



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 15 NE Name of Business/Subdivision HUNTER'S RIDGE ESTATES III  
 Property Tax ID Number 0054288 Address of Property \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Dry Pond	X
Wet Pond	
Other	

Description: SWP15N006  
P-0066B, U-0272

Location Of Pond NORTHWEST CORNER OF  
PILGRIM RD & CROSSWAY DR  
 \_\_\_\_\_  
 \_\_\_\_\_

Year Pond Constructed 1988 Year of Last Certification 2008

Compliance Verification	Design (Non-AsBuilt)	Actual (GPS)	Compliant		Comments (Condition of Structure)
			Yes	No	
<b>Primary Outlet Pipe</b> (IN15N004)					Outlet Pipe Material
Opening Diameter (inches)	10" RCP	10" RCP	-	-	10" RCP IN GOOD CONDITION, REPAIR GAP/SINK HOLE IN JOINT
Upstream Invert	833.50	832.87	-	-	
Downstream Invert	833.25	831.68	-	-	
Length (feet)	104.0 FT	105.8 FT	-	-	
Slope (%)	0.0105%	0.0122%	-	-	ELEVATIONS TO VARY SLIGHTLY FROM YEAR TO YEAR DUE TO GPS TECHNOLOGY
<b>Secondary Outlet Pipe</b>	N/A				Outlet Pipe Material
Opening Diameter (inches)					
Upstream Invert					
Downstream Invert					
Length (feet)					
Slope (%)					
<b>Riser (YB15N018)</b>	N/A				Riser Material
Opening Diameter (inches)	30" X 30"	30" X 30"			
Elevation	842.00	840.11			
<b>Upper Discharge Control</b>	N/A				
Opening Diameter (inches)					
Elevation					

Compliance Verification	Design	Actual	Compliant		Comments	
			Yes	No		
<b>Lower Discharge Control</b>	N/A					
Opening Diameter (inches)						
Elevation						
<b>Other (Description)</b>	N/A					
Opening Type and Size (inches)						
Elevation						
<b>Emergency Spillway</b>						
Elevation	840.00	840.63				
Length of spillway (feet)	10.0 FT	11.2 FT				
<b>Embankment</b>	Present Yes No		Comments/Maintenance Requirements			
Unauthorized Plantings, trees, or woody vegetation	-	N	REPAIR JOINT GAP/SINK HOLE @ OUTLET PIPE			
Animal burrows or slope erosion or hole	Y	-				
<b>Storm Sewer Outfalls</b>	Type & Size		Location		Comments	
Outfall 1 (OT15N006)	RCP - 42"		SOUTH EMBANKMENT		RCP IN GOOD CONDITION	
Outfall 2						
Outfall 3						
<b>Storage Properties</b>	Design (NON-ASBUILT)	Actual (GPS)	Compliant Yes	No	Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)	-	-	-	-	N/A	GPS EQUIPMENT: SOKKIA GSR2700ISX & CARLSON SURVEYOR+ WITH SURV CE v1.7
Design High Water Elevation	840.00	840.63	-	-		
Area at Normal Water Elevation (Ac) (Wet Ponds)	-	-	-	-	N/A	
Area at Design High Water Elevation (Ac)	-	0.354 AC	-	-		
Active Storage Available (Ac-Ft)*	-	2.630 ACFT	-	-		
Lowest Elevation at Top of Embankment (If Applicable)	840.00	840.63	-	-		
Average Elevation at Top of Embankment (If Applicable)	842.00	843.00	-	-		
Maximum Bottom Elevation	834.00	833.75	-	-		
Average Pond Bottom Elevation	834.00	833.75	-	-		
Pond Bottom Area (Ac)	-	0.111 AC	-	-		
Maximum Pond Depth	8.5 FT	7.76FT	-	-		
Average Pond Depth	6.5 FT	6.9 FT	-	-		
Average Permanent Pool Depth (Wet Ponds)	-	-	-	-	N/A	

