LIST OF SYMBOLS

d_2 distance from tailwater surface to floor of stilling basin

d_c critical depth = $\sqrt[3]{(Q/L)^2/g}$ = (2/3) H

g acceleration due to gravity

H specific head in approach to crest = depth plus velocity head = (3/2) d_c

L crest length = stilling basin width

L_B minimum stilling basin length = $x_a + x_b + x_c$

Q discharge

v_c critical velocity

x_F horizontal distance from crest to point where upper surface of free-falling nappe strikes stilling basin floor

x_a horizontal distance from crest to point at which average of upper surfaces of free-falling and tangent nappes strikes stilling basin floor = $(x_F + x_T)/2$

x_b distance to floor blocks from point at which average of upper surfaces of free-falling and tangent nappes strikes stilling basin floor

x_c distance from upstream face of floor blocks to end of stilling basin

x_n horizontal distance from crest to upper surface of free-falling nappe

x_{ns} horizontal distance from crest to upper surface of submerged nappe

x_t horizontal distance from crest to point at which upper surface of free-falling nappe plunges into tailwater

x_T horizontal distance from crest to point where upper surface of tangent nappe strikes stilling basin floor

y vertical distance from crest to stilling basin floor (y is negative)

y_n vertical distance from crest to upper surface of free-falling nappe (y_n is positive above the crest and negative below the crest)

y_t vertical distance from crest to tailwater surface (y_t is positive when the tailwater surface is above the crest, negative when the tailwater surface is below the crest)