

**GRADE STABILIZATION STRUCTURE
(pipe drop with detention storage)**

Job Class _____ Controlling Factor _____

Soils _____ Hydro. Gr. _____

Land Use _____ Trtmt. _____ Condition _____

DA _____ ac. CN _____ W/S Slope _____ %

Flow Length _____ ft. Tc _____ hrs.

Rainfall (ps) _____ in. _____ yr. & (es) _____ in. _____ yr.

la _____ in. la/P(ps) _____ $q_u(ps)$ _____ cfs/ac/in Qps _____ in.

PS $q_p = q_i =$ _____ $q_u(ps)$ X _____ DA X _____ Qps = _____ cfs

$V_r = [$ _____ (in) x _____ (DA) $]/ 12 =$ _____ AF

$V_s = ($ _____ cf/ft x _____ ft.) $/ 43560 =$ _____ AF

$V_s/V_r =$ _____ (Vs) $/$ _____ (Vr) = _____ $q_o/q_i =$ _____

Qpipe = _____ (q_o/q_i) x _____ $(q_i) =$ _____ cfs

Pipe Size = _____ in. (sm./corr.) barrel; _____ in. riser

Emb. SS = _____ : 1 TW = _____ ft.

la/P(es) _____ $q_u(es)$ _____ cfs/ac/in Qes _____ in.

ES $q_p =$ _____ $q_u(es)$ X _____ DA X _____ Qes = _____ cfs

BW = _____ ft. C. Sect. = _____ ft. Stage = _____ ft.

S. Range = _____ to _____ F'Board = _____ ft.

EI Riser _____ EI Emer S/W _____ EI Top of Dam _____

Settlement _____ % Pond Use _____

Drain _____ ft. of _____ in. _____ Pipe

Riser _____ ft. of _____ in. _____ Pipe

Quantity of Fill _____ CY Vegetation _____

Design By _____ Checked By _____