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 ¼ SEC 26
Property Tax ID Number: V0103985
Date: 8/12/2015
Name of Business/Subdivision: First Park
Address of Property: W156 N5384 Pilgrim Road

Dry Pond	
Wet Pond	X
Other	

Pond ID: Stormwater Pond Basin A

Location of Pond: East of Pilgrim Road, South of Shawn Circle

Year Pond Constructed: 2008
Year of Last Certification: N/A

Compliance Verification	Design	Actual	Compliant Yes	Compliant No	Comments (Condition of Structure)
Primary Outlet Pipe					Outlet Pipe Material
Opening Diameter (inches)	36 in.	36 in.	X		Reinforced concrete pipe in fine condition with no obstructions in outlet. Downstream of outlet is silt fence which had likely been placed with original development. It should be removed so it doesn't cause an obstruction.
Upstream Invert	780.89	780.82	X		
Downstream Invert	780.61	780.47	X		
Length (feet)	54.5 ft	47 ft.	X		
Slope (%)	1%	0.74%	X		
Secondary Outlet Pipe	(If Applicable)				Outlet Pipe Material
Opening Diameter (inches)	N/A				
Upstream Invert	N/A				
Downstream Invert	N/A				
Length (feet)	N/A				
Slope (%)	N/A				
Riser	(If Applicable)				Riser Material
Opening Diameter (inches)	N/A				
Elevation	N/A				
Upper Discharge Control	(If Applicable)				
Opening Diameter (inches)	22 in.	22 in.	X		
Elevation	782.60	782.85	X		

Compliance Verification	Design	Actual	Compliant Yes	Compliant No	Comments
Lower Discharge Control	(If Applicable)				
Opening Diameter (inches)	15 in.	15 in.	X		
Elevation	780.89	780.93	X		
Other (Description)					
Opening Type and Size (inches)	N/A				
Elevation	N/A				
Emergency Spillway					
Elevation	785.20	785.27	X		Noted no obstructions at emergency overflow spillway.
Length of spillway (feet)	10 ft.	25 ft.	X		

Embankment	Present Yes	Present no	Comments/Maintenance Requirements
Unauthorized plantings, trees, or woody vegetation	X		Areas of invasive species present. Spot herbicide, mowing, and/or re-seeding as needed.
Animal burrows or slope erosion	X		Rip rap displaced and some scouring at pond inlets. Additional rip rap underlain with geotextile fabric needed at these locations.

Storm Sewer Outfalls	Type & Size	Location	Comments
Outfall 1	42-inch RCCP	Northwest corner of basin, first outfall from west.	Good condition.
Outfall 2	30-inch RCCP	North side of basin, second outfall from west.	Good condition.
Outfall 3	18-inch RCCP	North side of basin, third outfall from west.	Good condition.
Outfall 4	12-inch RCCP	North side of basin, fourth outfall from east.	Good condition.
Outfall 5	36-inch RCCP	North side of basin, third outfall from east.	Rip rap displaced and some scouring. Additional rip rap underlain with geotextile fabric needed.
Outfall 6	12-inch RCCP	North side of basin, second outfall from east.	Good condition.
Outfall 7	36-inch RCCP	Northeast corner of basin, first outfall from east.	Good condition.

Storage Properties	Design	Actual	Compliant Yes	Compliant No	Not Applicable	Equipment Used
Normal Water Elevation *(Wet Ponds)*	780.90	780.82	X			Trimble R8 GPS for all survey.
Design High Water Elevation	785.13	785.13	X			
Area at Normal Water Elevation (Ac) (Wet Ponds)	3.3 Ac.	3.3 Ac.	X			
Area at Design High Water Elevation (Ac)	4.9 Ac.	4.8 Ac.	X			
Active Storage Available (Ac-Ft)*	22.0 Ac.-Ft.	23.0 Ac.-Ft.	X			

