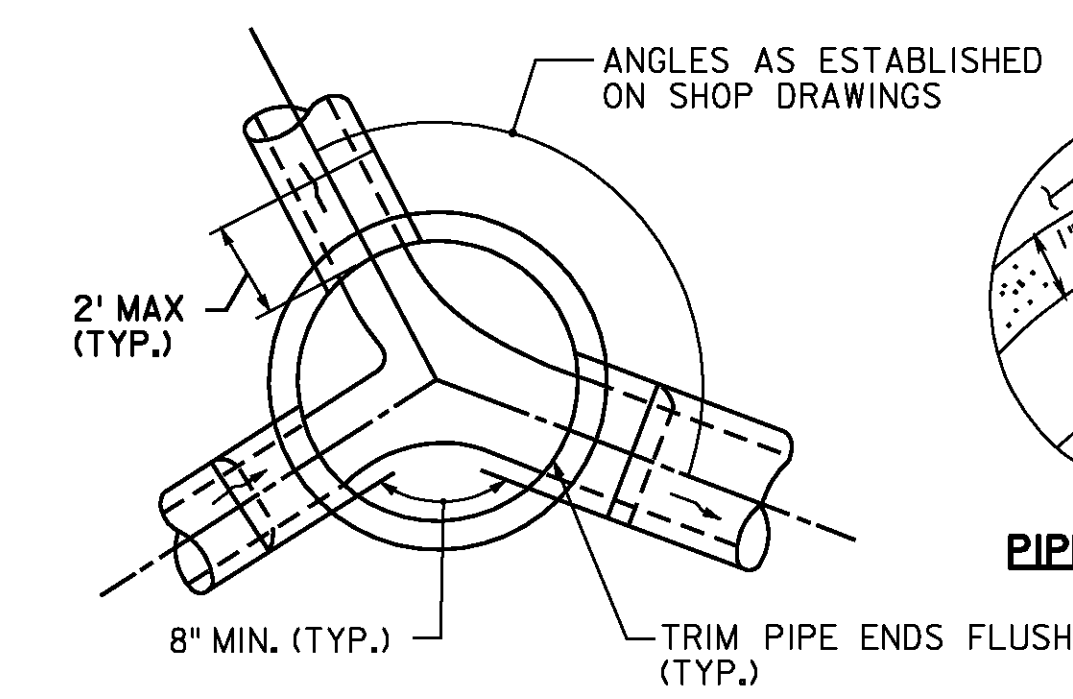
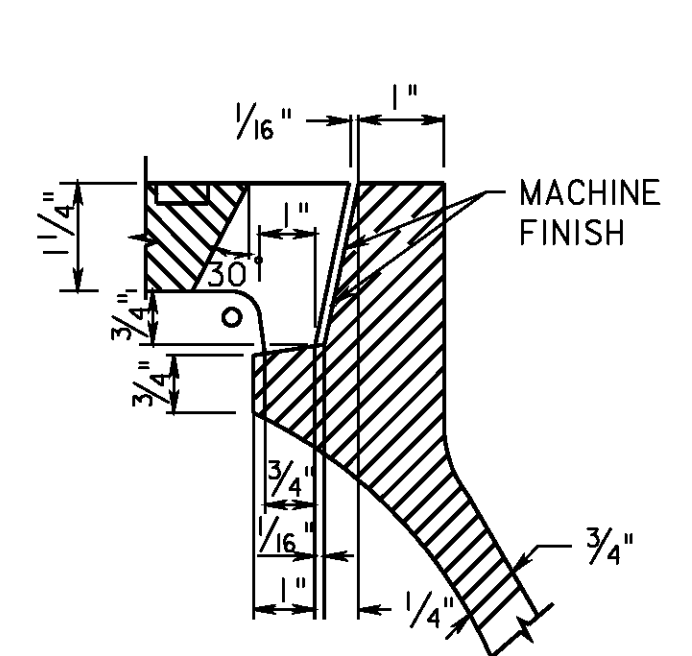


