



Village of Menomonee Falls
 W156 N8480 Pilgrim Road
 Menomonee Falls, WI 53051-3140
 Telephone: (262) 532-4200

STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section SE1/4SEC1 Name of Business/Subdivision Eaton Corporation
3T8NR20E
 Property Tax ID Number 0052992004 Address of Property W126N7250 Flint Drive
 Date 06/21/2016 Menomonee Falls, WI 53051

Dry Pond	
Wet Pond	X
Other	

Location of Pond Easterly line of parcel and butting northerly line.
 Pond ID: SWP13s025

Year Pond Constructed 2012 Year of Last Certification 2012

Compliance Verification	Design	Actual	Compliant		Comments (Condition of Structure)
			Yes	No	
Primary Outlet Pipe					
Opening Diameter (inches)	12"	12"	X		Outlet Pipe Material
Upstream Invert	791	791.06	X		
Downstream Invert	790.5	790.55	X		
Length (feet)	100	50	X		
Slope (%)	0.1%	1.02%	X		
Secondary Outlet Pipe (If Applicable)					
Opening Diameter (inches)					Outlet Pipe Material
Upstream Invert					
Downstream Invert					
Length (feet)					
Slope (%)					
Riser (If Applicable)					
Opening Diameter (inches)					Riser Material
Elevation					
Upper Discharge Control (If Applicable)					
Opening Diameter (inches)	5"	5"	X		
Elevation	793	792.64	X		

Compliance Verification	Design	Actual	Compliant		Comments	
			Yes	No		
Lower Discharge Control	(If Applicable)					
Opening Diameter (inches)	4"	4"	X			
Elevation	791	790.64	X			
Other (Description)						
Opening Type and Size (inches)						
Elevation						
Emergency Spillway						
Elevation	796.5	796.4	X			
Length of spillway (feet)	10'	10'	X			
Embankment	Present Yes no		Comments/Maintenance Requirements			
Unauthorized Plantings, trees, or woody vegetation		X				
Animal burrows or slope erosion		X				
Storm Sewer Outfalls	Type & Size		Location		Comments	
Outfall 1	12" HDPE		South side of pond		Inv 792.49	
Outfall 2	18" RCP		SW corner of pond		Inv 791.35	
Outfall 3	18" RCP		West side of pond		Inv 791.22	
Storage Properties	Design	Actual	Compliant Yes No		Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)	791	791.06	X			
Design High Water Elevation	796.49	796.38	X			
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.194	0.194	X			
Area at Design High Water Elevation (Ac)	0.469	0.494	X			
Active Storage Available (Ac-Ft)*	1.297	1.305	X			
Lowest Elevation at Top of Embankment (If Applicable)	796.5	796.4	X			
Average Elevation at Top of Embankment (If Applicable)	798	797.4	X			
Maximum Bottom Elevation	786	784.65	X			
Average Pond Bottom Elevation	786	786	X			
Pond Bottom Area (Ac)	0.049	0.047	X			
Maximum Pond Depth	12	12.75	X			
Average Pond Depth	12	11.4	X			
Average Permanent Pool Depth (Wet Ponds)	5	5.06	X			

*To Determine Active Storage $V=H/3(A1+A2+(A1 \times A2)^{1/2})$

Wet Ponds Use H = Height of Section , $A1$ = area at normal water elevation, $A2$ =area at top section

Dry Ponds Use H = Height of Section, $A1$ = pond bottom area, $A2$ =area at top section

Sketch Outlet or Attach to Document



Attach As-built Survey to the Document for the first report submission

Inspection Firm: Stantec Consulting, LLC Inspector Name : J. Scott Henkel
Phone Number: 262-241-4466 Inspection Date: 6/16/2016
Address: 12075 Corporate Parkway
Suite 200
Mequon, WI 53092

Certifying Professional JoEllen Donovan
Name:
Phone Number: 262-643-9014

We are certifying that the above tabulated data represents the existing conditions of the pond on the date of our survey. Compliance or non-compliance with Village ordinance requirements, as well as the potential need for follow-up repair work, is indicated in the table.



Date: 6/28/2016 Signature: JoEllen Donovan



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STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section SE1/4SEC13T8NR20E Name of Business/Subdivision Eaton Corporation
 Property Tax ID Number 0052992004 Address of Property W126N7250 Flint Drive
 Date 06/21/2016 Menomonee Falls, WI 53051

Dry Pond	
Wet Pond	X
Other	

Location of Pond Westerly line of parcel and butting northerly line.