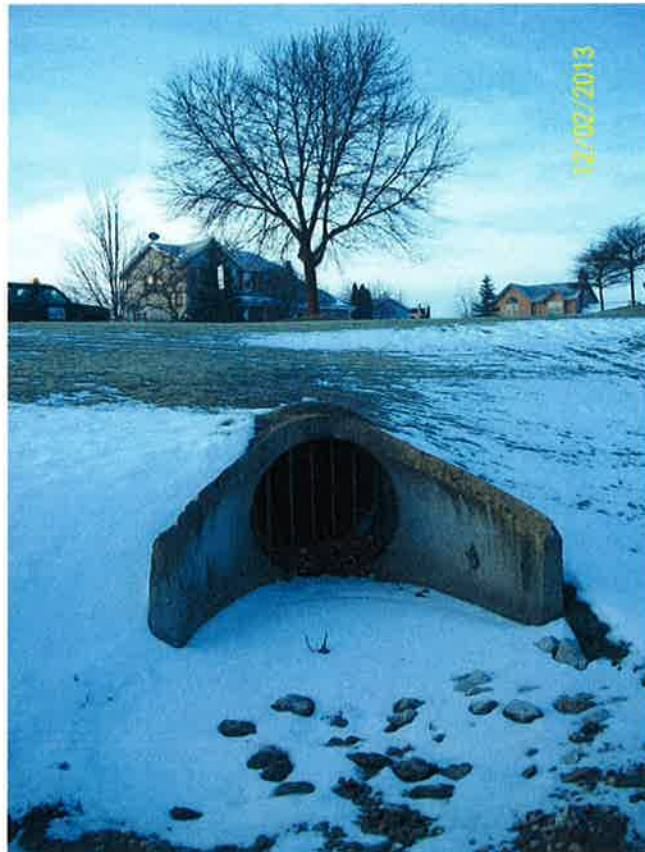
\*To Determine Active Storage  $V = \left( \left( \frac{H}{3} \right) \left( A1 + A2 + \left( \left( A1 + A2 \right)^{\left( \frac{1}{2} \right)} \right) \right) \right)$   
Wet Ponds Use  $H =$  Height of Section,  $A1 =$  area at normal water elevation,  $A2 =$  area at top section  
Dry Ponds Use  $H =$  Height of Section,  $A1 =$  pond bottom area,  $A2 =$  area at top section

