

17907 Pre v Post Pond Volumes

Prepared by Farland Corporation, Inc.

HydroCAD® 10.00-24 s/n 02085 © 2018 HydroCAD Software Solutions LLC

Type III 24-hr 2-yr Rainfall=3.40"

Printed 11/27/2019

Page 1

Summary for Subcatchment S-1: Tributary to Detention Basin

Runoff = 4.19 cfs @ 12.28 hrs, Volume= 0.445 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.40"

Area (sf)	CN	Description
111,923	74	>75% Grass cover, Good, HSG C
* 5,323	98	Detention Basin
* 32,254	98	Pavement, HSG C
149,500	80	Weighted Average
111,923		74.86% Pervious Area
37,577		25.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	50	0.0050	0.09		Sheet Flow, Grass: Short n= 0.150 P2= 3.40"
10.0	325	0.0060	0.54		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	40	0.0320	8.11	6.37	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
0.3	90	0.0050	5.09	16.00	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
19.9	505	Total			

17907 Pre v Post Pond Volumes

Prepared by Farland Corporation, Inc.

HydroCAD® 10.00-24 s/n 02085 © 2018 HydroCAD Software Solutions LLC

Type III 24-hr 10-yr Rainfall=4.80"

Printed 11/27/2019

Page 2

Summary for Subcatchment S-1: Tributary to Detention Basin

Runoff = 7.40 cfs @ 12.27 hrs, Volume= 0.778 af, Depth= 2.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=4.80"

Area (sf)	CN	Description
111,923	74	>75% Grass cover, Good, HSG C
* 5,323	98	Detention Basin
* 32,254	98	Pavement, HSG C
149,500	80	Weighted Average
111,923		74.86% Pervious Area
37,577		25.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	50	0.0050	0.09		Sheet Flow, Grass: Short n= 0.150 P2= 3.40"
10.0	325	0.0060	0.54		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	40	0.0320	8.11	6.37	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
0.3	90	0.0050	5.09	16.00	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
19.9	505	Total			

17907 Pre v Post Pond Volumes

Type III 24-hr 100-yr Rainfall=7.00"

Prepared by Farland Corporation, Inc.

Printed 11/27/2019

HydroCAD® 10.00-24 s/n 02085 © 2018 HydroCAD Software Solutions LLC

Page 3

Summary for Subcatchment S-1: Tributary to Detention Basin

Runoff = 12.70 cfs @ 12.27 hrs, Volume= 1.343 af, Depth= 4.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=7.00"

Area (sf)	CN	Description
111,923	74	>75% Grass cover, Good, HSG C
* 5,323	98	Detention Basin
* 32,254	98	Pavement, HSG C
149,500	80	Weighted Average
111,923		74.86% Pervious Area
37,577		25.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	50	0.0050	0.09		Sheet Flow, Grass: Short n= 0.150 P2= 3.40"
10.0	325	0.0060	0.54		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	40	0.0320	8.11	6.37	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
0.3	90	0.0050	5.09	16.00	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
19.9	505	Total			