



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 NW 1/4 Sec 25 Name of Business/Subdivision Harmony Hills II
Property Tax ID Number 0098090 Address of Property _____

Dry Pond	
Wet Pond	X
Other	

Description:

Pond #1
SWP 25 N 001

Location Of
Pond

act lot 2

Year Pond Constructed 2007

Year of Last Certification 2007

Compliance Verification	Design	Actual	Compliant		Comments (Condition of Structure)
			Yes	No	
Primary Outlet Pipe					
Opening Diameter	12"	12"	✓		
Upstream Invert	782.00	782.15	✓		
Downstream Invert	778.70	778.45	✓		
Length	23	23	✓		
Slope	0.143%	0.1609%	✓		
Secondary Outlet Pipe (If Applicable)					
Opening Diameter					
Upstream Invert					
Downstream Invert					
Length					
Slope					
Riser (If Applicable)					
Opening Diameter	3'x2'	3'x2'	✓		
Elevation	787.50	787.40	✓		
Upper Discharge Control (If Applicable)					
Opening Diameter					
Elevation					

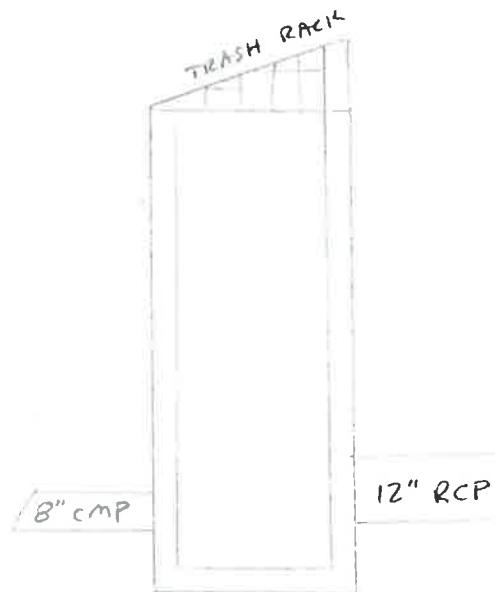
Compliance Verification	Design	Actual	Compliant Yes No	Comments		
Lower Discharge Control	(If Applicable)					
Opening Diameter						
Elevation						
Other (Description)						
Opening Type	8" CMP	12" CMP				
Elevation	782.00	782.15				
Emergency Spillway						
Elevation	788.2	788.4	X			
Length of spillway	40 LF	40 LF	X			
Embankment			Present Yes No			
Unauthorized plantings, trees, or woody vegetation				X		
Animal burrows or slope erosion			X	Erosion and burrows near elec. post on North side of pond.		
Storage Properties	Design	Actual	Compliant Yes No	Points Surveyed	Equipment Used	
Normal Water Elevation (Wet Ponds)	782.0	782.15	✓		60	Leica Total Station
Design High Water Elevation	788.0	788.0	✓			
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.48 Ac	0.48 Ac	✓			
Area at Design High Water Elevation (Ac)	0.91 Ac	0.91 Ac	✓			
Active Storage Available (Ac-Ft)*	4.00 AC-FT	3.99 AC-FT	✓		↓	
Lowest Elevation at Top of Embankment (If Applicable)						
Average Elevation at Top of Embankment (If Applicable)						
Maximum Bottom Elevation	777.0	777.3	✓		8	Rope, weight, bobber
Average Pond Bottom Elevation	777.0	777.1	✓		8	↓
Pond Bottom Area (Ac)	0.18 Ac	0.18 Ac	✓			
Maximum Pond Depth	5.0'	5.2'	✓		8	
Average Pond Depth	5.0'	5.0'	✓		8	↓

*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



Not to Scale



Inspection Firm: Land Tech Surveying and Eng LLC
Phone Number: 262-367-7599 Inspector Name: John Dawning
Address: P.O. Box 15 Inspection Date: 8/16/11
Hartland, WI 53029

Certifying
Professional Name: FREDERICK BONNEY
Phone Number: 262-255-5845

Date:
8-23-2011

Signature:
Fred Bonney





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STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section NW 1/4 Sec. 25 Name of Business/Subdivision Harmony Hills II
Property Tax ID Number 0098091 Address of Property _____

