



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 26 NE Name of Business/Subdivision MILL RIDGE NO. 5 SUBD
Property Tax ID Number 0101158 Address of Property (INDEX NO. 01.15)

Dry Pond	X
Wet Pond	
Other	

Location Of Pond WEST OF LILLY RD
NORTH OF MANHARDT DR

Description: SWP26N002
P-0144

Year Pond Constructed 2001 Year of Last Certification 2008

Compliance Verification	Design (Non-AsBuilt)	Actual (GPS)	Compliant Yes No	Comments (Condition of Structure)
Primary Outlet Pipe (ST012544-ST012543)				Outlet Pipe Material
Opening Diameter (inches)	12" CMP	12" CMP		12" CMP IN GOOD CONDITION ELEVATIONS TO VARY SLIGHTLY FROM YEAR TO YEAR DUE TO GPS TECHNOLOGY
Upstream Invert (ST012544)	769.50	769.54		
Downstream Invert (ST012543)	769.25	769.41		
Length (feet)	70.0 FT	72.4 FT		
Slope (%)	0.0036%	0.0018%		
Secondary Outlet Pipe (1 of 3) (ST012500-ST012499)				Outlet Pipe Material
Opening Diameter (inches)	12" CMP	12" CMP		12" CMP IN GOOD CONDITION
Upstream Invert (ST012500)	769.50	769.72		
Downstream Invert (ST012499)	769.25	769.14		
Length (feet)	70.0 FT	73.4 FT		
Slope (%)	0.0036%	0.0079%		
Secondary Outlet Pipe (2 of 3) (ST012501-ST012502)				Outlet Pipe Material
Opening Diameter (inches)	12" CMP	12" CMP		12" CMP IN GOOD CONDITION
Upstream Invert (ST012501)	769.50	769.75		
Downstream Invert (ST012502)	769.25	769.09		
Length (feet)	70.0 FT	61.6 FT		
Slope (%)	0.0036%	0.0107%		

Compliance Verification	Design (Non-AsBuilt)	Actual (GPS)	Compliant Yes No		Comments (Condition of Structure)
Secondary Outlet Pipe (3 of 3) (ST012503-ST012504)					Outlet Pipe Material
Opening Diameter (inches)	12" CMP	12" CMP			***REPAIR NEEDED*** 12" CMP CRUSHED AT POND SIDE OF BERM
Upstream Invert (ST012503)	769.50	769.86			
Downstream Invert (ST012504)	769.25	768.74			
Length (feet)	50.0 FT	43.5 FT			
Slope (%)	0.0050'/%	0.0257'/%			
Riser	N/A				Riser Material
Opening Diameter (inches)					
Elevation					
Upper Discharge Control	N/A				
Opening Diameter (inches)					
Elevation					
Lower Discharge Control	N/A				
Opening Diameter (inches)					
Elevation					
Other (Description)	N/A				
Opening Type and Size (inches)					
Elevation					
Emergency Spillway					
Elevation	773.00	771.97			
Length of spillway (feet)	45.0 FT	79.1 FT			
Embankment	Present Yes No		Comments/Maintenance Requirements		
Unauthorized Plantings, trees, or woody vegetation	-	N			
Animal burrows or slope erosion or hole	-	N			
Storm Sewer Outfalls	Type & Size		Location		Comments
Outfall 1					
Outfall 2					

Storage Properties	Design (NON- ASBUILT)	Actual (GPS)	Compliant Yes No		Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)	-	-	-	-	N/A	
Design High Water Elevation	773.00	771.97	-	-	-	
Area at Normal Water Elevation (Ac) (Wet Ponds)	-	-	-	-	N/A	GPS EQUIPMENT: SOKKIA GSR2700ISX & CARLSON SURVEYOR+ WITH SURV CE v1.7
Area at Design High Water Elevation (Ac)	2.357 AC	2.159 AC	-	-	-	
Active Storage Available (Ac-Ft)*	5.160 ACFT	4.008 ACFT	-	-	-	
Lowest Elevation at Top of Embankment (If Applicable)	773.00	771.97	-	-	-	
Average Elevation at Top of Embankment (If Applicable)	773.00	773.90	-	-	-	
Maximum Bottom Elevation	773.00	770.80	-	-	-	
Average Pond Bottom Elevation	770.00	770.00	-	-	-	
Pond Bottom Area (Ac)	0.977 AC	1.924 AC	-	-	-	
Maximum Pond Depth	3.0 FT	2.3 FT	-	-	-	
Average Pond Depth	3.0 FT	2.0 FT	-	-	-	
Average Permanent Pool Depth (Wet Ponds)	-	-	-	-	N/A	

