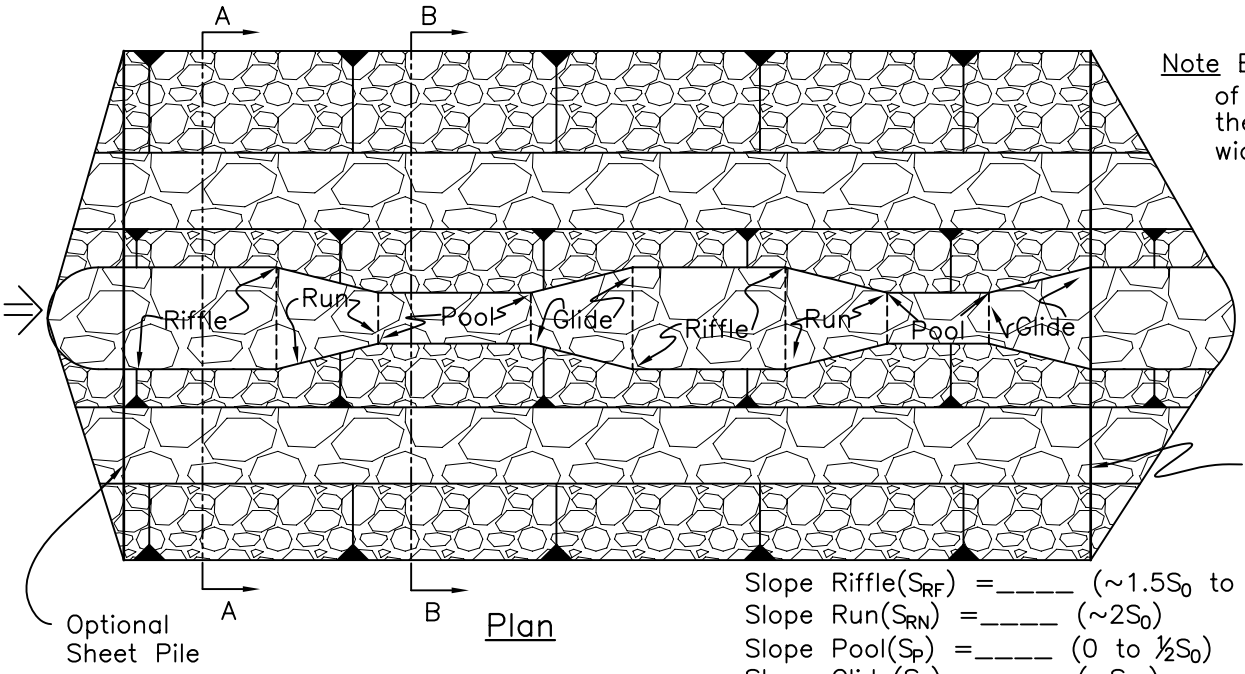


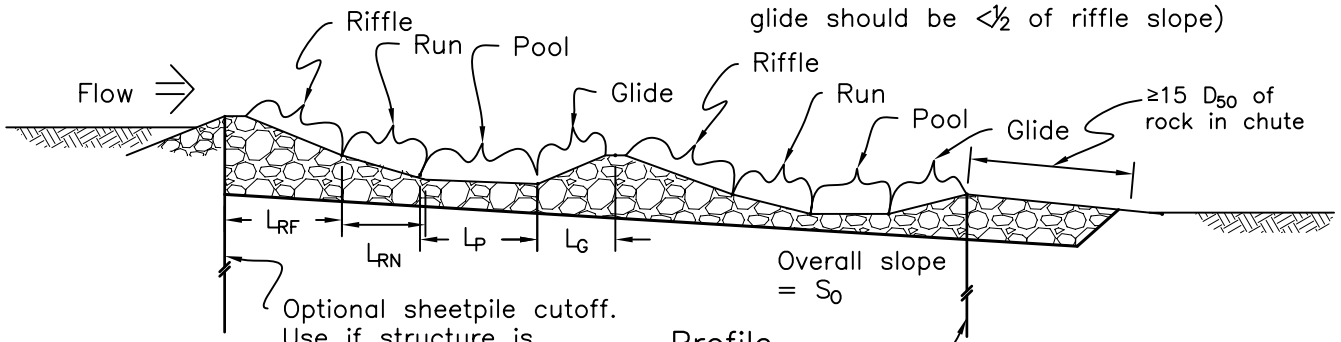
Plan

Note Bottom width of pool is ~½ the bottom width of riffle

Optional Sheet Pile

Optional Sheet Pile

Slope Riffle(S_{RF}) =____ (~1.5S_0 to 2S_0)
Slope Run(S_{RN}) =____ (~2S_0)
Slope Pool(S_P) =____ (0 to ½S_0)
Slope Glide(S_G) =____ (−S_{RN})
(Slope from beginning of run to the end of the glide should be <½ of riffle slope)



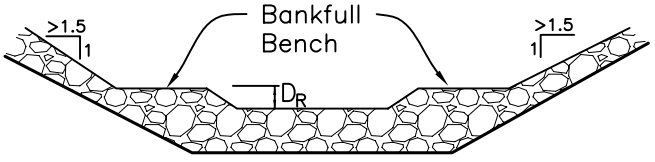
Optional sheetpile cutoff. Use if structure is constructed on highly erodible fine sands or similar mobile, permeable bed material

Profile (centerline)

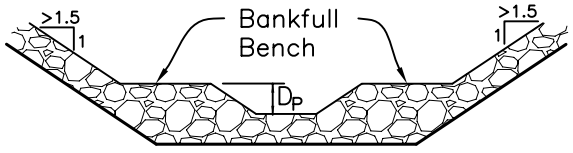
Optional sheetpile cutoff. Use to resist advancing downstream headcuts

L_{RF}=____
L_{RN}=____(~⅔L_{RF})
L_P =____(~L_{RF})
L_G =____(~L_{RN})
(Length of riffle ~½ length of entire pool including run, pool and glide as shown on the plans)
L_{RF}≈½ (L_{RN} + L_P + L_G)

D_R=____(Bankfull depth)
D_P=____(~2 to 3D_R)



Section A–A – Riffle



Section B–B – Pool

Note:
- Chute rock size to be stable at highest design discharge (use rock chute design and apply results to riffle slope)
- Minimum rock thickness shall not be less than 2D_{50}
- Design was originally developed for a Rosgen C stream

Conceptual Plan - Not for Construction

N.T.S.

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

Step – Pool Rock Chute

Designed	Slowik, Robinson, Fripp, Mueller	Date 04/07
Drawn	J. Renteria	04/07
Checked		
Approved		

File Name: Step–Pool Rock Chute.dwg
Drawing Name: Step–Pool Rock Chute
06/12/07
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