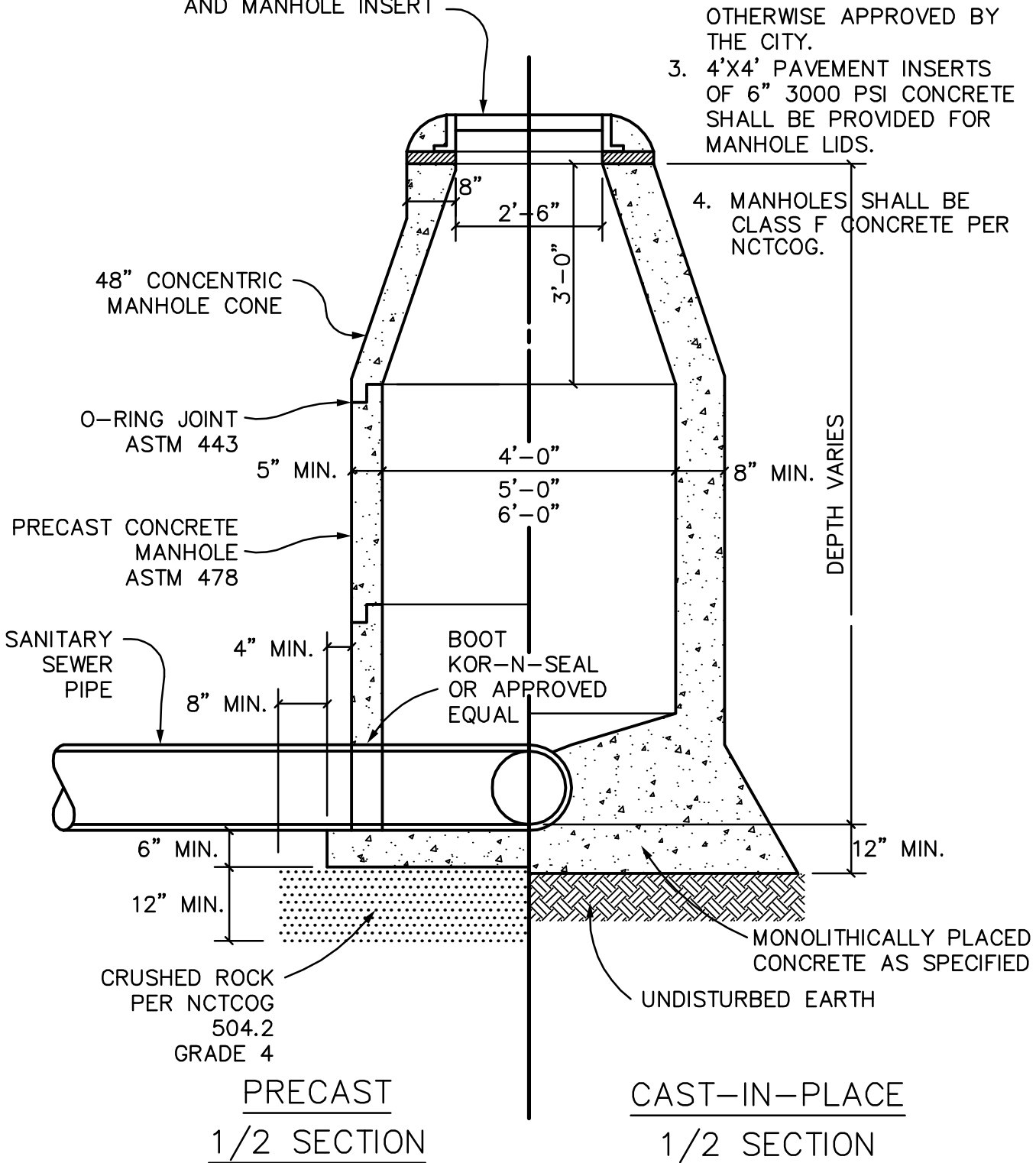


SEE DETAIL S03
FOR PLACEMENT OF
GRADE RINGS, FRAME,
AND MANHOLE INSERT

1. MAXIMUM CHIMNEY HEIGHT SHALL BE 15".
2. MANHOLES SHALL BE CONCENTRIC UNLESS OTHERWISE APPROVED BY THE CITY.
3. 4'X4' PAVEMENT INSERTS OF 6" 3000 PSI CONCRETE SHALL BE PROVIDED FOR MANHOLE LIDS.

