RIPRAP BASIN CHECKLIST

Project No. _____

Designer _____ Date _____

Reviewer _____ Date _____

DESIGN VALUES (*IDM* Figure 34-8B)	TRIAL1	FINAL TRIAL
Equivalent Depth, d_E	1.22 m	1.22 m
D_{50}/d_E	0.45	0.45
D_{50}	0.55 m	0.55 m
Froude No., Fr	2.20	2.20
h_S/d_E	1.60	1.60
h_S	1.95	1.95
h_S/D_{50}	3.55	3.55
$2 < h_S/D_{50} < 4$	OK	

BASIN DIMENSIONS		METERS	
Pool length is the larger of:	$10h_S$	19.5	19.5
	$3W_o$	7.32	
Basin length is the larger of:	$15h_S$	29.2	29.2
	$4W_o$	9.76	
Approach Thickness	$3D_{50}$	1.65	
Basin Thickness	$2D_{50}$	1.10	

TAILWATER CHECK	
Tailwater, TW	1.28 m
Equivalent depth, d_E	1.22 m
TW/d_E	1.05
IF $TW/d_E > 0.75$, calculate riprap downstream using *IDM* Figure 34-8D	
$D_E = (4A_c/\pi)^{0.5}$	

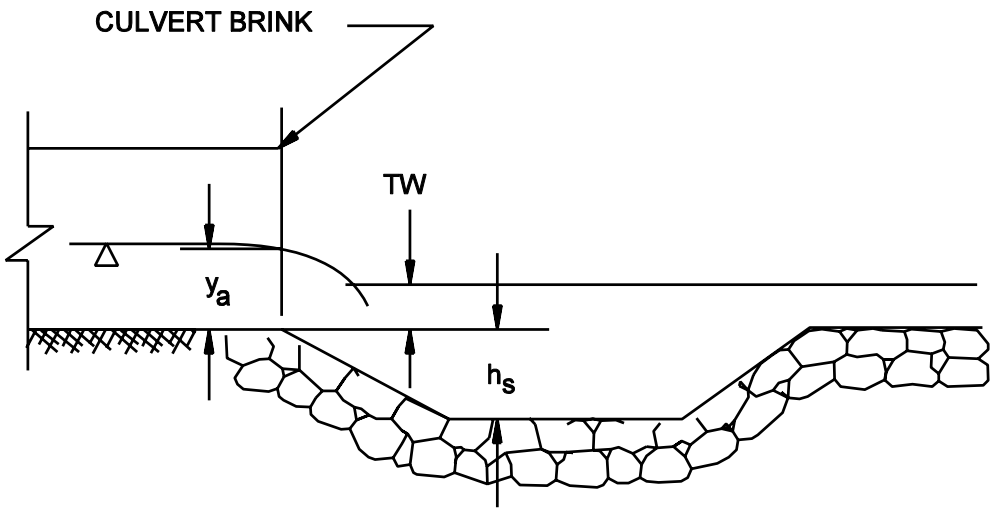
DOWNSTREAM RIPRAP (*IDM* Figure 34-8D)				
L/D_E	L	V_L/V_o	V_L	D_{50}
10	19.5	0.59	4.5	0.43
15	29.25	0.37	2.82	0.18
20	39.01	0.30	2.32	0.12
21	41.15	0.28	2.32	0.12

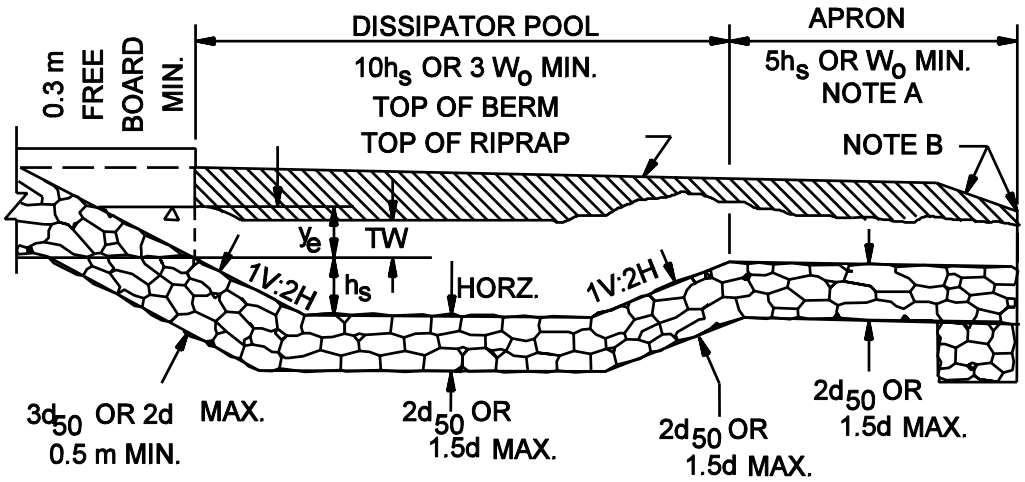
Click When Done

Clear Data

Riprap Basin Design Example Details

Back To Design Example





RIPRAP BASIN DESIGN EXAMPLE DETAILS