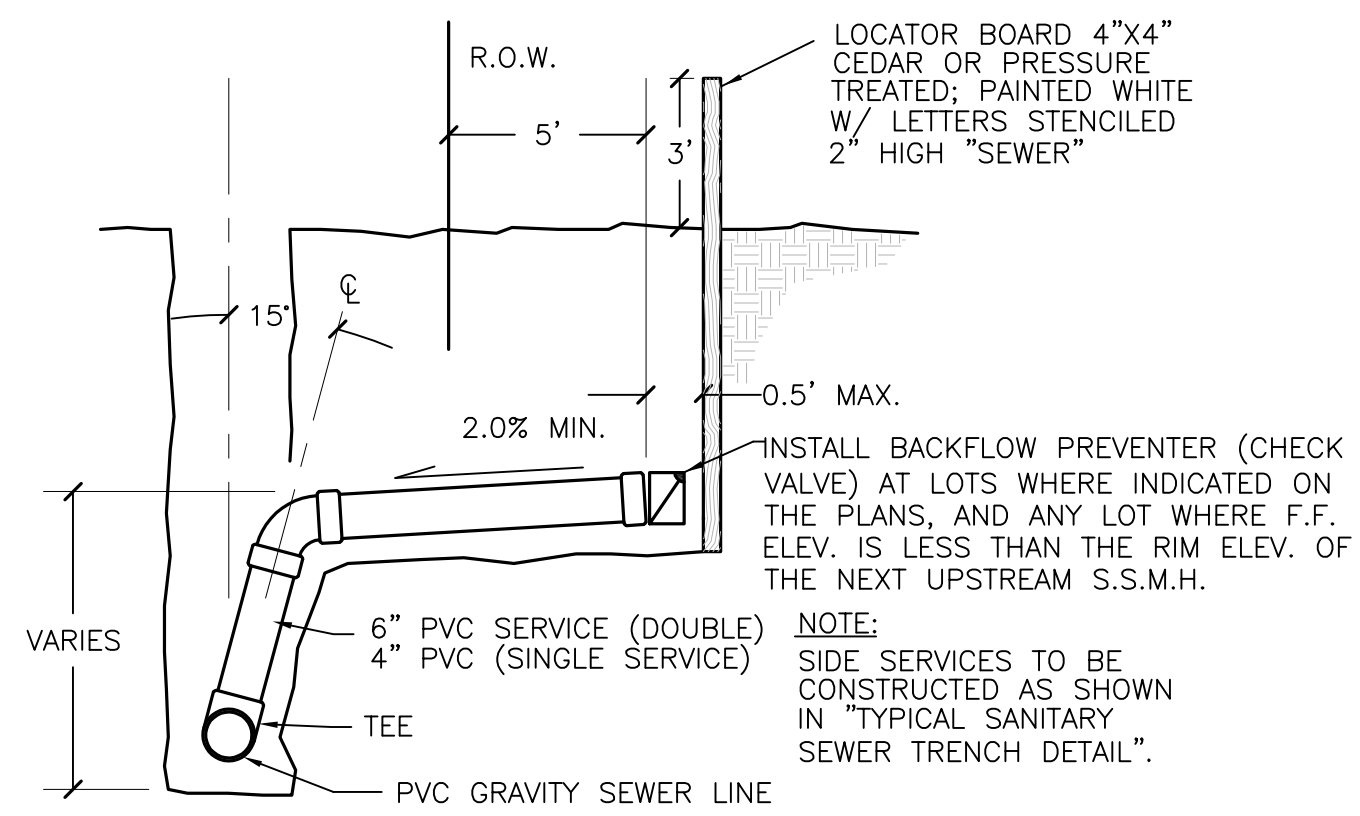


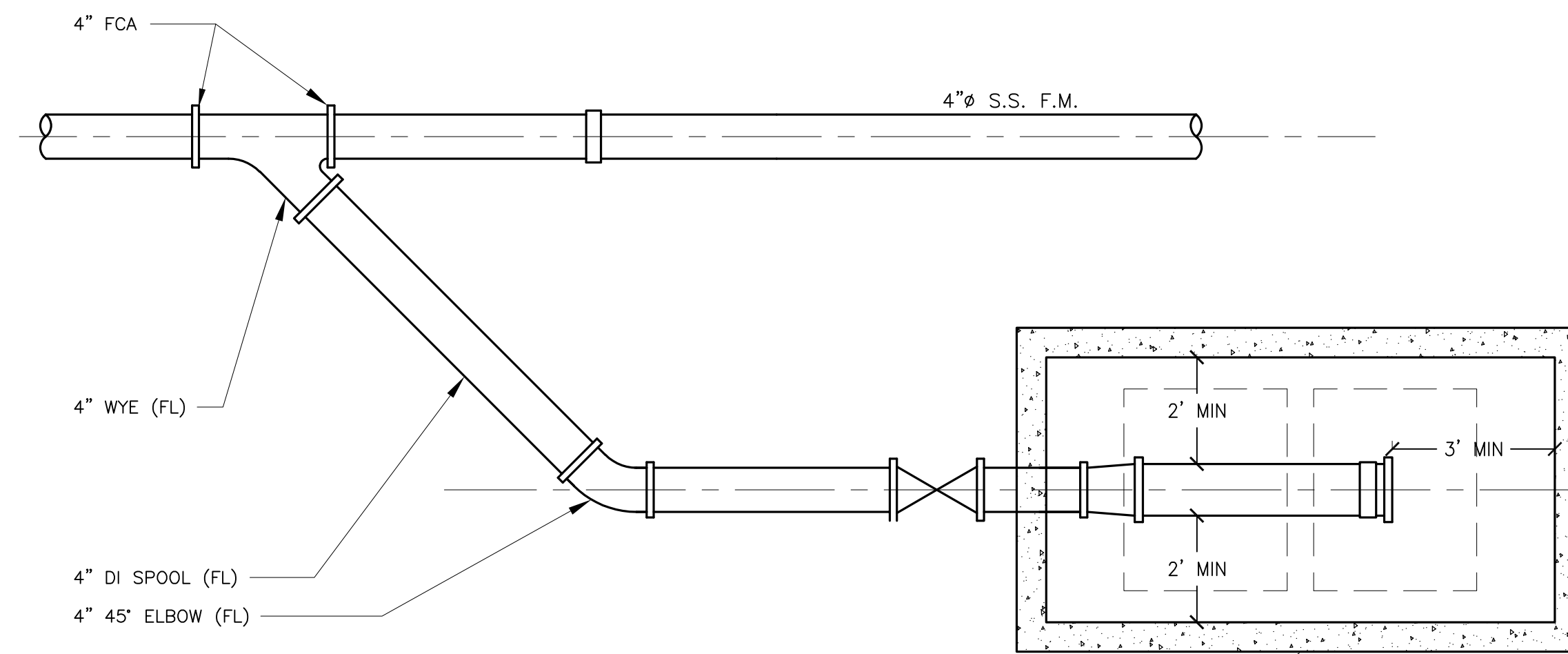
- NOTES:**
1. PROVIDE UNIFORM SUPPORT UNDER BARREL.
  2. HAND TAMP UNDER HAUNCHES.
  3. COMPACT BEDDING MATERIAL TO 95% MAXIMUM DENSITY EXCEPT DIRECTLY OVER PIPE. HAND TAMP ONLY.
  4. REFER TO STANDARD SPECIFICATIONS FOR MAXIMUM TRENCH WIDTH.
  5. REFER TO STANDARD SPECIFICATIONS FOR FOUNDATION, BEDDING AND BACKFILL MATERIAL REQUIREMENTS.
  6. COMPLY WITH ALL SAFETY ORDERS RELATING TO TRENCH CONSTRUCTION.

