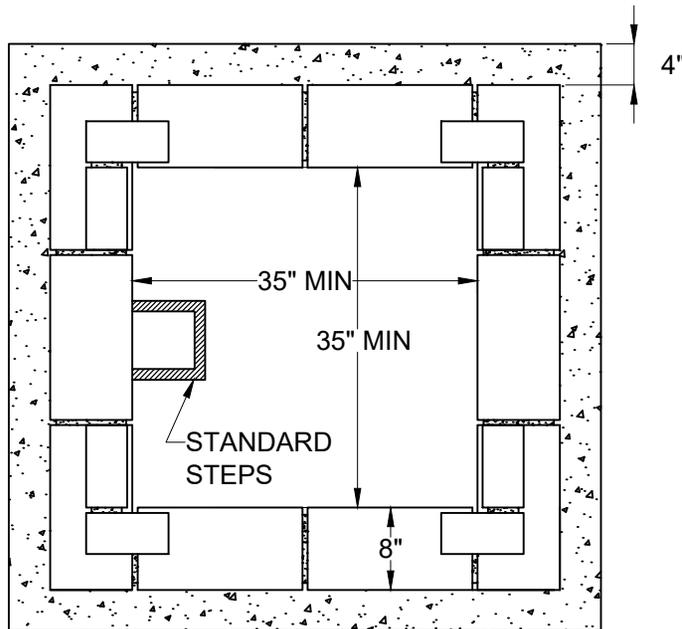


PRECAST CONCRETE SLAB

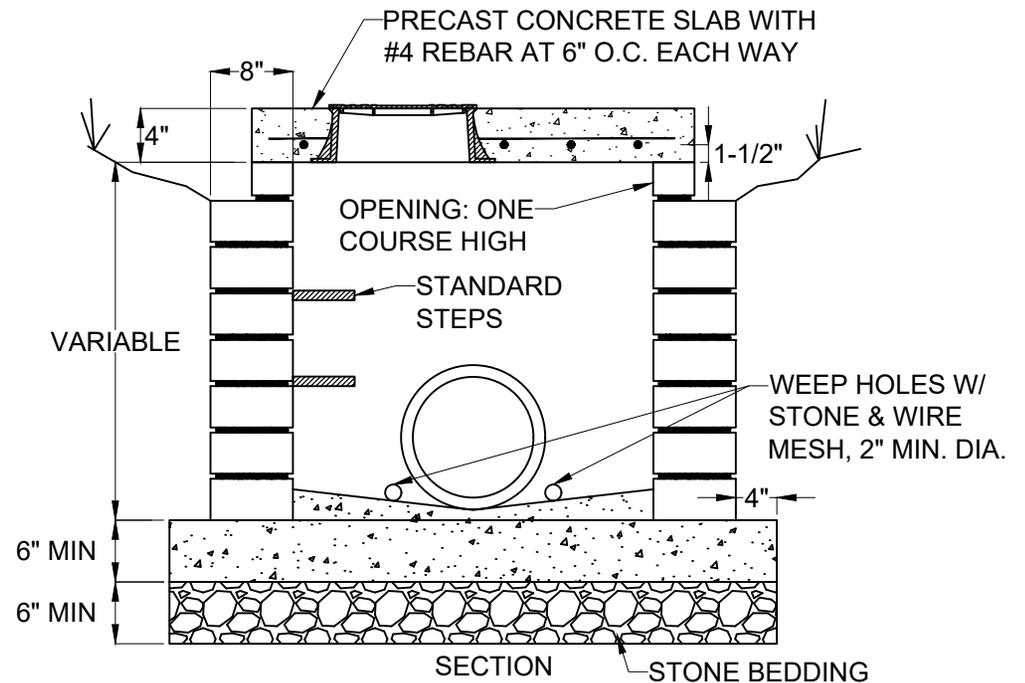
NOTES:

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 3'.
5. USE ONLY 3000 PSI CONCRETE MIX.
6. INSIDE DIMENSION FOR  $\geq 24"$  PIPE, USE PIPE DIAMETER PLUS 12".

