

<u>Symbol</u>	<u>Definition</u>	<u>Unit</u>
$A$	Area of cross section	$m^2$
$A$	Watershed area	ha
$a$	Depth of depression	mm
$C$	Runoff coefficient or coefficient	-
$d$	Depth of gutter flow at curb line	m
$D$	Diameter of pipe	m
$E_o$	Ratio of frontal flow to total gutter flow $Q_w/Q$	-
$h$	Height of curb-opening inlet	m
$H$	Head loss	m
$I$	Rainfall intensity	mm/h
$K$	Coefficient	-
$L$	Length of curb-opening inlet	m
$L$	Pipe length	m
$L$	Pavement width	m
$L$	Length of runoff travel	m
$n$	Roughness coefficient in Manning's formula	-
$P$	Perimeter of grate opening, neglecting bars and side against curb	m
$P$	Tire pressure	$N/m^2$
$Q$	Rate of discharge in gutter	$m^3/s$
$Q_i$	Intercepted flow	$m^3/s$
$Q_s$	Gutter capacity above depressed section	$m^3/s$
$Q_T$	Total flow	$m^3/s$
$Q_w$	Gutter capacity in depressed section	$m^3/s$
$R_h$	Hydraulic radius	m
$S$ or $S_x$	Pavement cross slope	m/m
$S$	Crown slope of pavement	m/m
$S$ or $S_L$	Longitudinal slope of pavement	m/m
$S_w$	Depressed-section slope	m/m
$T$	Top width of water surface, or spread on pavement	m
$t_c$	Time of concentration	min
$T_D$	Tire-tread depth	mm
$T_s$	Spread above depressed section	m
TXD	Pavement-texture depth	mm
$V$	Vehicle speed	km/h
$V$	Velocity of flow	m/s
$W$	Width of depression for curb-opening inlet	m
$W_d$	Rotational velocity on dry surface	rpm
WD	Water depth	mm
$W_w$	Rotational velocity on flooded surface	rpm
$y$	Depth of flow in approach gutter	m
$Z$	$T/d$ , reciprocal of the cross slope	-

## SYMBOLS AND DEFINITIONS

**Figure 36-3A**