Lowest Elevation at Top of Embankment (If Applicable)	787.0	786.44	X			Trimble R8 GPS for all survey.
Average Elevation at Top of Embankment (If Applicable)					N/A	
Maximum Bottom Elevation	775.89	773.40	X			
Average Pond Bottom Elevation	775.89	776.00	X			
Pond Bottom Area (Ac)	1.5 Ac.	1.35 Ac.	X			
Maximum Pond Depth	5.0 ft.	7.4 ft	X			
Average Pond Depth	5.0 ft.	4.8 ft.	X			
Average Permanent Pool Depth *(Wet Ponds)*	5.0 ft.	4.8 ft.	X			

*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*

Sketch Outlet or Attach to Document - Please see attached for exhibit of storm pond A certification survey.	*Place Photograph of Pond or Attach to Document -* Please see attached for site photos from inspection on 6/4/15.
	Place Photograph of Pond or Attach to Document - Please see attached for site photos from inspection on 6/4/15.

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

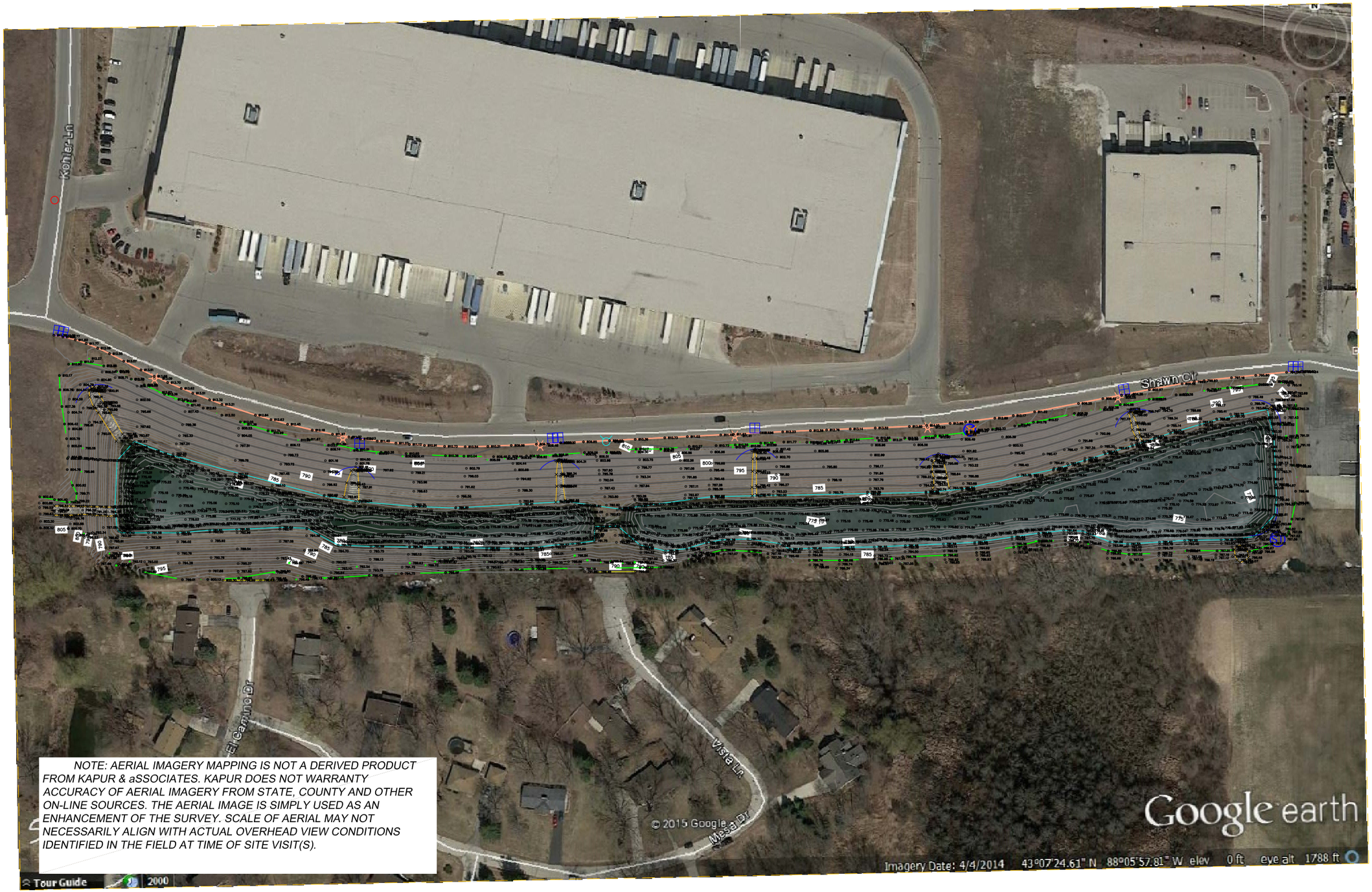
Inspection Firm: Kapur & Associates
Phone Number: 414-751-7200
Address: 7711 N. Port Washington Rd.
Milwaukee, WI 53217