STANDARD MANHOLE RING AND COVER IN LINE WITH STEPS  
MAY BE CAST IN SLAB OR SECURED TO TOP OVER STEPS



PLAN



SECTION

STONE BEDDING

TOWN OF APEX  
STANDARDS

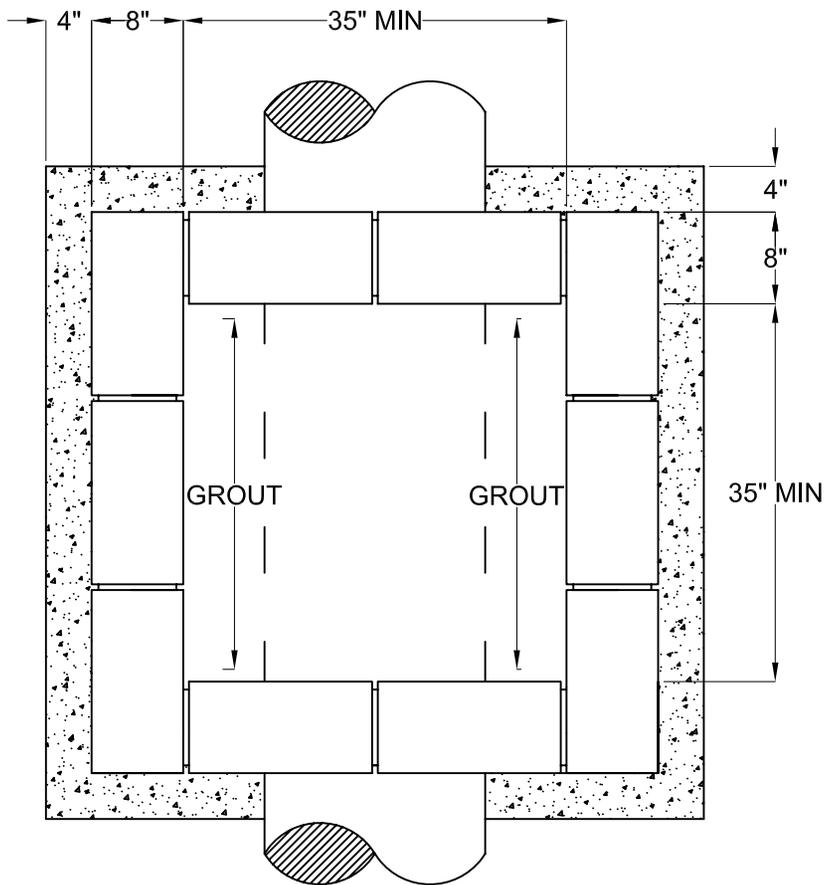
EFFECTIVE: AUGUST 12, 2025

YARD INLET W/ CONCRETE SLAB

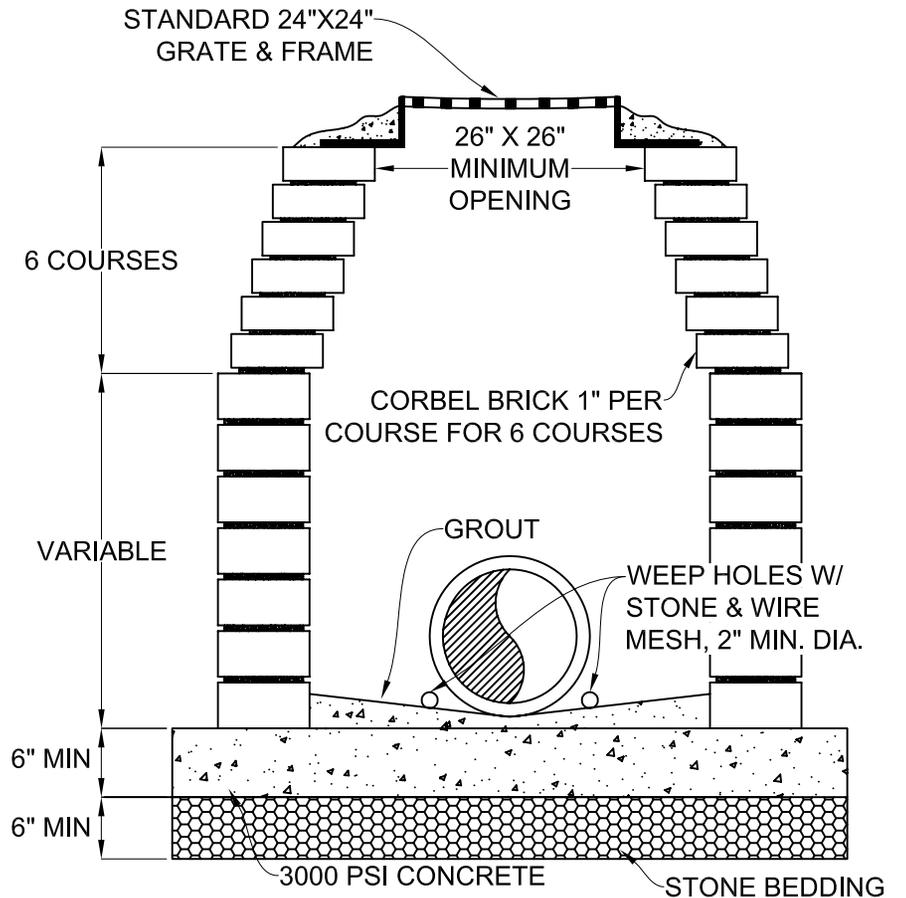
STD. NO.

500.01

SHEET 1 OF 1



PLAN



SECTION

**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.

TOWN OF APEX  
STANDARDS

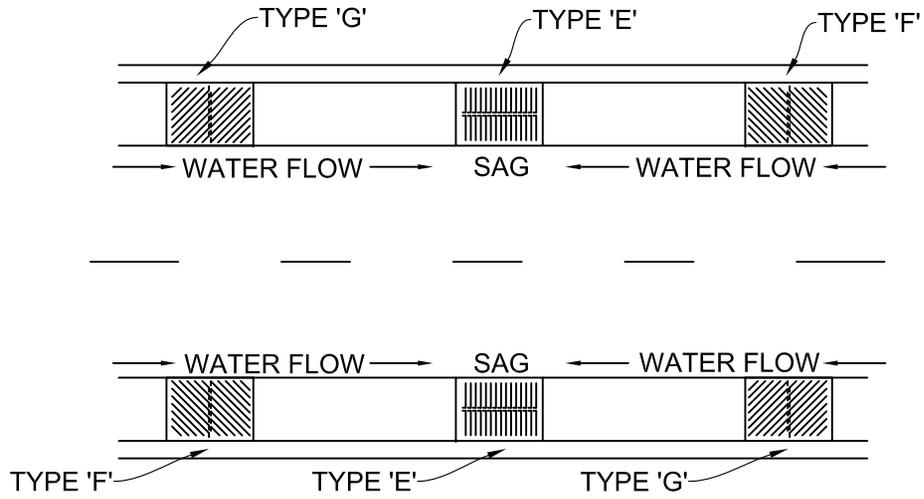
EFFECTIVE: DECEMBER 18, 2012

**YARD INLET W/ GRATE & FRAME**

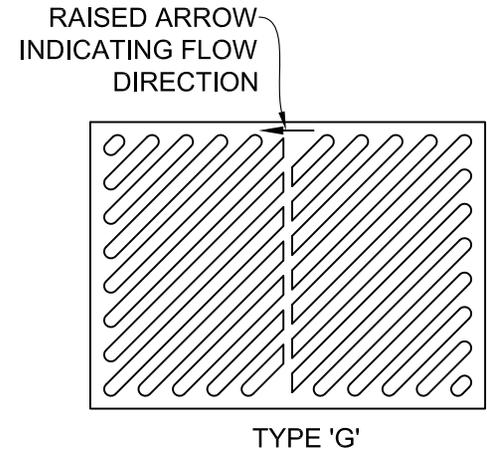
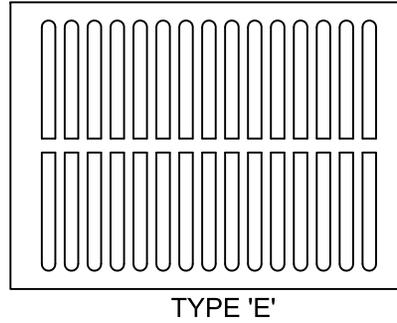
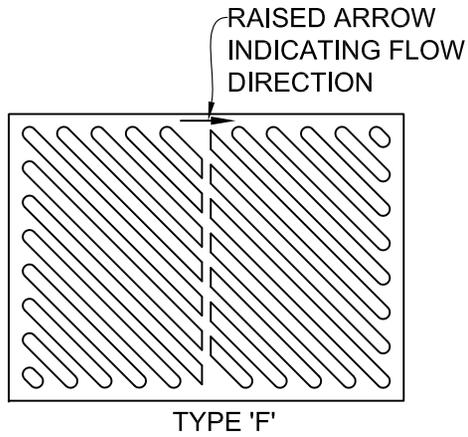
STD. NO.