Dry Pond	
Wet Pond	☒
Other	

Description: Pond #2
SWP 35 N002

Location Of
Pond

Outlet 3

Year Pond Constructed 2007

Year of Last Certification 2007

Compliance Verification	Design	Actual	Compliant Yes No	Comments (Condition of Structure)
Primary Outlet Pipe				
Opening Diameter	12"	12"	✓	
Upstream Invert	784.0	784.00	✓	
Downstream Invert	783.80	783.75	✓	Outfall packed with 6" of mud.
Length	84	82	✓	
Slope	0.0024%	0.0030%	✓	
Secondary Outlet Pipe (If Applicable)				
Opening Diameter				
Upstream Invert				
Downstream Invert				
Length				
Slope				
Riser (If Applicable)				
Opening Diameter	24"x36"	24"x36"	✓	
Elevation	787.25	787.15	✓	
Upper Discharge Control (If Applicable)				
Opening Diameter				
Elevation				

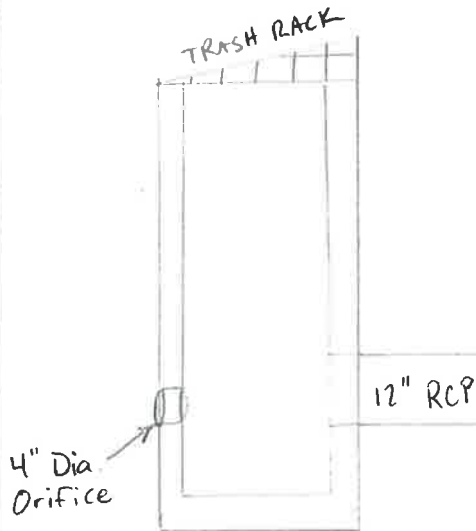
Compliance Verification	Design	Actual	Compliant Yes No		Comments	
Lower Discharge Control	(If Applicable)					
Opening Diameter						
Elevation						
Other (Description)						
Opening Type	4" Dia. Orifice	4" Dia. Orifice	✓			
Elevation	784.00	784.00	✓			
Emergency Spillway						
Elevation	787.50	787.5	✓			
Length of spillway	15'	16'	✓			
Embankment			Present Yes No			
Unauthorized plantings, trees, or woody vegetation			X		Small trees growing in S.E. corner of pond.	
Animal burrows or slope erosion			X		Burrowing on N.E. and S.E. corners of pond	
Storage Properties	Design	Actual	Compliant Yes No		Points Surveyed	Equipment Used
Normal Water Elevation (Wet Ponds)	784.0	784.0	✓		40	Leica Total Station
Design High Water Elevation	788.5	788.0	✓			
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.13Ac	0.13Ac	✓			
Area at Design High Water Elevation (Ac)	0.24Ac	0.22Ac	✓			
Active Storage Available (Ac-Ft)*	0.81	0.70	✓			
Lowest Elevation at Top of Embankment (If Applicable)	788.0	788.0	✓			
Average Elevation at Top of Embankment (If Applicable)	788.0	788.1	✓		↓	
Maximum Bottom Elevation	779.0	779.3	✓		4	Rope, weight, bobber
Average Pond Bottom Elevation	779.0	779.2	✓		4	↓
Pond Bottom Area (Ac)						
Maximum Pond Depth	5.0'	5.1'			4	↓
Average Pond Depth	5.0'	4.8'			4	↓

*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



Not to Scale

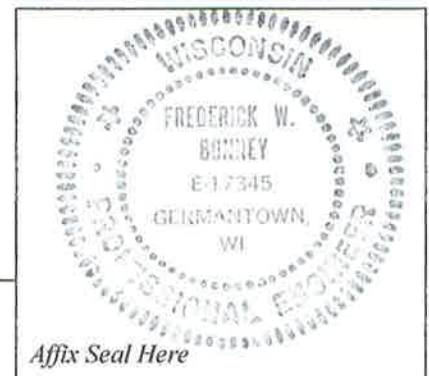


Inspection Firm: Land Tech Surveying and Eng LLC
Phone Number: 262-367-7599
Address: P.O. Box 15
Hartland, WI 53029

Inspector Name: John Downing
Inspection Date: 8/16/11

Certifying
Professional Name:
Phone Number:

FREDERICK W. BONNEY
262-255-5845



Date:

8-23-2011

Signature:

John Downing



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STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section NW 1/4 Sec 25 Name of Business/Subdivision Harmony Hills II
Property Tax ID Number 009B095 Address of Property _____

Dry Pond	☒
Wet Pond	☐
Other	☐

Description: Pond #3
SWP25N004

Location Of Pond Outlot 7

Year Pond Constructed 2007 Year of Last Certification 2007

Compliance Verification	Design	Actual	Compliant Yes No	Comments (Condition of Structure)
Primary Outlet Pipe				
Opening Diameter	42"	42"	✓	Flared End Section is detached from outlet pipe. Needs to be repaired.
Upstream Invert	785.00	785.16	✓	
Downstream Invert	782.94	782.99	✓	
Length	129	129	✓	
Slope	0.0160%	0.0168%	✓	
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				
Elevation				

Compliance Verification	Design	Actual	Compliant Yes No		Comments	
Lower Discharge Control	(If Applicable)					
Opening Diameter						
Elevation						
Other (Description)						
Opening Type						
Elevation						
Emergency Spillway						
Elevation	792.5	792.2	✓			
Length of spillway	10'	10'	✓			
Embankment			Present Yes No			
Unauthorized plantings, trees, or woody vegetation				X		
Animal burrows or slope erosion				X		
Storage Properties	Design	Actual	Compliant Yes No		Points Surveyed	Equipment Used
Normal Water Elevation (Wet Ponds)						
Design High Water Elevation	792.0	792.0	✓		25	Leica Total Station
Area at Normal Water Elevation (Ac) (Wet Ponds)					↓	
Area at Design High Water Elevation (Ac)	0.27Ac.	0.27Ac.	✓			
Active Storage Available (Ac-Ft)*	1.25	1.25				
Lowest Elevation at Top of Embankment (If Applicable)						
Average Elevation at Top of Embankment (If Applicable)						
Maximum Bottom Elevation	785.0	785.2	✓		7	
Average Pond Bottom Elevation	785.0	785.0	✓		7	
Pond Bottom Area (Ac)	0.10 Ac.	0.10 Ac.	✓			
Maximum Pond Depth						
Average Pond Depth						

*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

Detached - Needs Repair

42" RCP

Flared End
Section



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John Downing

Inspection Date:

8/16/11

Certifying

Professional Name:

Fredrick W. Boney

Phone Number:

262-255-5845

Date:

8-23-2011

Signature:

John Downing





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Quarter Section NW 1/4 Sec. 25 Name of Business/Subdivision Harmony Hills II
Property Tax ID Number 0098092 Address of Property _____

Dry Pond	
Wet Pond	X
Other	

Description:

Pond #4
SWP25N009

Location Of
Pond

Outlot 4

Year Pond Constructed 2007

Year of Last Certification 2007

Compliance Verification	Design	Actual	Compliant Yes No		Comments (Condition of Structure)
Primary Outlet Pipe					
Opening Diameter	30"	30"	✓		
Upstream Invert	779.80	779.84	✓		
Downstream Invert	779.65	779.70	✓		
Length	123	123	✓		
Slope	0.0012%	0.0011%	✓		
Secondary Outlet Pipe (If Applicable)					
Opening Diameter					
Upstream Invert					
Downstream Invert					
Length					
Slope					
Riser (If Applicable)					
Opening Diameter	24"x36"	24"x36"	✓		
Elevation	785.85	785.70	✓		
Upper Discharge Control (If Applicable)					
Opening Diameter					
Elevation					

