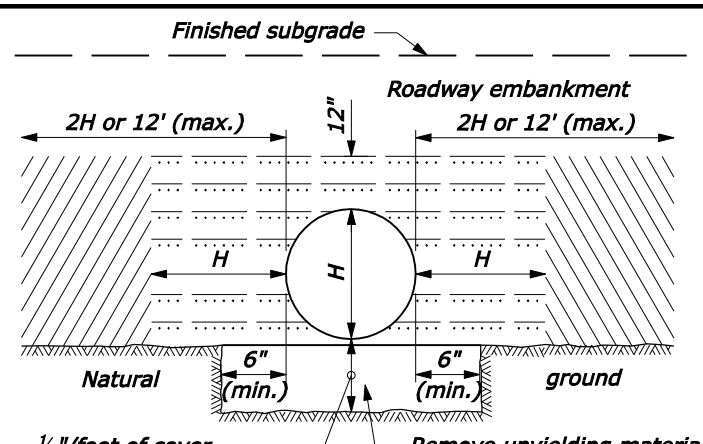
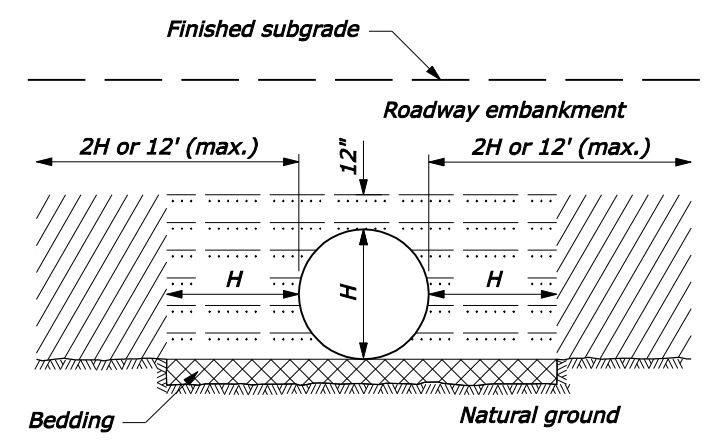