**A SANITARY SEWER BEDDING DETAIL**  
NOT TO SCALE

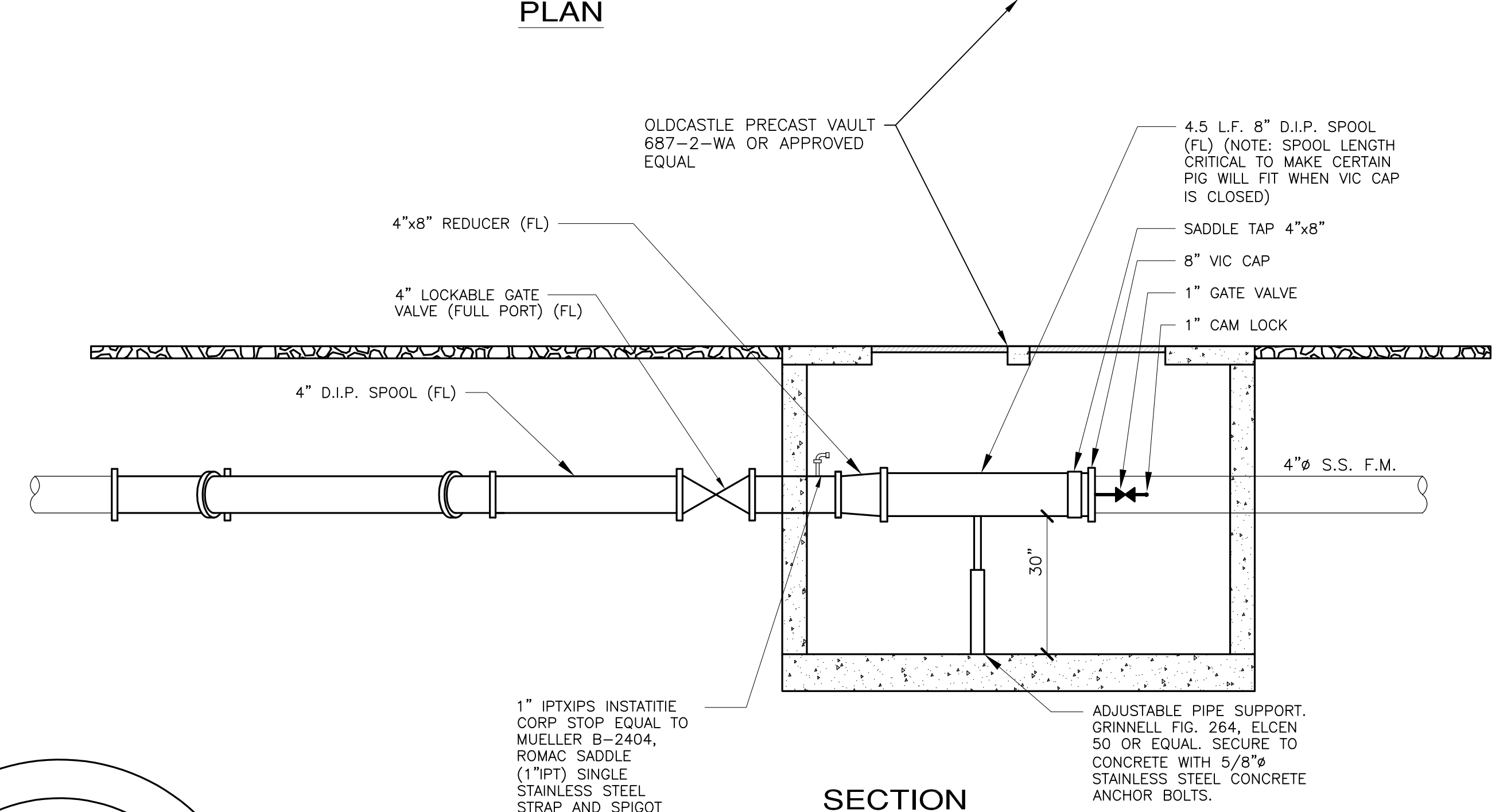


- NOTE:**  
DEFLECT SANITARY SEWER LATERALS UNDER STORM AS REQUIRED.