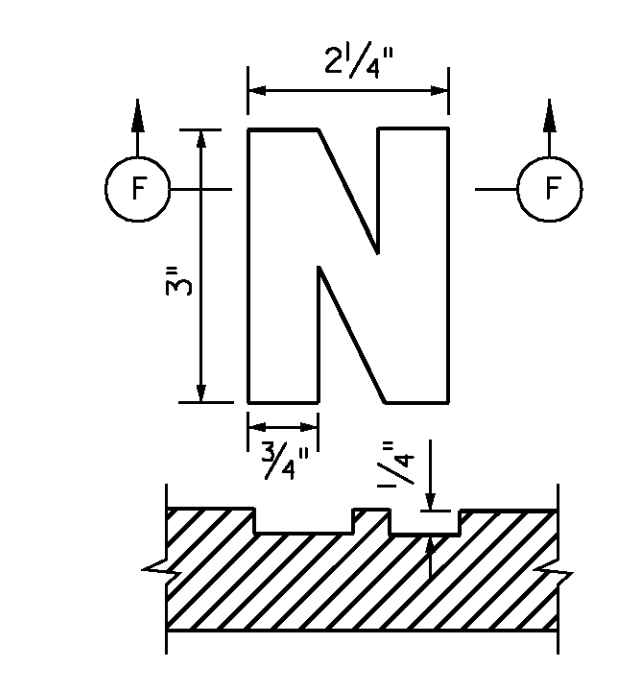
**MANHOLE - TYPE M-1**



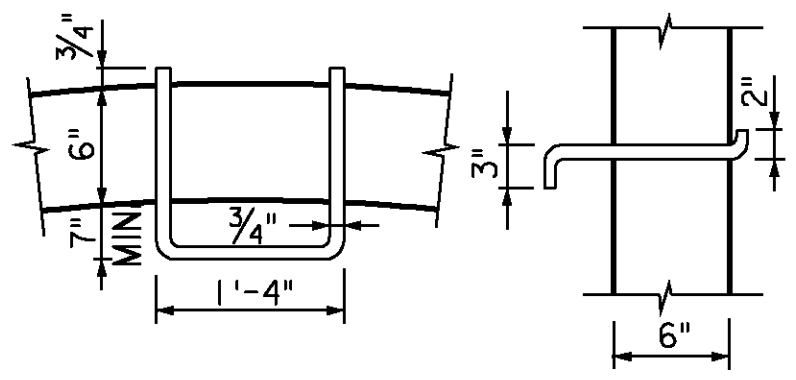
**SECTION A-A**



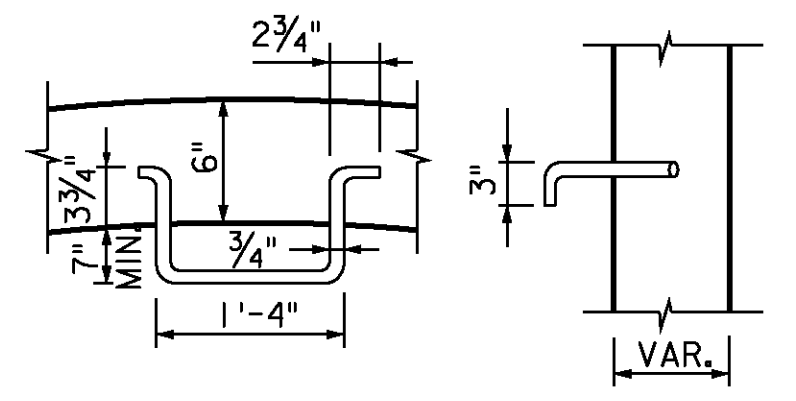
**DETAIL "A"**



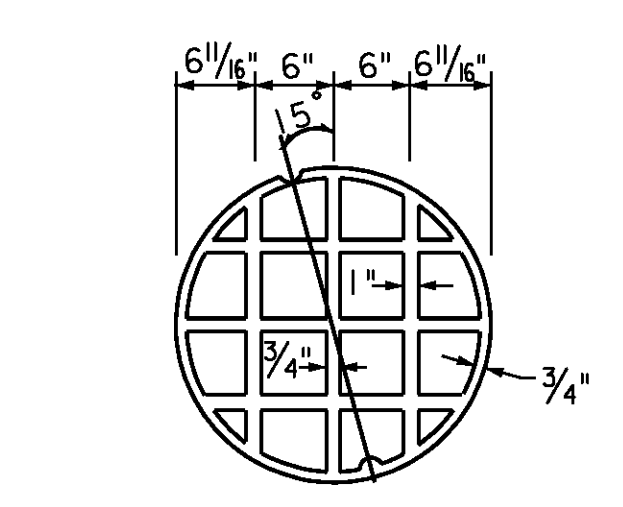
