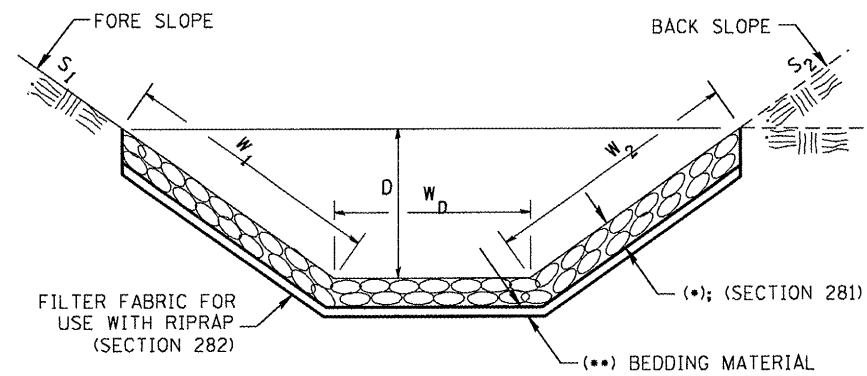


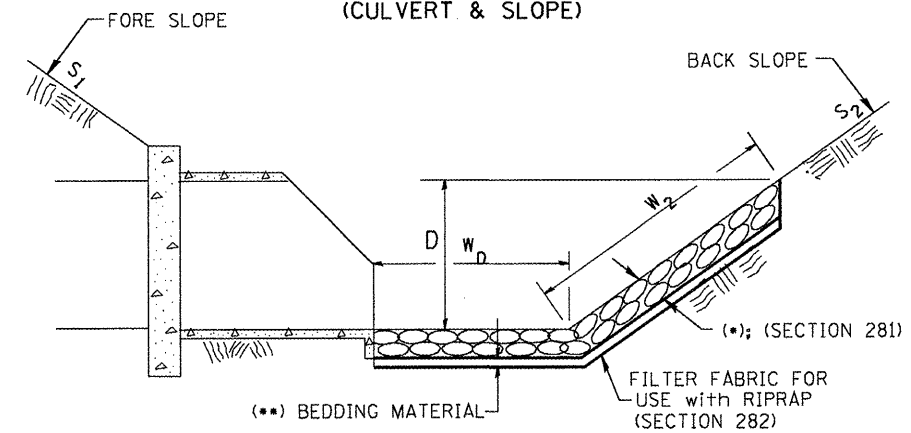
**CASE 1  
(DITCH)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m <sup>2</sup> )
TOTAL				

(1) WIDTH =  $W_1 + W_2 + W_D$

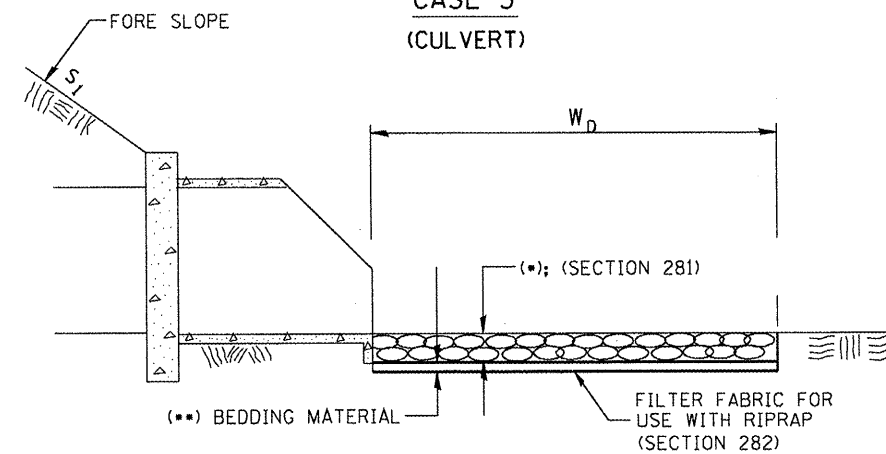
**CASE 2  
(CULVERT & SLOPE)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m <sup>2</sup> )
TOTAL				

(1) WIDTH =  $W_2 + W_D$

**CASE 3  
(CULVERT)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m <sup>2</sup> )
TOTAL				

(1) WIDTH =  $W_D$

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches (millimeters) unless otherwise noted.

USER NAME = g.jameson	DESIGNED -	REVISED -
FILE NAME = 0468482-shd-DIST4	DRAWN -	REVISED -
PLOT DATE = 12/21/2010	CHECKED -	REVISED -
PLOT TIME = 11:31:44 AM		

**WHKS & CO.**  
ENGINEERING  
7018 KINGSMILL CT.,  
SPRINGFIELD, IL  
(217) 483-9457  
DESIGN FIRM #184001038

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**RIPRAP DITCH FOR EROSION PROTECTION  
DISTRICT 4 STANDARDS**

SCALE: N.T.S. SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
542	105BR-1	McDONOUGH	117	107
CONTRACT NO. 68482				
ILLINOIS FED. AID PROJECT				