4. MANHOLES SHALL BE CLASS F CONCRETE PER NCTCOG.



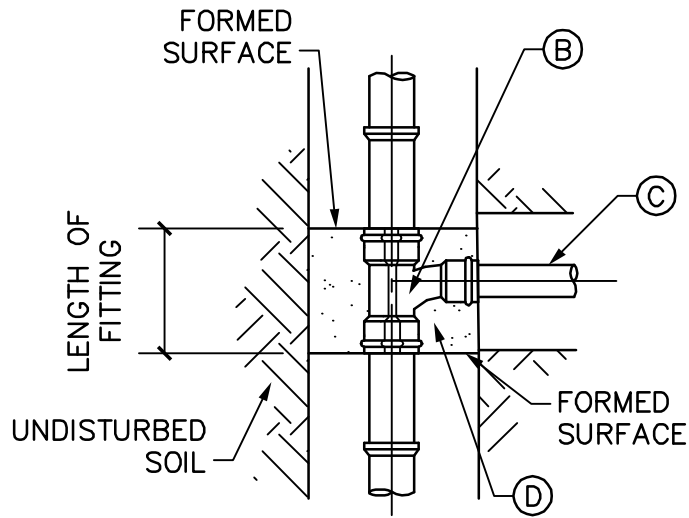
PRECAST
1/2 SECTION

CAST-IN-PLACE
1/2 SECTION

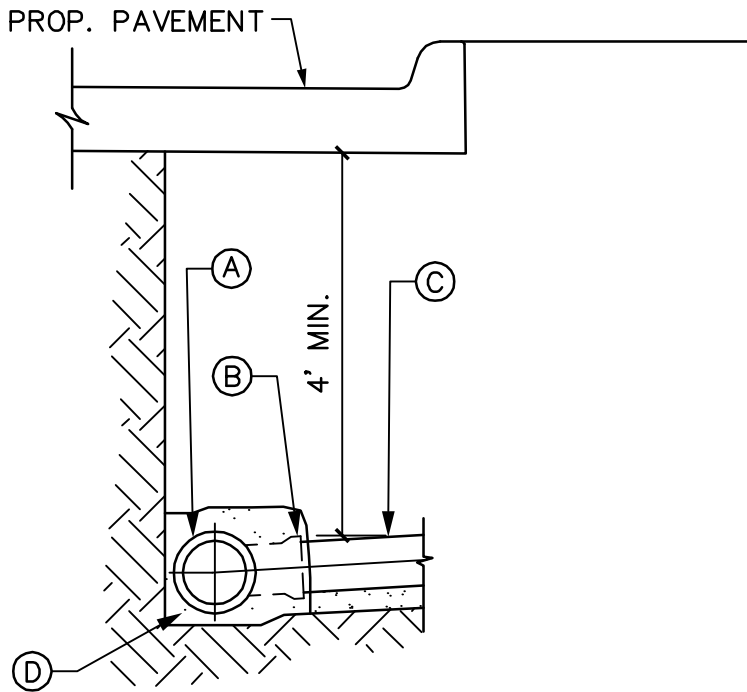


STANDARD CONSTRUCTION DETAIL
PRECAST AND CAST-IN-PLACE MANHOLE

SCALE: 3/4"=1'-0"
REVISED: NOV 2014
S01



PLAN VIEW



SECTION VIEW

KEY:

- (A) WASTEWATER MAIN
- (B) 4" WYE
- (C) 4" WASTEWATER LAT.
(LENGTH VARIES)
- (D) CLASS B CONCRETE



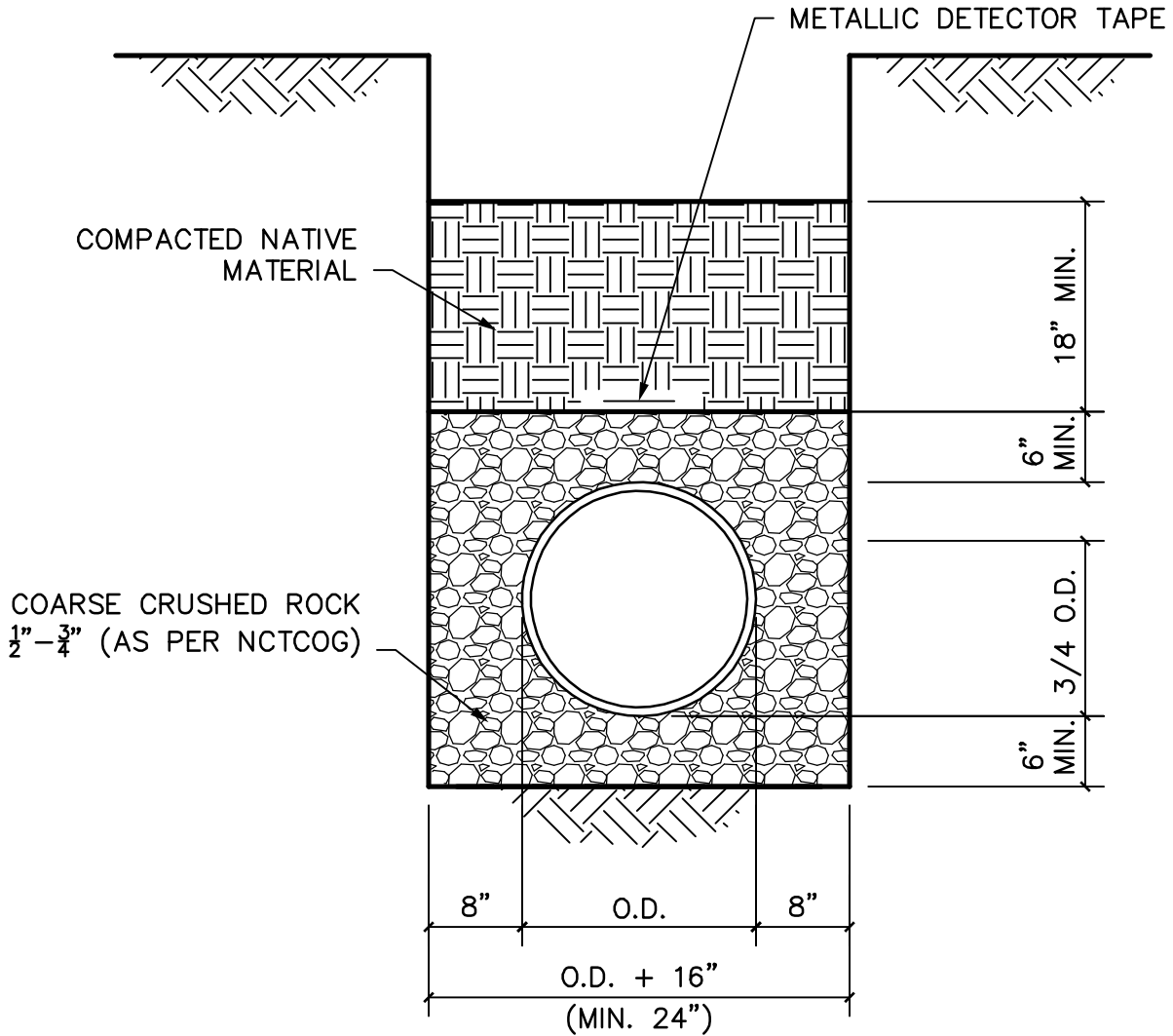
STANDARD CONSTRUCTION DETAIL

WASTEWATER LATERAL

SCALE: 1/2"=1'-0"

REVISED: DEC 2014

S10



CLASS "H"

NOTES:

1. UTILIZE CLASS "H" EMBEDMENT FOR PVC (SDR-35 OR SDR-26) WASTEWATER LINE INSTALLATIONS.
2. INSTALLATION SHALL BE IN ACCORDANCE WITH NCTCOG ITEM 503.
3. BEDDING DEPTH MEASURED FROM OUTSIDE THE PIPE BELL.