**500.02**

SHEET 1 OF 1

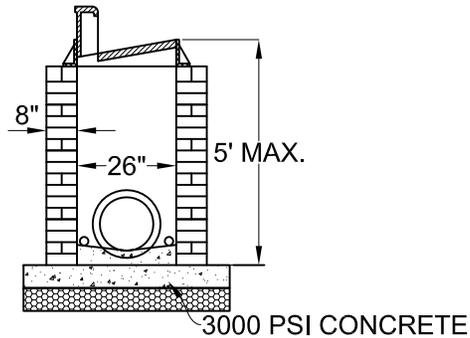
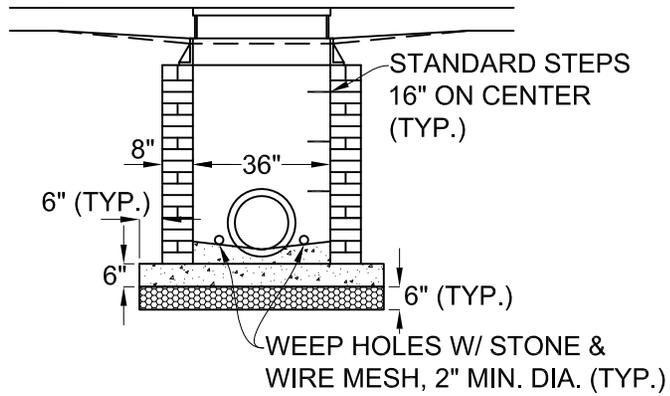


**DETAIL SHOWING TYPES OF GRATES TO BE USED  
ACCORDING TO WATER FLOW**

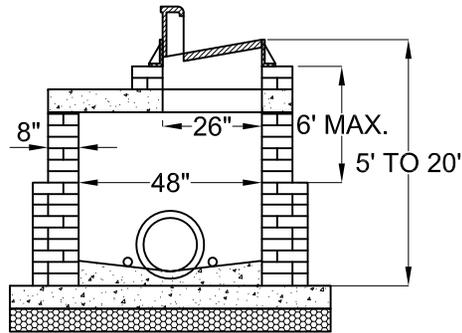
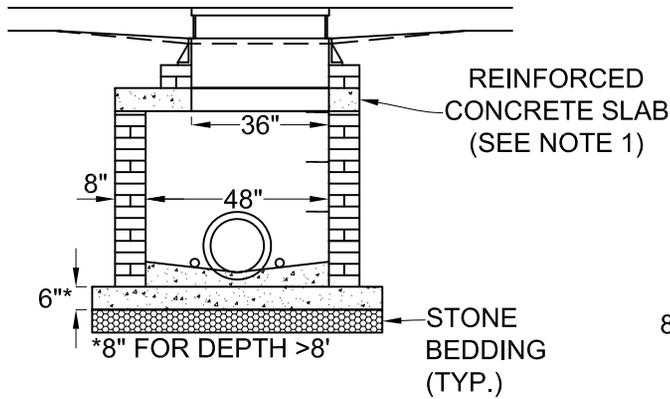


**GRATE TYPES**

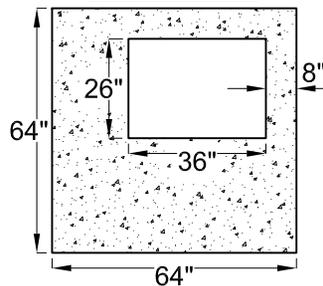
**SHALLOW TYPE**  
(5 FEET OR LESS IN DEPTH)



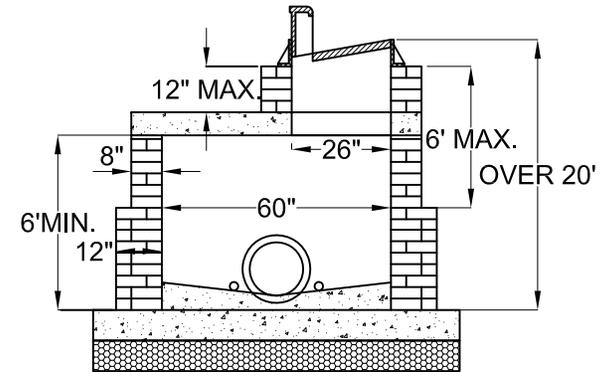
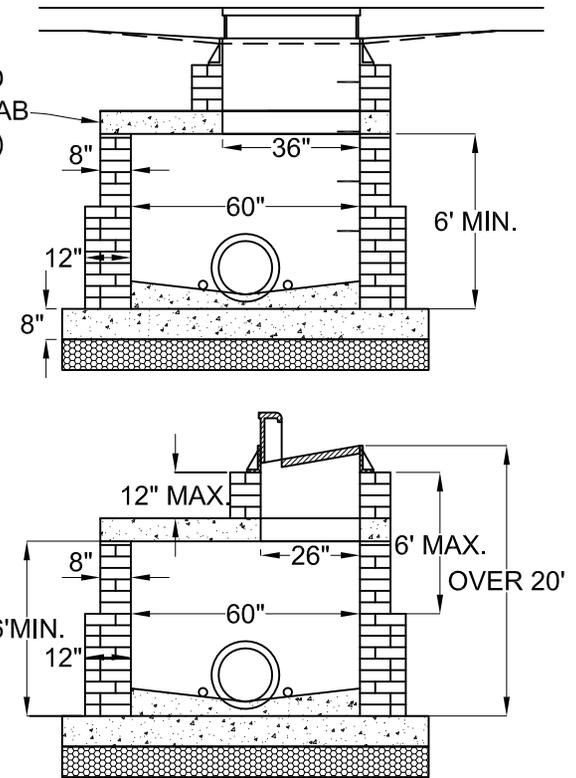
**INTERMEDIATE TYPE (4'X4')**  
(5 FEET TO 20 FEET IN DEPTH)



