

FHWA CULVERT ANALYSIS, HY-8, VERSION 6.0

CURRENT DATE	CURRENT TIME	FILE NAME	FILE DATE
09-19-2003	15:26:05	CHPTR11A	09-19-2003

CULVERT AND CHANNEL DATA

CULVERT NO. 1	DOWNSTREAM CHANNEL
CULVERT TYPE: 2135 mm x 1830 mm BOX	CHANNEL TYPE: IRREGULAR
CULVERT LENGTH = 91.554 m	BOTTOM WIDTH = 2.135 m
NO. OF BARRELS = 1.0	TAILWATER DEPTH = 0.860 m
FLOW PER BARREL = 11.330 m ³ /s	TOTAL DESIGN FLOW = 11.330 m ³ /s
INVERT ELEVATION = 52.580 m	BOTTOM ELEVATION = 52.581 m
OUTLET VELOCITY = 8.611 m/s	NORMAL VELOCITY = 5.354 m/s
OUTLET DEPTH = 0.616 m	

ST. ANTHONY FALLS BASIN -- FINAL DESIGN

LB = 4.220 m	LS = 4.163 m	LT = 5.557 m
L = 13.940 m	Y1 = 0.461 m	Y2 = 2.896 m
Z1 = 49.802 m	Z2 = 49.802 mm	Z3 = 51.883 m
WB = 2.135 m	WB3 = 2.135 m	

----- CHUTE BLOCKS -----

H1 = 0.461 m	W1 = 0.356 m	W2 = 0.356 m	NC = 3.000
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----- BAFFLE BLOCKS -----

W3 = 0.356 m	W4 = 0.356 m	NB = 3.000
H3 = 0.461 m		LCB = 1.407 m

----- END SILL -----

H4 = 0.237 m
BASIN OUTLET VELOCITY = 5.354 m/s

ENERGY DISSIPATOR HY-8 PROGRAM OUTPUT

Figure 34-7C