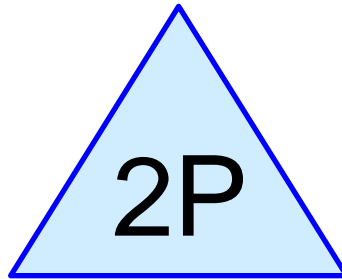
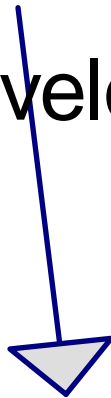
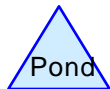
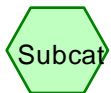


Total developed



(new Pond)



Prop to north 100yr

KS-Sedgwick County 100-Year Duration=60 min, Inten=3.73 in/hr

Prepared by HydroCAD SAMPLER 1-800-927-7246 www.hydrocad.net

Page 2

HydroCAD® 7.00 s/n 000000 © 1986-2003 Applied Microcomputer Systems

11/24/2006

Time span=0.00-12.00 hrs, dt=0.01 hrs, 1201 points

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc

Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: Total developed

Runoff Area=17.400 ac Runoff Depth=3.13"

FlowLength=1,850 Tc=23.7 min C=0.84 Runoff=54.97 cfs 4.543 af

Pond 2P: (new Pond)

Peak Elev=1,317.64' Storage=2840 af Inflow=54.97 cfs 4.543 af

24.0' x50.0' Culvert Outflow=27.31 cfs 3.805 af

Total Runoff Area = 17.400 ac Runoff Volume = 4.543 af Average Runoff Depth = 3.13"

Prop to north 100yr

KS-Sedgwick County 100-Year Duration=60 min, Inten=3.73 in/hr

Prepared by HydroCAD SAMPLER 1-800-927-7246 www.hydrocad.net

HydroCAD® 7.00 s/n 000000 © 1986-2003 Applied Microcomputer Systems

Subcatchment 1S: Total developed

Runoff = 54.97 cfs @ 0.40 hrs, Volume= 4.543 af, Depth= 3.13"

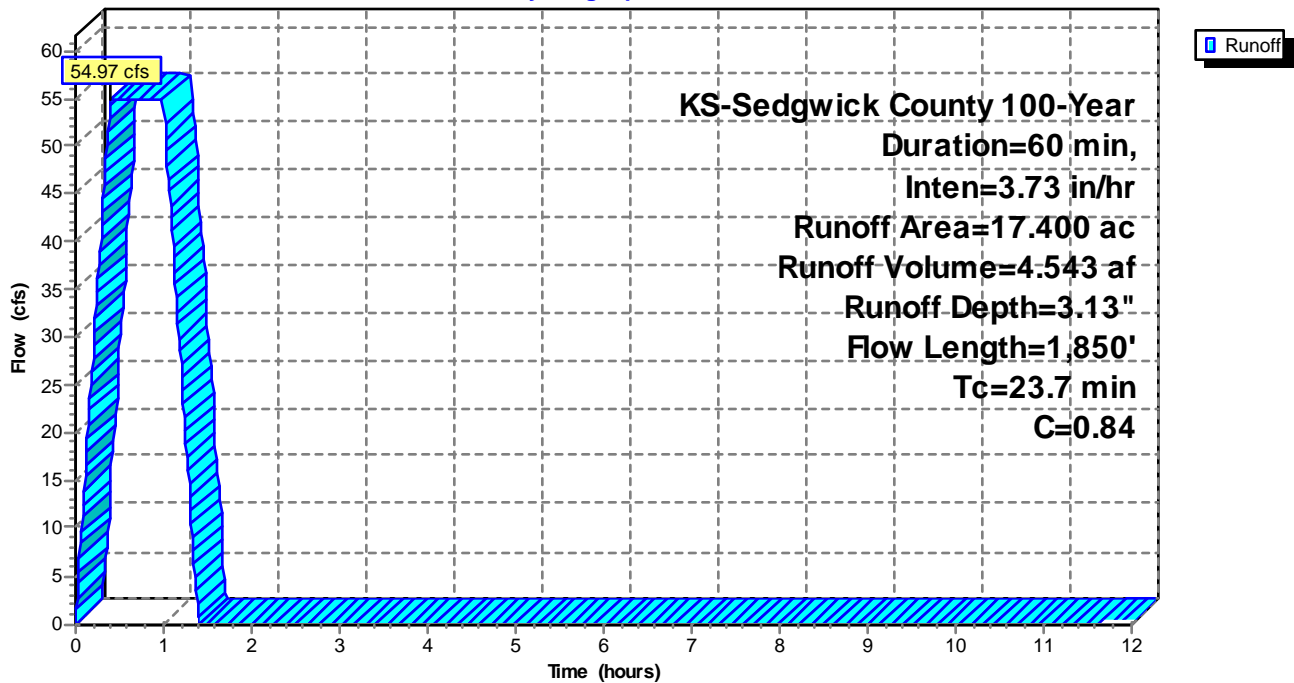
Runoff by Rational method, Rise/Fall=1.0/1.0 x Tc, Time Span= 0.00-12.00 hrs, dt= 0.01 hrs
 KS-Sedgwick County 100-Year Duration=60 min, Inten=3.73 in/hr