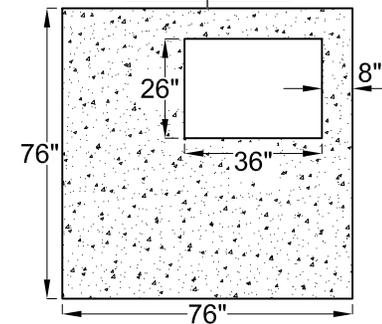
**SLAB DETAIL**



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



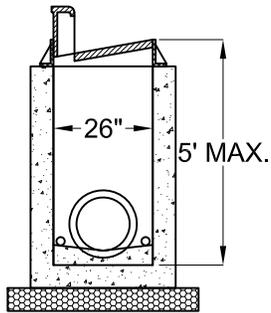
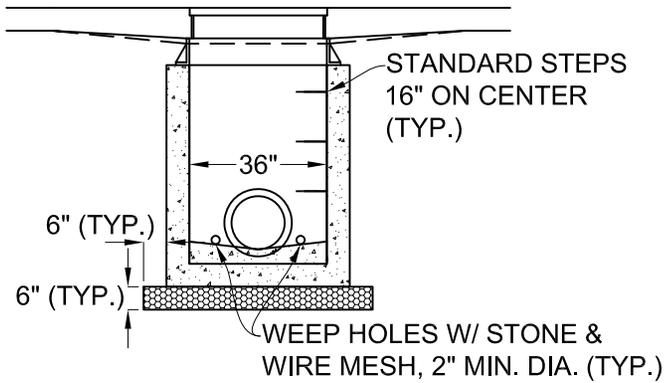
**SLAB DETAIL**



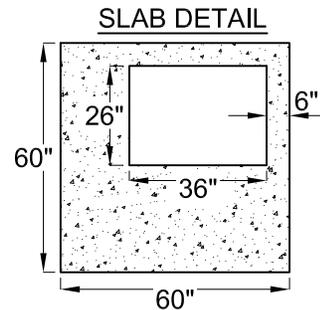
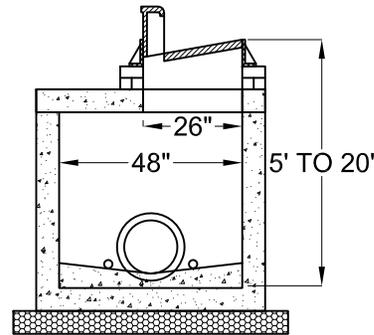
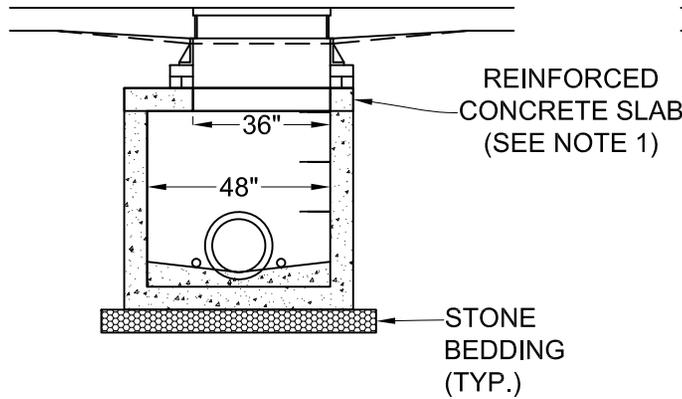
**NOTES:**

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.

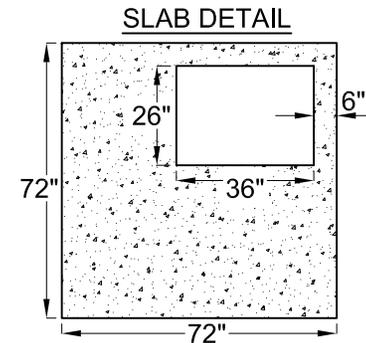
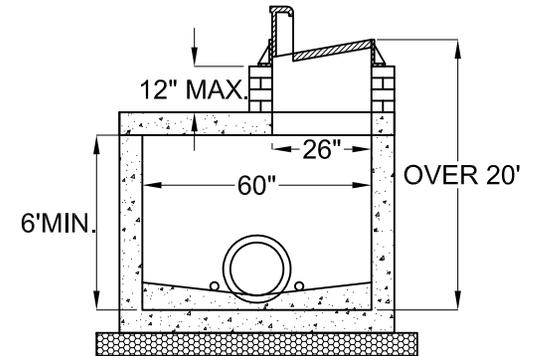
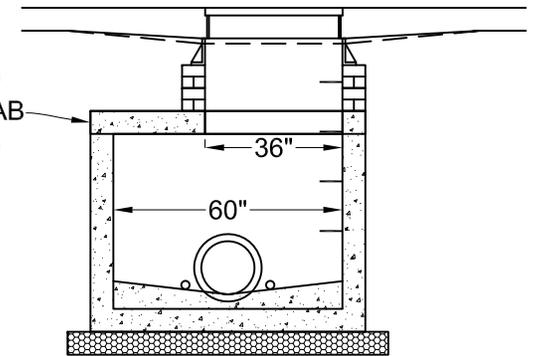
SHALLOW TYPE  
(5 FEET OR LESS IN DEPTH)