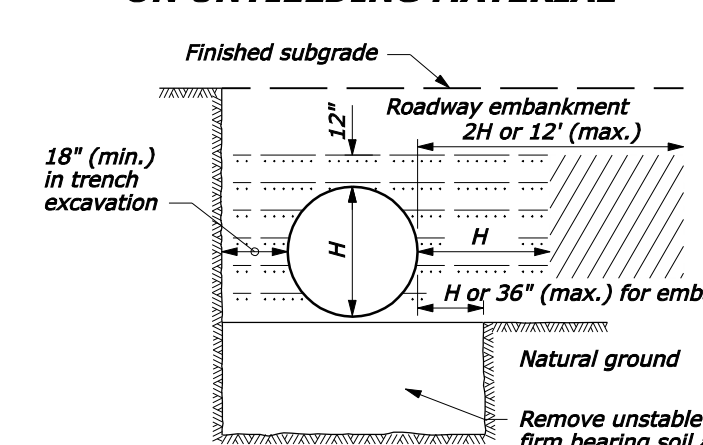
ABOVE NATURAL GROUND



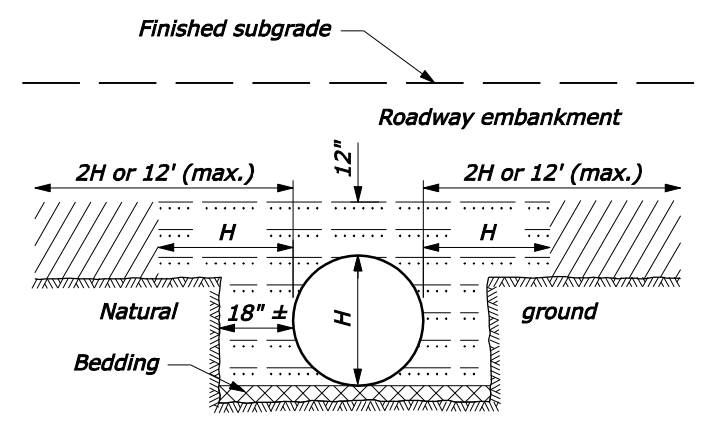
ON UNYIELDING MATERIAL



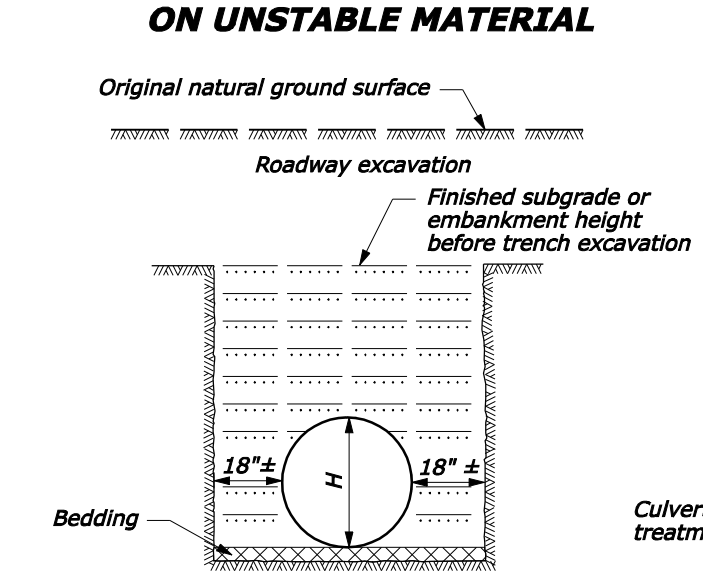
ON NATURAL GROUND



ON UNSTABLE MATERIAL



ABOVE AND BELOW NATURAL GROUND

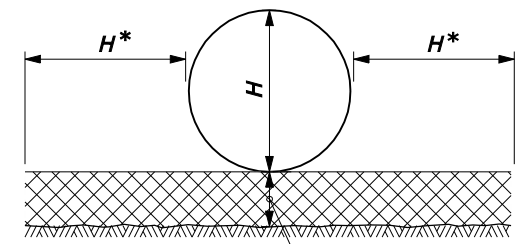


BELOW NATURAL GROUND OR TRENCH EXCAVATION IN EMBANKMENT

| BEDDING DEPTH | |
|---------------|-------|
| PIPE SIZE (H) | DEPTH |
| 12" to 54" | 4" |
| > 54" | 6" |

NOTE:

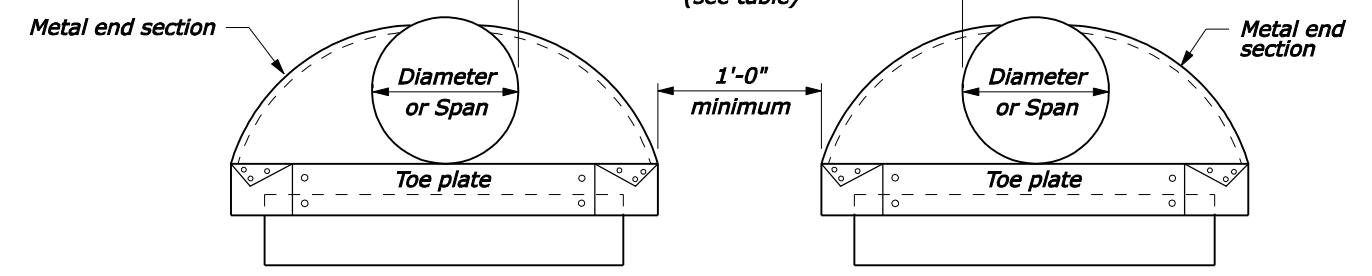
1. When directed, camber pipe culverts upward from a chord through the inlet and outlet inverts an ordinate amount equal to 1% of the pipe length. Develop camber on a parabolic curve. If the midpoint elevation on the parabolic curve as designed exceeds the elevation of the inlet invert, reduce the amount of camber or increase the pipe culvert gradient.
2. H equals the diameter of all round pipe culverts or the rise dimension of all pipe arch culverts.



* Reduce to 18" for trench excavations See bedding depth table

PIPE BEDDING

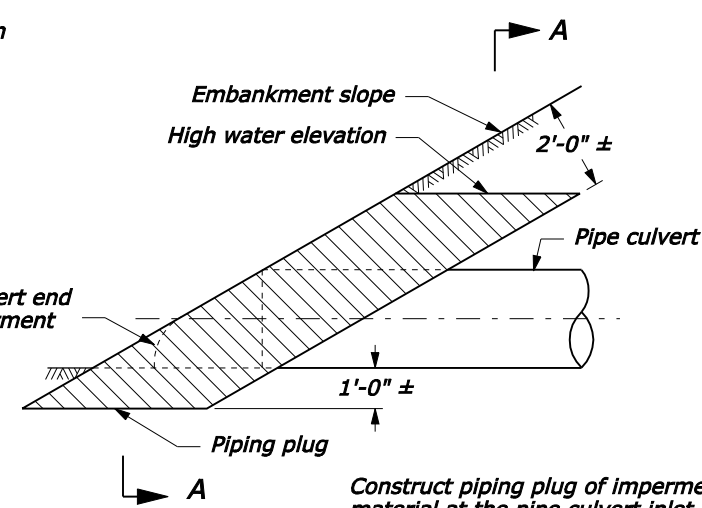
| MINIMUM SPACING | |
|------------------|--|
| DIAMETER or SPAN | SPACING |
| UP to 48" | 24" |
| 48" and UP | Half diameter or span OR 36" whichever is less |



ELEVATION

MULTIPLE PIPE INSTALLATION

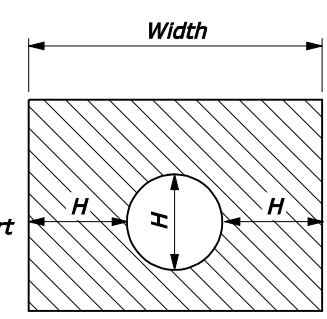
- Bedding material (uncompacted)
- Embankment material placed in layers not exceeding 6" compacted depth.
- Compacted backfill material placed in layers not exceeding 6" compacted depth meeting the following:
 Metal Pipe: Maximum particle size = 3"
 Soil classification: A-1, A-2, or A-3
 Plastic Pipe: Maximum particle size: 1 1/2"
 Soil classification: A-1, A-2-4, A-2-5, or A-3
 Or lean concrete backfill in accordance with Section 614.



Construct piping plug of impermeable backfill material at the pipe culvert inlet where granular material is used for backfill. Width may be adjusted to tie into impervious material.

PIPING PLUG

NO SCALE



SECTION A-A

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 FEDERAL LANDS HIGHWAY

U.S. CUSTOMARY STANDARD

METAL AND PLASTIC PIPE CULVERT BEDDING

STANDARD APPROVED FOR USE 12/1993
 REVISED: 4/1994 6/2005

STANDARD
 602-3

03-Oct-2005 06:43 AM F:\StdDraw\std6203.dgn [US Customary]