**SECTION "F"  
DETAIL OF LETTERING**



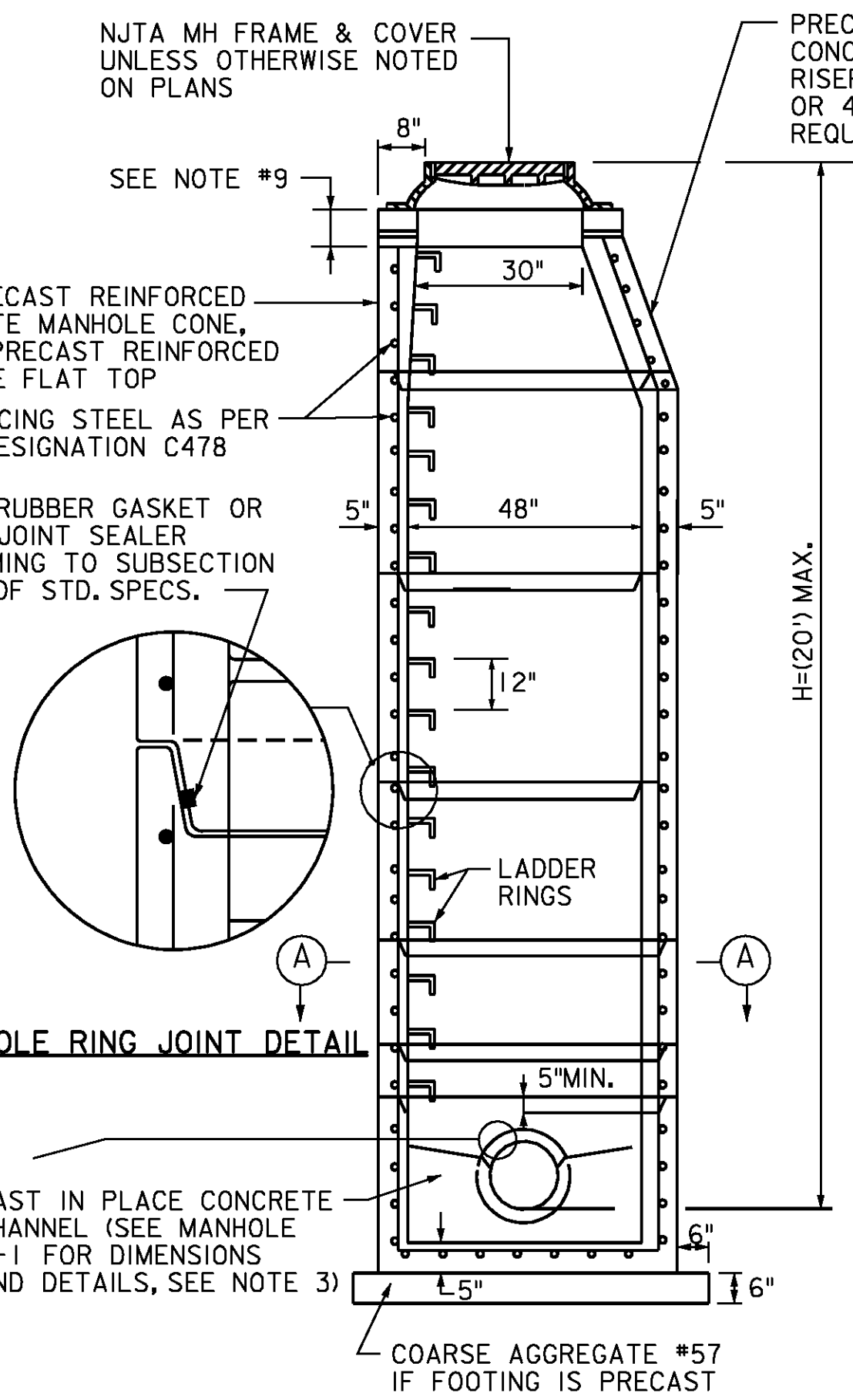
**PLAN ELEVATION  
CONCRETE BLOCK WALLS**



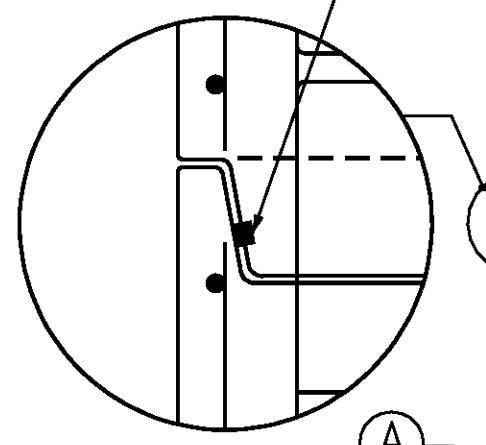
**PLAN ELEVATION  
LADDER RUNG DETAILS**



