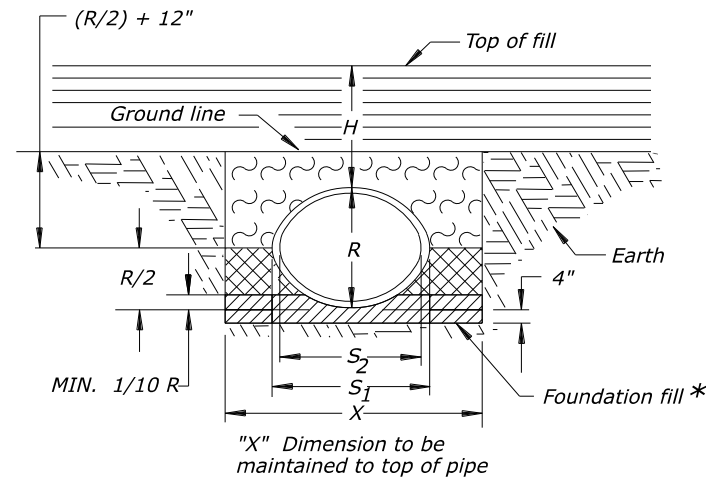
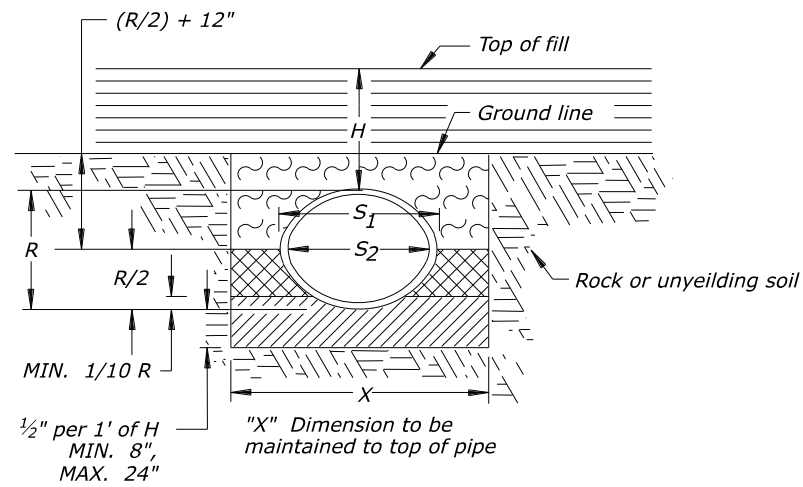


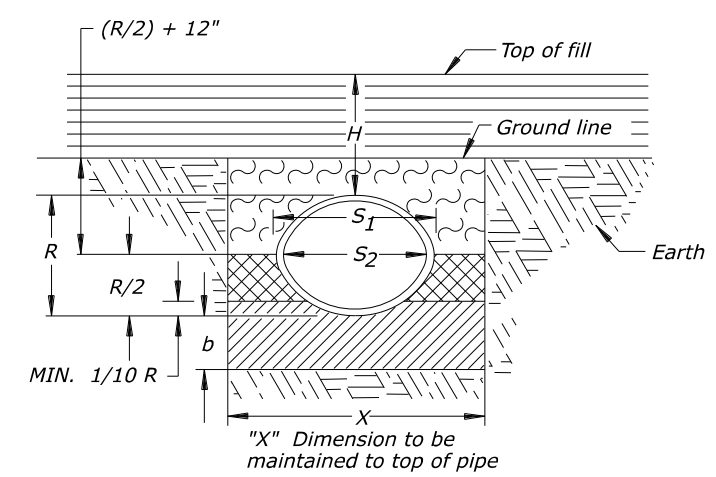
**NO PROJECTION OF PIPE ABOVE GROUND LINE**