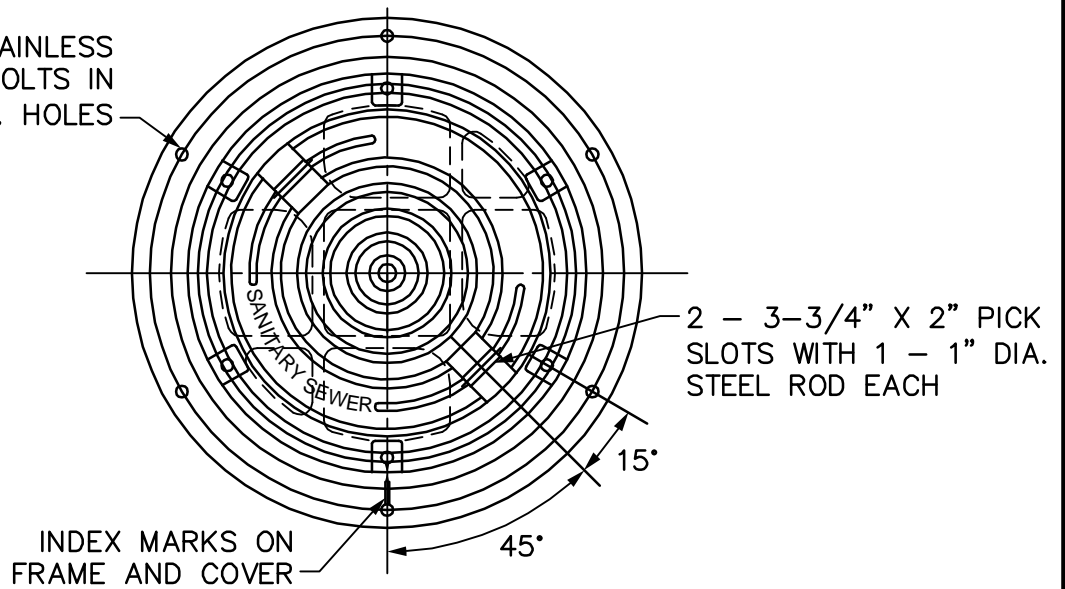
STANDARD CONSTRUCTION DETAIL
EMBEDMENT "H" (WASTEWATER)

SCALE: $\frac{3}{4}$ "=1'-0"

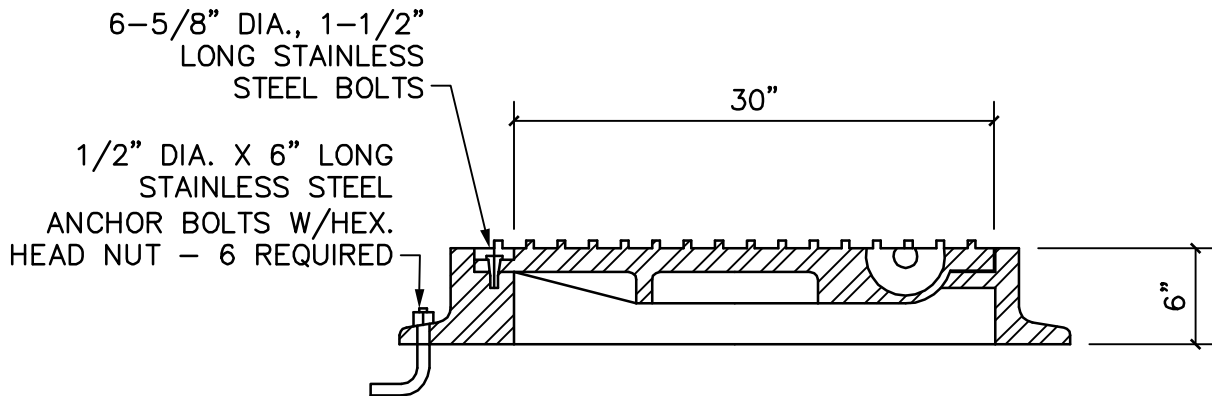
REVISED: NOV 2014

S02

6-1/2" DIA. STAINLESS
STEEL ANCHOR BOLTS IN
5/8" DIA. HOLES



ASSEMBLY PLAN VIEW



ASSEMBLY CROSS SECTION

NOTES:

1. THE HORIZONTAL BEARING SURFACES ARE TO BE MACHINE FINISHED.
2. FOR A SEAL BETWEEN THE RING FRAME AND COVER A 1/4" DIA. NEOPRENE "O-RING" GASKET SHALL BE INSTALLED BY THE MANUFACTURER. THE LOCATION SHALL BE AS PER THE MANUFACTURER'S STANDARDS BUT SHALL BE SUBJECT TO THE APPROVAL OF THE CITY.
3. THE SOLID LID WILL BE PROVIDED WITH MANUFACTURER'S STANDARD LETTERING SHOWING "SANITARY SEWER".
4. NOT ALLOWED IN TRAFFIC AREA.

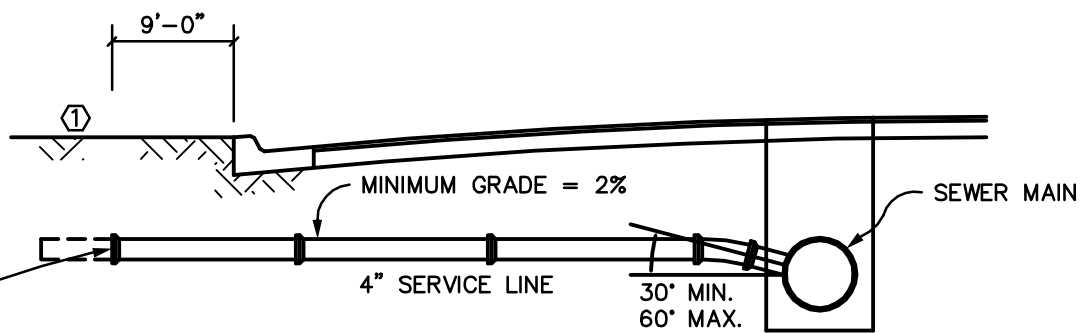


STANDARD CONSTRUCTION DETAIL PRESSURE MANHOLE LID AND FRAME

SCALE: 1"=1'-0"