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



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

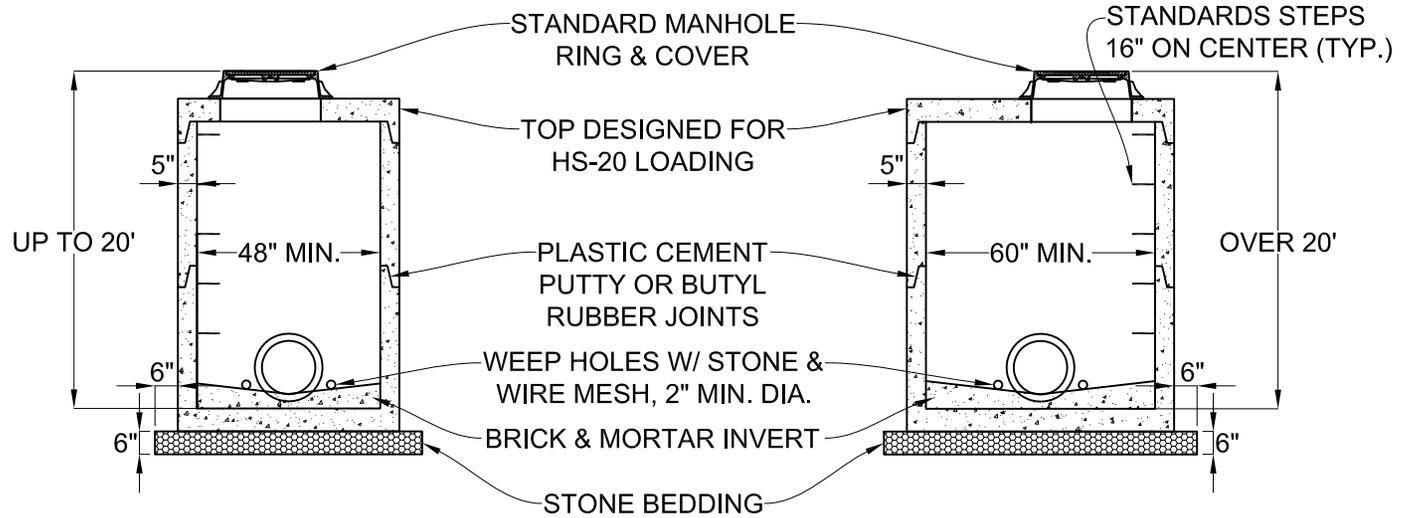


**NOTE:**

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.

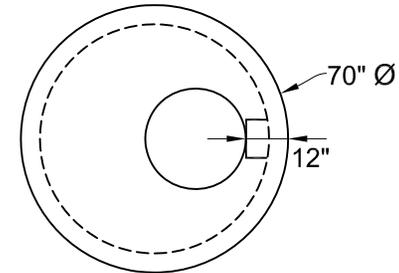
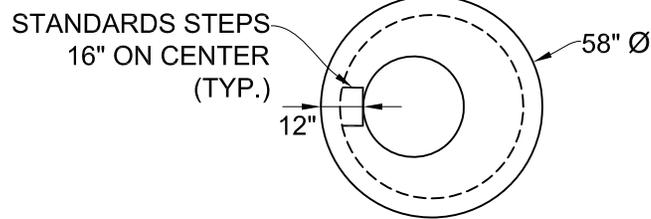
**STANDARD TYPE**  
(UP TO 20 FEET IN DEPTH)

**DEEP TYPE**  
(OVER 20 FEET IN DEPTH)



FLAT TOP DETAIL

FLAT TOP DETAIL



TRAFFIC AREAS: ECCENTRIC CONE ONLY  
NON-TRAFFIC AREAS: FLAT TOP ONLY

TOWN OF APEX  
STANDARDS

**PRECAST MANHOLE JUNCTION BOX**

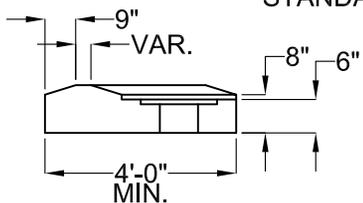
EFFECTIVE: DECEMBER 18, 2012

STD. NO.

