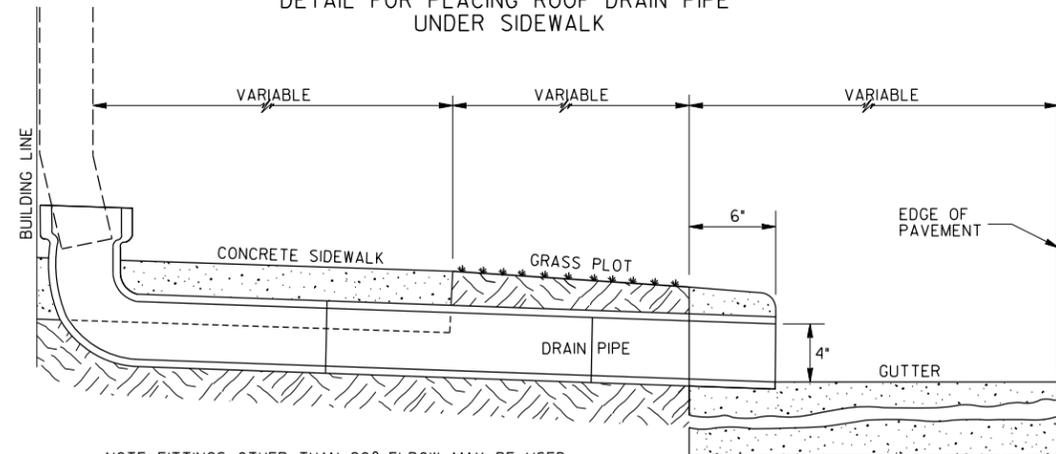
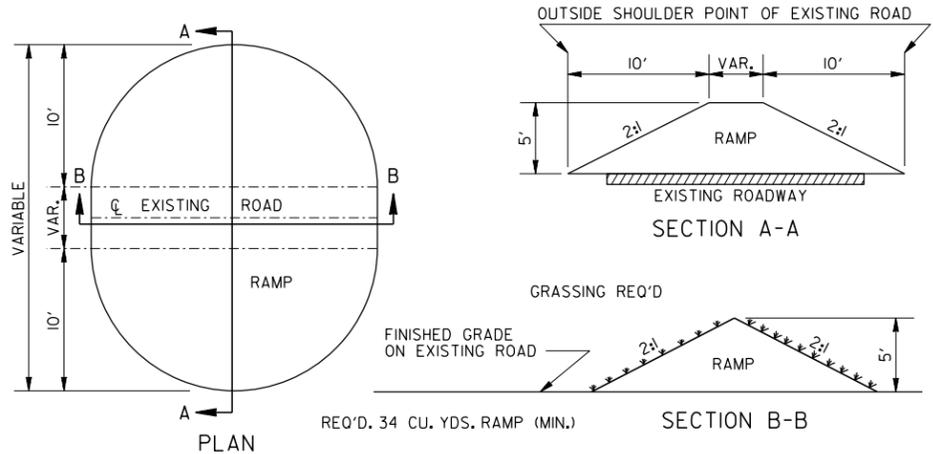


DETAIL FOR PLACING ROOF DRAIN PIPE UNDER SIDEWALK



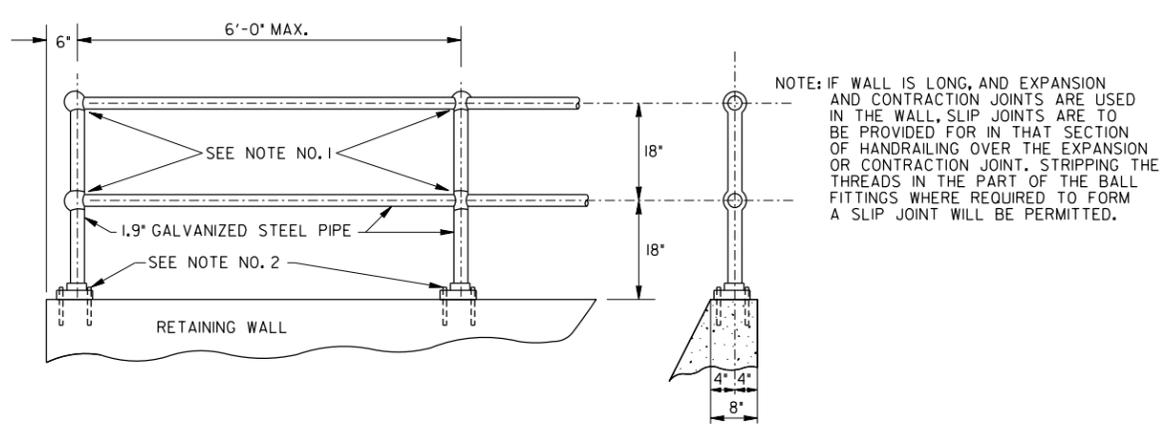
NOTE: FITTINGS OTHER THAN 90° ELBOW MAY BE USED TO SATISFY OTHER CONDITIONS.