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

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

Mill Ridge No. 5 (Lilly Rd)
Retention Pond – SWP26N002
Overview



Four (4) 12" Culverts Service Pond
Through Westerly Bank into stream.



ST012544



ST012543

Mill Ridge No. 5 (Lilly Rd)
Retention Pond – SWP26N002



ST012500



ST012499



ST012501



ST012502



ST012503



ST012504

Mill Ridge No. 5 (Lilly Rd)
Retention Pond – SWP26N002

SPILLWAY
(North end of retention pond.)



Mill Ridge No. 5 (Lilly Rd)
Retention Pond – SWP26N002
Repairs Needed (12/2013)

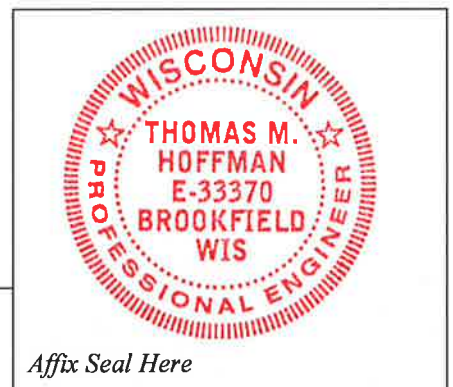
- 1) Fix crushed northerly most culvert (ST012503)
- 2) Place Markers at each Culver pipe to prevent crushing.



<i>Sketch Outlet</i>	<i>Place Photograph of Pond</i>
	<i>Place Photograph of Pond</i>

Inspection Firm:	VILLAGE OF MENOMONEE FALLS	Inspector Name :	CHRISTOPHER M GARIEPY
Phone Number:	262-532-4411	Inspection Date:	11/15/2013
Address:	W156N8480 PILGRIM RD MENOMONEE FALLS, WI 53051		

Certifying
 Professional Name: Thomas M Hoffman
 Phone Number: 262-532-4415



Date: <u>8/26/2015</u>	Signature: <u>Thomas M Hoffman</u>
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Affix Seal Here