Inspector Name : Kathryn McNelly-Bell
Inspection Date: 6/4/2015

Certifying Professional
Name: Aaron Groh, P.E.
Phone Number: 414-751-7200

Date:	Signature:	Affix Seal Here
8-12-15		

WISCONSIN
AARON R. GROH
E-37087
SHEBOYGAN, WISCONSIN
PROFESSIONAL ENGINEER



NOTE: AERIAL IMAGERY MAPPING IS NOT A DERIVED PRODUCT FROM KAPUR & aSSOCIATES. KAPUR DOES NOT WARRANTY ACCURACY OF AERIAL IMAGERY FROM STATE, COUNTY AND OTHER ON-LINE SOURCES. THE AERIAL IMAGE IS SIMPLY USED AS AN ENHANCEMENT OF THE SURVEY. SCALE OF AERIAL MAY NOT NECESSARILY ALIGN WITH ACTUAL OVERHEAD VIEW CONDITIONS IDENTIFIED IN THE FIELD AT TIME OF SITE VISIT(S).

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WISCONSIN 53217
Phone: 414.351.6668 Fax: 414.351.4117
www.kapurengineers.com

PROJECT:
FIRST INDUSTRIAL POND A SURVEY

LOCATION:
VILLAGE OF MENOMONEE FALLS, WAUKESHA CO, WI

CLIENT:
FIRST INDUSTRIAL
REALTY- TRUST

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE:
0 37.5 75 150
IF NOT ONE INCH ADJUST SCALE ACCORDINGLY

SEAL:

we listen. we innovate.
we turn your vision into reality.

SHEET:
STORM POND A EXHIBIT

DESIGNED BY:	
DRAWN BY:	RJB
CHECKED BY:	.....
APPROVED BY:	KMB
PROJECT NUMBER:	15.0217

SHEET NUMBER:
1 of 1

Site Photos • June 4, 2015

Photo 1: Vegetation along pond banks generally provides adequate cover. Photo taken from west side of pond looking east.

Photo 2: Herbicide spot treatment and/or mowing may be necessary to knock back areas of invasive species. Photo taken on north side of pond, near forebay spillway, looking south toward Vista Lane.
* NOTE: The DNR's BMPs pertaining to NR 40 vegetative control management should be implemented by a licensed, professional landscape contractor as part of the pond's ongoing maintenance plan.

Photo 3: Erosion at northern pond inlet.

Photo 4: Deposition of sediment within basin of pond. *NOTE: If removal of sediment within pond is planned, make sure to contact local (Village of Menomonee Falls) and State (Department of Natural Resources) regulators for any prior authorization/permitting which may be necessary. Sediment may need to be tested prior to transport to ensure proper precautions are taken for disposal.

Photo 5: At pond inlets rip rap has become displaced, leaving geotextile fabric beneath exposed.

Photo 6: Flows carried downslope toward pond have led to some scouring along pond bank. Some additional rip rap underlain with geotextile fabric may be needed in areas where scour around existing rip rap has occurred. *NOTE: In the event that land disturbance will occur as part of pond maintenance, please contact the Village to determine if an erosion control permit or any other permits will be needed.

Photo 7: Stormwater pond outlet structure located on southeast end of pond. Outlet is in fine condition, noted no obstructions in outlet. Downstream of outlet is silt fence which had likely been placed with original development. It should be removed so it doesn't cause an obstruction.

Photo 8: Noted no obstructions at outlet control structure or at emergency overflow spillway during inspection.