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: SE 1/4 Sec. 13-8-20
Name of Business/Subdivision: Heritage Reserve Holdings, LLC
Property Tax ID Number: MNFV005194002 & MNFV005194052
Address of Property: Heritage Reserve
Date: 5/29/2015

Dry Pond	
Wet Pond	X
Other	

Pond ID: SWP13S005 & SWP13S007

Location of Pond: Southeast Portion of MNFV005194002 and Southwest Portion of MNFV0051944052

Year Pond Constructed: 2005
Year of Last Certification: 2014

Design data based on Stantec Memo dated August 5, 2014, File No. 1938990300

Compliance Verification	Design	Actual	Compliant Yes	Compliant No	Comments (Condition of Structure)
Primary Outlet Pipe					Outlet Pipe Material
Opening Diameter (inches)	30”	24”			Physically SWP13S005 and SWP13s007 are two separate ponds, but when design was modeled as one pond, with a 5’ x 5’ equalization pipe between the ponds. Surveyed Dimensions of equalization pipe are as follows: Upstream Invert: 764.27 Downstream Invert: 764.09 Length: 50’ Slope: 3.6%
Upstream Invert	765.47	765.20			
Downstream Invert	764.67	764.73			
Length (feet)	66.4	63’			
Slope (%)	1.20%	0.75%			
Secondary Outlet Pipe	(If Applicable)				Outlet Pipe Material
Opening Diameter (inches)					
Upstream Invert					
Downstream Invert					
Length (feet)					
Slope (%)					
Riser	(If Applicable)				Riser Material
Opening Diameter (inches)					
Elevation					
Upper Discharge Control	(If Applicable)				
Opening Diameter (inches)	4”	4”			
Elevation	766.94	766.86			

Compliance Verification	Design	Actual	Compliant Yes	Compliant No	Comments
Lower Discharge Control	(If Applicable)				
Opening Diameter (inches)	6”	6”			
Elevation	765.50	765.20			
Other (Description)					
Opening Type and Size (inches)	_____	_____			
Elevation	_____	_____			
Emergency Spillway					
Elevation	770.50	770.44			
Length of spillway (feet)	25’	10’			

Embankment	Present Yes	Present 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	RCP 24”	North portion of pond	See Figure 4 in attached Photo Document. Seen in the figure is debris and vegetation around. Recommend the debris be removed.
Outfall 2	RCP 18”	East portion of pond	
Outfall 3	RCP 18”	Southeast portion of pond	

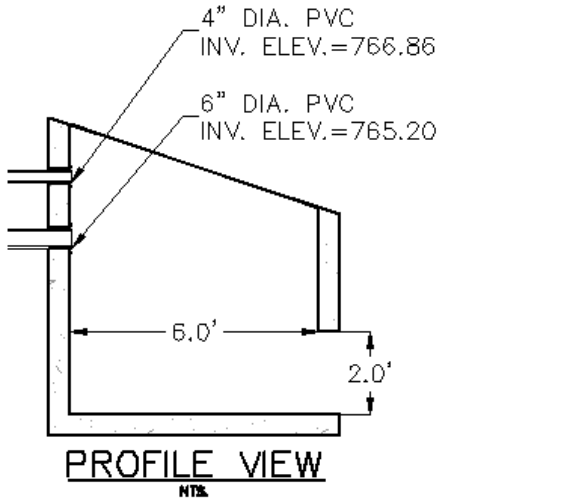
Storage Properties	Design	Actual 005/007	Compliant Yes	Compliant No	Not Applicable	Equipment Used
Normal Water Elevation *(Wet Ponds)*	765.50	763.90/763.70	X			Trimble R6 GPS
Design High Water Elevation	769.86	769.35	X			HWL Calculated by HydroCAD
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.678	0.480 Combined	X			
Area at Design High Water Elevation (Ac)	1.169	1.048	X			Area at HWL Calculated by HydroCAD
Active Storage Available (Ac-Ft)*	5.993	5.992	X			Trimble R6 GPS
Lowest Elevation at Top of Embankment (If Applicable)	770.50	770.44	X			
Average Elevation at Top of Embankment (If Applicable)	771.50	771.75	X			
Maximum Bottom Elevation	759.00	759.56/757.90				Lowest Bottom Elevation
Average Pond Bottom Elevation	759.00	760.00/758.00				
Pond Bottom Area (Ac)	0.24	0.078 Combined				
Maximum Pond Depth	11.5	12.19’/13.85’				
Average Pond Depth	11.5	11.75’/13.75’				
Average Permanent Pool Depth *(Wet Ponds)*	6.5	3.9’/5.7’				

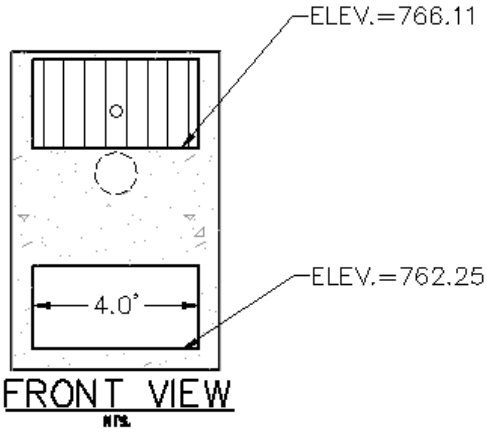
*To Determine Active Storage V=H/3(A1+A2+(A1xA2)1/2)

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*

Outlet Sketch





See Attached Photo Document

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

Inspection Firm:	JSD Professional Services, Inc	Inspector Name :	Ryder Fischer
Phone Number:	(262) 513-0666	Inspection Date:	5/29/15
Address:	N22 W22931 Nancys Ct.		
	Suite 3		
	Waukesha, WI 53186		

Certifying
Professional Name: Rizal Iskandarsjach P.L.S., P.E.
Phone Number: (262) 513-0666

Date:	*Signature:*	
7/31/15	Rizal Iskandarsjach	*Affix Seal Here*

WISCONSIN
RIZAL W. ISKANDARSJACH
E-41735
MILWAUKEE
WI
PROFESSIONAL ENGINEER

Figure 1: Overview of the Pond Looking in the Northeast Direction

Figure 2: Image of the Equalization Structure

Figure 3: Photo of the Retaining Wall Looking South

Figure 4: North 24" RCP
(Outfall the debris)

Figure 5: East 18” RCP Outfall

Figure 6: Southeast 18” RCP Outfall

Figure 1- Overview of Pond Looking Southwest

Figure 2- Overview of Pond Looking Northeast

Figure 3- View of the Outlet Structure

Figure 4- Image of the Interior of the Outlet Structure

Figure 5- Equalization Pipe between SWP13S007 and SWP13S005

Figure 6- Photo of Retaining Wall Looking South