REVISED: NOV 2014

S03

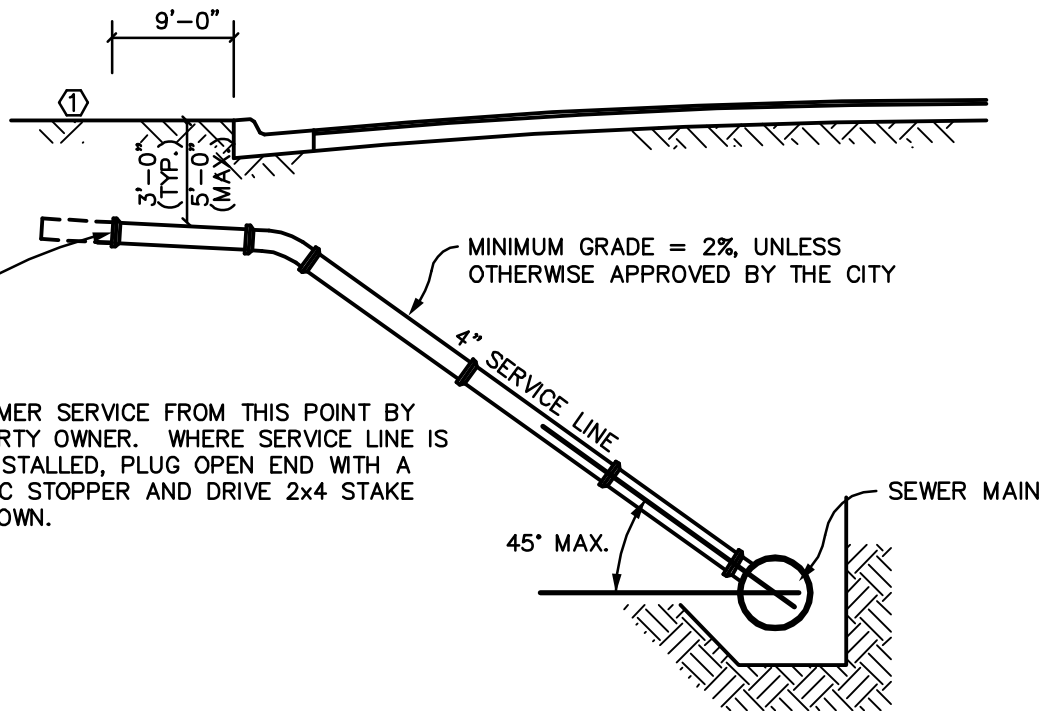


CUSTOMER SERVICE FROM THIS POINT BY PROPERTY OWNER. WHERE SERVICE LINE IS NOT INSTALLED, PLUG OPEN END WITH A PLASTIC STOPPER AND DRIVE 2x4 STAKE AS SHOWN. INSTALL 3M LOCATOR DISK 8"-10" ABOVE PIPE.

NOTE: A MINIMUM SEPARATION OF 6-INCHES IS REQUIRED WHEN A SEWER SERVICE CROSSES A WATER MAIN.

STANDARD SEWER SERVICE DETAIL

NOTE: EITHER A WYE FITTING OR A TEE WYE FITTING MAY BE USED FOR CONNECTION TO SEWER MAIN. NO TEES OR WYE SADDLES WILL BE ALLOWED. ALL CONNECTIONS TO BE MADE AT THE TWO O'CLOCK OR TEN O'CLOCK POSITION. CONNECTIONS TO SEWER MAINS FROM 0' TO 7' DEEP SHALL CONFORM TO THE STANDARD SEWER CONNECTION DETAIL. CONNECTIONS TO SEWER MAINS DEEPER THAN 7' SHALL CONFORM TO THE DEEP SEWER CONNECTION DETAIL.



CUSTOMER SERVICE FROM THIS POINT BY PROPERTY OWNER. WHERE SERVICE LINE IS NOT INSTALLED, PLUG OPEN END WITH A PLASTIC STOPPER AND DRIVE 2x4 STAKE AS SHOWN.