MNFV0101157
MICHAEL B DELVAUX
W142N6142 MILL RIDGE DR

SWP26N002
Mill Ridge #5 - Lilly Rd - MNFV0101158
Pond Inspection 111513 CMG

SN26N006
776.92



0 5 10 20 30 40 Feet
1 inch = 40 feet

- 1) OPEN CRUSHED CMP
- 2) PLACE MARKERS @ EACH CULVERT TO PREVENT CRUSHING IN FUTURE

MNFV0101156
JOSEPH M EBERHARDY
W142N6126 MILL RIDGE DR

MNFV0101155
DAVID W GAY
W142N6112 MILL RIDGE DR

MNFV0101158
VILLAGE OF
MENOMONEE FALLS

MISSED CULVERT IN 11/15/13 DATA COLLECTION.
SHOOT CULVERT ELEVATIONS

MEAS.
DIAG. CULVERTS

SN26N007
778.44

CV26N002 CV25N023
776.46 775.76

MNFV0101011
MILETTI MOTOR SPORTS LLC
W140N6035 LILLY RD

6,5123

SWP26N002 LILLY RD RETENTION POND

MNFV 010158
Localize By MHS
GPS
2013

40' STATIONING

783.44

⑤
SN26N002
N 417.450.24
E 2,570.472.29
Z 781.58

⑧
SN26N145
N 417.272.45
E 2,570.476.46
Z 782.41

784.27

⑦
SN26N144
N 417.243.21
E 2,570.412.33
Z 783.33

⑥
SN26N143
N 417.292.39
E 2,570.321.39
Z 786.12

12300' N 7576' E
for TIRE ON CUL
NOT FOR MTD
C1600

778.72

SN26N078

776.08

MHS
SN26N006
776.92
98 H-4

①

SN26N006
N 417.458.52
E 2,571.184.29
Z 776.92

MHS
SN26N007
778.4498 H-5

②

SN26N007
N 417.127.68
E 2,571.183.81
Z 778.44

780.12

③

SN26N008
N 416.778.29
E 2,571.183.13
Z 778.93

779.83

MHS
SN26N008
778.93
98 H-6

④

SN26S048
N 416.436.20
E 2,571.182.58
Z 780.33

780.68

MHS
SN26S048
780.33

MANHART DR

SN25S038
783.363

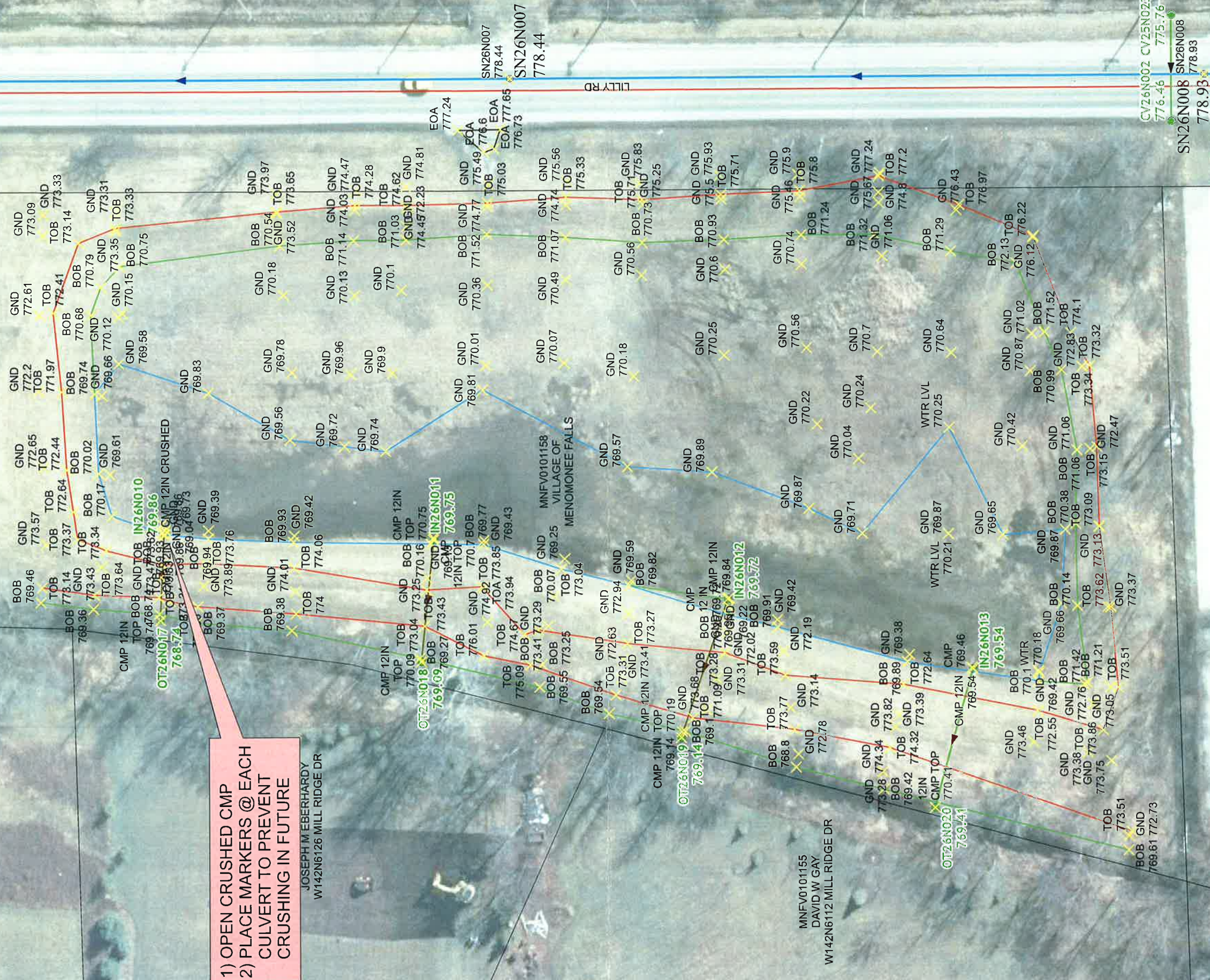
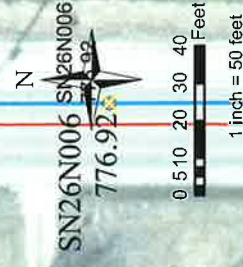
MNFV0101140
MICHAEL EHRLER
W142N6158 MILL RIDGE DR