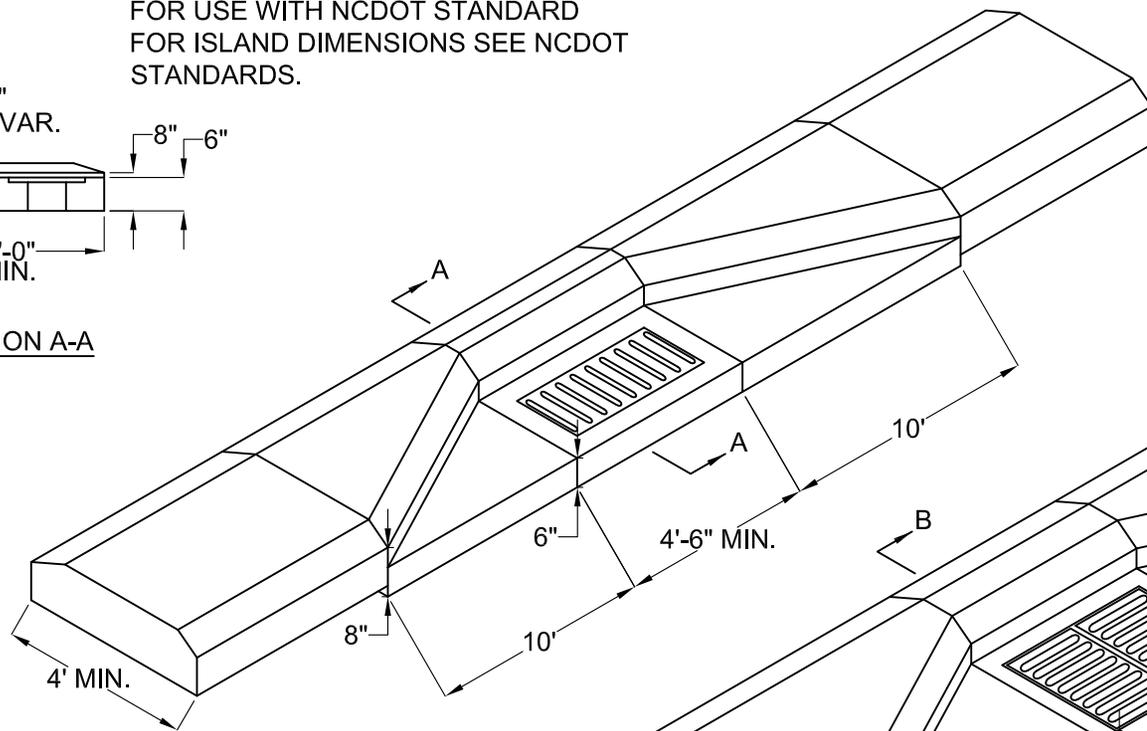
**500.06**

SHEET 1 OF 1

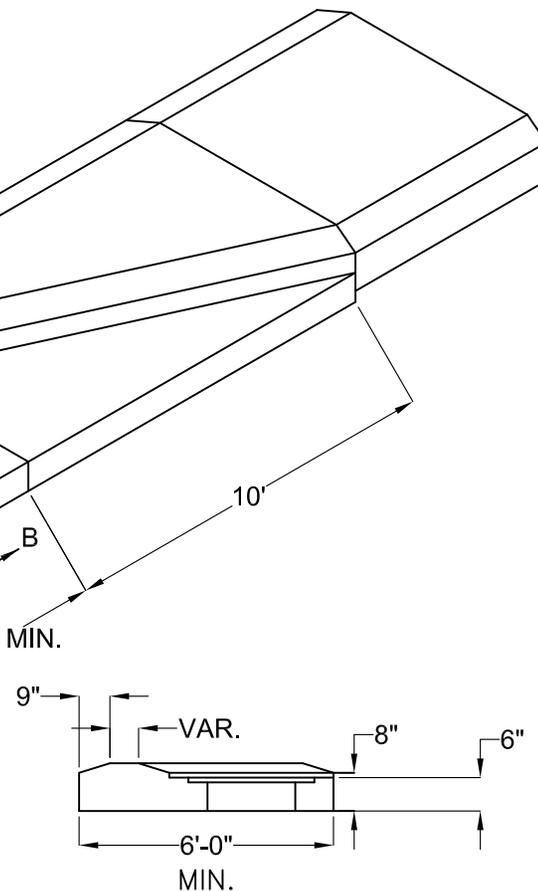
FOR USE WITH NCDOT STANDARD  
FOR ISLAND DIMENSIONS SEE NCDOT  
STANDARDS.



SECTION A-A



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



SECTION B-B

TOWN OF APEX  
STANDARDS

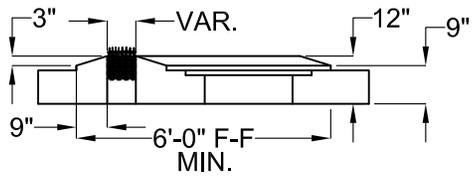
EFFECTIVE: DECEMBER 3, 2002

# MEDIAN CURB INLET

STD. NO.

**500.07**

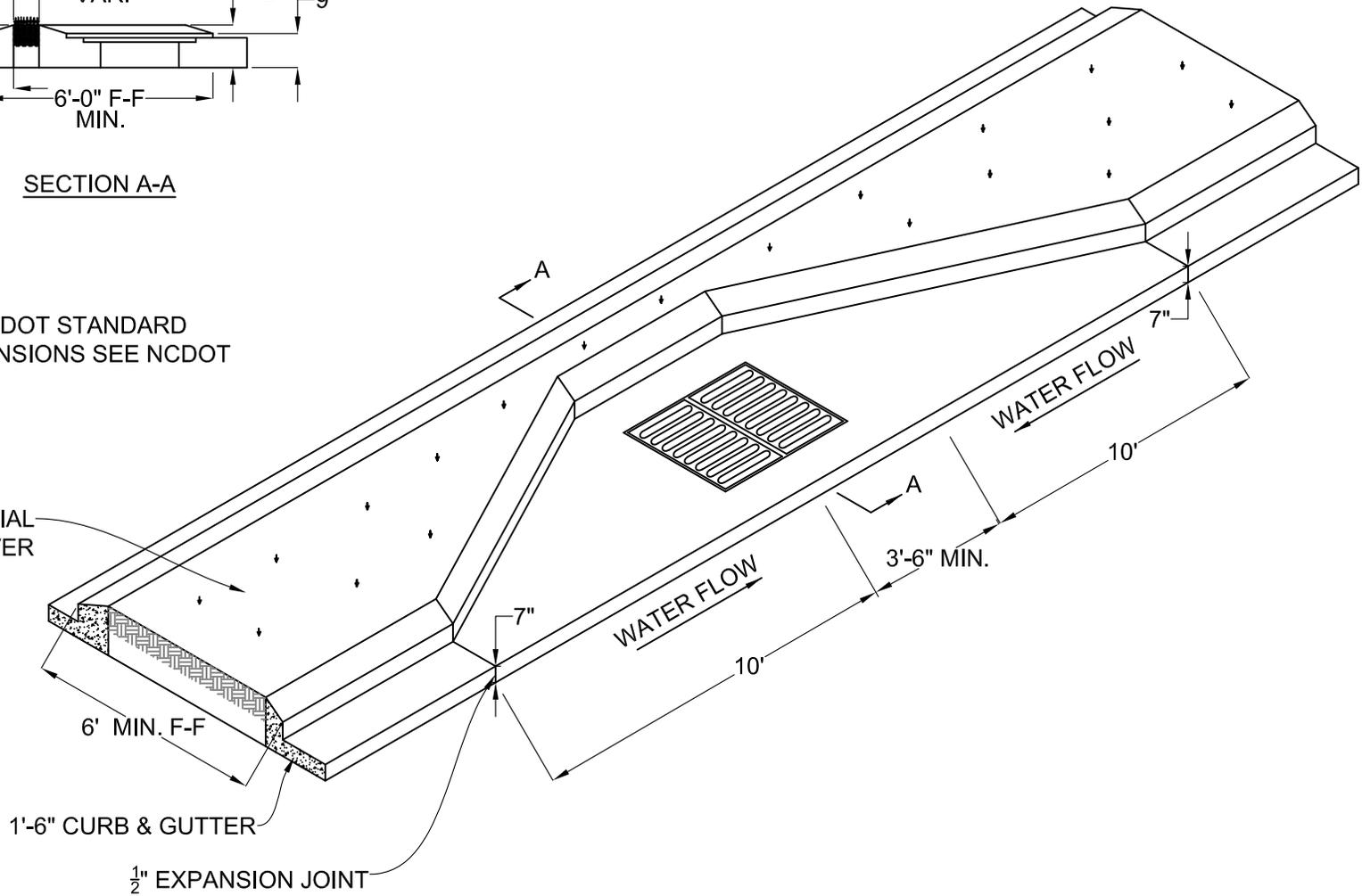
SHEET 1 OF 3



SECTION A-A

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

EARTH MATERIAL  
WITH GRASS COVER



TOWN OF APEX  
STANDARDS

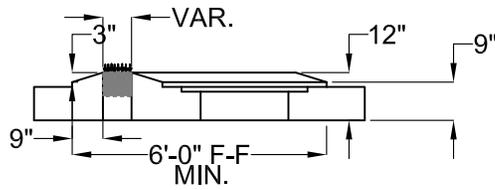
EFFECTIVE: DECEMBER 3, 2002

# MEDIAN CURB INLET

STD. NO.