**B GRAVITY SANITARY SEWER SIDE SEWER DETAIL**  
NOT TO SCALE

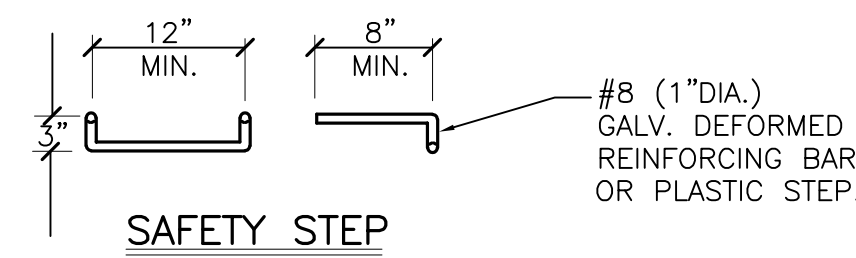


**PLAN**

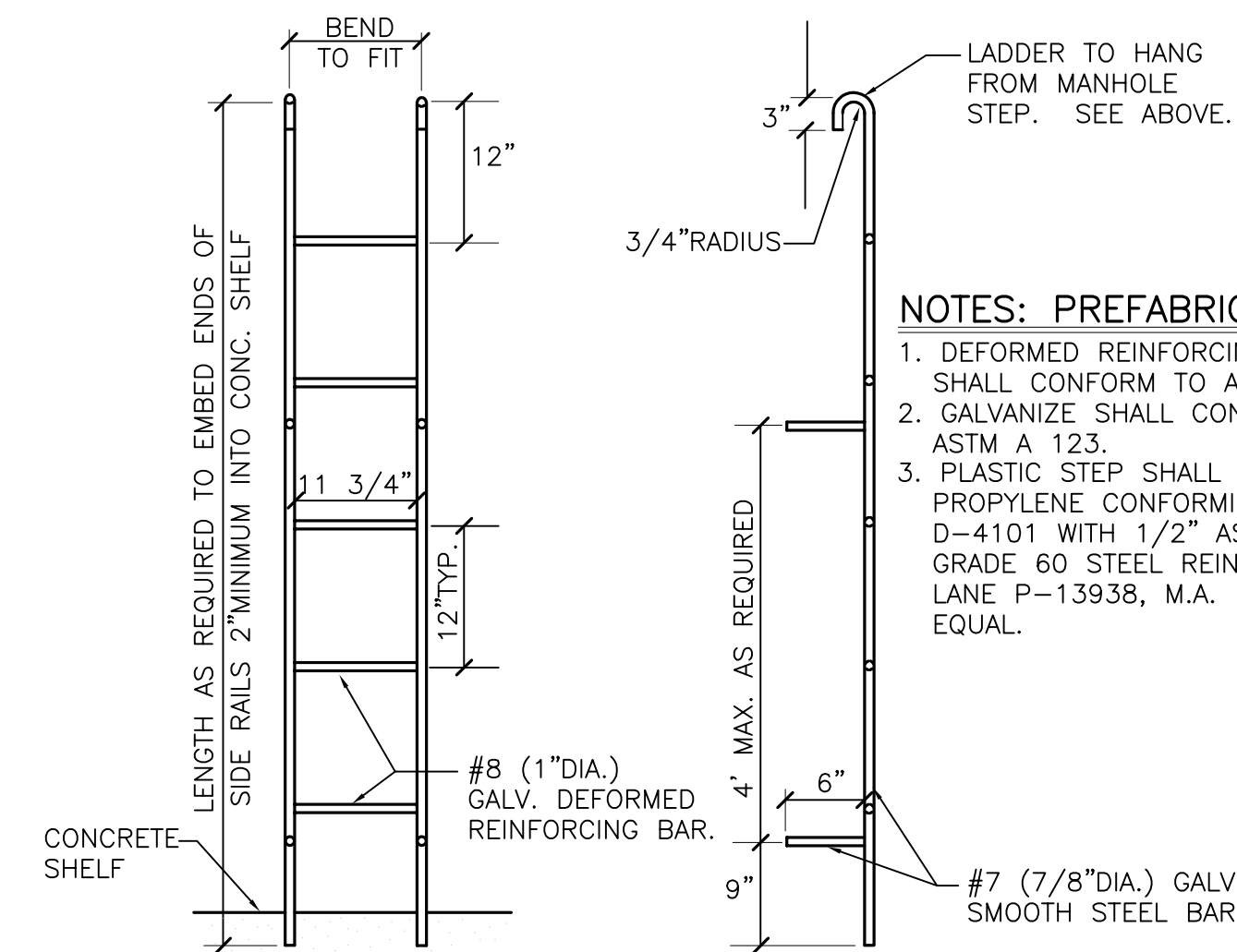


**SECTION**

**C TYPICAL PIG LAUNCH ASSEMBLY**  
NOT TO SCALE



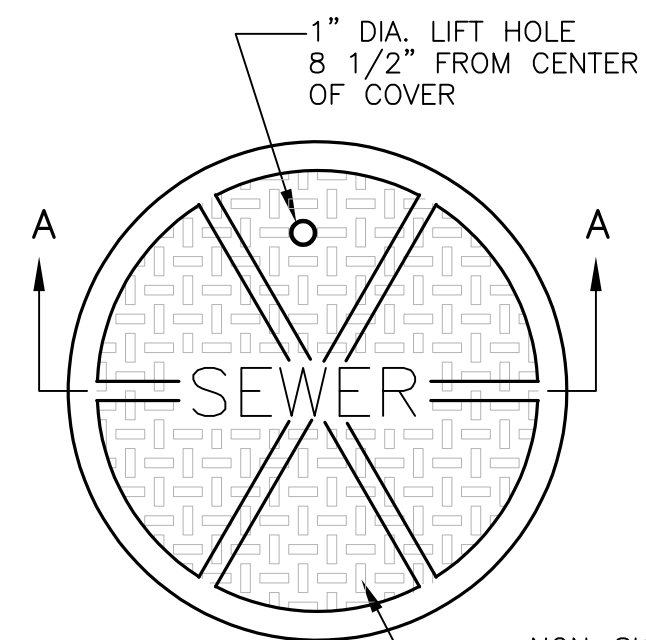
**SAFETY STEP**



**NOTES: PREFABRICATED LADDER**

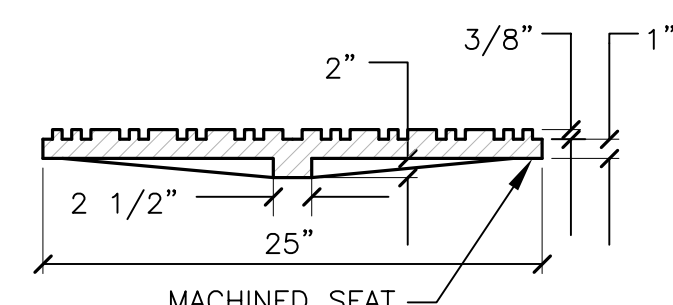
1. DEFORMED REINFORCING BAR SHALL CONFORM TO ASTM A 615.
2. GALVANIZE SHALL CONFORM TO ASTM A 123.
3. PLASTIC STEP SHALL BE POLY-PROPYLENE CONFORMING TO ASTM D-4101 WITH 1/2" ASTM A-615 GRADE 60 STEEL REINFORCING BAR. LANE P-13938, M.A. PS2-PF, OR EQUAL.