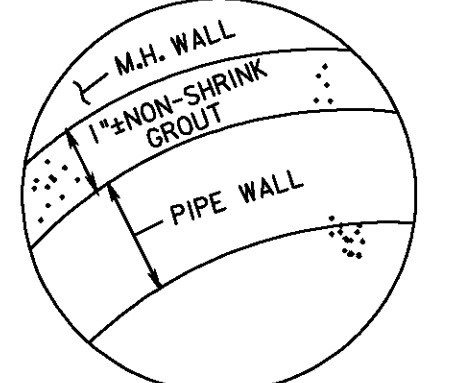
**UNDERSIDE OF COVER**



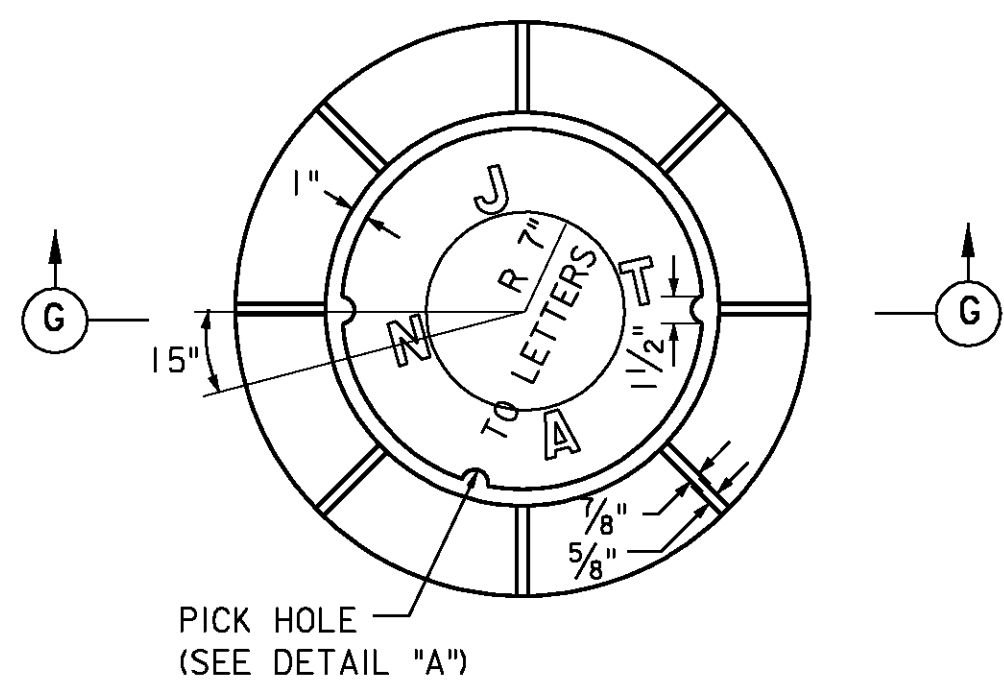
**MANHOLES - TYPE P-1  
FOR PIPES 36" DIAMETER OR LESS**



