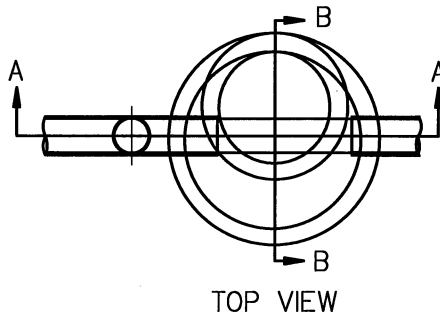


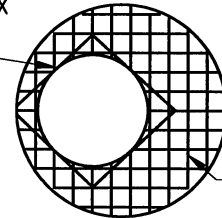
FOR 4' AND 5' MANHOLE:
IF "B" IS LESS THAN 7'-0"
USE FLAT SLAB TOP MANHOLE

FOR 4' M.H.:
A=2'-6" MIN. TO 4'-0" MAX.
C=24"

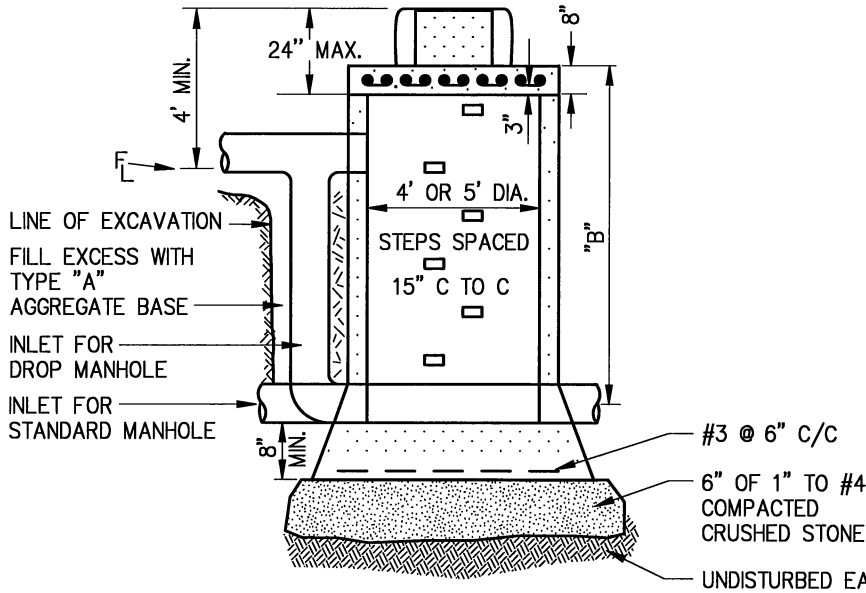
FOR 5' M.H.:
A=3'-6" MIN. TO 4'-0" MAX.
C=30"



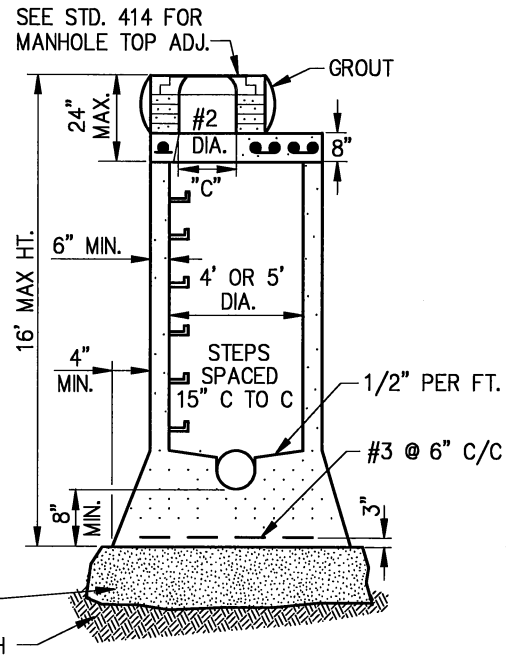
8 EACH, #4 BAR X
2'-6", DIAG.
TO MAIN REINF.