**D LADDER AND MANHOLE STEP**  
NOT TO SCALE



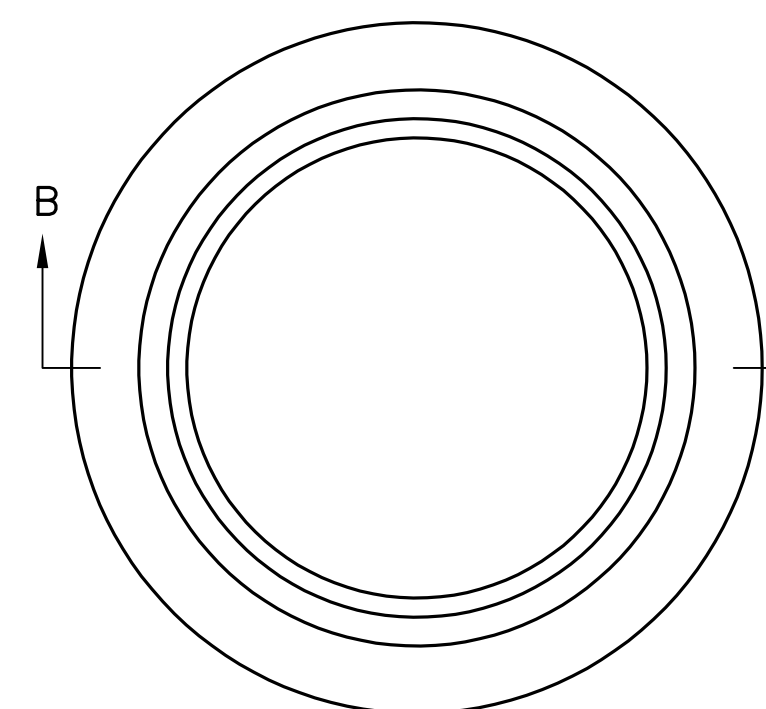
- NOTE:**  
COVERS SHALL HAVE THE WORD "SEWER" IN 2" RAISED LETTERS.
- NON-SKID PATTERN TO BE CAST INTEGRAL ON TOP OF COVER

**COVER PLAN**

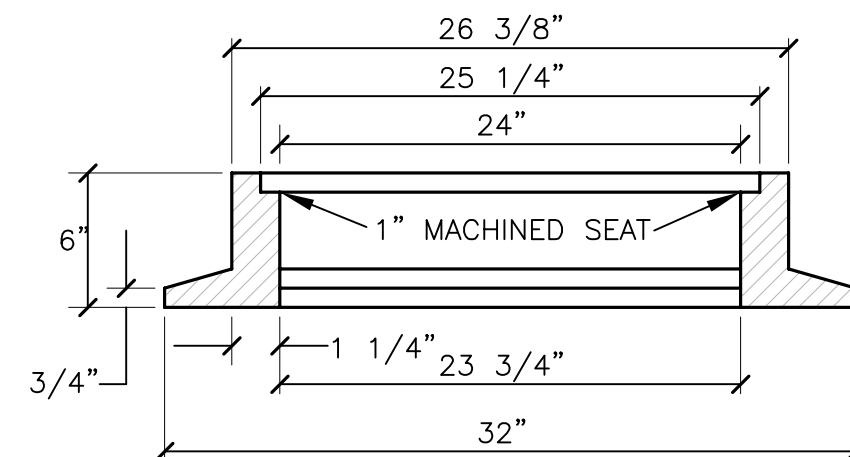


**SECTION A-A**

DUCTILE OR CAST IRON NON LOCKING COVER  
MINIMUM WEIGHT 150 LBS.



