



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 33 Name of Business/Subdivision Cranes Crossing Ass<sup>1</sup>  
 Property Tax ID Number 0131064 Address of Property N48 W18200+ Lisbon Road

Dry Pond	
Wet Pond	<b>X</b>
Other	

Description: Temporary Pond P4  
SWP 33 S 2002

Location Of Pond North of north terminus of Emerald Hills Drive

Year Pond Constructed 2006 Year of Last Certification 2006

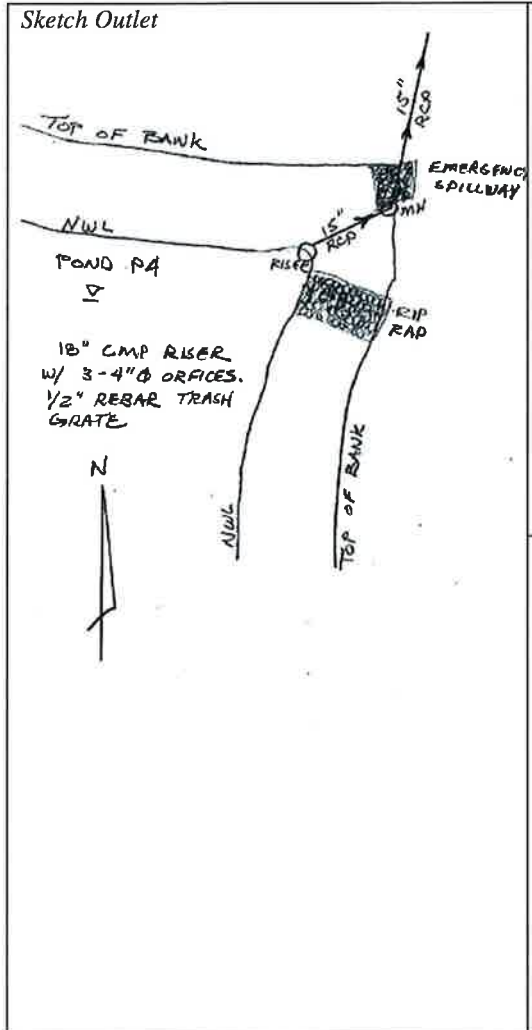
Compliance Verification	Design	Actual	Compliant		Comments (Condition of Structure)
			Yes	No	
<b>Primary Outlet Pipe</b>					Outlet Pipe Material
Opening Diameter (inches)	15"	15"	X		Reinforced Concrete Pipe
Upstream Invert	878.00	877.91	X		
Downstream Invert	877.88	877.54	X		
Length (feet)	32.03'	34.5'±	X		
Slope (%)	0.381%	3.041%		X	
<b>Secondary Outlet Pipe</b> (If Applicable)					Outlet Pipe Material
Opening Diameter (inches)					Not Applicable
Upstream Invert					
Downstream Invert					
Length(feet)					
Slope(%)					
<b>Riser</b> (If Applicable)					Riser Material
Opening Diameter	18"	18"	X		Corrugated Metal Pipe with ½" rebar trash grate
Elevation	879.75	879.77	X		
<b>Upper Discharge Control</b> (If Applicable)					
Opening Diameter (inches)					Not Applicable
Elevation					