Hunter's Ridge Estates (Pilgrim & Crossway)  
Retention Pond - SWP15N006

Overview



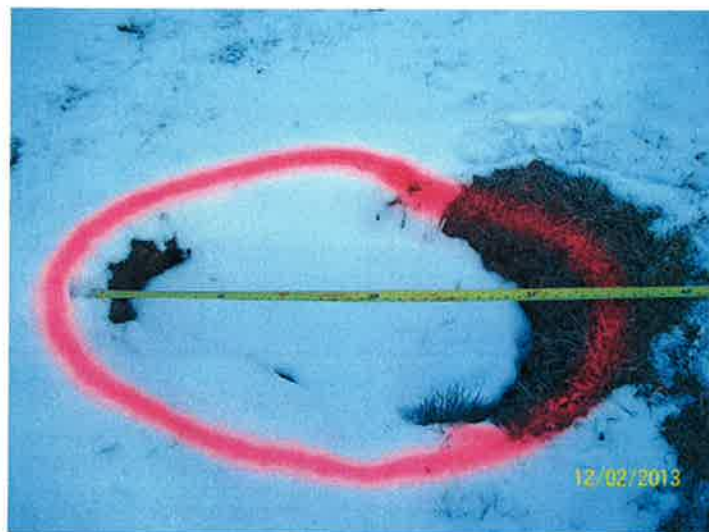
OT15N006



# Hunter's Ridge Estates (Pilgrim & Crossway) Retention Pond - SWP15N006

## Repairs Needed (12/2013)

- 1) Fix top of RCP
- 2) Fill Sink Hole



Sketch Outlet

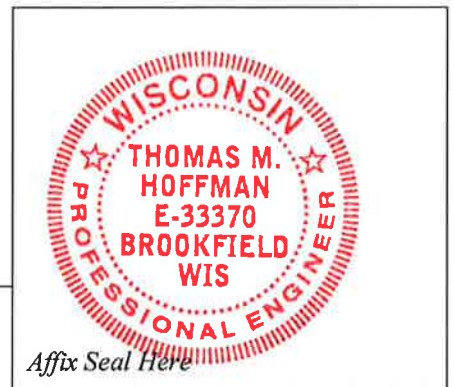
Place Photograph of Pond

Place Photograph of Pond

Inspection Firm: VILLAGE OF  
MENOMONEE FALLS  
Phone Number: 262-532-4411  
Address: W156N8480 PILGRIM RD  
MENOMONEE FALLS, WI  
53051

Inspector Name : CHRISTOPHER M GARIEPY  
Inspection Date: 11/7/2013

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



Date: 7/23/2014

Signature: Thomas M. Hoffman

Affix Seal Here

$$H = 840.63 - 833.75 \approx 6.88 \text{ FT}$$

2013

$$A_1 = 4,819.65 \text{ SF} \left( \frac{\text{AC}}{43,560 \text{ SF}} \right) \approx 0.1106 \text{ AC}$$

152006

$$A_2 = 23,008.15 \text{ SF} \left( \frac{\text{AC}}{43,560 \text{ SF}} \right) \approx 0.5284 \text{ AC}$$

$$15,479.75 \text{ SF} \left( \frac{\text{AC}}{43,560 \text{ SF}} \right) = 0.3544 \text{ AC}$$

Hunter's Ridge Estate III

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

$$V = \left( \frac{6.88 \text{ FT}}{3} \right) (0.1106 \text{ AC} + 0.8484 \text{ AC} + \sqrt{0.1106 \text{ AC} + 0.5484 \text{ AC}})$$

$$V = (2.293 \text{ FT}) (0.659 \text{ AC} + \sqrt{0.659 \text{ AC}})$$

$$V = (2.293 \text{ FT}) (1.4708 \text{ AC})$$

$$V = (3.7641 \text{ AC FT})$$

1/28/14 CJTG

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

$$V = \left( \frac{6.88 \text{ FT}}{3} \right) (0.1106 \text{ AC} + 0.3544 \text{ AC} + \sqrt{0.1106 \text{ AC} + 0.3544 \text{ AC}})$$

$$V = (2.293 \text{ FT}) (0.465 \text{ AC} + \sqrt{0.465 \text{ AC}})$$

$$V = 2.293 \text{ FT} (0.465 \text{ AC} + \sqrt{0.6819 \text{ AC}})$$

$$V = 2.293 \text{ FT} (1.1469 \text{ AC})$$





# SWP15N006 Pilgrim Rd & Crossway Dr - MNFV0057288 Pond Inspection 110713 CMG

MNFV0057045  
IONE A RIHN  
W156N7808 CHERRY LN



1) FIX HOLE IN TOP OF RCP  
2) FILL SAME HOLE WITH DIRT

MNFV0057286  
AARON C LEHNERT  
W156N7796 CHERRY LN

MNFV0057288  
VILLAGE OF  
MEMOMONEE FALLS

MNFV0057228  
RAYMOND D CAMPBELL  
N77W15631 CROSSWAY DR

MNFV0057229  
THOMAS SPEARS  
N77W15661 CROSSWAY DR

ST15N050  
842.52

SN15N055  
842.37

OT15N006  
833.51

IN15N004  
832.87

CB15N073  
841.47

CB15N072  
841.56

ST15N051  
841.56

CB15N077  
842.24

YB15N017  
842.25

BOB 834.27  
BOB 834.02  
BOB 834.51  
BOB 834.28  
BOB 833.59  
BOB 833.74  
BOB 837.14  
BOB 833.55  
BOB 833.61  
BOB 833.48  
BOB 833.85  
BOB 833.87  
BOB 834.05  
BOB 835.55  
BOB 837.64  
BOB 840.88  
BOB 842.2