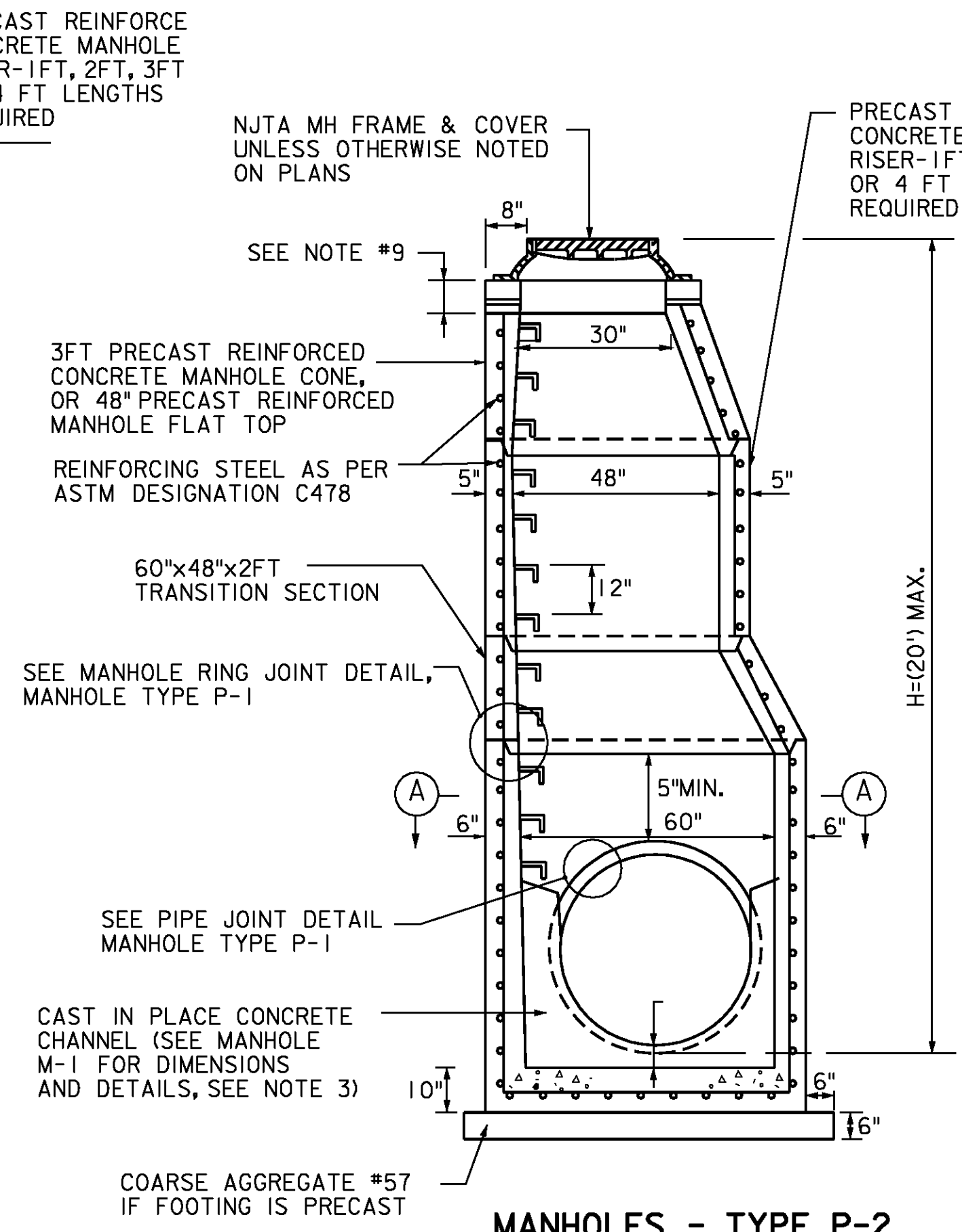
**MANHOLE RING JOINT DETAIL**



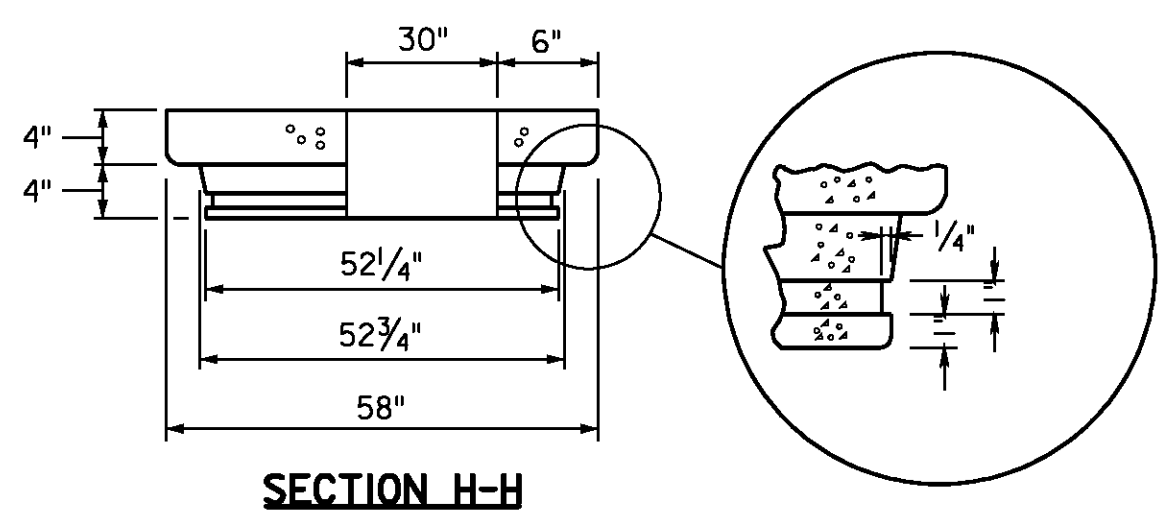
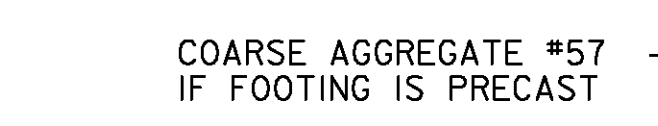
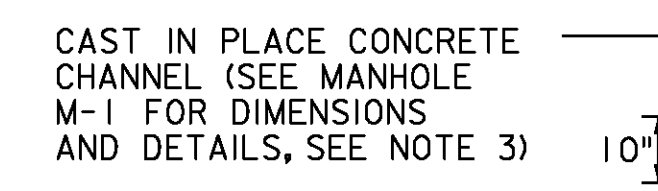
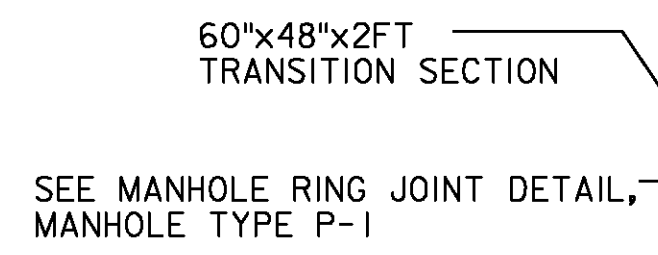
**PIPE JOINT DETAIL**



