NOTES:
1. EITHER SOLID BLOCK OR PRECAST CONCRETE MAY BE USED.
2. CAST IN PLACE DESIGNS TO BE SUBMITTED.
3. CONCRETE WALLS TO BE 6" THICK MIN.
4. STEPS REQUIRED AT 16" O.C. THROUGHOUT, WHERE DEPTH EXCEEDS 5'.
5. USE ONLY 3000 PSI CONCRETE MIX.
6. INSIDE DIMENSION FOR 24" PIPE AND UP, USE PIPE DIAMETER PLUS 12".

SLAB TO BE COUNTER SUNK 1" IN DEPTH UNDER HANDLE

2-3"X1/2" ROUND OR SQUARE WASHER

2- HEX NUTS

1" Ø X 3" PIPE SLEEVE (TO ALLOW HANDLE TO MOVE FREELY)

OPENING: ONE COURSE HIGH

WEEP HOLES W/ STONE & WIRE MESH, 2" MIN. DIA.

STONE BEDDING
NOTE:
1. EITHER SOLID BLOCK, CONCRETE, OR PRECAST CONCRETE MAY BE USED.

2. FOR 24" R.C.P. AND LARGER--USE PIPE DIA PLUS 12" FOR MINIMUM INSIDE DIMENSION.

3. CAST IN PLACE DESIGNS TO BE SUBMITTED.
DETAIL SHOWING TYPES OF GRATES TO BE USED ACCORDING TO WATER FLOW

RAISED ARROW INDICATING FLOW DIRECTION

GRATE TYPES

TYPE 'F'

TYPE 'E'

TYPE 'G'

WATER FLOW → SAG ← WATER FLOW
SHALLOW TYPE
(5 FEET OR LESS IN DEPTH)

INTERMEDIATE TYPE (4'X4')
(5 FEET TO 20 FEET IN DEPTH)

DEEP TYPE (5'X5')
(OVER 20 FEET IN DEPTH)

NOTE:
1. SLAB THICKNESS AND REINFORCEMENT FOR SOIL AND TRAFFIC LOADING SHALL BE AS SPECIFIED BY AN ENGINEER.
2. ALTERNATE BLOCK LAYING DIRECTION EVERY THIRD COURSE.
3. FRAME, GRATE, & HOOD PER NCDOT STANDARD 840.03.
SHALLOW TYPE
(5 FEET OR LESS IN DEPTH)

INTERMEDIATE TYPE (4'X4')
(5 FEET TO 20 FEET IN DEPTH)

DEEP TYPE (5'X5')
(OVER 20 FEET IN DEPTH)

NOTE:
1. SLAB THICKNESS AND REINFORCEMENT FOR SOIL AND TRAFFIC LOADING SHALL BE AS SPECIFIED BY AN ENGINEER AND SHOWN ON PLANS.
2. FRAME, GRATE, & HOOD PER NCDOT STANDARD 840.03.
3. CONCRETE SHALL BE 4000 PSI MIN. FOR ALL PRECAST CONCRETE CATCH BASINS.
4. PRECAST CONCRETE STRUCTURES MAY ONLY BE INSTALLED TO DEPTHS CERTIFIED AS ACCEPTABLE BY THE MANUFACTURER.

SLAB DETAIL

TOWN OF APEX STANDARDS
EFFECTIVE: MARCH 6, 2018

PRECAST CATCH BASIN DETAIL

STD. NO. 500.05
SHEET 1 OF 1
STANDARD TYPE
(UP TO 20 FEET IN DEPTH)

STANDARD MANHOLE RING & COVER
TOP DESIGNED FOR HS-20 LOADING
PLASTIC CEMENT PUTTY OR BUTYL RUBBER JOINTS
WEEP HOLES W/ STONE & WIRE MESH, 2" MIN. DIA.
BRICK & MORTAR INVERT
STONE BEDDING

DEEP TYPE
(OVER 20 FEET IN DEPTH)

STANDARDS STEPS 16" ON CENTER (TYP.)

FLAT TOP DETAIL

STANDARDS STEPS 16" ON CENTER (TYP.)
58" Ø
12"

FLAT TOP DETAIL

70" Ø
12"

TRAFFIC AREAS: ECCENTRIC CONE ONLY
NON-TRAFFIC AREAS: FLAT TOP ONLY
FOR USE WITH NCDOT STANDARD
FOR ISLAND DIMENSIONS SEE NCDOT STANDARDS.

SECTION A-A

FOR USE WITH NCDOT STANDARD
FOR ISLAND DIMENSIONS SEE NCDOT STANDARDS.

SECTION B-B

TOWN OF APEX
STANDARDS

MEDIAN CURB INLET

EFFECTIVE: DECEMBER 3, 2002

STD. NO. 500.07

SHEET 1 OF 3
FOR USE WITH NCDOT STANDARD
FOR ISLAND DIMENSIONS SEE NCDOT
STANDARDS.

EARTH MATERIAL
WITH GRASS COVER

1'-6" CURB & GUTTER

½" EXPANSION JOINT

TOWN OF APEX
STANDARDS
EFFECTIVE: DECEMBER 3, 2002

MEDIAN CURB INLET
MEDIAN CURB INLET

FOR USE WITH NCDOT STANDARD
FOR ISLAND DIMENSIONS SEE NCDOT STANDARDS.

EARTH MATERIAL
WITH GRASS COVER

MEDIAN CURB & GUTTER
(T.O.C. STD. 3.11)
¼" EXPANSION JOINT

SECTION A-A
(2) 3/8"-13 HEX. BOLT. HEAVY NUT, WASHER & SPECIAL 2 x 2 x 2 x 3/4" STEEL WASHER

SEE INSET BELOW FOR LETTERING

GRATE STYLE DEPENDENT UPON APPLICATION REFER TO DETAIL 5.03 FOR GRATE TYPE

3/4"(19mm)  1 3/8"(36mm)  1 3/4"(44mm)  1 1/2"(38mm)  24"(610mm)  43"(1092mm)

BOLTING SLOTS

36 7/8"(937mm)  13 1/2"(343mm)  5 1/8"(130mm)  9 7/8"(251mm)  23 3/4"(603mm)  3 3/4"(95mm)  1 1/16"(27mm)  7"(178mm)  31 1/4"(794mm)

SECTION

HOOD LETTERING INSET

DUMP NO WASTE! DRAINS TO WATERWAYS

MNFR NAME  MADE IN USA  MO/DY/YR

TOWN OF APEX STANDARDS
EFFECTIVE: DECEMBER 3, 2002

FRAME DETAIL FOR CATCH BASIN

STD. NO.
500.08
**NOTES:**

1. EXCAVATE TO 4 INCHES BELOW THE PROPOSED PIPE ELEVATION.

2. PROVIDE 4 INCHES STONE BEDDING AND STONE BACKFILL TO SPRINGLINE.

3. WHERE BELL AND SPIGOT PIPE IS USED, PROVIDE RECESES TO RECEIVE PIPE BELL.

4. UNDERCUT UNSUITABLE MATERIAL AS DIRECTED BY THE ENGINEER AND BACKFILL WITH STONE OR OTHER APPROVED MATERIAL.

5. BACKFILL MATERIAL SHALL BE APPROVED SUITABLE MATERIAL.

6. WHERE NECESSARY, TEMPORARILY DIVERT SURFACE WATER TO MAINTAIN A DRY CONDITION IN THE PIPE FOUNDATION. DIRECT THIS TEMPORARY FLOW INTO SUITABLE EROSION CONTROL DEVICES.