Pond ID: SWP13s024

Year Pond Constructed 2012 Year of Last Certification NA

Compliance Verification	Design	Actual	Compliant		Comments (Condition of Structure)
			Yes	No	
Primary Outlet Pipe					Outlet Pipe Material
Opening Diameter (inches)	12"	12"	X		Please see attached modeling results.
Upstream Invert	794	793.47	X		
Downstream Invert	793.9				
Length (feet)	100				
Slope (%)	0.0011'				
Secondary Outlet Pipe (If Applicable)					
Opening Diameter (inches)	NA	NA			
Upstream Invert	NA	NA			
Downstream Invert	NA	NA			
Length (feet)	NA	NA			
Slope (%)	NA	NA			
Riser (If Applicable)					
Opening Diameter (inches)	NA	NA			
Elevation	NA	NA			
Upper Discharge Control (If Applicable)					
Opening Diameter (inches)	2"	1.92"			
Elevation	795	795.06			

Compliance Verification	Design	Actual	Compliant		Comments	
			Yes	No		
Lower Discharge Control	(If Applicable)					
Opening Diameter (inches)	2"	2.16"	X			
Elevation	794	793.9	X			
Other (Description)						
Opening Type and Size (inches)	NA	NA				
Elevation	NA	NA				
Emergency Spillway						
Elevation	798.5	798.38	X			
Length of spillway (feet)	10'	10'	X			
Embankment	Present Yes no		Comments/Maintenance Requirements			
Unauthorized Plantings, trees, or woody vegetation						
Animal burrows or slope erosion						
Storm Sewer Outfalls	Type & Size		Location		Comments	
Outfall 1	12" RCP		NW corner of pond		Inv 793.95	
Outfall 2	12" RCP		E side of pond		Inv 793.89	
Outfall 3	12" HDPE		S side of pond		Inv 795.55, end section crushed	
Storage Properties	Design	Actual	Compliant Yes No		Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)	794	793.9	X			
Design High Water Elevation	797.3	797.37	X			
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.12	0.10	X			
Area at Design High Water Elevation (Ac)	0.23	0.22	X			
Active Storage Available (Ac-Ft)*	0.40	0.38	X			
Lowest Elevation at Top of Embankment (If Applicable)	799	799.1	X			
Average Elevation at Top of Embankment (If Applicable)	799	800	X			
Maximum Bottom Elevation	789	787.39	X			
Average Pond Bottom Elevation	789	789	X			
Pond Bottom Area (Ac)	0.024	0.021	X			
Maximum Pond Depth	10	12.61	X			
Average Pond Depth	10	11	X			
Average Permanent Pool Depth (Wet Ponds)	5	4.9	X			

*To Determine Active Storage $V=H/3(A1+A2+(A1 \times A2)^{1/2})$

Wet Ponds Use H = Height of Section , $A1$ = area at normal water elevation, $A2$ =area at top section

Dry Ponds Use H = Height of Section, $A1$ = pond bottom area, $A2$ =area at top section