MNFV0101157
MICHAEL B DELVAUX
W142N6142 MILL RIDGE DR

MNFV0101994003

SWP26N002
Mill Ridge #5 - Lilly Rd - MNFV0101158
Pond Inspection 111513 CMG



- 1) OPEN CRUSHED CMP
- 2) PLACE MARKERS @ EACH CULVERT TO PREVENT CRUSHING IN FUTURE

JOSEPH M EBERHARDY
W142N6126 MILL RIDGE DR

MNFV0101155
DAVID W GAY
W142N6112 MILL RIDGE DR

MNFV0101005
MARK PLUER
N59W14176 KAUL AVE

MNFV0101011
MILETTI MOTOR SPORTS LLC
W140N6035 LILLY RD

MNFV008997
FLORENCE G WEYER REVOCABLE LIVING TRUST
N64W13693 MILL RD

$$H = (771.97' - 770.00') = 1.97'$$

$$A_1 = 83,796.05 \text{ ft}^2 \left(\frac{A_1}{43,560 \text{ ft}^2} \right) = 1.9237 \text{ AC}$$

$$A_2 = 94,051.85 \text{ ft}^2 \left(\frac{A_2}{43,560 \text{ ft}^2} \right) = 2.1591 \text{ AC}$$

2013

26N002

Willow Ridge #5 SUB (Surveyed Data 2013)

$$V = \left(\frac{H}{3} \right) (A_1 + A_2 + \sqrt{A_1 + A_2})$$

$$V = \left(\frac{1.97}{3} \right) (1.9237 \text{ AC} + 2.1591 \text{ AC} + \sqrt{1.9237 \text{ AC} + 2.1591 \text{ AC}})$$

$$V = (0.6567 \text{ ft}) (4.0828 \text{ AC} + \sqrt{4.0828 \text{ AC}})$$

$$V = 0.6567 \text{ ft} (6.1034 \text{ AC})$$

$$V = 4.0079 \text{ AC ft}$$

1/29/14 CMG

$$H = (773.00 - 770.00) = 3.00 \text{ FT}$$

$$A_1 = 42,554.8 \text{ SF} = 0.9769 \text{ AC}$$

$$A_2 = 102,685.0 \text{ SF} = 2.3573 \text{ AC}$$

DESIGN VOLUME
26,000

Mill Ridge #5 Subdivision (Design Values)

$$V = \left(\frac{H}{3} \right) \left(0.9769 \text{ AC} + 2.3573 \text{ AC} + \sqrt{0.9769 \text{ AC} \times 2.3573 \text{ AC}} \right)$$

$$V = \left(\frac{3.0}{3} \right) \left(3.3342 \text{ AC} + \sqrt{3.3342 \text{ AC}} \right)$$

$$V = (1) (5.160 \text{ AC})$$

$$V = 5.160 \text{ AC FT}$$

C.M.G.
9/11/15