500.07

SHEET 2 OF 3

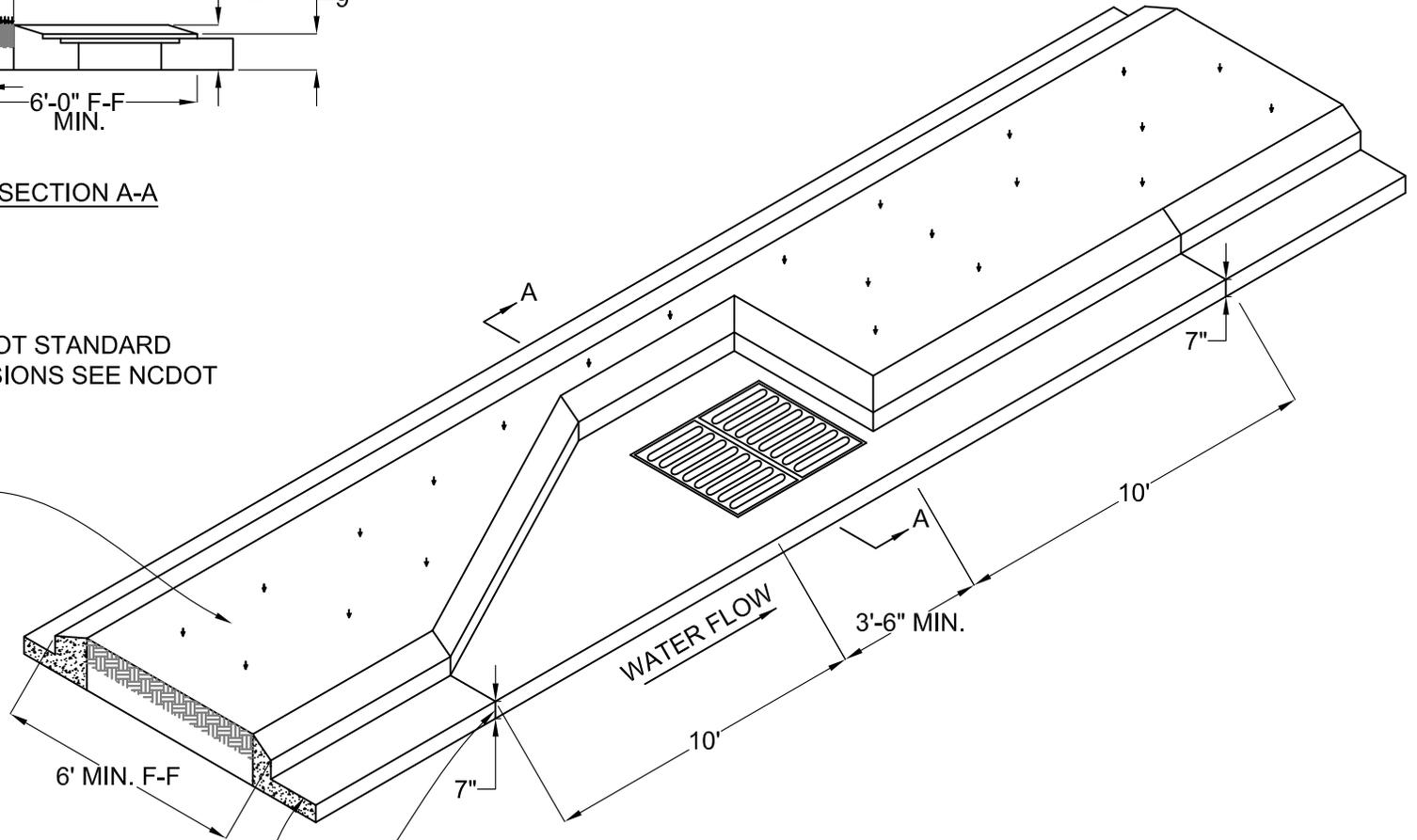


SECTION A-A

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)  
 $\frac{1}{2}$ " EXPANSION JOINT



TOWN OF APEX  
STANDARDS

EFFECTIVE: DECEMBER 3, 2002

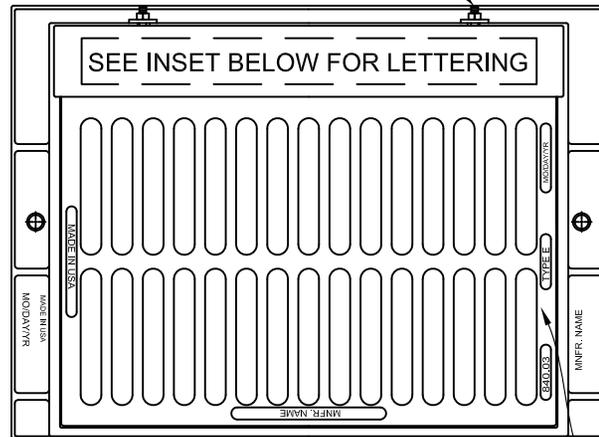
# MEDIAN CURB INLET

STD. NO.