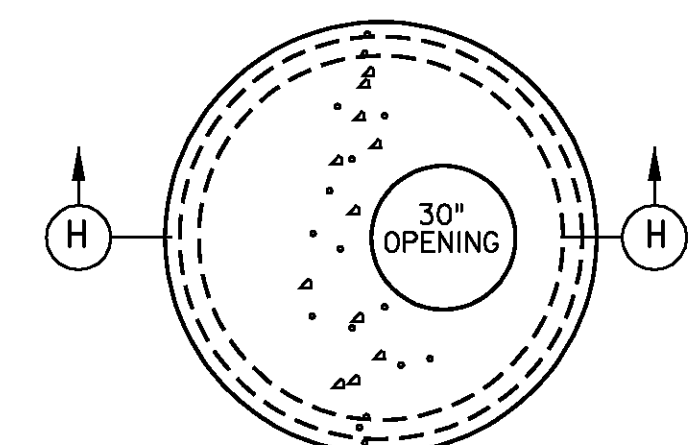
**SECTION G-G  
MANHOLE FRAME & COVER**  
WEIGHT OF FRAME 339\*  
WEIGHT OF COVER 186\*



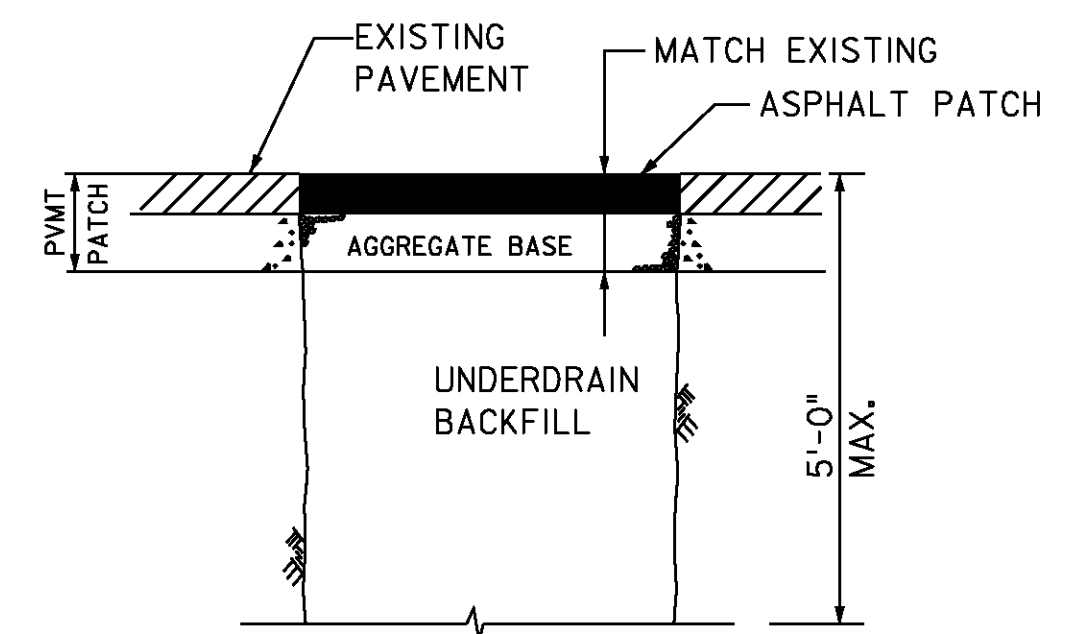
**MANHOLES - TYPE P-2  
FOR PIPES 42" & 48" DIAMETER**