**NORMAL EARTH FOUNDATION**

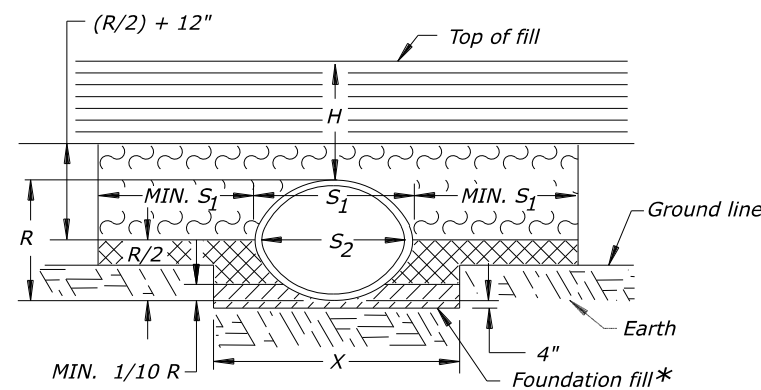


**ROCK FOUNDATION**

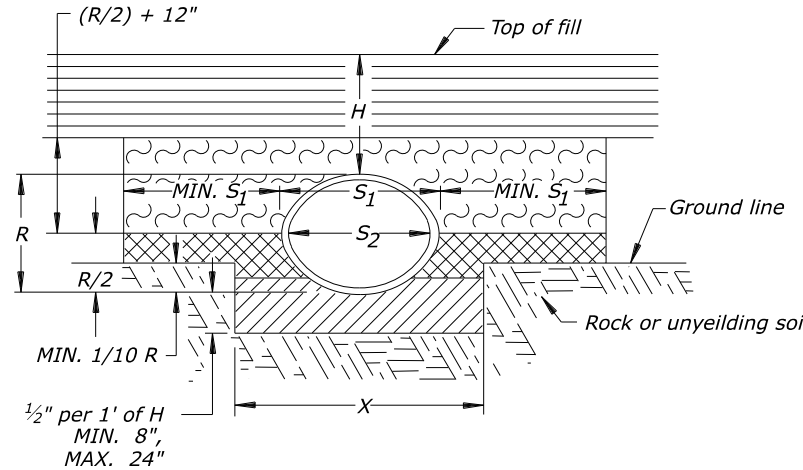


**FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL**

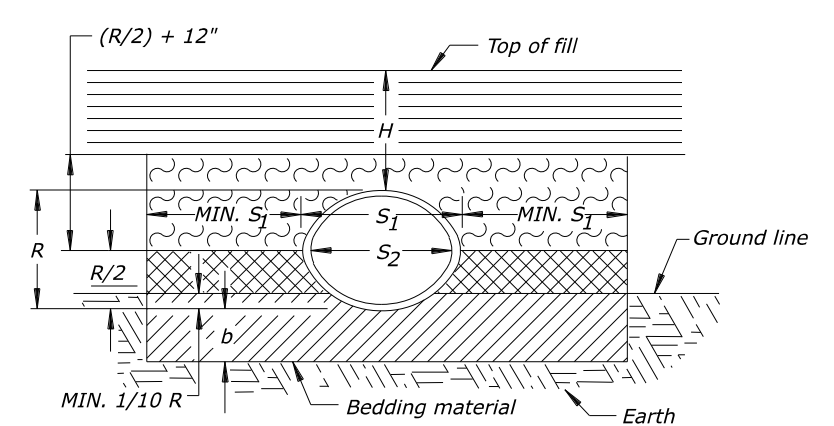
**PIPE PROJECTION ABOVE GROUND LINE**



**NORMAL EARTH FOUNDATION**



**ROCK FOUNDATION**



**FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL**

Culverts less than  $S_1 = 36"$   
 $X = S_2 + 24"$

Culverts where  $S_1 = 36"$  and over  
 $X = S_2 + 36"$

Use Method "A" pipe bedding as follows unless otherwise noted in the plans:

**Rigid Pipe**  
 When H is less than or equal to 30'

**Flexible Pipe**  
 As shown on Tables.

\* May be eliminated under entrance pipe where directed.

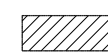
H = Height of cover measured from top of drainage structure to finished grade.

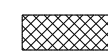
$S_1$  = Outside span of pipe.

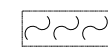
$S_2$  = Inside span of pipe.

R = Outside rise of pipe.

b = Depth as shown in the plans or to firm bearing soil.

 Foundation fill material placed according to Subsection 209.07.

 Backfill material placed according to Subsection 209.09.

 Suitable roadway excavation or unclassified borrow material placed according to Subsection 209.09.

 Embankment.

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY		EFLHD DETAIL E602-09
<b>ELLIPTICAL CONCRETE PIPE CULVERT INSTALLATION</b>		SPECIFICATION FP-24, FP-14 APPROVED FOR USE 05/2024