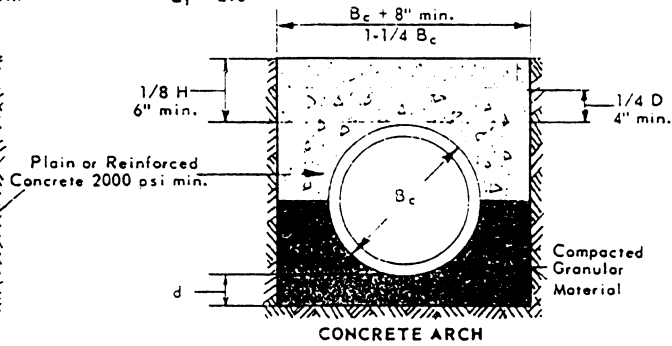
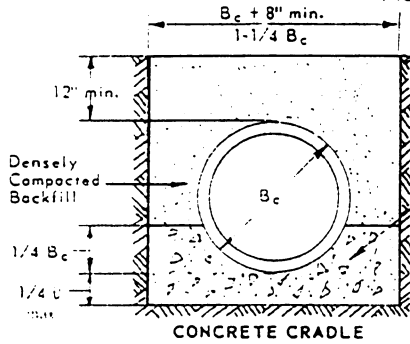


TRENCH BEDDING CLASSIFICATION - ROUND PRECAST CONCRETE PIPE

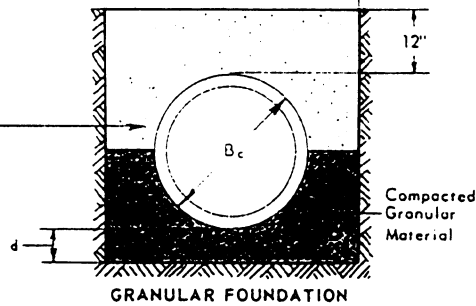
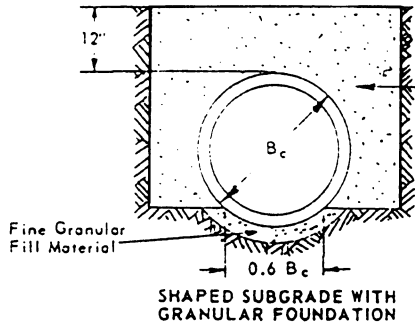
CLASS A

Reinforced $A_s = 1.0\%$ $L_f = 4.8$
 Reinforced $A_s = 0.4\%$ $L_f = 3.4$
 Plain $L_f = 2.8$



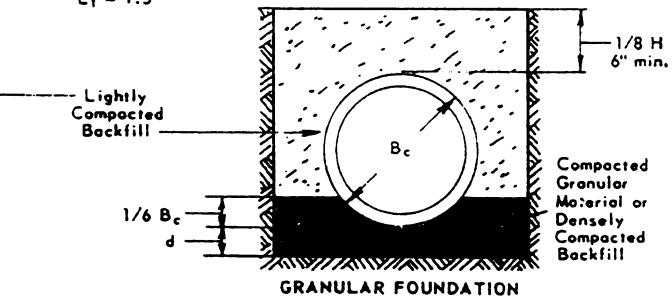
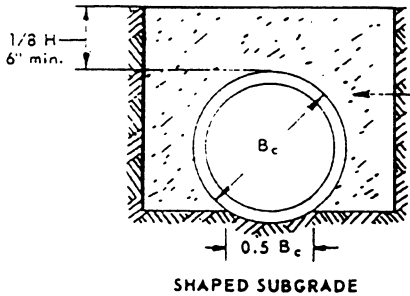
CLASS B

$L_f = 1.9$



CLASS C

$L_f = 1.5$



Depth of Bedding Material Below Pipe

D	d (min.)
27" & smaller	3"
30" to 60"	4"
66" & larger	6"

Legend

B_c = outside diameter
 H = backfill cover above top of pipe
 D = inside diameter
 d = depth of bedding material below pipe
 A_s = area of transverse steel in the cradle or arch expressed as a percentage of area of concrete or invert or crown.