Compliance Verification	Design	Actual	Compliant		Comments	
			Yes	No		
<b>Lower Discharge Control</b>	(If Applicable)					
Opening Diameter (inches)	2-4"Φ	2-4"Φ	X		Three-4" Diameter Orifices in Riser	
Elevation	878.00	877.93	X			
<b>Other (Description)</b>						
Opening Type and Size (inches)					Not Applicable	
Elevation						
<b>Emergency Spillway</b>						
Elevation	885.75	885.1±	X			
Length of spillway (feet)	12.0'	13±	X			
<b>Embankment</b>	Present Yes no		Comments/Maintenance Requirements			
Unauthorized Plantings, trees, or woody vegetation		X	Stable with native species			
Animal burrows or slope erosion		X				
<b>Storage Properties</b>	Design	Actual	Compliant Yes No		Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)	878.00	877.77	X			Zeiss Ni2 Level, Philadelphia Rod, 200' Tape, & GPS-Navcom  Pond is temporary & 100 yr elevation for as-built condition is 885.5± which still provides 0.5' of free board to Actual Average Elevation of Top of Embankment. Routine Inspections following heavy since 2008 indicate that pond functions as designed, only at a higher elevation, without breaching the top of the existing embankment.
Design High Water Elevation	885.75	885.1±	X			
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.5160	0.5629	X			
Area at Design High Water Elevation (Ac)	1.0565	1.0306	X			
Active Storage Available (Ac-Ft)*	4.7664	3.9743		X		
Lowest Elevation at Top of Embankment (If Applicable)	885.0	884.97	X			
Average Elevation at Top of Embankment (If Applicable)	886.25	886.02	X			
Maximum Bottom Elevation	871.0	871.77	X			
Average Pond Bottom Elevation	871.0	871.81	X			
Pond Bottom Area (Ac)	0.1598	0.1789	X			
Maximum Pond Depth	7.0'	7.67'	X			
Average Pond Depth	7.0'	7.62'	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



Inspection Firm: Thomson Realty of Wisconsin, Inc.  
 Phone Number: (262) 784-6500  
 Address: 12760 W North Avenue  
 Brookfield, WI 53005

Inspector Name : Dean A Frederick  
 Inspection Date: September 3 & 29, 2010

Certifying Professional Name: Dean A Frederick  
 Phone Number: (262) 784-6500



Date:  
 September 30, 2010

Signature:

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9-10

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## STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section SW ¼ Sec 33 Name of Business/Subdivision Cranes Crossing  
 Property Tax ID Number 0131037 Address of Property N48 W18200+ Lisbon Road

Dry Pond	
Wet Pond	X
Other	

Description: Pond P2E  
SWP 33 s 003

Location Of Pond SE Corner of Cranes Crossing Blvd. & Green Crane Drive

Year Pond Constructed 2005 Year of Last Certification 2005

Compliance Verification	Design	Actual	Compliant		Comments (Condition of Structure)
			Yes	No	
<b>Primary Outlet Pipe</b>					Outlet Pipe Material
Opening Diameter (inches)	30"	30"	X		Reinforced Concrete Pipe
Upstream Invert	877.35	877.82	X		
Downstream Invert	876.75	877.39	X		
Length (feet)	225.03'	216.06'	X		
Slope (%)	0.155%	0.199%	X		
<b>Secondary Outlet Pipe</b>					
(If Applicable)					Not Applicable
Opening Diameter (inches)					
Upstream Invert					
Downstream Invert					
Length (feet)					
Slope (%)					
<b>Riser</b>					Riser Material
(If Applicable)					Not Applicable
Opening Diameter (inches)					
Elevation					
<b>Upper Discharge Control</b>					Not Applicable
(If Applicable)					
Opening Diameter (inches)					
Elevation					