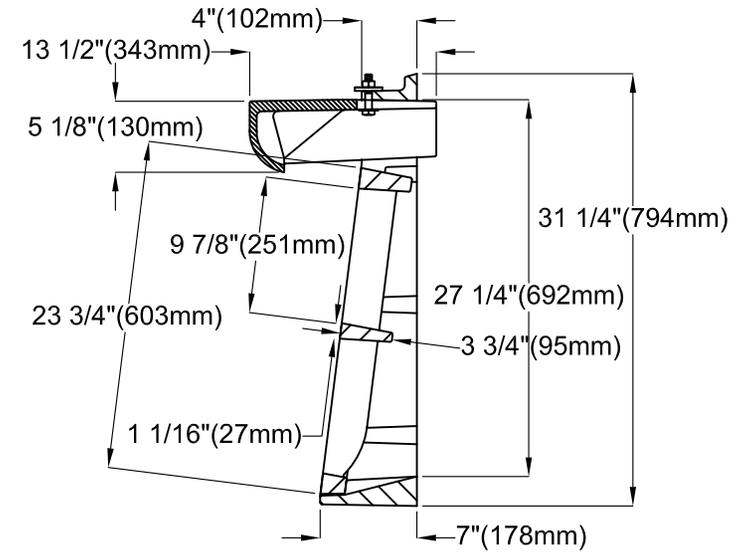
500.07

SHEET 3 OF 3

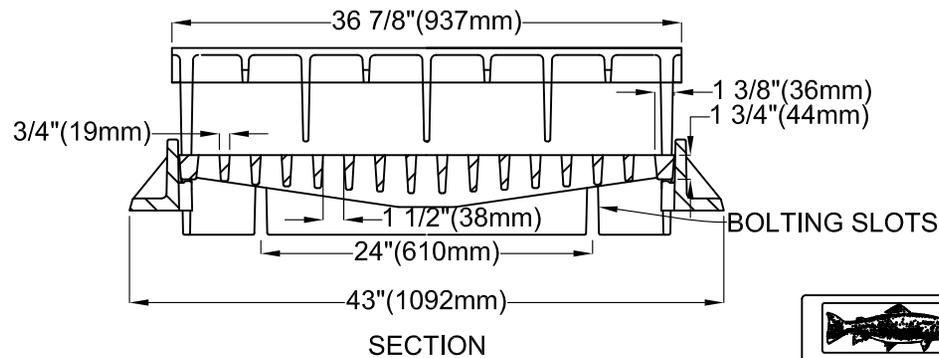
(2) 1/2"-13 HEX. BOLT. HEAVY NUT, WASHER & SPECIAL 2 x 2 x 2 x 1/4" STEEL WASHER



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



SECTION



SECTION

HOOD LETTERING INSET

**DUMP NO WASTE! DRAINS TO WATERWAYS**

*MNFR NAME*      *MADE IN USA*      *MO/DY/YR*

TOWN OF APEX  
STANDARDS

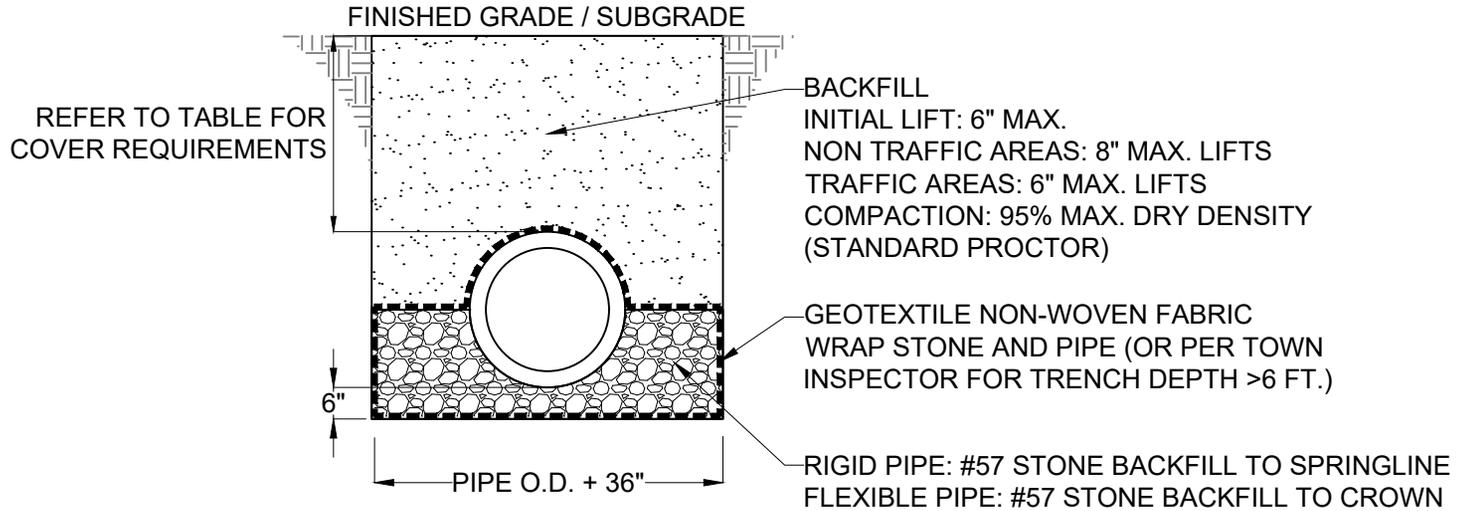
# FRAME DETAIL FOR CATCH BASIN

EFFECTIVE: DECEMBER 3, 2002

STD. NO.

**500.08**

SHEET 1 OF 1



CLASS	RCP	
	MIN (ft)	MAX (ft)
III	2	20
IV	1	30

Pipe Diameter (in)	PP		CSP		CAAP	
	MIN (in)	MAX (ft)	MIN (in)	MAX (ft)	MIN (in)	MAX (ft)
15	12	28	12	158	12	98
18	12	28	12	131	12	81
21			12	113	12	69
24	12	26	12	98	12	60
30	12	26	12	79	12	57
36	12	20	12	65	12	47
42	12	20	12	55	12	40
48	12	20	12	48	12	35
54			12	56	15	31
60	24	20	12	50	15	28

**NOTES:**

1. EXCAVATE TO 6 INCHES BELOW THE PROPOSED PIPE ELEVATION.
2. PROVIDE 6 INCHES STONE BEDDING.
3. WHERE BELL AND SPIGOT PIPE IS USED, PROVIDE RECESSES 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. MAX. BACKFILL LIFTS ARE STATED IN UNCOMPACTED DEPTHS.
7. WHERE NECESSARY, TEMPORARILY DIVERT SURFACE WATER TO MAINTAIN A DRY CONDITION IN THE PIPE FOUNDATION. DIRECT THIS TEMPORARY FLOW INTO SUITABLE EROSION CONTROL DEVICES.

TOWN OF APEX  
STANDARDS

EFFECTIVE: AUGUST 12, 2025

**STORM DRAIN PIPE BEDDING & BACKFILLING**

STD. NO.

**500.09**

SHEET 1 OF 1