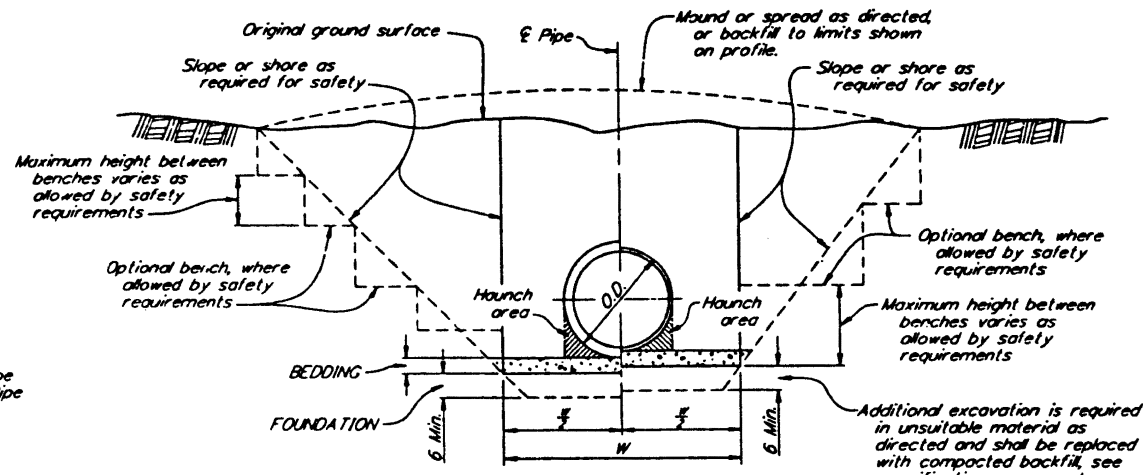


TRENCH FOR PAYLINES ONLY
ALL TYPES OF PIPE

TABLE OF PAY DIMENSIONS

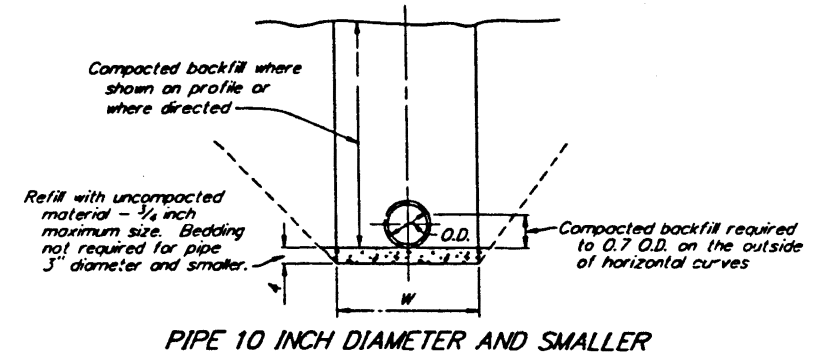
PIPE I.D. (INCHES)	Dp (INCHES)	Wp (FEET)
6 and less	I.D. + 2	2.0
Over 6 thru 18	I.D. + 4	$\frac{1}{12}(I.D. + 24)$
Over 18 thru 24	I.D. + 4	$\frac{1}{12}(I.D. + 40)$
Over 24	1.167 I.D.	$\frac{1}{12}(1.157 I.D. + 36)$



HALF SECTION RIGID PIPE
HALF SECTION FLEXIBLE PIPE
TYPICAL TRENCH DETAILS

MINIMUM INSTALLATION WIDTH

PIPE I.D. (INCHES)	W (FEET)
6 and less	2.0
Over 6 thru 18	$\frac{1}{12}(O.D. + 20)$
Over 18	$\frac{1}{12}(O.D. + 36)$



PIPE 10 INCH DIAMETER AND SMALLER

PVC
STEEL
DUCTILE IRON

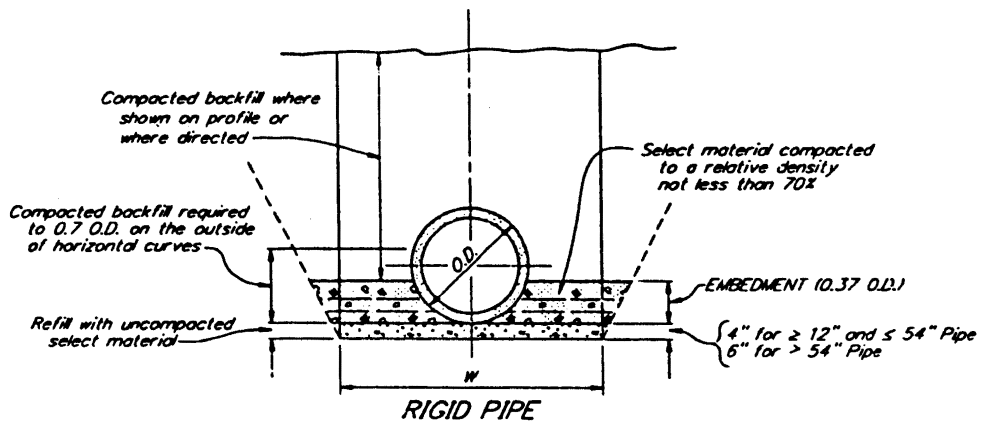
GRADATION LIMITS FOR SELECT MATERIAL

SIZE *	PERCENT BY WEIGHT
Passing No. 200 sieve	5 or less
Passing No. 50 sieve	25 or less

* Maximum size shall not exceed $\frac{1}{4}$ inch.