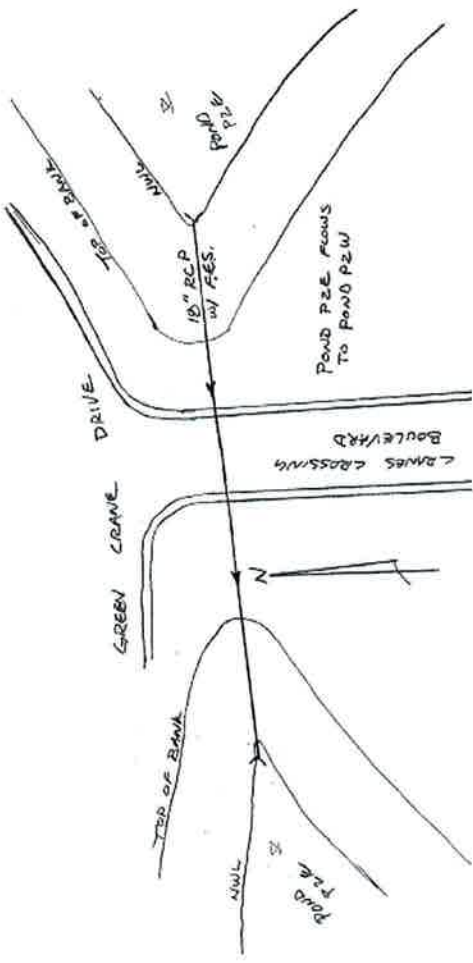
Compliance Verification	Design	Actual	Compliant		Comments
			Yes	No	
<b>Lower Discharge Control</b>	(If Applicable)				
Opening Diameter (inches)					Not Applicable
Elevation					
<b>Other (Description)</b>					
Opening Type and Size (inches)					Not Applicable
Elevation					
<b>Emergency Spillway</b>					
Elevation	884.29	884.2±	X		
Length of spillway (feet)	10.0'	10±	X		
<b>Embankment</b>	Present Yes no		Comments/Maintenance Requirements		
Unauthorized Plantings, trees, or woody vegetation		X	Well manicured grass turf		
Animal burrows or slope erosion		X			
<b>Storage Properties</b>	Design	Actual	Compliant Yes No	Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)	877.35	877.81	X		Zeiss Ni2 Level, Philadelphia Rod, 200' Tape, & GPS-Navcom
Design High Water Elevation	884.29	884.2±	X		
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.4695	0.4698	X		
Area at Design High Water Elevation (Ac)	0.9278	0.9034	X		
Active Storage Available (Ac-Ft)*	3.7363	3.3769	X		Ponds P2E & P2W are interconnected. Total active storage Design = 7.7219 Proposed = 7.5323
Lowest Elevation at Top of Embankment (If Applicable)	885.2	884.94	X		
Average Elevation at Top of Embankment (If Applicable)	885.54	885.3	X		
Maximum Bottom Elevation	870.0	869.39	X		
Average Pond Bottom Elevation	870.0	869.8	X		
Pond Bottom Area (Ac)	0.1212	0.1168	X		
Maximum Pond Depth	7.35'	8.4'	X		From Normal Water Elevation
Average Pond Depth	7.35'	8.0'	X		From Normal Water Elevation

\*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



Inspection Firm: Thomson Realty of Wisconsin, Inc.  
 Phone Number: (262) 784-6500  
 Address: 12760 W North Avenue  
 Brookfield, WI 53005

Inspector Name : Dean A. Frederick  
 Inspection Date: September 3, 2010

Certifying Professional Name: Dean A Frederick  
 Phone Number: (262) 784-6500



Date: September 30, 2010

Signature: *Dean A. Frederick*

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Sept. 2010



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## STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section SW ¼ Sec 33 Name of Business/Subdivision Cranes Crossing  
 Property Tax ID Number 0131038 Address of Property N48 W18200+ Lisbon Road

Dry Pond	
Wet Pond	<b>X</b>
Other	

Description: Pond P2W  
SWP 335004

Location Of Pond SW Corner of Cranes Crossing Blvd. & Green Crane Drive

Year Pond Constructed 2005 Year of Last Certification 2005

Compliance Verification	Design	Actual	Compliant		Comments (Condition of Structure)
			Yes	No	
<b>Primary Outlet Pipe</b>					Outlet Pipe Material
Opening Diameter (inches)	18"	18"	X		Reinforced Concrete Pipe
Upstream Invert	876.75	877.03	X		
Downstream Invert	876.45	876.77	X		
Length (feet)	193.63'	166.60'	X		
Slope (%)	0.284%	0.156%	X		
<b>Secondary Outlet Pipe</b>					Outlet Pipe Material
Opening Diameter (inches)	(If Applicable)				Not Applicable
Upstream Invert					
Downstream Invert					
Length(feet)					
Slope(%)					
<b>Riser</b>					Riser Material
Opening Diameter	4.0'	4.0'	X		Reinforced Concrete with Neenah Grate R-5901-K
Elevation	878.70	879.05	X		
<b>Upper Discharge Control</b>					
Opening Diameter (inches)	(If Applicable)				Not Applicable
Elevation					

