

FIG. A

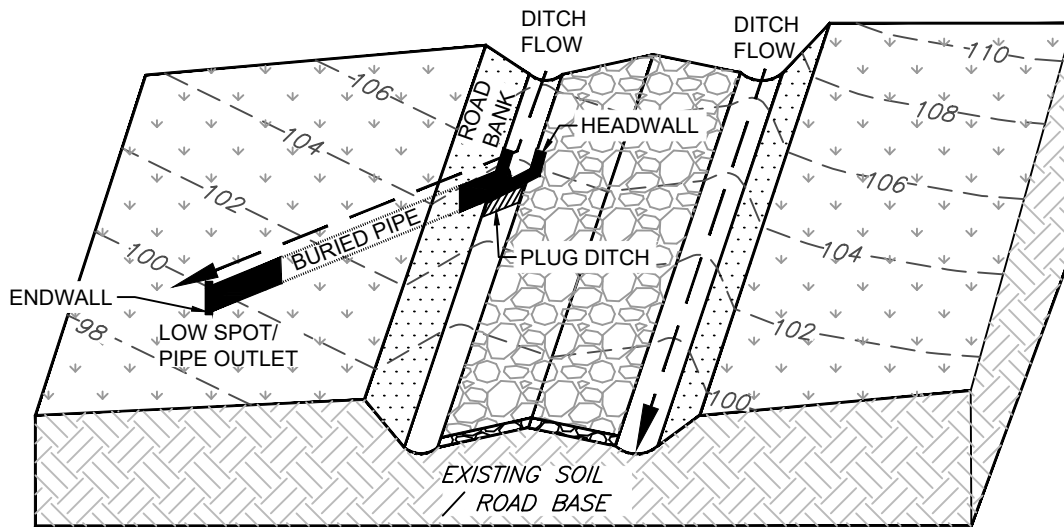


FIG. B

NOTES:

1. FIGURE A - A "THROUGH-THE-BANK" PIPE USED TO OUTLET THROUGH A HIGH BANK OR BERM.
2. FIGURE B - "THROUGH-THE-BANK" PIPE INSTALLATION ON AN ENTRENCHED ROAD LOCATED ON A SLOPE.
3. ALWAYS CHECK GRADES AND ELEVATIONS WITH A LEVEL OR SURVEY EQUIPMENT PRIOR TO STARTING INSTALLATION.
4. PIPES MAY APPEAR TO RUN UP-SLOPE, ESPECIALLY ON STEEPER ROADS AND SLOPES. CHECK GRADES MULTIPLE TIMES DURING INSTALLATION TO ENSURE POSITIVE DRAINAGE. PROVIDE MIN. 2% SLOPE ON PIPES.
5. "THROUGH-THE-BANK" PIPES DO NOT NEED THE SAME AMOUNT OF COVER OR COMPACTION AS CROSS-PIPES SINCE TRAFFIC WILL NOT CROSS THEM. PLACE ENOUGH MATERIAL OVER PIPE TO ANCHOR THE PIPE AND TO ESTABLISH VEGETATION GROWTH. EXCAVATED TRENCH MATERIAL MAY BE USED AS PIPE COVER MATERIAL.
6. OUTLET PIPE ON EXISTING GROUND ELEVATION. DO NOT EXCAVATE A TAIL DITCH. INSTALL HEADWALLS & PLUG THE DITCH DOWNSLOPE OF THE PIPE INLET IMMEDIATELY AFTER PIPE INSTALLATION.
7. THROUGH THE BANK PIPES CAN OFTEN BE INSTALLED WITHIN THE RIGHT-OF-WAY WHERE WATER WILL FLOW AWAY FROM THE ROAD.
8. LANDOWNER PERMISSION IS REQUIRED FOR WORK PERFORMED OUTSIDE OF THE RIGHT-OF-WAY.
9. CONTACT PA ONE-CALL A MINIMUM OF 3 DAYS PRIOR TO START OF ANY EARTHMOVING ACTIVITIES.

STATION #	PIPE DIAMETER (IN)	PIPE LENGTH (FT)