DETAIL OF RAMP TYPE BARRICADE



NOTE: MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS.

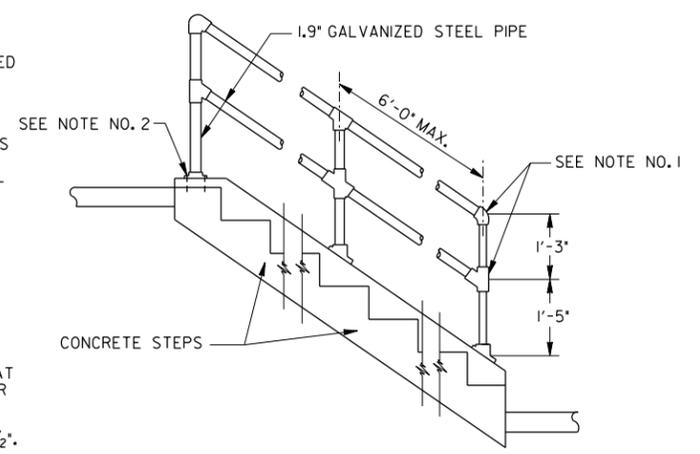
DETAIL OF PIPE HANDRAIL FOR RETAINING WALL



NOTE: IF WALL IS LONG, AND EXPANSION AND CONTRACTION JOINTS ARE USED IN THE WALL, SLIP JOINTS ARE TO BE PROVIDED FOR IN THAT SECTION OF HANDRAILING OVER THE EXPANSION OR CONTRACTION JOINT. STRIPPING THE THREADS IN THE PART OF THE BALL FITTINGS WHERE REQUIRED TO FORM A SLIP JOINT WILL BE PERMITTED.

NOTE: PIPE, PIPE FITTINGS, FLOOR FLANGES AND BOLTS SHALL BE OF AN APPROVED STANDARD TYPE.

DETAIL OF PIPE HANDRAIL FOR CONCRETE STEPS



NOTE: PIPE, FITTINGS, FLANGES AND BOLTS SHALL BE OF AN APPROVED STANDARD TYPE.

NOTES FOR PIPE HANDRAILING

1. JOINTS-
  - A.) STANDARD OR SPECIAL GALVANIZED STEEL OR GALVANIZED IRON FITTINGS MAY BE USED AT JOINTS (AS SHOWN).
  - OR-
  - B.) JOINTS MAY BE WELDED. IF WELDED, ALL EXPOSED JOINTS SHALL BE FINISHED BY GRINDING OR FILING TO GIVE A NEAT APPEARANCE. ALL DAMAGE TO GALVANIZING SHALL BE REPAIRED IN ACCORDANCE WITH THE GA. STANDARD SPECIFICATIONS.
2. FOOTINGS-
  - A.) POST MAY BE ANCHORED WITH 2 1/2" X 6 1/2" GALVANIZED FLOOR FLANGES WITH 4-1/2" X 9" GALVANIZED BOLTS (AS SHOWN).
  - OR-
  - B.) POST MAY BE GROUTED IN 6" DEEP, 3" DIA. HOLE. TOTAL LENGTH OF POST WILL BE 6" GREATER THAN THAT IN DETAILS TO GIVE SAME USEABLE HEIGHT AS IF FLOOR FLANGES WERE USED.
3. 1.9" (GALV. STEEL PIPE) DENOTES O.D. FOR RAIL SECTIONS. I.D.= 1 1/2".

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA STANDARD CONSTRUCTION DETAILS OF ROOF DRAIN PIPE UNDER SIDEWALK, RAMP TYPE BARRICADE, PIPE HANDRAIL FOR RETAINING WALL, AND PIPE HANDRAIL FOR CONCRETE STEPS			
10-11-88 2-10-78 2-11-76 11-25-75	Designated 1.9" O.D. Handrail Ramp detail-Rem. Spr'g. Rev. Handrailing Add. Conc. Patch, Detail & Handrail for Conc. Steps	DATE REVISION	REDRAWN JULY 2024 FEB 1966
R.M.J. R.M.J. R.M.J. R.M.J.	R.M.J. R.M.J. R.M.J. R.M.J.	DESIGNED: _____ DRAWN: A.V.S. TRACED: A.V.S. CHECKED: R.B.S.	(SUBMITTED) _____ (APPROVED) _____ STATE ROAD DESIGN ENGINEER STATE HIGHWAY ENGINEER
NOT TO SCALE			NUMBER 9031R