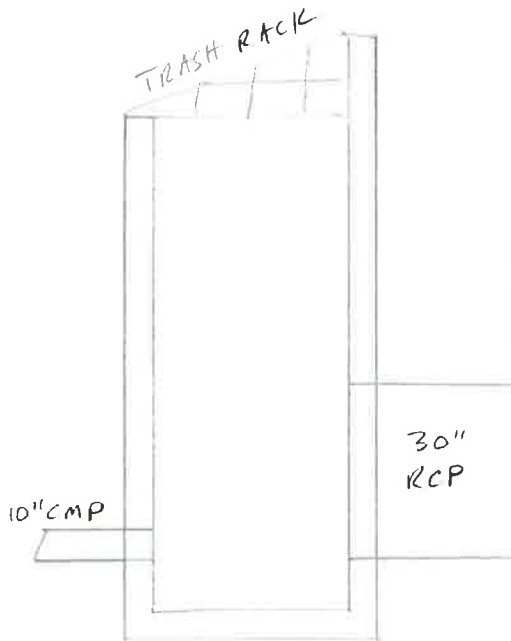
Compliance Verification	Design	Actual	Compliant Yes No		Comments	
Lower Discharge Control	(If Applicable)					
Opening Diameter						
Elevation						
Other (Description)						
Opening Type	10" CMP	10" CMP	✓			
Elevation	779.80	779.59	✓			
Emergency Spillway						
Elevation	787.0	787.0	✓			
Length of spillway	20	19	✓			
Embankment			Present Yes No			
Unauthorized plantings, trees, or woody vegetation			X		Along S.E. edge of pond along waterline (Willows)	
Animal burrows or slope erosion			X		Erosion along East side slope of Pond	
Storage Properties	Design	Actual	Compliant Yes No		Points Surveyed	Equipment Used
Normal Water Elevation (Wet Ponds)	779.0	779.84	✓		50	Leica Total Station
Design High Water Elevation	788.0	788.00	✓		↓	↓
Area at Normal Water Elevation (Ac) (Wet Ponds)	1.14 Ac.	1.21 Ac.	✓		↓	↓
Area at Design High Water Elevation (Ac)	1.93 Ac.	1.93 Ac.	✓		↓	↓
Active Storage Available (Ac-Ft)*	13.73	13.66	✓		↓	↓
Lowest Elevation at Top of Embankment (If Applicable)						
Average Elevation at Top of Embankment (If Applicable)						
Maximum Bottom Elevation	774.0	774.3	✓		8	Rope, weight, bobber
Average Pond Bottom Elevation	774.0	774.1	✓		↓	↓
Pond Bottom Area (Ac)	0.52 Ac.	0.52 Ac.	✓		↓	↓
Maximum Pond Depth	5.0	5.8	✓		↓	↓
Average Pond Depth	5.0	5.6	✓		↓	↓

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

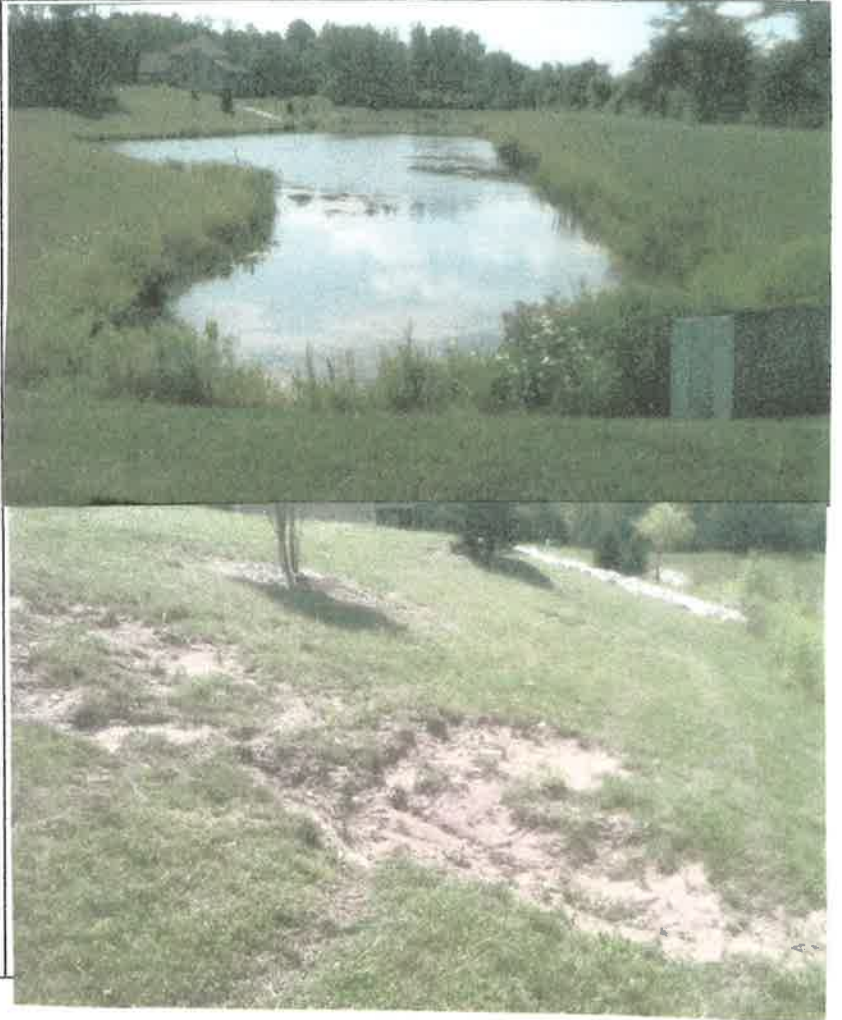
Wet Ponds Use H = Height of Section, $A1$ = area at normal water elevation, $A2$ = area at top section