**48" PRECAST REINFORCED  
CONCRETE MANHOLE FLAT TOP**  
USE IN LIEU OF CONE SECTION ETC.

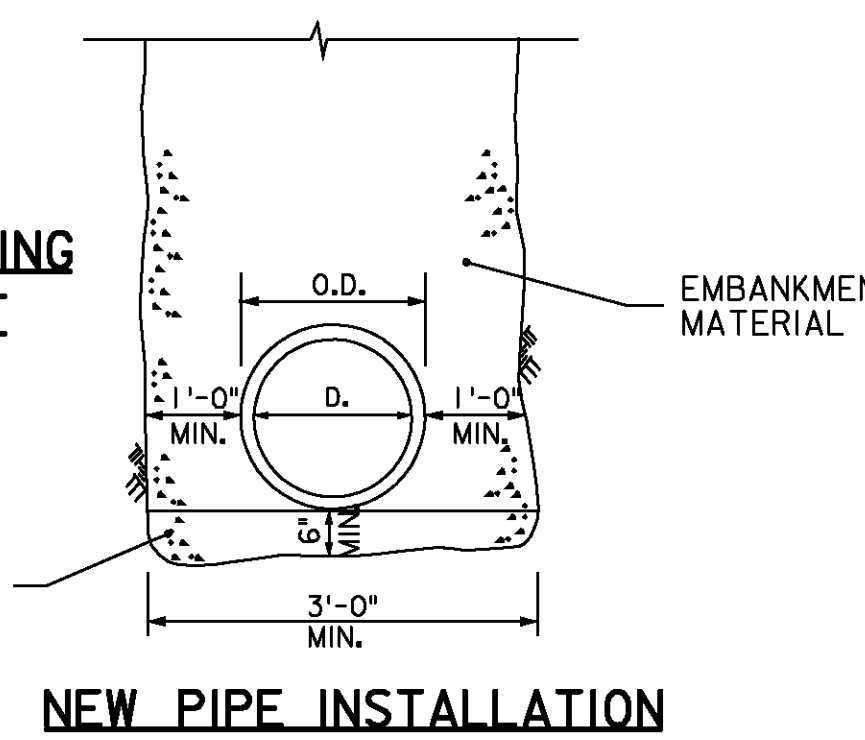


**GROOVE FOR "O" RING  
RUBBER GASKET**

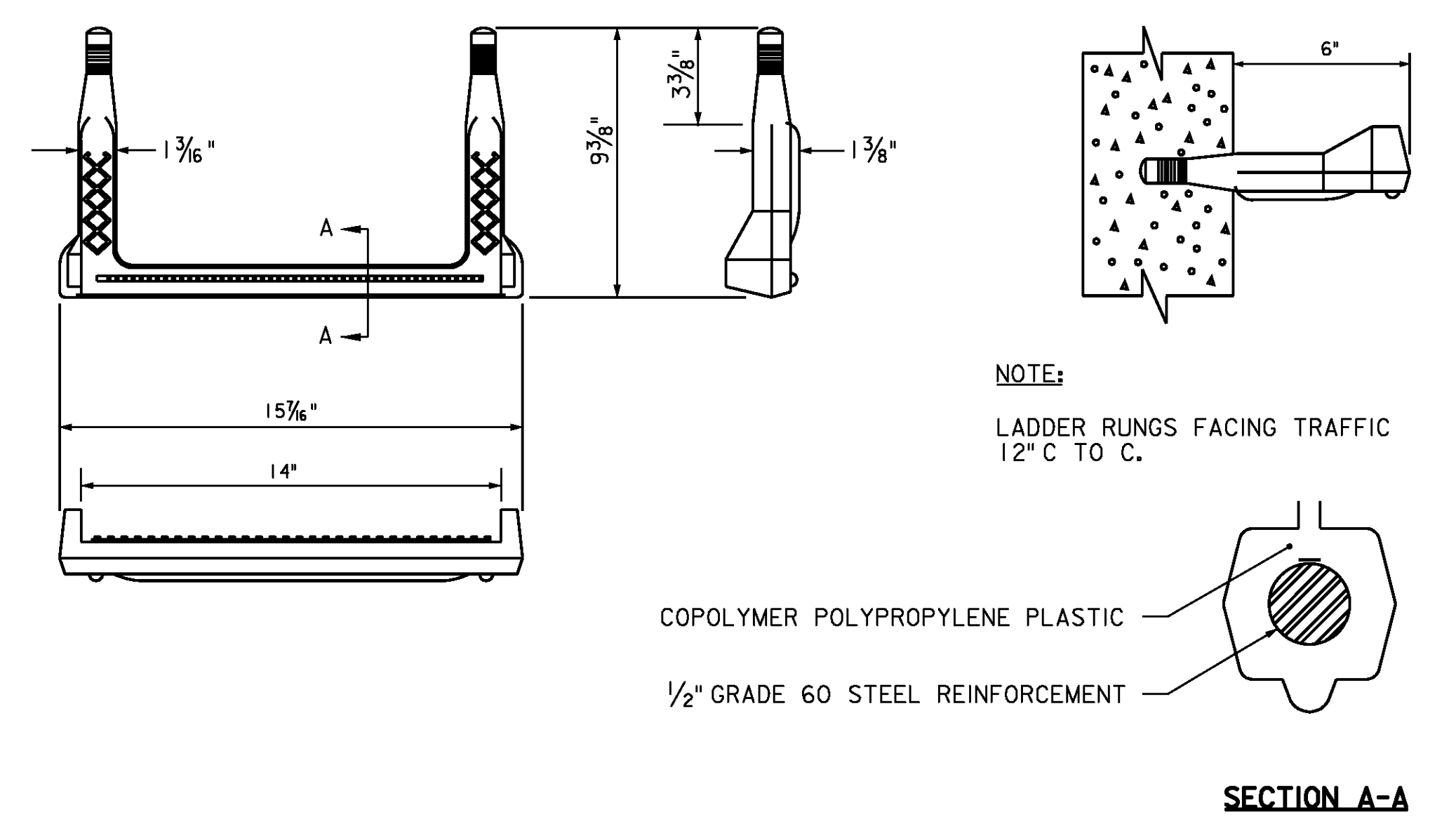


**PAVEMENT PATCH**

**NOTE:**  
ELIMINATE PAVEMENT PATCH WHERE FINISHED GRADE IS MORE THAN 8" ABOVE EXISTING PAVEMENT OR WHERE EXISTING PAVEMENT IS BEING REMOVED.



**NEW PIPE INSTALLATION**

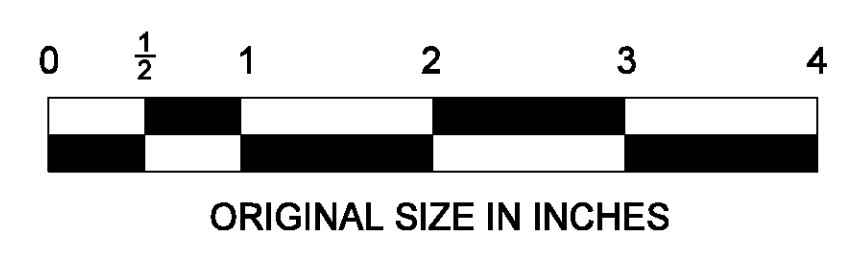


**COPOLYMER POLYPROPYLENE PLASTIC LADDER RUNG**

**NOTE:**  
LADDER RUNGS FACING TRAFFIC 12" C TO C.

**NOTES:**

1. WALL OF M-1 MANHOLES SHALL BE 6" THICK & BE CONSTRUCTED OF EITHER (A) CLASS "A" CONCRETE WITH AIR ENTRAINMENT - CAST IN PLACE PRECAST (B) CONCRETE BLOCK.
2. BASES OF MANHOLES TO BE CONSTRUCTED OF CLASS "D" CONCRETE.
3. MANHOLE CHANNEL CAN BE FORMED CONCRETE OR A COMPOSITE OF POURED CONCRETE & CONCRETE BLOCK.