GND 836.66  
GND 834.62  
GND 833.6  
GND 833.58  
GND 833.43  
GND 833.58  
GND 834.07  
GND 834.74  
GND 834.46  
GND 839.09  
GND 844.11  
GND 843.61

TRD 845.45  
TRD 842.68  
TRD 842.34  
TRD 842.01  
TRD 842.14  
TRD 837.43  
TRD 840.59  
TRD 842.91

TOB 845.57  
TOB 847.23  
TOB 846.03  
TOB 843.4  
TOB 843.58  
TOB 842.6  
TOB 842.14  
TOB 841.73  
TOB 842.2

EOA 844.11  
EOA 844.34  
EOA 844.59  
EOA 844.56  
EOA 844.6  
EOA 844.82

BOC 843.99  
BOC 842.53  
BOC 843.94  
BOC 841.59  
BOC 841.72  
BOC 842.49  
BOC 841.25

HOLE 844.49  
GND 844.13  
GND 844.17  
GND 842.83

GND 842.73  
GND 842.5  
TRD 842.34  
GND 842.01  
GND 842.14  
GND 842.91

GND 845.13  
GND 844.73  
TOB 844.54  
TOB 844.44  
TOB 844.93  
TOB 844.79  
TOB 844.5

GND 840.68  
GND 840.59  
EOA 845.05  
EOA 844.88  
TOB 844.82

GND 838.16  
GND 836.52  
GND 836.41  
GND 837.43  
GND 840.59

BOB 835.29  
BOB 834.54  
BOB 834.88  
BOB 834.24  
BOB 834.34  
BOB 834.07  
BOB 834.74

GND 833.16  
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TRD 842.91

TOB 845.57  
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BOC 841.72  
BOC 842.49  
BOC 841.25

HOLE 844.49  
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GND 842.01  
GND 842.14  
GND 842.91

GND 845.13  
GND 844.73  
TOB 844.54  
TOB 844.44  
TOB 844.93  
TOB 844.79  
TOB 844.5

GND 840.68  
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EOA 845.05  
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TOB 844.82

BOB 835.29  
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BOB 834.88  
BOB 834.24  
BOB 834.34  
BOB 834.07  
BOB 834.74