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

Sketch Outlet



Not to Scale



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Inspection Date:

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Professional Name:

FREDERICK BONNEY

Phone Number:

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Date:

8-23-2011

Signature:

Fred Bonney





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STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section NW 1/4 Sec. 25 Name of Business/Subdivision Harmony Hills II
Property Tax ID Number 0098093 Address of Property _____

Dry Pond	
Wet Pond	X
Other	

Description:

Pond #5
SWP25N005

Location Of
Pond

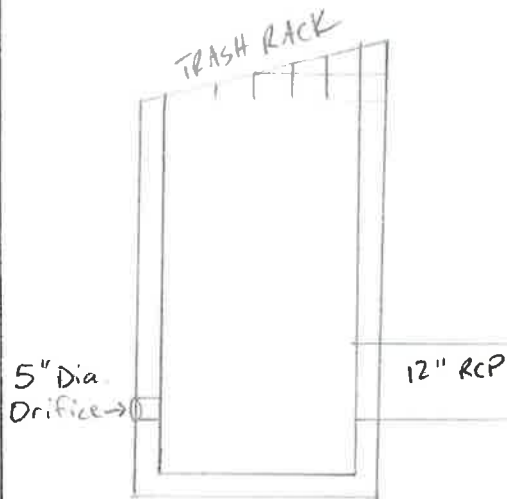
Outlet 5

Year Pond Constructed 2007

Year of Last Certification 2007

Compliance Verification	Design	Actual	Compliant Yes No	Comments (Condition of Structure)
Primary Outlet Pipe				
Opening Diameter	12"	12"	✓	
Upstream Invert	805.00	805.08	✓	
Downstream Invert	804.70	804.90	✓	
Length	74	74	✓	
Slope	0.0041%	0.0024%	✓	
Secondary Outlet Pipe (If Applicable)				
Opening Diameter				
Upstream Invert				
Downstream Invert				
Length				
Slope				
Riser (If Applicable)				
Opening Diameter	24"x36"	24"x36"	✓	
Elevation	808.00	807.95	✓	
Upper Discharge Control (If Applicable)				
Opening Diameter				
Elevation				

Sketch Outlet



Not to Scale



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Address: P.O. Box 15
Hartland, WI 53029

Inspector Name :

John Downing

Inspection Date:

8/16/11

Certifying
Professional Name:
Phone Number:

FREDERICK BOWMAN
262-255-5845



Date:

8-23-2011

Signature:

Fred Bowman

Rec. Sept 1



Harmony Hills Community Association, Inc
N62 W13497 Sunburst Drive
Menomonee Falls, WI 53051
(262) 993-5428

August 30, 2011

Nancy Greifenhagen
Village of Menomonee Falls Environmental Coordinator
W156 N8480 Pilgrim Road
Menomonee Falls, WI 53051-4200

RE: Inspection and Maintenance of Stormwater Facilities

Enclosed is the Stormwater Inspection report as required by the Village of Menomonee Falls for the common area retention ponds located throughout Harmony Hills. This report was prepared by John Downing of Land Tech Surveying and Engineering, LLC and certified by Fredrick Bonney, Professional Engineer. Please contact me with any questions or concerns regarding this report.

Sincerely,

Todd M. Gudausky
President, Harmony Hills Community Association, Inc.