Notes:

For Class B and C beddings, subgrades should be excavated or over excavated, if necessary, so a uniform foundation free of protruding rocks may be provided.

Special care may be necessary with Class A or other unyielding foundations to cushion pipe from shock when blasting can be anticipated in the area.

CITY OF COLORADO SPRINGS

TRENCH BEDDING CLASSIFICATION

APPROVED BY *Ray R. Hayes*
 CITY ENGINEER

SCALE:
NO SCALE

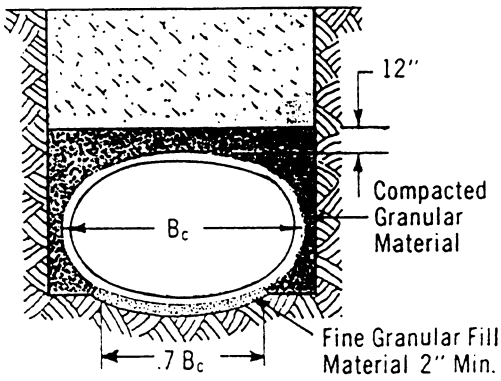
DATE:
JAN. 90

DRAWN:
P.L.B.

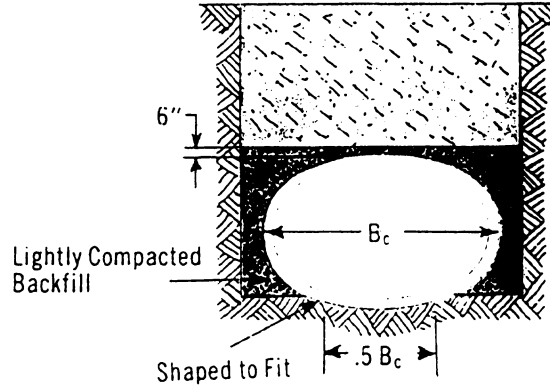
SHEET
D - 30

TRENCH BEDDING CLASSIFICATION- PRECAST CONCRETE SECTIONS

HORIZONTAL ELLIPTICAL PIPE

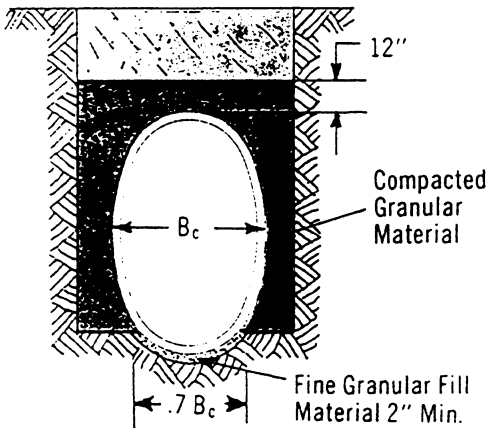


CLASS B
 $L_f=1.9$

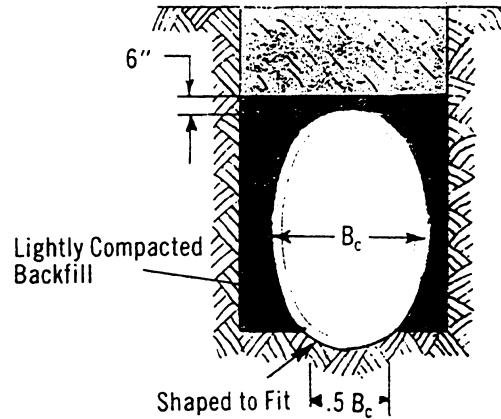


CLASS C
 $L_f=1.5$

VERTICAL ELLIPTICAL PIPE

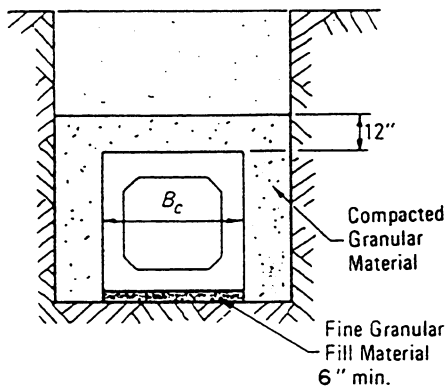


CLASS B
 $L_f=1.9$

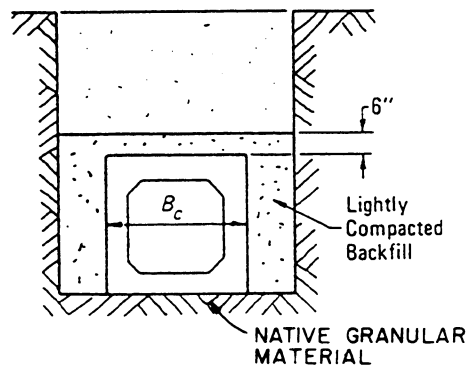


CLASS C
 $L_f=1.5$

PRECAST BOX SECTION



CLASS B

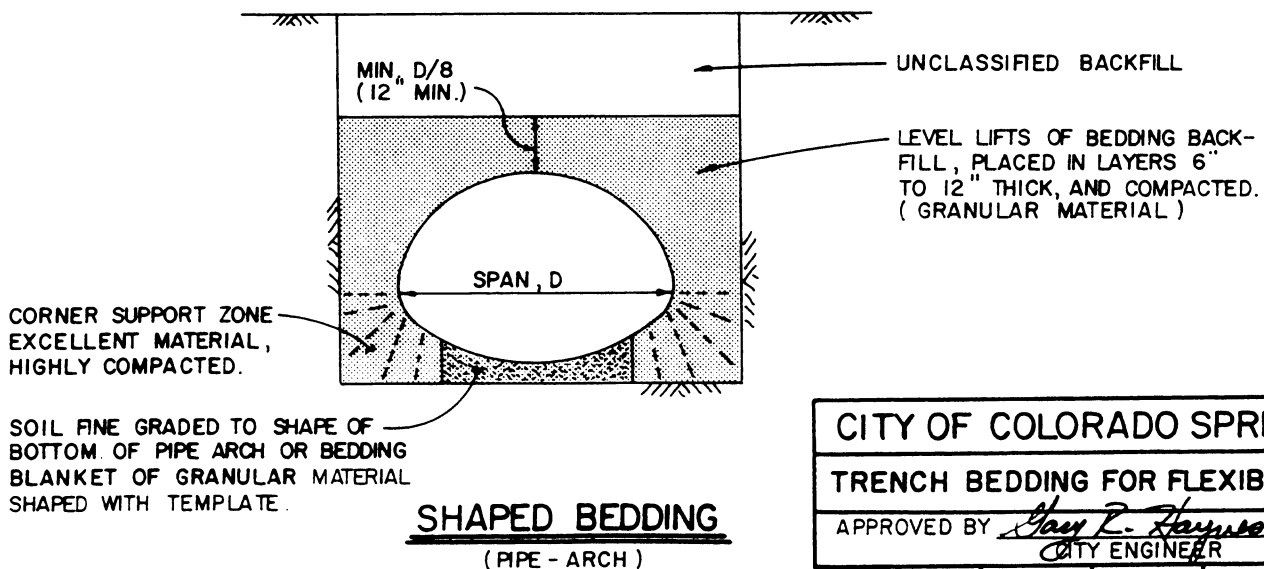
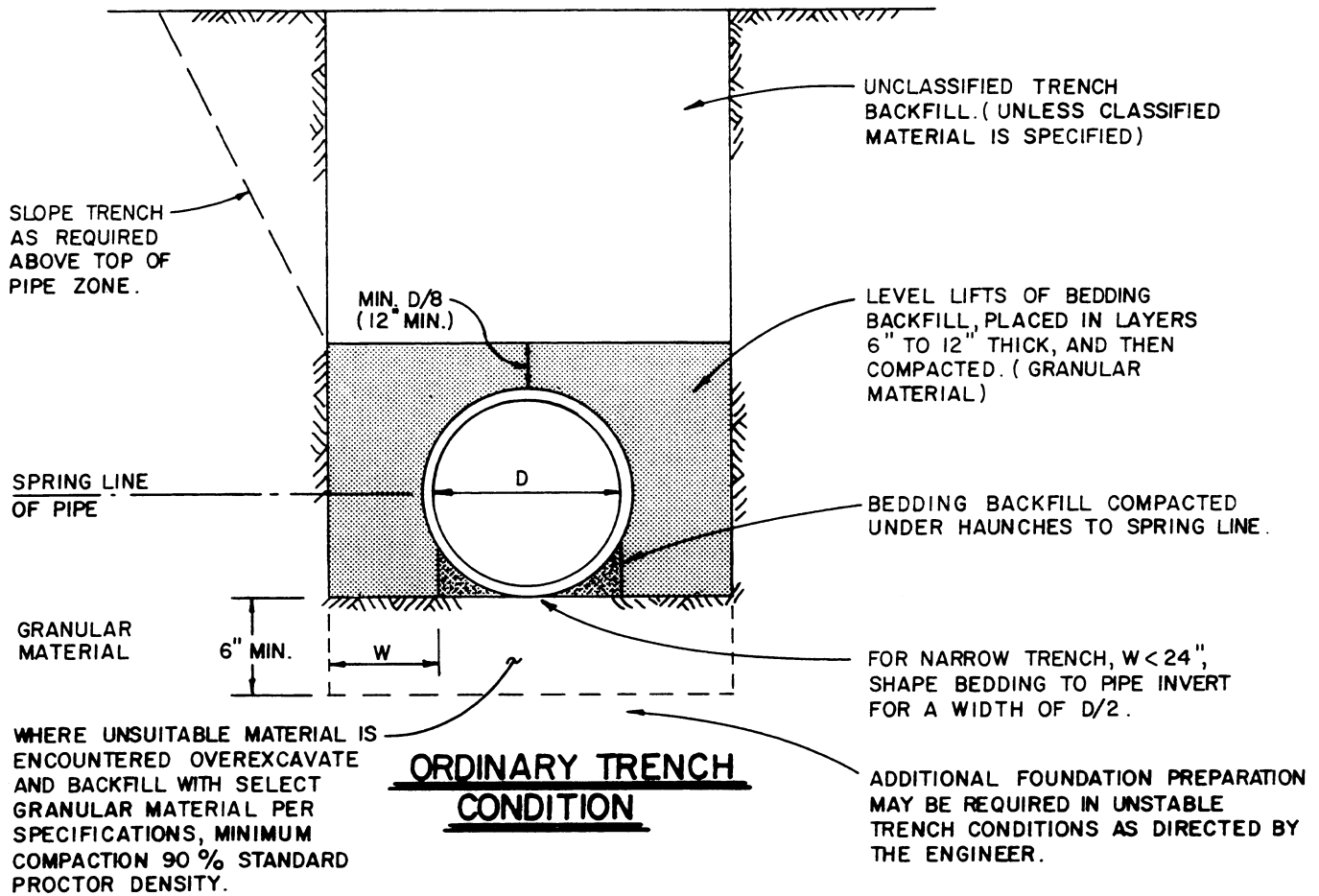


CLASS C

CITY OF COLORADO SPRINGS			
TRENCH BEDDING CLASSIFICATION			
APPROVED BY <i>Raymond</i> CITY ENGINEER			
SCALE: NO SCALE	DATE: JAN. 90	DRAWN: P.L.B.	SHEET D-31

SOURCE: ASTM A-798 "INSTALLING FACTORY-MADE CORRUGATED STEEL SEWER PIPE.
 ASTM D-2321 UNDERGROUND INSTALLATION OF FLEXIBLE THERMOPLASTIC SEWER PIPE.

TRENCH BEDDING FOR FLEXIBLE PIPE



CITY OF COLORADO SPRINGS

TRENCH BEDDING FOR FLEXIBLE PIPE

APPROVED BY *Gay R. Payne*
 CITY ENGINEER

SCALE:
NO SCALE

DATE:
JAN. 90

DRAWN:
P.L.B.

SHEET
D-32