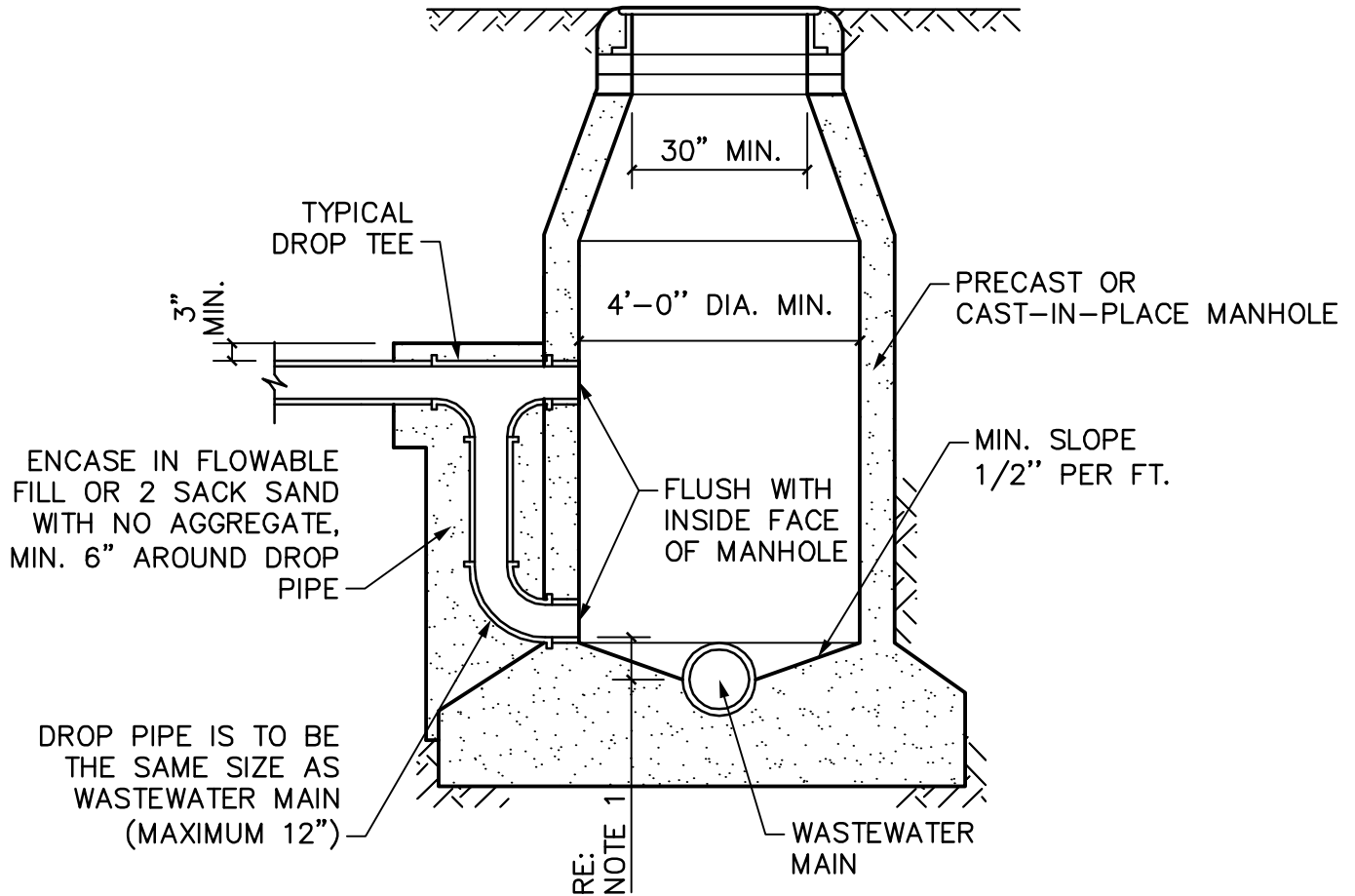
STANDARD CONSTRUCTION DETAIL

4" SEWER SERVICE

SCALE: 3/4"=1'-0"

REVISED: DEC 2014

S04



NOTES:

1. FLOWLINE OF DROP SHALL BE LOCATED BETWEEN THE CENTERLINE AND TOP OF WASTEWATER MAIN.
2. THERE SHALL BE A MINIMUM OF TWO-TENTHS OF A FOOT (0.1') DROP BETWEEN INVERTS OF PIPES IN AND OUT OF MANHOLES.
3. WHERE UNEQUAL PIPES ENTER A MANHOLE, THE CROWN OF THE PIPES SHALL BE SET AT THE SAME ELEVATION.
4. MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH NCTCOG ITEM 502.1.
5. RAVEN LINING OR APPROVED EQUAL SHALL BE PLACED ON ALL DROP MANHOLES
6. MANHOLES SHALL BE CLASS F CONCRETE PER NCTCOG

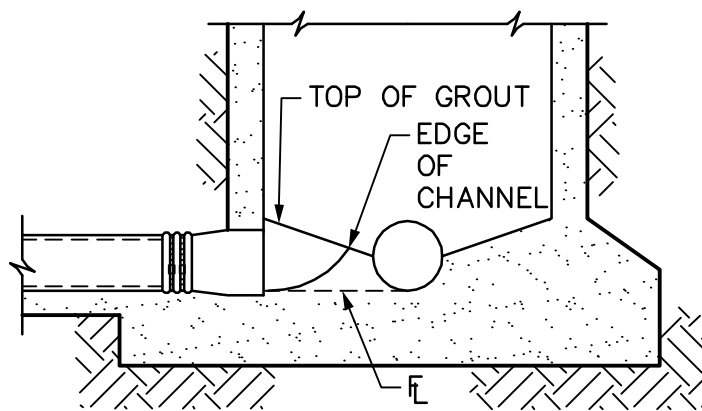
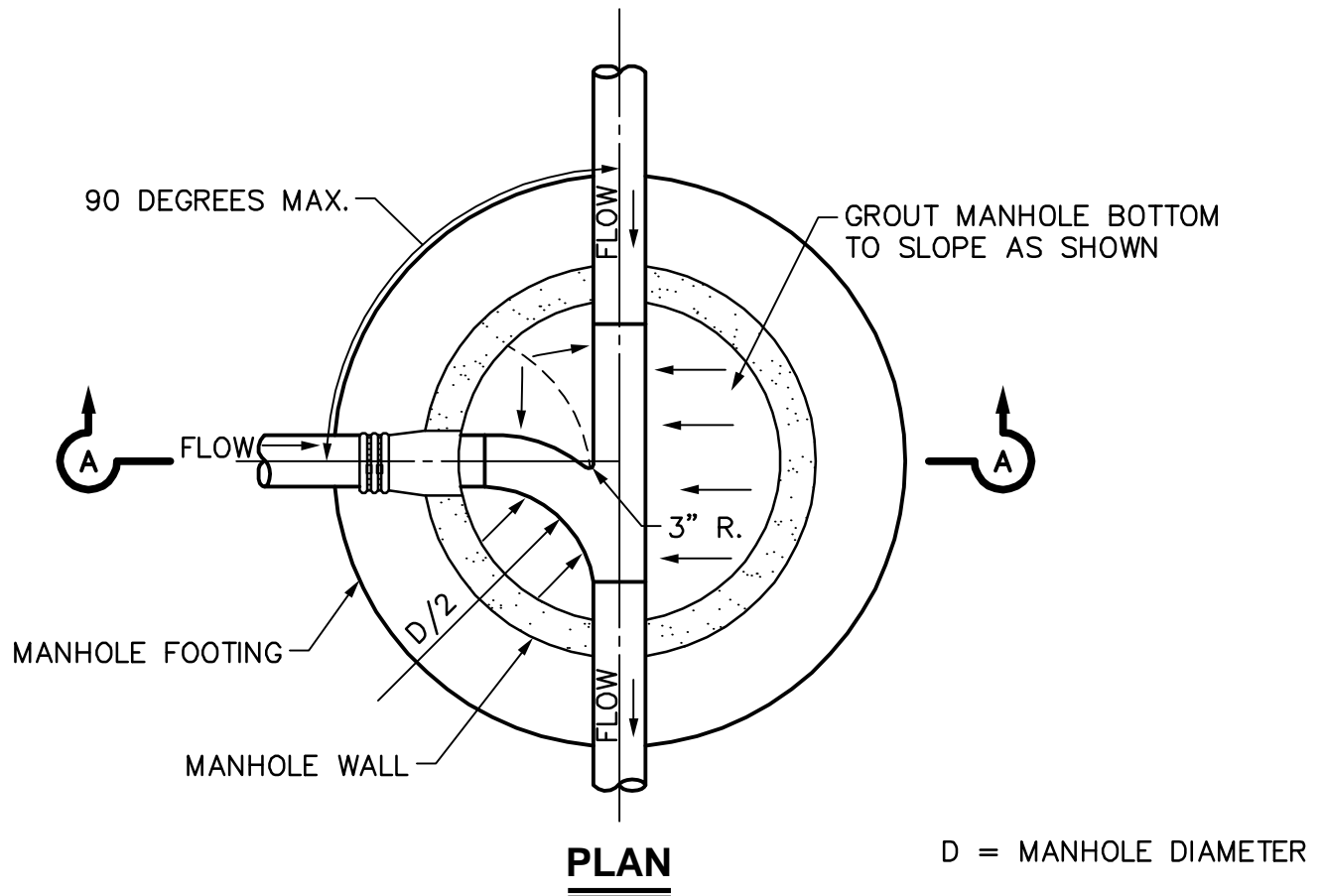