Sketch Outlet or Attach to Document



Attach As-built Survey to the Document for the first report submission

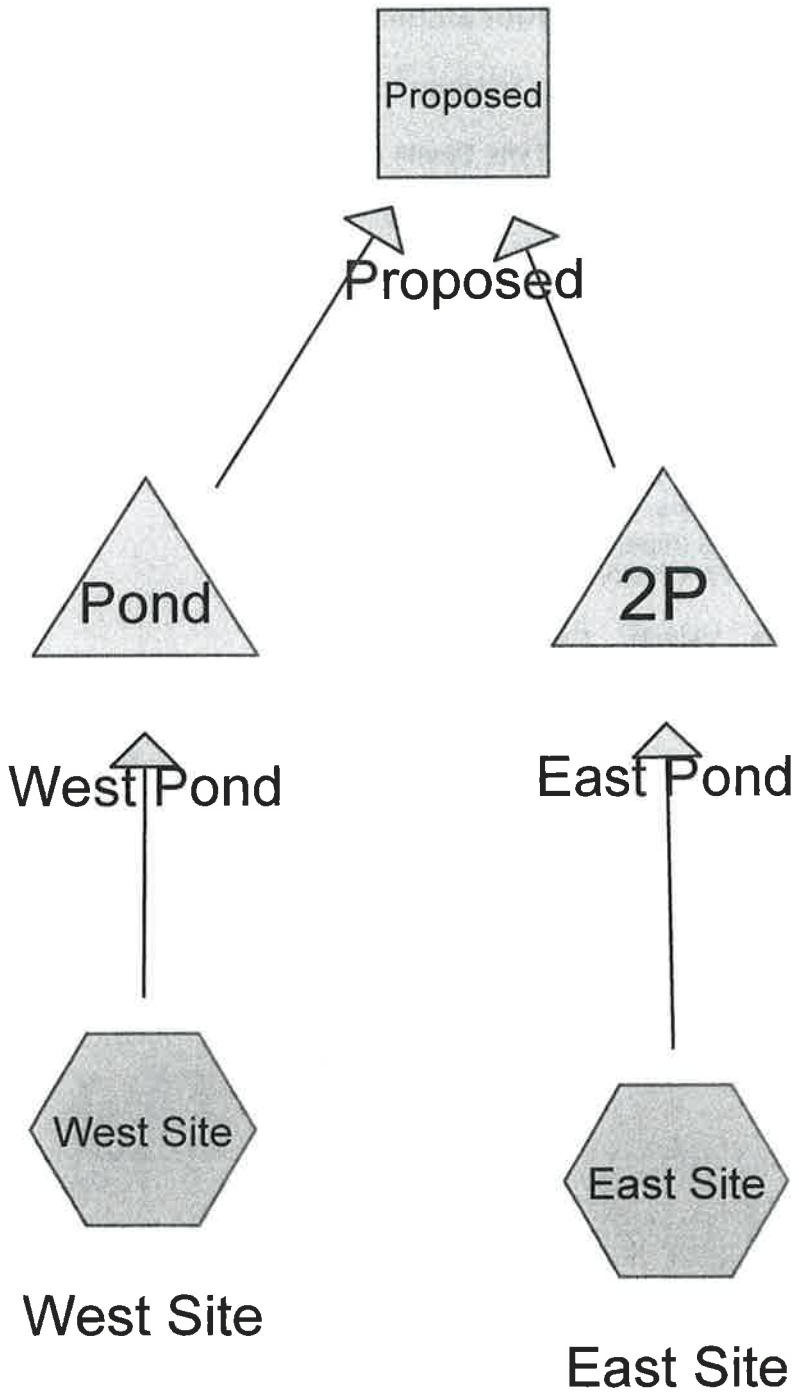
Inspection Firm:	<u>Stantec Consulting, LLC</u>	Inspector Name :	<u>J. Scott Henkel</u>
Phone Number:	<u>262-241-4466</u>	Inspection Date:	<u>6/16/2016</u>
Address:	<u>12075 Corporate Parkway</u>		
	<u>Suite 200</u>		
	<u>Mequon, WI 53092</u>		

Certifying Professional JoEllen Donovan
 Name:
 Phone Number: 262-643-9014

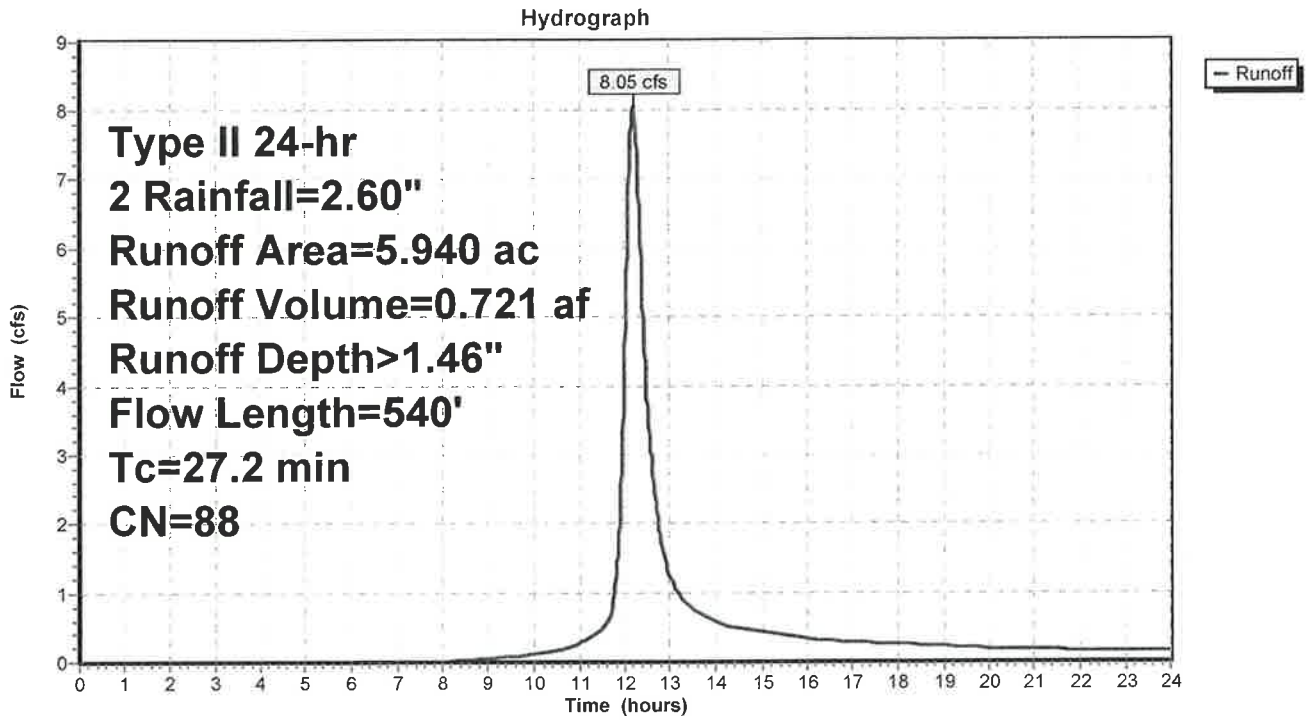
We are certifying that the above tabulated data represents the existing conditions of the pond on the date of our survey. Compliance or non-compliance with Village ordinance requirements, as well as the potential need for follow-up repair work, is indicated in the table.



Date: <u>6/28/2016</u>	Signature: <u>JoEllen Donovan</u>
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Subcatchment East Site: East Site



As Built

Prepared by Stantec

HydroCAD® 10.00 s/n 00733 © 2011 HydroCAD Software Solutions LLC

Type II 24-hr 2 Rainfall=2.60"

Printed 9/13/2012

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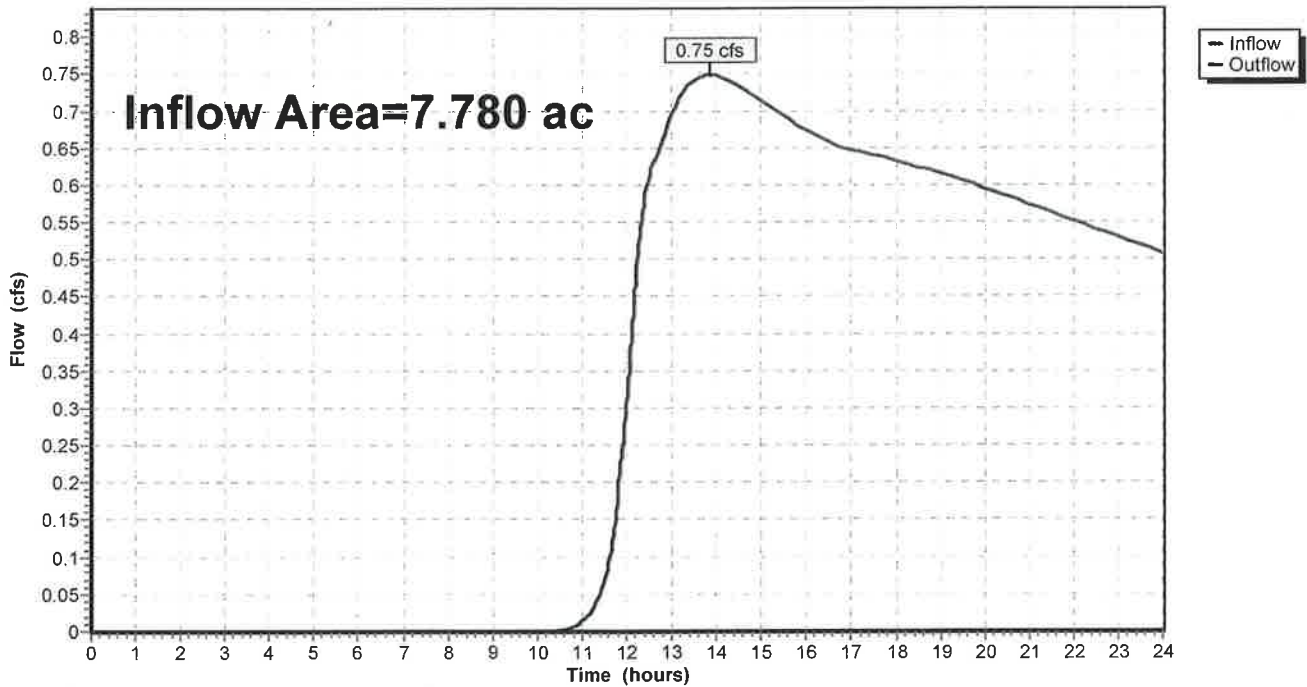
Summary for Reach Proposed: Proposed

Inflow Area = 7.780 ac, 57.70% Impervious, Inflow Depth > 0.96" for 2 event
Inflow = 0.75 cfs @ 13.87 hrs, Volume= 0.625 af
Outflow = 0.75 cfs @ 13.87 hrs, Volume= 0.625 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

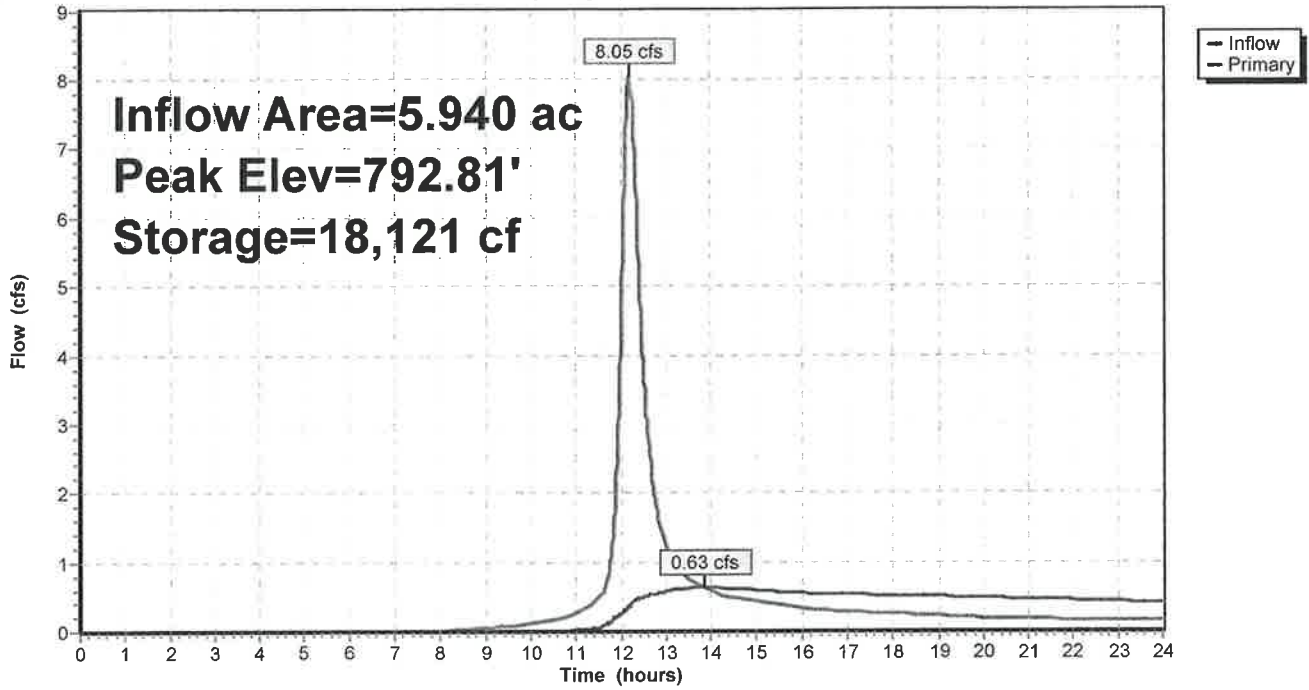
Reach Proposed: Proposed

Hydrograph



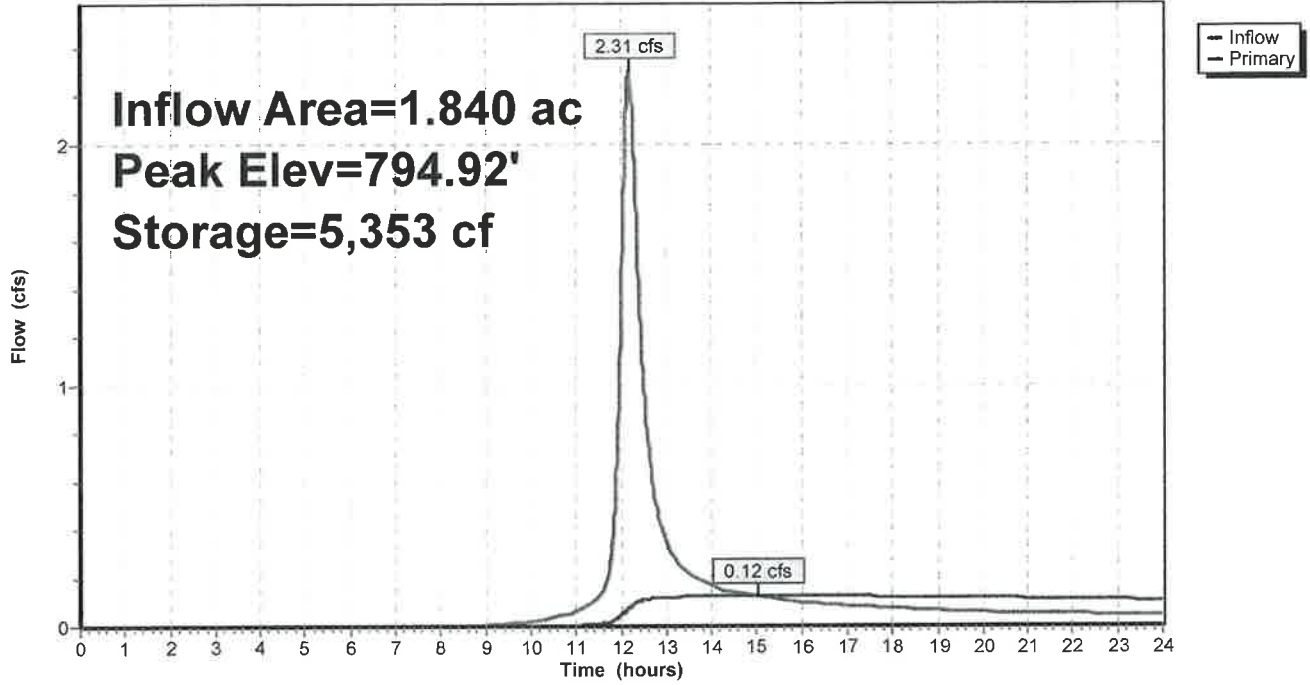
Pond 2P: East Pond

Hydrograph



Pond Pond: West Pond

Hydrograph



As Built

Prepared by Stantec

HydroCAD® 10.00 s/n 00733 © 2011 HydroCAD Software Solutions LLC

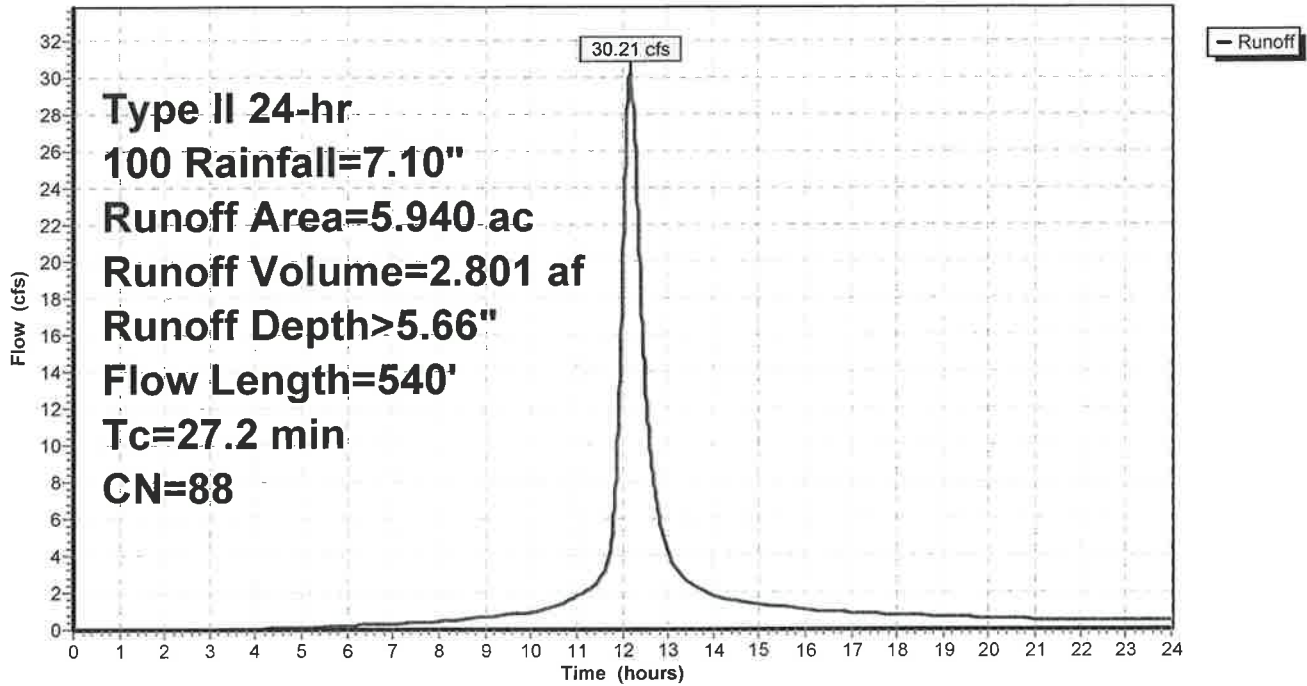
Type II 24-hr 100 Rainfall=7.10"

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Subcatchment East Site: East Site

Hydrograph



As Built

Prepared by Stantec

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Type II 24-hr 100 Rainfall=7.10"

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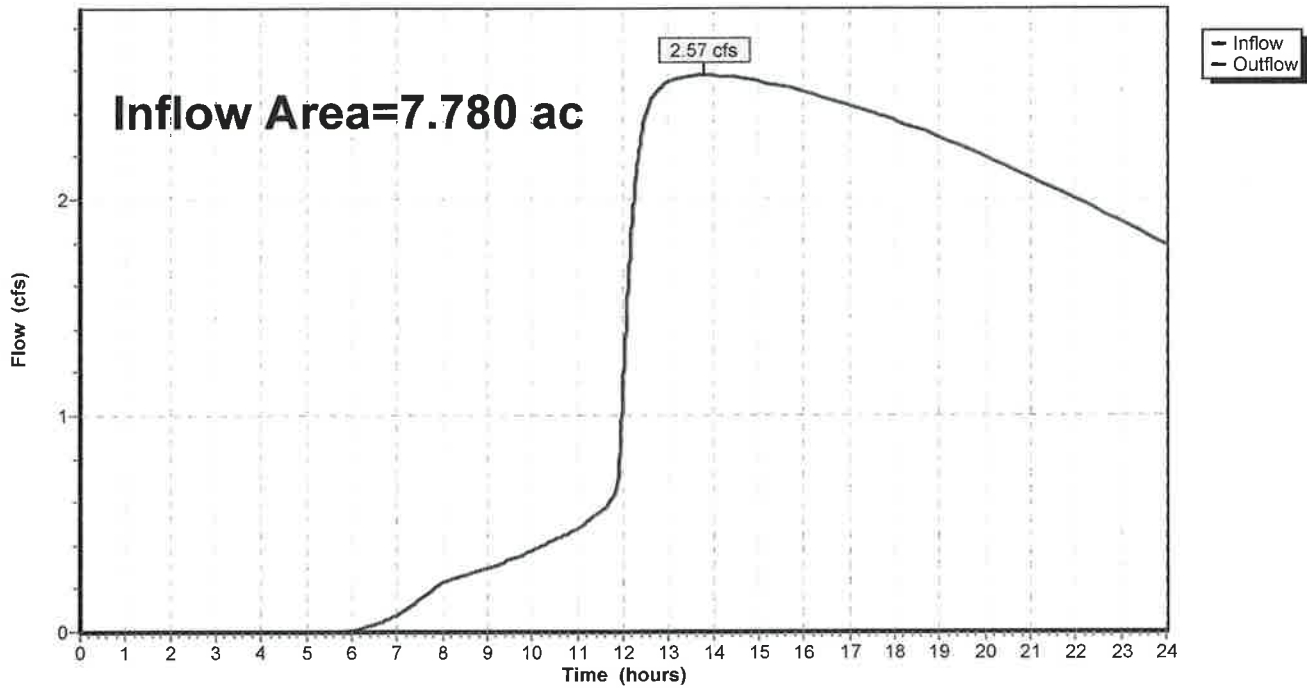
Summary for Reach Proposed: Proposed

Inflow Area = 7.780 ac, 57.70% Impervious, Inflow Depth > 3.70" for 100 event
Inflow = 2.57 cfs @ 13.81 hrs, Volume= 2.401 af
Outflow = 2.57 cfs @ 13.81 hrs, Volume= 2.401 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

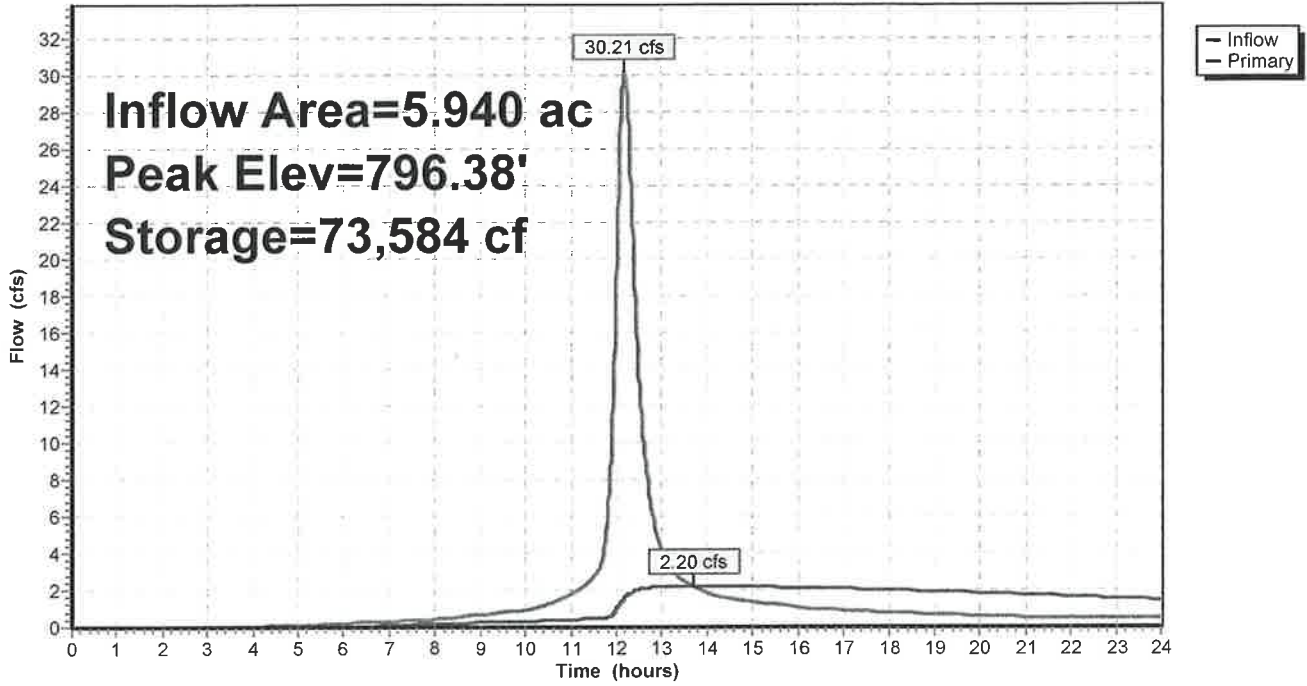
Reach Proposed: Proposed

Hydrograph



Pond 2P: East Pond

Hydrograph



Pond Pond: West Pond

Hydrograph

