



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 of Sec. 33 | Name of Business/Subdivision | Zion Evangelical Lutheran Congregation |
| Property Tax ID Number | MNFV 0131991008 | Address of Property | N48W18700 Lisbon Road |
| Date August 2015 | | | Menomonee Falls, WI 53051 |

| | |
|----------|----------|
| Dry Pond | |
| Wet Pond | X |
| Other | |

Location of Pond: North side of Lisbon Road,
 650 feet east of Emerald Hills Drive

Pond ID: SWP33s001

Year Pond Constructed: 2006 Year of Last Certification: 2010

| Compliance Verification | Design | Actual | Compliant Yes No | | Comments (Condition of Structure) |
|--------------------------------|-----------------|--------|------------------------|--|--|
| Primary Outlet Pipe | | | | | Outlet Pipe Material |
| Opening Diameter (inches) | 15" | 15" | X | | RCP |
| Upstream Invert | 891.0 | 890.9 | X | | |
| Downstream Invert | 890.5 | 890.4 | X | | |
| Length (feet) | 44.33' | 43.8' | X | | |
| Slope (%) | 1.13% | 1.14% | X | | |
| Secondary Outlet Pipe | (If Applicable) | | | | Outlet Pipe Material |
| Opening Diameter (inches) | - | | | | |
| Upstream Invert | - | | | | |
| Downstream Invert | - | | | | |
| Length (feet) | - | | | | |
| Slope (%) | - | | | | |
| Riser | (If Applicable) | | | | Riser Material |
| Opening Diameter (inches) | 36" | 36" | X | | Riser structure is RCP. |
| Elevation | 894.0 | 894.0 | X | | Riser structure is in good condition, no clogging or cracking. |
| Upper Discharge Control | (If Applicable) | | | | |
| Opening Diameter (inches) | - | | | | |
| Elevation | - | | | | |