STANDARD CONSTRUCTION DETAIL
MANHOLE DROP CONNECTION

SCALE: 3/8"=1'-0"

REVISED: DEC 2014

S05



NOTE:

1. REFER TO MANHOLE STANDARD DRAWINGS FOR ADDITIONAL DETAIL OF MANHOLE (RE: DETAILS S01).
2. MANHOLES SHALL BE CLASS F CONCRETE PER NCTCOG.

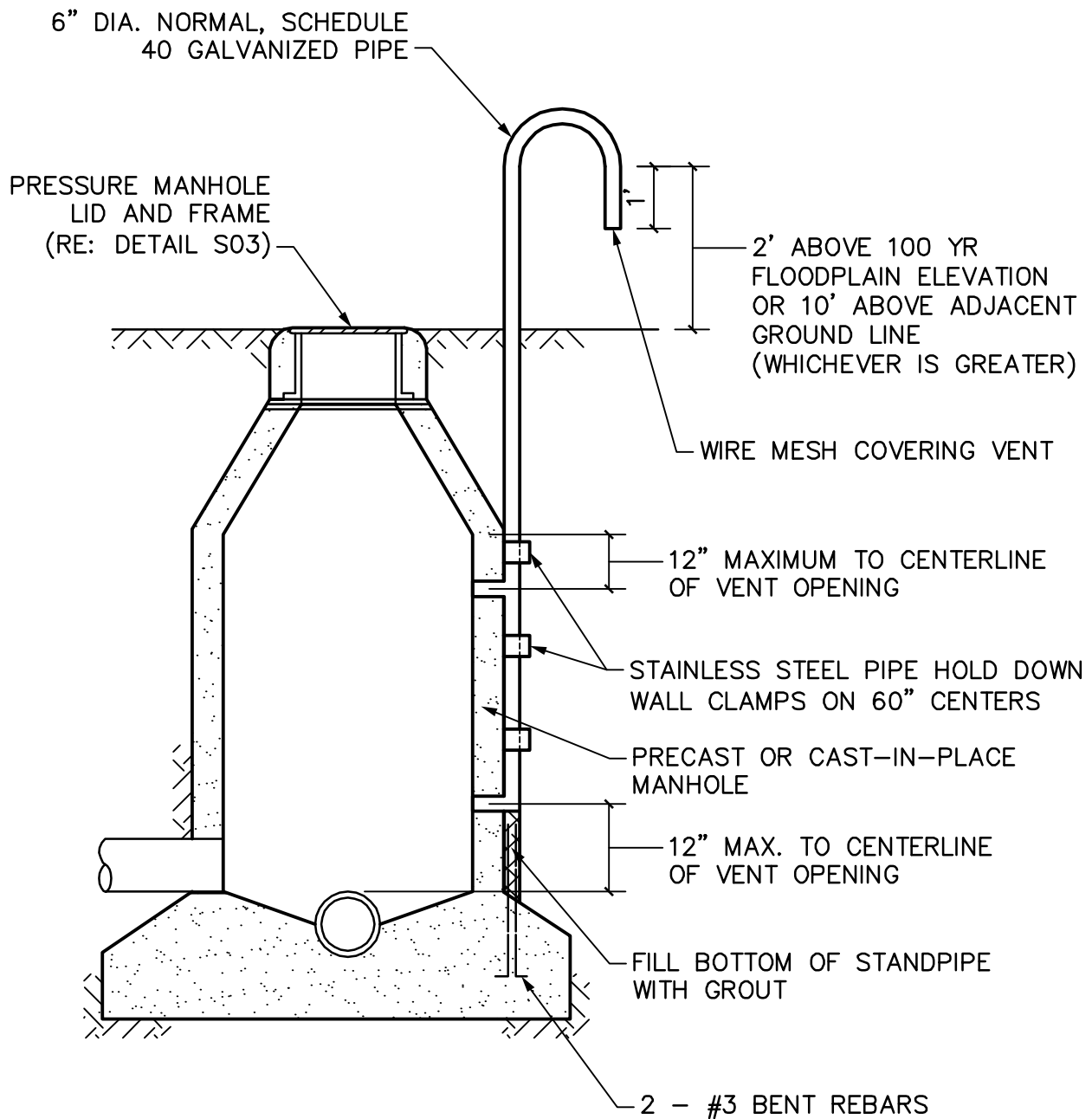


**STANDARD CONSTRUCTION DETAIL
WASTEWATER MANHOLE
LINE INTERSECTION**

SCALE: 3/8"=1'-0"

REVISED: NOV 2014

S06



NOTE:

1. REFER TO STANDARD DETAIL S01 FOR MANHOLE DETAILS.
2. S07A IS THE PREFERRED VENT MANHOLE. S07B MAY BE USED AS DIRECTED BY THE CITY
3. MANHOLES SHALL BE CLASS F CONCRETE PER NCTCOG