Area (ac)	C	Description
17.400	0.84	Industrial Heavy

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	300		1.4		Direct Entry, paved surface
20.1	1,550	0.0040	1.3		Shallow Concentrated Flow, Paved Kv= 20.3 fps
23.7	1,850	Total			

Subcatchment 1S: Total developed

Hydrograph



Prop to north 100yr

KS-Sedgwick County 100-Year Duration=60 min, Inten=3.73 in/hr

Prepared by HydroCAD SAMPLER 1-800-927-7246 www.hydrocad.net

Page 4

HydroCAD®7.00 s/n 000000 © 1986-2003 Applied Microcomputer Systems

11/24/2006

Pond 2P: (new Pond)

Inflow Area = 17.400 ac, Inflow Depth = 3.13" for 100-Year event
 Inflow = 54.97 cfs @ 0.40 hrs, Volume= 4.543 af
 Outflow = 27.31 cfs @ 1.20 hrs, Volume= 3.805 af, Atten= 50%, Lag= 47.9 min
 Primary = 27.31 cfs @ 1.20 hrs, Volume= 3.805 af

Routing by Stor-Ind method, Time Span= 0.00-12.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,317.64' @ 1.20 hrs Surf.Area= 1.457 ac Storage= 2.840 af
 Plug-Flow detention time= 49.7 min calculated for 3.805 af (84% of inflow)
 Center-of-Mass det. time= 44.3 min (86.2 - 41.9)

#	Invert	Avail. Storage	Storage Description
1	1,313.60'	5.195 af	Custom Stage Data (Prismatic) Listed below

Elevation (feet)	Surf. Area (acres)	Inc. Store (acre-feet)	Cum. Store (acre-feet)
1,313.60	0.005	0.000	0.000
1,314.00	0.233	0.048	0.048
1,314.50	0.446	0.170	0.217
1,315.00	0.513	0.240	0.457
1,315.50	0.612	0.281	0.738
1,316.00	0.742	0.339	1.077
1,316.50	0.912	0.414	1.490
1,317.00	1.127	0.510	2.000
1,317.50	1.394	0.630	2.630
1,318.00	1.621	0.754	3.384
1,319.00	2.000	1.811	5.195

#	Routing	Invert	Outlet Devices
1	Primary	1,313.60'	24.0" x 50.0' long Culvert RCP, groove end projecting, Ke= 0.200 Outlet Invert= 1,313.48' S= 0.0024 '/ n= 0.013 Cc= 0.900

Primary OutFlow Max=27.31 cfs @ 1.20 hrs HW=1,317.64' TW=1,315.50' (Fixed TW Elev= 1,315.50')
1=Culvert (Barrel Controls 27.31 cfs @ 8.7 fps)

Pond 2P: (new Pond)

Hydrograph