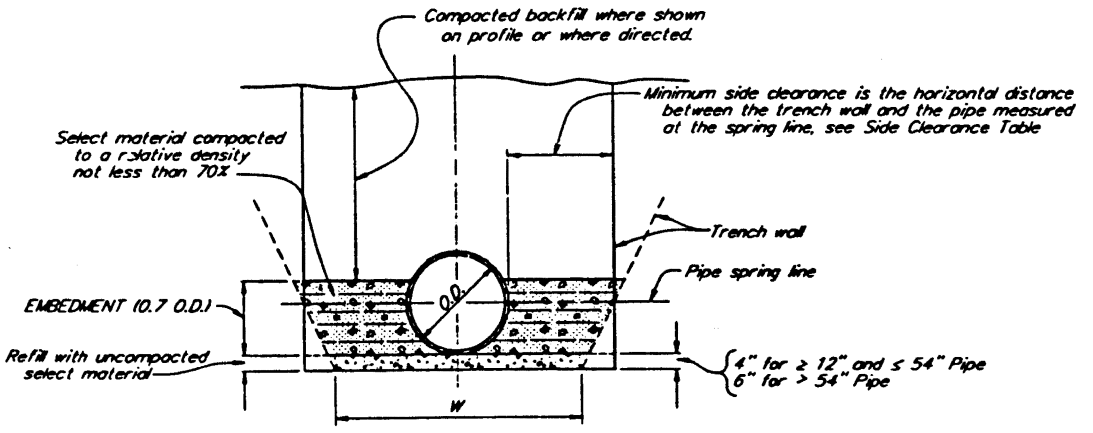
NOTES

Dp and Wp are used for calculating pay quantities for all pipe and trench types. Calculations are based on vertical walls.
Paylines for backfill will be the paylines for excavation, except the volume of the pipe, based on the diameter Dp will be deducted, and except where the depth of backfill is limited as shown on profiles.
W is minimum width of excavation in feet at bottom of bedding. The minimum side clearance for flexible pipe may require a wider trench bottom than dimension W.
Pipe diameters shown are the nominal inside diameter (I.D.) of the pipe in inches unless otherwise indicated.
O.D. is outside diameter in inches of the pipe actually installed. Where pipe slope exceeds 0.3, see specifications paragraphs for backfill in pipe trenches.
Sloping, shoring, and benching shall be in accordance with Reclamation Construction Safety Standards.
Other installation methods with comparable pipe designs may be submitted for approval.



RIGID PIPE

DUCTILE IRON 12" - 20"
REINFORCED CONCRETE 12" AND LARGER
REINFORCED CONCRETE CYLINDER 48" AND LARGER



FLEXIBLE PIPE

PVC 12" - 36"
PRETENSIONED CONCRETE CYLINDER 12" - 66"
STEEL 12" AND LARGER
FIBERGLASS 12" AND LARGER
DUCTILE IRON 24" AND LARGER

SIDE CLEARANCE TABLE

TRENCH TYPE	MINIMUM SIDE CLEARANCE (INCHES)
1	10 INCHES FOR 12" THRU 18" I.D. 18 INCHES FOR OVER 18" I.D.
2	ONE O.D.
3	TWO O.D.

For location of Trench Types, see Specifications.

11/27/91
D-20X
REMOVED NOTES ABOUT EQUAL LIFTS UNDER "RIGID PIPE" AND "FLEXIBLE PIPE".

10/17/91
D-LAK
REDRAWN WITH MINOR REVISIONS.

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
STANDARD DESIGN

**PRESSURE PIPE
TRENCH INSTALLATION
SELECT MATERIAL**

DESIGNED: Richard J. Fuerst
DRAWN: Dick Scully
CHECKED: Leo A. Kinney, Jr.
TECHNICAL APPROVAL: Leo A. Kinney, Jr.
SUBMITTED: Douglas H. Wegener
APPROVED: W. L. Long
CHIEF, WATER CONSTRUCTION DIVISION

Enigma Mine, Section III
Bolton 7.0
DENVER, COLORADO

APP-48, B, 0451, 03
Drawing: 00051

PLOT DATE: 11/27/91

APRIL 1, 1991

40-D-6551