Compliance Verification	Design	Actual	Compliant		Comments	
			Yes	No		
<b>Lower Discharge Control</b>	(If Applicable)					
Opening Diameter (inches)	24"x15"	24"x15"	X		Rectangular Galvanized Debris Screen	
Elevation	877.00	877.05	X			
<b>Other (Description)</b>						
Opening Type and Size (inches)	2-4"Φ	2-4"Φ	X		Two-4" Diameter Orifices inside Riser	
Elevation	877.00	877.05	X			
<b>Emergency Spillway</b>						
Elevation	883.97	883.8±	X			
Length of spillway (feet)	10.0'	9.5±	X			
<b>Embankment</b>	Present Yes no		Comments/Maintenance Requirements			
Unauthorized Plantings, trees, or woody vegetation		X	Well manicured grass turf			
Animal burrows or slope erosion		X				
<b>Storage Properties</b>	Design	Actual	Compliant Yes No		Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)	877.00	877.05	X			Zeiss Ni2 Level, Philadelphia Rod, 200' Tape, & GPS-Navcom
Design High Water Elevation	884.29	883.8±	X			
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.4316	0.5096	X			
Area at Design High Water Elevation (Ac)	1.0560	1.0657	X			
Active Storage Available (Ac-Ft)*	3.9856	4.1554	X			Ponds P2E & P2W are inter-connected. Total active storage Design = 7.7219 Proposed = 7.5323
Lowest Elevation at Top of Embankment (If Applicable)	885.2	884.70	X			
Average Elevation at Top of Embankment (If Applicable)	885.22	885.12	X			
Maximum Bottom Elevation	870.0	868.37	X			
Average Pond Bottom Elevation	870.7	869.18	X			
Pond Bottom Area (Ac)	0.0361	0.0373	X			
Maximum Pond Depth	7.00'	8.68'	X			From Normal Water Elevation
Average Pond Depth	6.3'	7.87'	X			From Normal Water Elevation

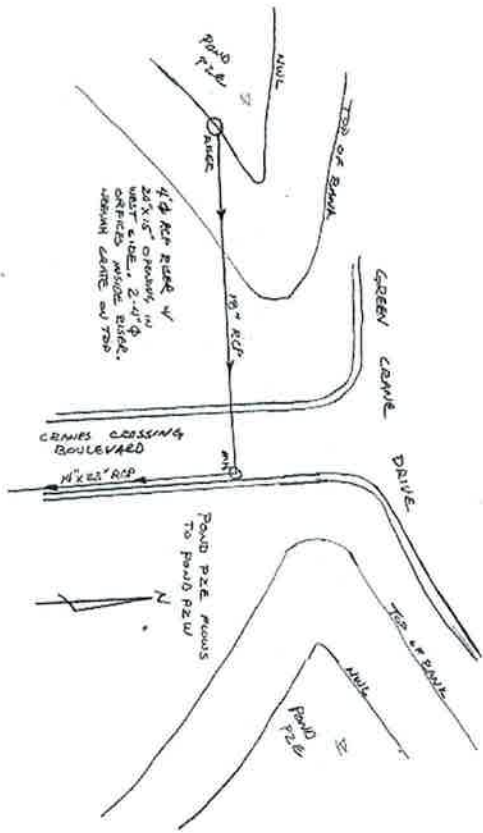
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Dry Ponds Use  $H$  = Height of Section,  $A1$  = pond bottom area,  $A2$  = area at top section



Sketch Outlet



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 Address: 12760 W North Avenue  
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Inspector Name : Dean A Frederick  
 Inspection Date: September 3, 2010