GND 838.16  
GND 836.52  
GND 836.41  
GND 837.43  
GND 840.59



# SWP15N006 CROSSWAY & PILGRIM

2013  
GPS

MNEV 0057288

Localize to MHS

11/7/13

15 hrs

25' o/c

①

SN15N035  
N 428,297.81  
E 2,505,487.40  
Z 849.41

②

SN15N057  
N 427,193.33  
E 2,505,493.42  
Z 847.23

④

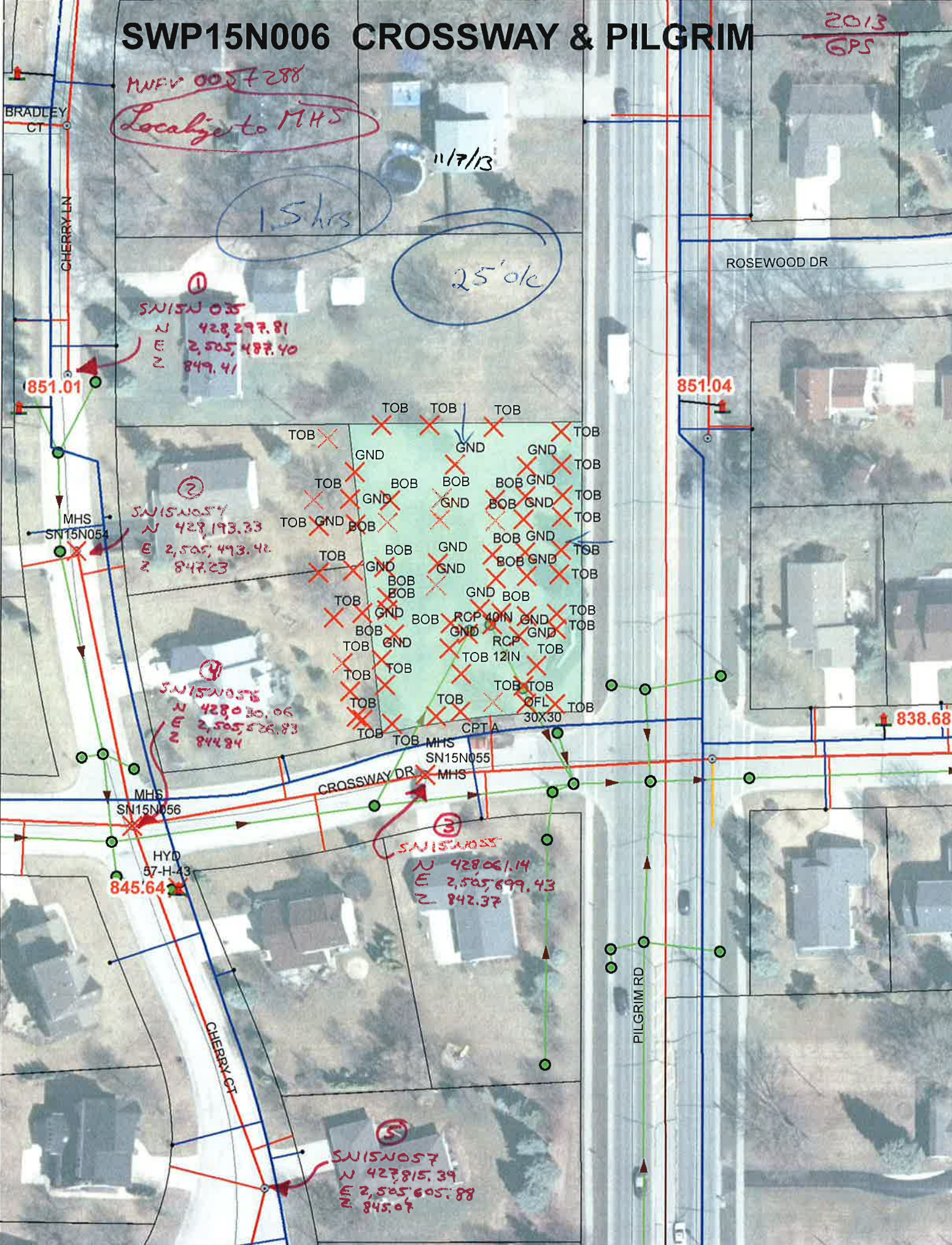
SN15N058  
N 428,030.06  
E 2,505,526.83  
Z 844.84