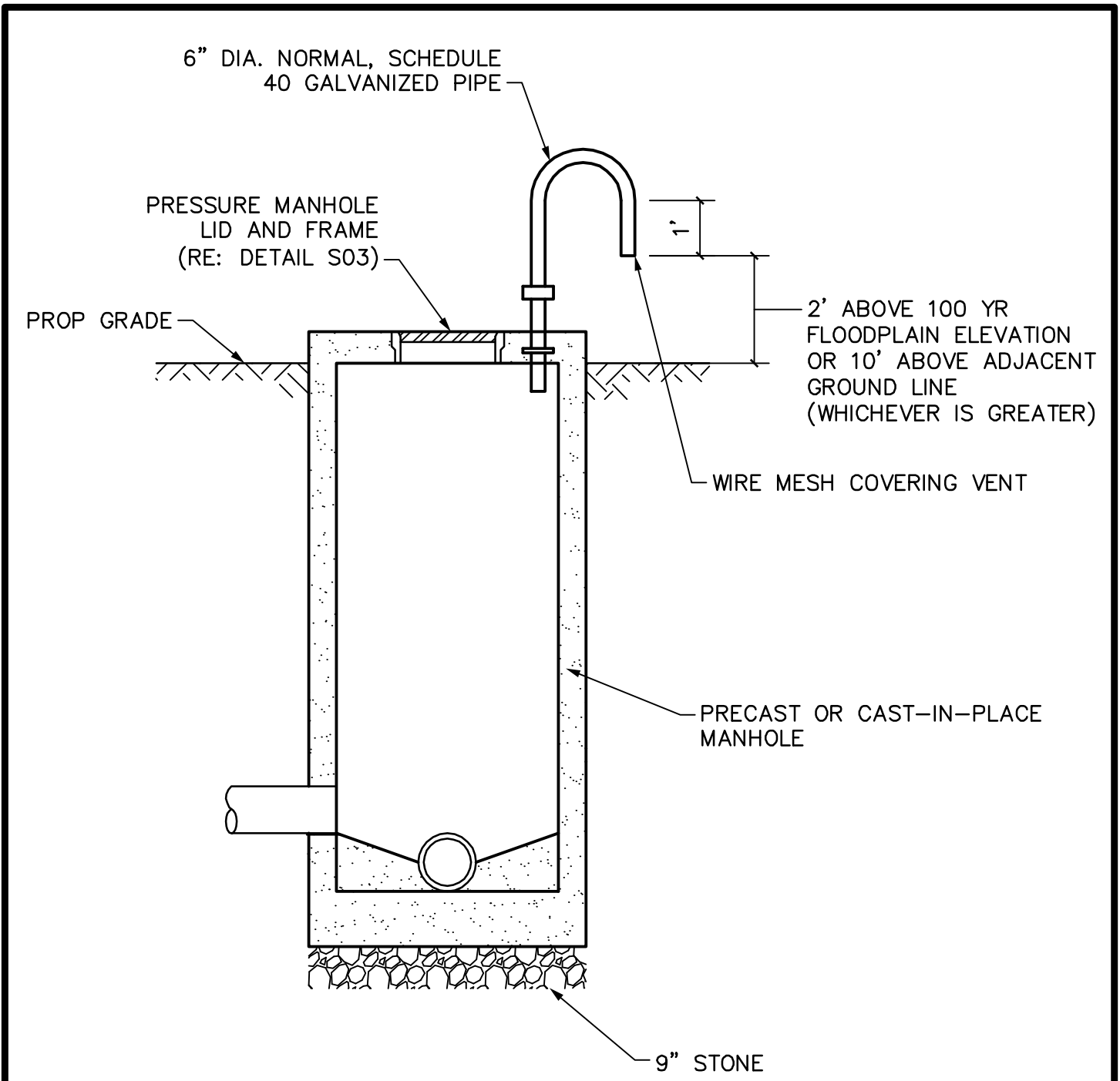
STANDARD CONSTRUCTION DETAIL

VENTED TYPE S MANHOLE

SCALE: 3/8"=1'-0"

REVISED: NOV 2014

S07B



NOTE:

1. REFER TO STANDARD DETAIL S01 FOR MANHOLE DETAILS.
2. S07A IS THE PREFERRED VENT MANHOLE. S07B MAY BE USED AS DIRECTED BY THE CITY
3. MANHOLES SHALL BE CLASS F CONCRETE PER NCTCOG