Certifying Professional Name: Dean A Frederick  
 Phone Number: (262) 784-6500



Date: September 30, 2010

Signature: *Dean A. Frederick*

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**Greifenhagen, Nancy**

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**From:** Dean Frederick <dfrederick@thomsoncompanies.com>  
**Sent:** Wednesday, July 25, 2012 11:35 AM  
**To:** Greifenhagen, Nancy  
**Subject:** Cranes Crossing Addition No 1 - Stormwater Maintenance Inspection Report for 1 Wet Pond (Temp) SWP33S0002  
**Attachments:** MF Itr Req Pond 4 Inspection (7-17-2012).pdf; Stormwater inspection report - Pond P4 (9-2010).pdf; Dean A Frederick PE

*all <sup>3</sup> for 2010 cycle*

*Good Morning Nancy!*

*Following up on our recent telephone conversation, in September of 2010 I completed & submitted the inspection report for the temporary stormwater pond referenced above (copy attached). The inspection & report was completed at the same time for the 2 wet ponds ID# SWP33S003 & SWP33S004 in the first phase of the Cranes Crossing Subdivision.*

*I am requesting that the September, 2010 submittal would fulfill the Villages recent request (see attached) for the inspection & report submittal for pond ID# SWP33S0002. Additionally, I requesting that any future inspections & report submittals for all the existing stormwater ponds in the Cranes Crossing Subdivisions be coordinated & linked to the September, 2010 date.*

*Please let me know if you agree.*

*If you should have any questions or require additional information, please feel free to contact me at your convenience. Please note that my contact has recently changed and vCard is attached.*

*Thanks,*

*Dean Frederick  
Thomson Companies  
Thomson Realty of Wisconsin, Inc.  
(262) 746-3627 Office Direct Line  
(262) 746-3600 Office Main Line  
(262) 746-3605 Office Fax  
(262) 746-3606 Office Voice Mail*

*need yet*

Please visit [www.thomsoncompanies.com](http://www.thomsoncompanies.com)



*Village of Menomonee Falls*

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

July 17, 2012

CRANES CROSSING DEVELOPMENT LLC  
12760 W NORTH AVE  
BROOKFIELD WI 53005-4699  
Re: Inspection and Maintenance of Stormwater Facilities

Structure(s): 1 Wet Pond (Temp.) SWP33S0002  
Location: Cranes Crossing Addn. No. 1  
Address:  
Owner's Tax Key: MNFV0131064  
Inspection due for year of: 2012

Dear Property Owner:

The Village of Menomonee Falls is contacting property owners who either have stormwater ponds located on their property or a shared interest in ponds located in their subdivision. The stormwater ponds are an integral part of the overall stormwater control system in the region and were constructed as a requirement of the Village of Menomonee Falls to control runoff and reduce the potential for flooding.

Proper maintenance and periodic inspection of each pond is crucial to ensure all stormwater ponds are operating properly to protect the down stream properties from damages caused by runoff. To ensure the ponds are properly maintained, a stormwater maintenance agreement was entered into which outlines specific inspection and maintenance requirements for each pond. The stormwater maintenance agreement designates the property owner or homeowners association of the subdivision to be responsible for the operation, maintenance, and inspection of the ponds to ensure they are still within tolerances of the original design. Please contact your homeowners association if applicable to coordinate the required inspection. The stormwater ponds require inspection every five years and the pond inspections are currently due this year.

The inspection must be completed by a qualified inspector and stamped by a registered professional engineer in the State of Wisconsin. The completed reports must be returned to the Village of Menomonee Falls Engineering Department by October 15, 2012.

As recorded in the Agreement, failure to complete and submit the inspection report by the due date will result in the Village taking the necessary steps to complete the inspection report and adding the cost to the owner(s) tax bill. Copies of the Agreements and a map of the facilities are available on the Village website (link below).

A Stormwater Inspection Report may be obtained from the Engineering Department located in the Village Hall at W156N8480 Pilgrim Road or in a PDF format on the Village website at <http://www.menomonee-falls.org/ponds>. Should you have any questions you may contact Nancy Greifenhagen at 262-532-4417, Monday thru Friday between the hours of 8:00 am to 4:30 pm.

Sincerely,

Nancy Greifenhagen  
Environmental Coordinator