

APPENDIX B

STANDARD DESIGN FORMS

APPENDICES

APPENDIX B - STANDARD DESIGN FORMS

Inlet Spacing	B - 1
Storm Sewer Design	B - 2
Culvert Analysis	B - 3
Hydraulic Gradient	B - 4

SHA - 61.1 - 490

MARYLAND STATE HIGHWAY ADMINISTRATION

SHEET _____ OF _____

9-1-80

CULVERT ANALYSIS

DATE - _____

DESIGNED BY - _____

CONTRACT - _____

CHECKED BY - _____

TITLE - _____

HYDROLOGIC INFORMATION

SCS METHOD

AREA - _____ AC. - _____ SM.

RCN. = _____

t_c = _____ MIN. = _____ HRS.

RATIONAL METHOD

AREA - _____ AC.

C_w = _____

i_c = _____ MIN.

i_2 = _____ "/ HR.

i_{10} = _____ "/ HR.

i_{100} = _____ "/ HR.

CULVERT DIMENSION(S) - _____ IN. = _____ FT.

CULVERT STATION _____
SUMP STATION _____
SUMP PGL ELEV. = _____

SUMP PAVEMENT EDGE ELEV. = _____

AHW DEPTH = _____ FT.

INVERT ELEV. = _____

INVERT ELEV. = _____

S_0 = _____ %

L = _____ FT.

CULVERT TYPE

ENTRANCE TYPE

Q

CFS

INLET CONTROL
HW
D

K_e

D_c

$D_c \cdot \frac{D}{2}$

TW

h_o

$S_f L$

V_f

$\frac{V^2}{2g}$

H

LS₀

HW

HEADWATER COMPUTATION

CONTROLLING HW

DEPTH

SURF. ELEV.

COMMENTS

FORMULAE:

OUTLET CONTROL:

$$HW = h_o + H - LS_o$$

$$H = S_f L + (1 + K_e) \left(\frac{V^2}{2g} \right)$$

REMARKS: