



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 Sw 1/4 Sec 2 TBN R20E Name of Business/Subdivision Ryan Companies Menomonee Falls Project
 Property Tax ID Number _____ Address of Property W156 N9073 Strider Dr.

Dry Pond	
Wet Pond	X
Other	

Description: 2s 008 Location Of Pond Eastern corner of parcel
constructed commercial wet pond new construction asbuilt

Year Pond Constructed 2012 Year of Last Certification NA

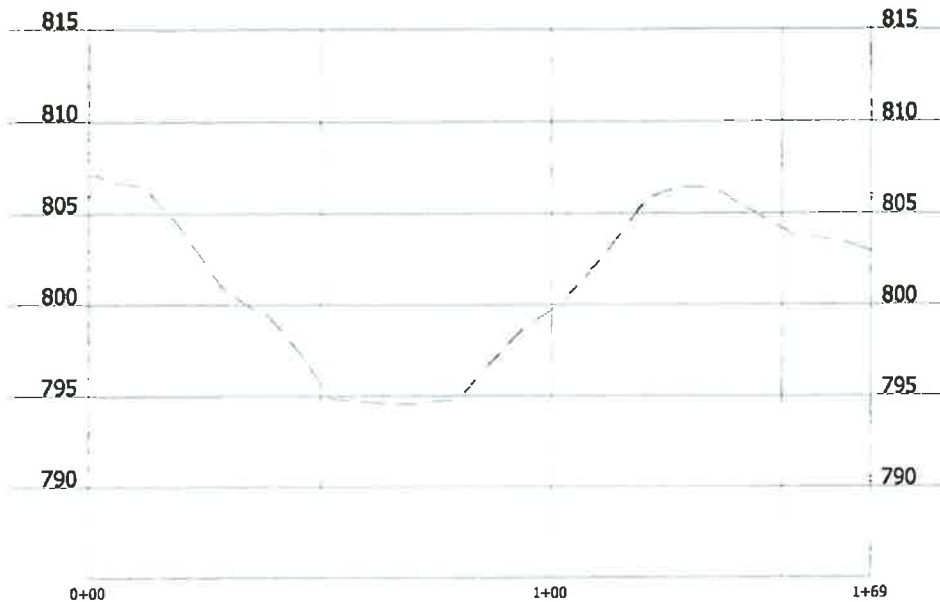
Compliance Verification	Design	Actual	Compliant		Comments (Condition of Structure)
			Yes	No	
Primary Outlet Pipe					
Opening Diameter	12"	12"	X		
Upstream Invert	800	800.13	X		
Downstream Invert	—	797.67	X		
Length	—	366'	X		
Slope	—	6.72%	X		
Secondary Outlet Pipe (If Applicable)					
Opening Diameter					
Upstream Invert					
Downstream Invert					
Length					
Slope					
Riser (If Applicable)					
Opening Diameter					
Elevation					
Upper Discharge Control (If Applicable)					
Opening Diameter	8"	8"	X		
Elevation	8d.75	801.84	X		

Compliance Verification	Design	Actual	Compliant		Comments	
			Yes	No		
Lower Discharge Control	(If Applicable)					
Opening Diameter	5.5"	5.5"				
Elevation	800	800.16				
Other (Description)						
Opening Type						
Elevation						
Emergency Spillway						
Elevation	804.5	804.81			Erosion mat not yet placed	
Length of spillway	10'	10.6'				
Embankment			Present			
			Yes	No		
Unauthorized plantings, trees, or woody vegetation						
Animal burrows or slope erosion						
Storage Properties	Design	Actual	Compliant		Points Surveyed	Equipment Used
	Yes	No				
Normal Water Elevation (Wet Ponds)	800	800.16				
Design High Water Elevation	804.5	804.76				
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.24	0.23				
Area at Design High Water Elevation (Ac)	0.41	0.41				
Active Storage Available (Ac-Ft)*	1.08	1.05				
Lowest Elevation at Top of Embankment (If Applicable)	806	806.37				
Average Elevation at Top of Embankment (If Applicable)	806	806.5				
Maximum Bottom Elevation	795	794.27				
Average Pond Bottom Elevation	795	794.7				
Pond Bottom Area (Ac)	0.07	0.07				
Maximum Pond Depth	5	5.89				
Average Pond Depth	5	5.46				

*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

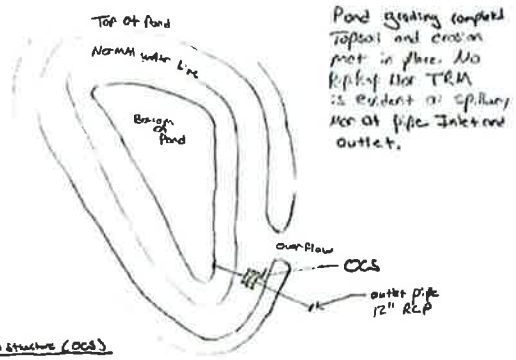
Dry Ponds Use H = Height of Section, $A1$ = pond bottom area, $A2$ = area at top section



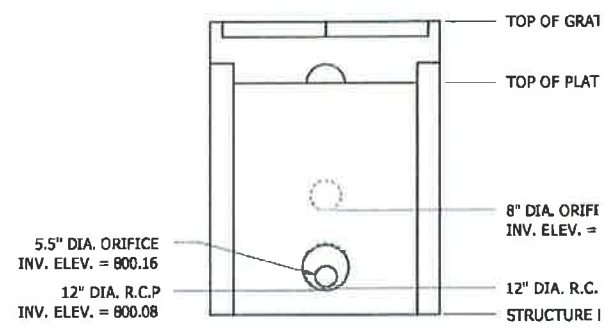
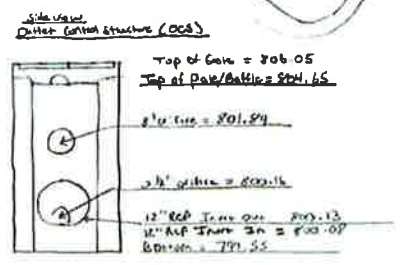
STAGE STORAGE TABLE	
ELEV	AREA (sq. ft.)
795	3,217
796	4,242
797	5,341
798	6,410
799	7,527
800	9,935
801	11,807
802	13,261
803	14,668
804	16,123
805	17,678



Menomonee Falls Richfield way
 Western Industries Pond EAST Nobs
 2012-11-13 JET



Pond greening completed
 Topsoil and erosion
 mat in place. No
 kelp or TRM
 is evident or
 splashy
 nor at pipe Inlet and
 outlet.



OUTLET STRUCTURE
 NOT TO SCALE

Designed by *JET* Created by *JET*
 2012-11-13

Summary for Pond Pond: Pond

Inflow Area = 5.380 ac, 0.00% Impervious, Inflow Depth > 1.78" for 2 event
 Inflow = 14.91 cfs @ 12.00 hrs, Volume= 0.799 af
 Outflow = 0.95 cfs @ 12.87 hrs, Volume= 0.705 af, Atten= 94%, Lag= 52.0 min
 Primary = 0.95 cfs @ 12.87 hrs, Volume= 0.705 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Starting Elev= 800.16' Surf.Area= 0.235 ac Storage= 0.728 af
 Peak Elev= 801.80' @ 12.87 hrs Surf.Area= 0.298 ac Storage= 1.169 af (0.441 af above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 200.9 min (1,004.8 - 803.9)

Volume #1	Invert	Avail.Storage	Storage Description
	795.00'	2.290 af	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
795.00	0.074	0.000	0.000
796.00	0.097	0.085	0.085
797.00	0.123	0.110	0.195
798.00	0.147	0.135	0.330
799.00	0.173	0.160	0.490
800.00	0.228	0.201	0.691
801.00	0.271	0.250	0.940
802.00	0.304	0.287	1.228
803.00	0.337	0.320	1.549
804.00	0.370	0.353	1.902
805.00	0.406	0.388	2.290

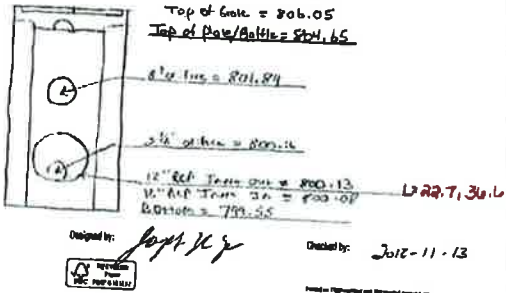
Device	Routing	Invert	Outlet Devices
#1	Primary	800.13'	12.0" Round Culvert L= 36.6' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 800.13' / 797.67' S= 0.0672 ' /' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	800.16'	5.5" Vert. Orifice/Grate C= 0.600
#3	Device 1	801.84'	8.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.95 cfs @ 12.87 hrs HW=801.80' (Free Discharge)
 1=Culvert (Passes 0.95 cfs of 4.10 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.95 cfs @ 5.73 fps)
 3=Orifice/Grate (Controls 0.00 cfs)

Sketch Outlet



Outlet Control Structure (OCS)



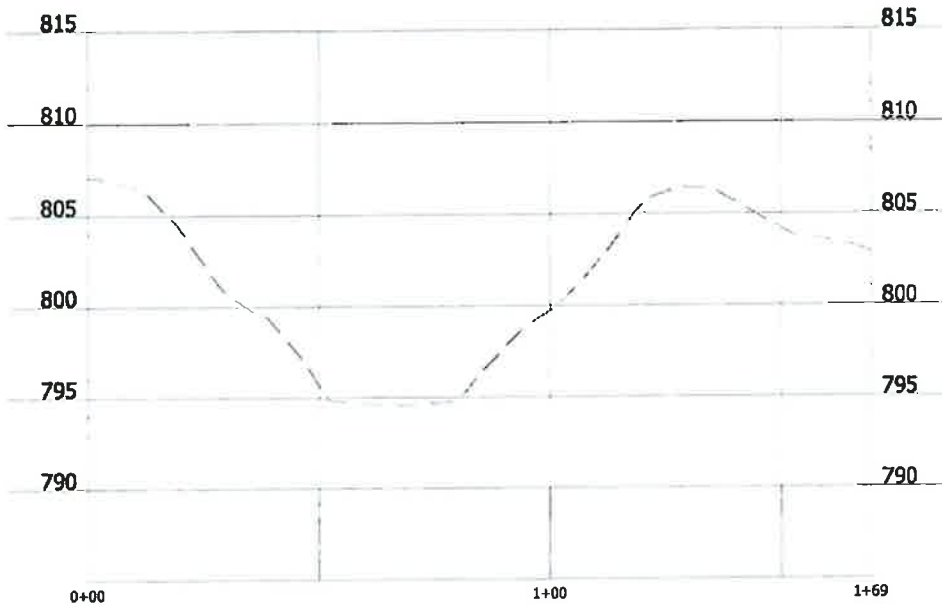
Inspection Firm: Stantec Inspector Name: Joe Tew
 Phone Number: 262-241-4466 Inspection Date: 11/9/12
 Address: 12075 Corporate Parkway
Suite 200
Mequon, WI 53092

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



Date: 11/14/12 Signature: Joellen Donovan

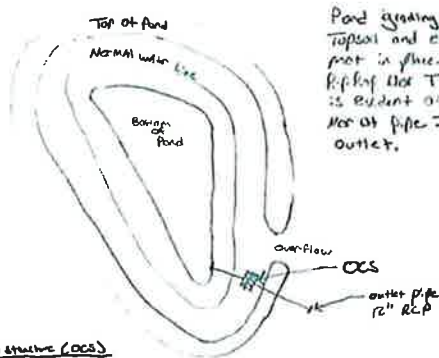
Pond asbuilt survey 2012-11-07



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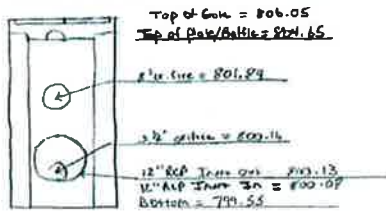


Menomonee Falls Richfield wdy
Western Industries Pond EAST Abks
2012-11-13 JKT

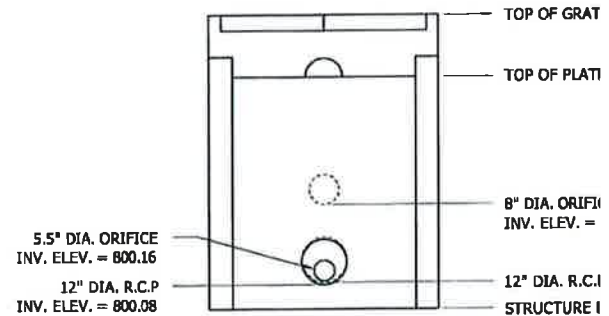


Pond existing completed
Topsoil and erosion
mat in place. No
evidence of spillway
Mat at pipe Inlet and
outlet.

Substructure
Outlet Control Structure (OCS)



Designed by JKT JKT Checked by JKT-11-13



OUTLET STRUCTURE
NOT TO SCALE