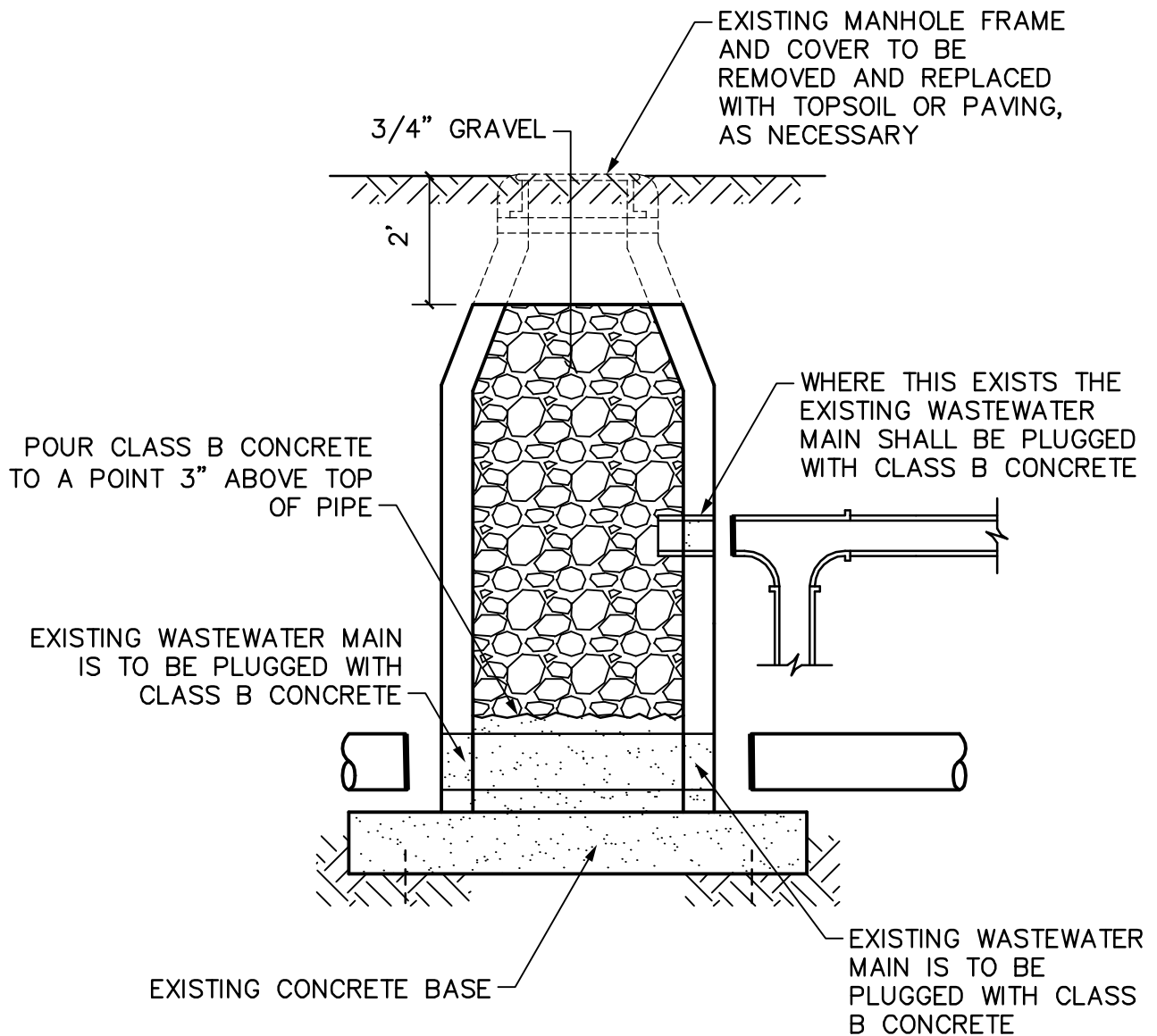
STANDARD CONSTRUCTION DETAIL

VENTED TYPE S MANHOLE

SCALE: 3/8"=1'-0"

REVISED: NOV 2014

S07A



NOTES:

1. CITY MAY MODIFY DEPENDING UPON FIELD CONDITIONS. EXISTING LINES SHALL BE CUT AND PLUGGED AT CITY'S DIRECTION.
2. ALL MAIN LINE COMING INTO THE MANHOLE SHALL BE CUT AND PLUGGED.
3. MANHOLES SHALL BE CLASS F CONCRETE PER NCTCOG



STANDARD CONSTRUCTION DETAIL

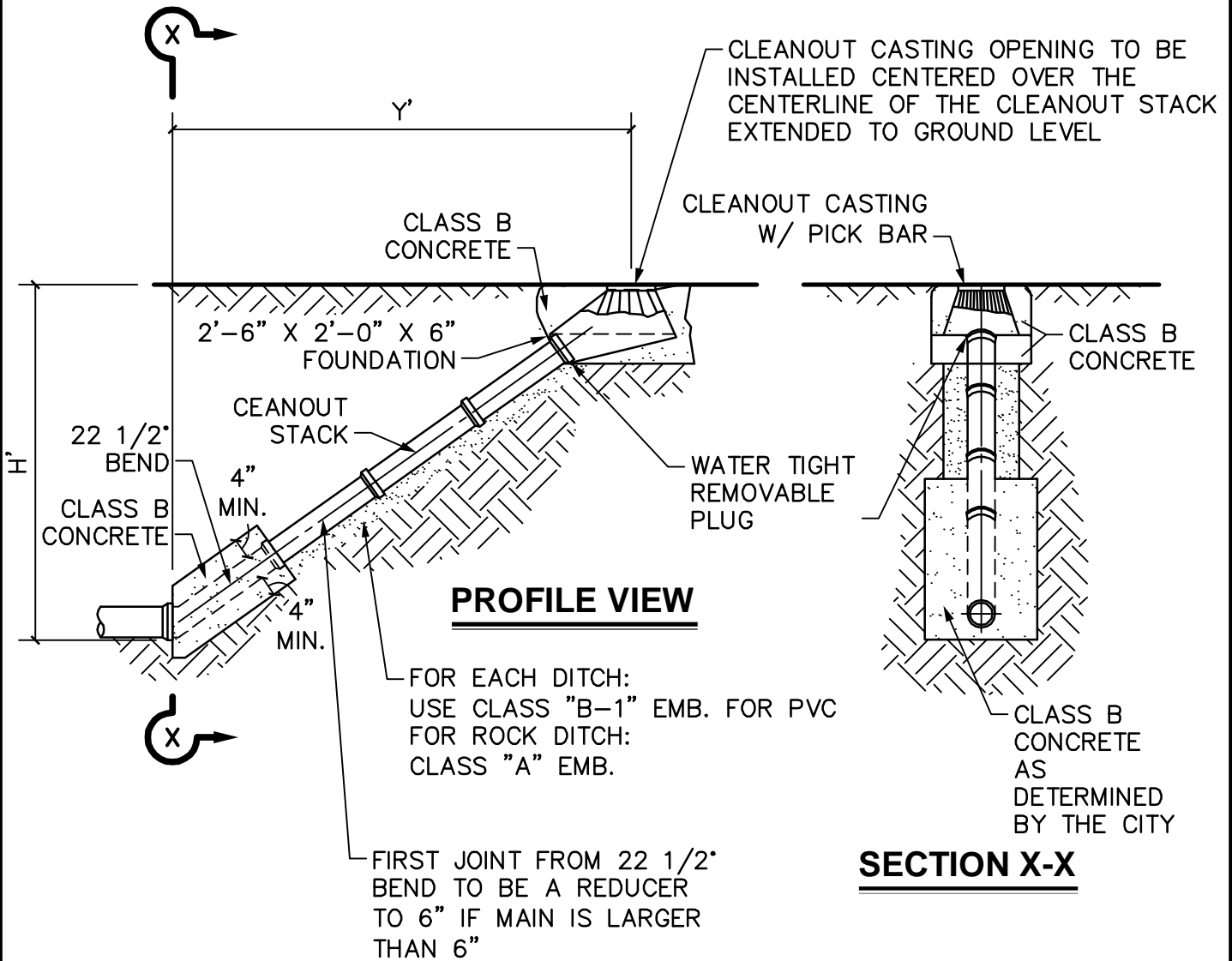
MANHOLE ABANDONMENT

SCALE: N.T.S.

REVISED: NOV 2014

S08

H'	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	H'
Y'	10	12	14	17	19	22	24	27	29	31	34	36	39	41	43	46	48	Y'



NOTES:

1. IF CLEANOUT IS PLACED IN ADVANCE OF PAVEMENT PLACE SAND AROUND CLEANOUT CASTING IN LIEU OF CLASS B CONCRETE.
2. IF CLEANOUT IS OUTSIDE OF PAVEMENT, CENTER CASTING IN 24" X 24" CLASS A CONCRETE PAD 6" THICK WITH FOUR #3 BARS.



**STANDARD CONSTRUCTION DETAIL
 WASTEWATER MAIN
 CLEANOUT**

SCALE: 3/8"=1'-0"
 REVISED: NOV 2014
 S09