③

SN15N055  
N 428,061.14  
E 2,505,699.43  
Z 842.37

⑤

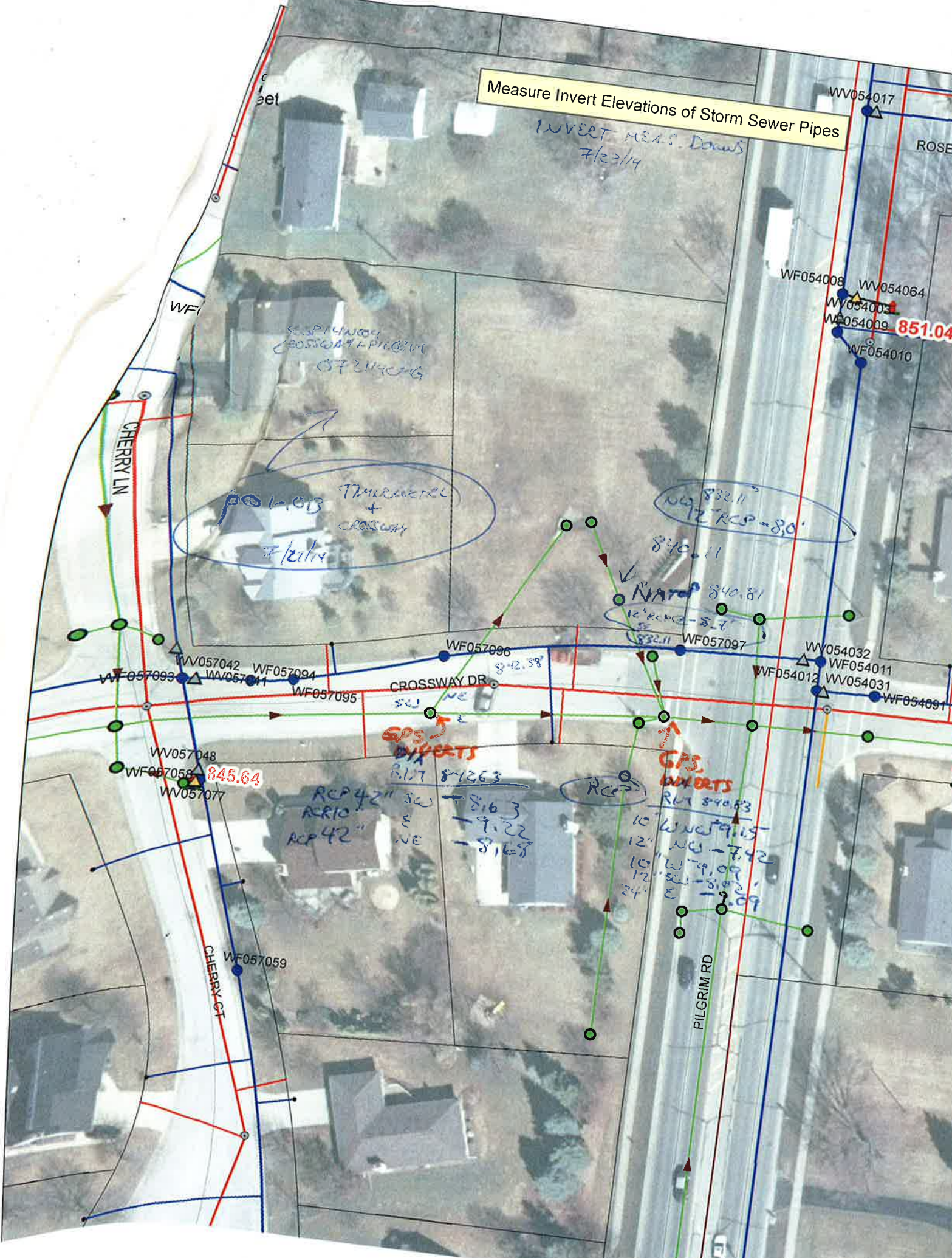
SN15N057  
N 427,815.39  
E 2,505,605.88  
Z 845.07





Measure Invert Elevations of Storm Sewer Pipes

INVERT MEAS. Downs  
7/23/14



PO 603  
THUNDERBOLT +  
CROSSWAY  
7/21/14

NO 832.11  
12" RCP - 8.0'  
840.11

NAT 840.81  
12" RCP - 8.7'  
832.11

GPS EXPORTS  
R/L 81263

GPS EXPORTS  
R/L 84083

RCP 42" SW - 8163  
RCP 10" E - 7.22  
RCP 42" NE - 8168

10" W - 7.15  
12" NW - 7.42  
10" W - 7.09  
12" SW - 8.02  
24" E - 11.09

WF057048  
WF057058 845.64  
WF057077

WF054008  
WF054003  
WF054009 851.04  
WF054010

WF054032  
WF054011  
WF054012  
WF054031  
WF054031

WF057059