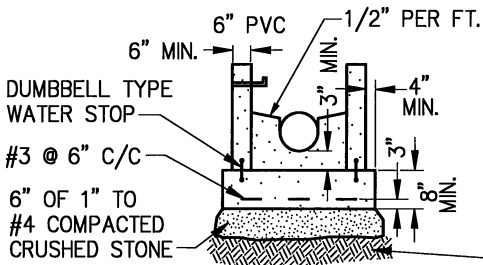
CONCRETE SLAB
REINFORCEMENT PLAN



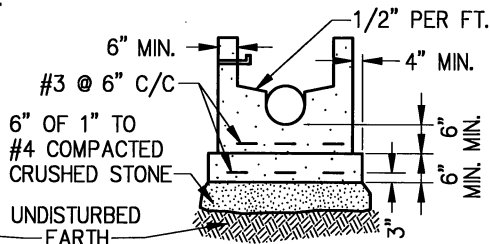
SECTION A-A
FOR FLAT SLAB TOP M.H.



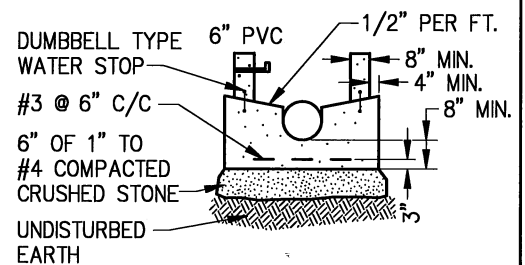
SECTION B-B
MONOLITHIC CONSTRUCTION
FOR FLAT SLAB TOP M.H.



STAGE CONSTRUCTION
(ALTERNATE 1)



STAGE CONSTRUCTION
(ALTERNATE 2)



STAGE CONSTRUCTION
(ALTERNATE 3)

NOTE:

1. CAST IN PLACE MANHOLES SHALL HAVE ECCENTRIC ENTRANCES AND SHALL BE EITHER THE FLAT SLAB OR ECCENTRIC TAPER TYPE SUBJECT TO THE SPECIFIED RESTRICTIONS.
2. STEP DETAILS SHALL BE AS SHOWN ON THE STANDARD DETAIL FOR MANHOLE STEPS (STANDARD NO. 314).
3. LOW SLUMP CONCRETE SHALL BE PLACED IN THE FOOTINGS AND LOWER WALLS AND SHALL BE PLACED AND VIBRATED IN ONE FOOT LIFTS.
4. AN INSPECTOR MUST BE PRESENT BEFORE AND DURING THE PLACEMENT OF THE CONCRETE.
5. THIS MANHOLE SHALL NOT BE USED IN PAVED STREETS OR OTHER TRAVELED AREAS.
6. THE CONCRETE MUST SET FOR 48 HOURS BEFORE PIPE INSIDE OF MANHOLE IS TRIMMED.
7. (ALTERNATE 3) INVERT MUST BE FORMED AT TIME OF BOTTOM POUR.
8. WATER STOPS MAY BE ELIMINATED IF BARREL OF MANHOLE IS POURED WITHIN 4 HOURS AFTER BASE IS POURED AND PROVIDED BASE IS CLEANED OF ALL MUD, SILT, AND DEBRIS.
9. THE TOP STEP SHALL BE NOT MORE THAN 27" AND NOT LESS THAN 18" FROM THE TOP OF THE LID.
10. THE MINIMUM INVERT DEPTH SHALL BE 3/4 TIMES THE PIPE DIAMETER.

8" TO 12" PIPE = M.H. 4' I.D.
15" TO 21" PIPE = M.H. 5' I.D.
24" TO 36" PIPE = M.H. 6' I.D.
LARGER THAN 36" = SPECIAL M.H.

STANDARD DETAIL SANITARY SEWER MANHOLE WITH FLAT SLAB TOP	
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT	
DRAWN BY: S.R.W.	APPROVED
CHECKED BY:	
DATE: OCTOBER 2013	
NOT TO SCALE	STANDARD NO. 357