GEORGIA
DEPARTMENT OF TRANSPORTATION SPECIAL DETAIL A1.