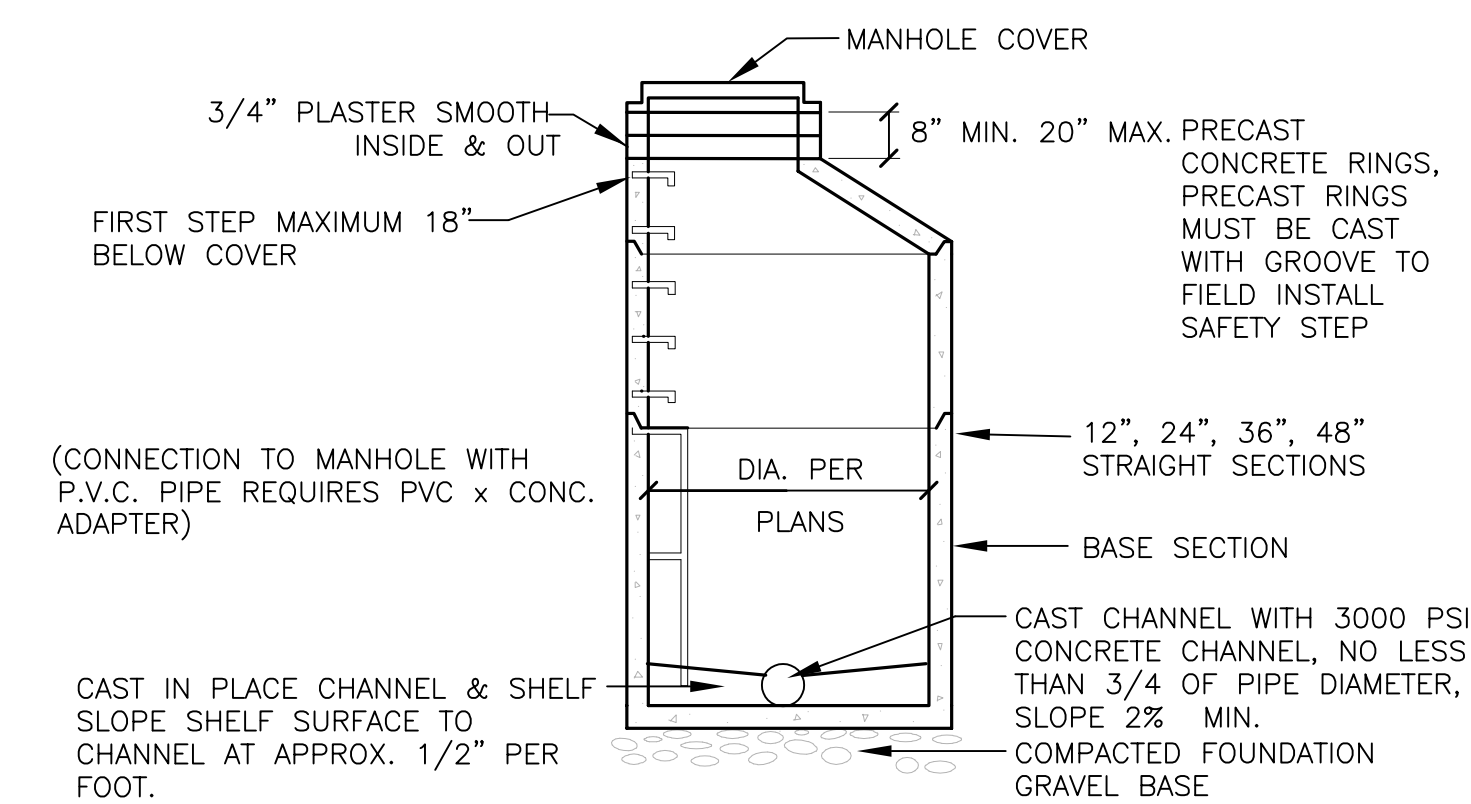
**FRAME PLAN**



**SECTION B-B**

DUCTILE OR CAST IRON FRAME  
MINIMUM WEIGHT 210 LBS.

**E 24" MANHOLE FRAME WITH COVER**  
NOT TO SCALE



**GENERAL NOTES (APPLY TO ALL MANHOLES):**

1. PRECAST SECTIONS SHALL BE REINFORCED PER ASTM SPECS FOR CORRESPONDING SEWER PIPE.
2. STEPS IN PRECAST BASE SECTION MAY BE CAST IN PLACE OR MOVABLE SAFETY LADDER GROUTED IN PLACE.
3. ALL HOLES FOR PIPE SHALL BE BLOCKED OUT AT THE TIME OF CASTING THE SECTION.
4. ALL RUBBER GASKETED MANHOLES SHALL BE FURNISHED WITH RUBBER GASKET JOINT CONFORMING TO ASTM C443.
5. MANHOLES OVER 10' HIGH SHALL BE FURNISHED WITH MIN. 5" THICK WALLS.
6. COMPACTED GRAVEL BASE SHALL BE A MINIMUM OF 6 INCHES IN THICKNESS AND EXTEND 12 INCHES BEYOND THE EXTERIOR FACE OF THE MANHOLE WALL.

**F TYPE 1 MANHOLE**  
NOT TO SCALE