4. LADDER RINGS TO BE PROVIDED IN ALL MANHOLES OVER 4' DEEP, SEE SUBSECTION 916.05 OF THE STANDARD SPECIFICATIONS.
5. PIPES MAY ENTER OR EXIST MANHOLES IN ANY DIRECTION, INDICATED ON THE PLANS.
6. ALL INTERIOR JOINTS TO BE POINTED FULL AND FLUSH.
7. WHERE DEPTH OF M-1 MANHOLES EXCEED 10 FEET, WALL THICKNESS BELOW THE 8 FOOT DEPTH SHALL BE 1'-0" MAXIMUM DEPTH TO BE 13 FEET.
8. FRAMES TO BE SET IN FULL BED OF STIFF MORTAR (SEE STD. DWG. DR-2).
9. ADJUST TO GRADE WITH CONCRETE BRICK, AS REQUIRED (12" MAX).
10. WHERE MANHOLE, TYPE P-1 OR P-2 MANHOLE, TYPE P-2 ARE USED THE STRAIGHT SIDE OF EACH SECTION WILL BE SET PLUMB.
11. STEEL REINFORCEMENT FOR PRECAST REINFORCED CONCRETE MANHOLE FLAT TOP SHALL BE AS PER ASTM DESIGNATION C478.



NEW JERSEY TURNPIKE AUTHORITY

**MANHOLE AND  
PIPE PLACEMENT DETAILS**

OFFICE OF THE CHIEF ENGINEER

2009 STANDARD  
DRAWING

DR-3

App.	No.	DATE	REVISION
		04/09	ORIGINAL DRAWING

CONTRACT NO.

SHEET NO.

OF