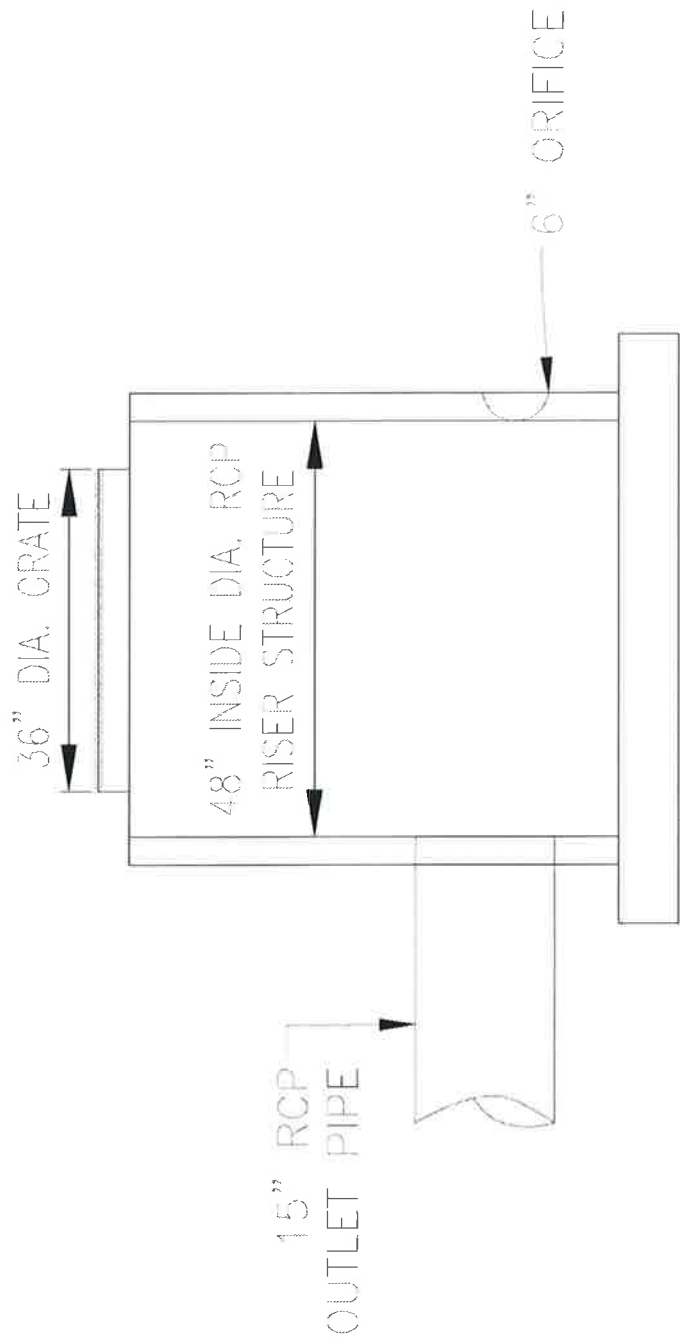
| Compliance Verification | Design | Actual | Compliant | | Comments | |
|--|-------------------|--------|--|----|--|--|
| | | | Yes | No | | |
| Lower Discharge Control | (If Applicable) | | | | | |
| Opening Diameter (inches) | 6 | 6" | X | | *Normal water level was lower than design; presumed to be due to dry weather this summer. Vegetation indicates typical water level is higher (near design). Continue to monitor. | |
| Elevation | 891.0 | 890.9 | X | | | |
| Other (Description) | | | | | | |
| Opening Type and Size (inches) | - | | | | | |
| Elevation | - | | | | | |
| Emergency Spillway | | | | | | |
| Elevation | 895.3 | 895.15 | X | | | |
| Length of spillway (feet) | 10' | 10' | X | | | |
| Embankment | Present Yes no | | Comments/Maintenance Requirements | | | |
| Unauthorized Plantings, trees, or woody vegetation | | X | A lot of cattails, no other unauthorized vegetation. | | | |
| Animal burrows or slope erosion | | X | | | | |
| Storm Sewer Outfalls | Type & Size | | Location | | Comments | |
| Outfall 1 | 12" HDPE | | North end of pond | | Good condition, slight scour at outfall | |
| Outfall 2 | - | | | | | |
| Outfall 3 | - | | | | | |
| Storage Properties | Design | Actual | Compliant Yes No | | Not Applicable | Equipment Used |
| Normal Water Elevation (Wet Ponds) | 891.0 | 889.8 | X* | | | Level Loop & GPS (Navcom) |
| Design High Water Elevation | 893.64 | 893.64 | X | | | |
| Area at Normal Water Elevation (Ac) (Wet Ponds) | 0.22 | .18 | X | | | |
| Area at Design High Water Elevation (Ac) | 0.33 | .38 | X | | | |
| Active Storage Available (Ac-Ft)* | 0.72 | 1.08 | X | | | $(3.94/3) * (0.18 + 0.38 + (0.18 * 0.38)^5)$ |
| Lowest Elevation at Top of Embankment (If Applicable) | 896.3 | 895.63 | X | | | Level Loop & GPS (Navcom) |
| Average Elevation at Top of Embankment (If Applicable) | 896.3 | 896.1 | X | | | Level Loop & GPS (Navcom) |
| Maximum Bottom Elevation | 884 | 884.65 | X | | | Extended rod with measure down rod |
| Average Pond Bottom Elevation | 884 | 884.9 | X | | | Extended rod with measure down rod |
| Pond Bottom Area (Ac) | 0.014 | 0.014 | X | | | |
| Maximum Pond Depth | 7' | 6' | X | | | Extended rod with measure down rod |
| Average Pond Depth | 5' | 5 | X | | | Extended rod with measure down rod |
| Average Permanent Pool Depth (Wet Ponds) | 5' | 5' | 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

Riser Structure Sketch



Pond



Riser Structure



6" Riser Orifice



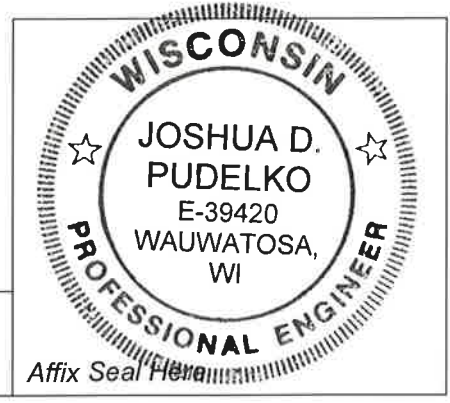
15" Riser Outlet Orifice

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

Inspection Firm: Trio Engineering
Phone Number: (262) 790-1480
Address: 12660 W. North Ave.
Brookfield, WI 53005

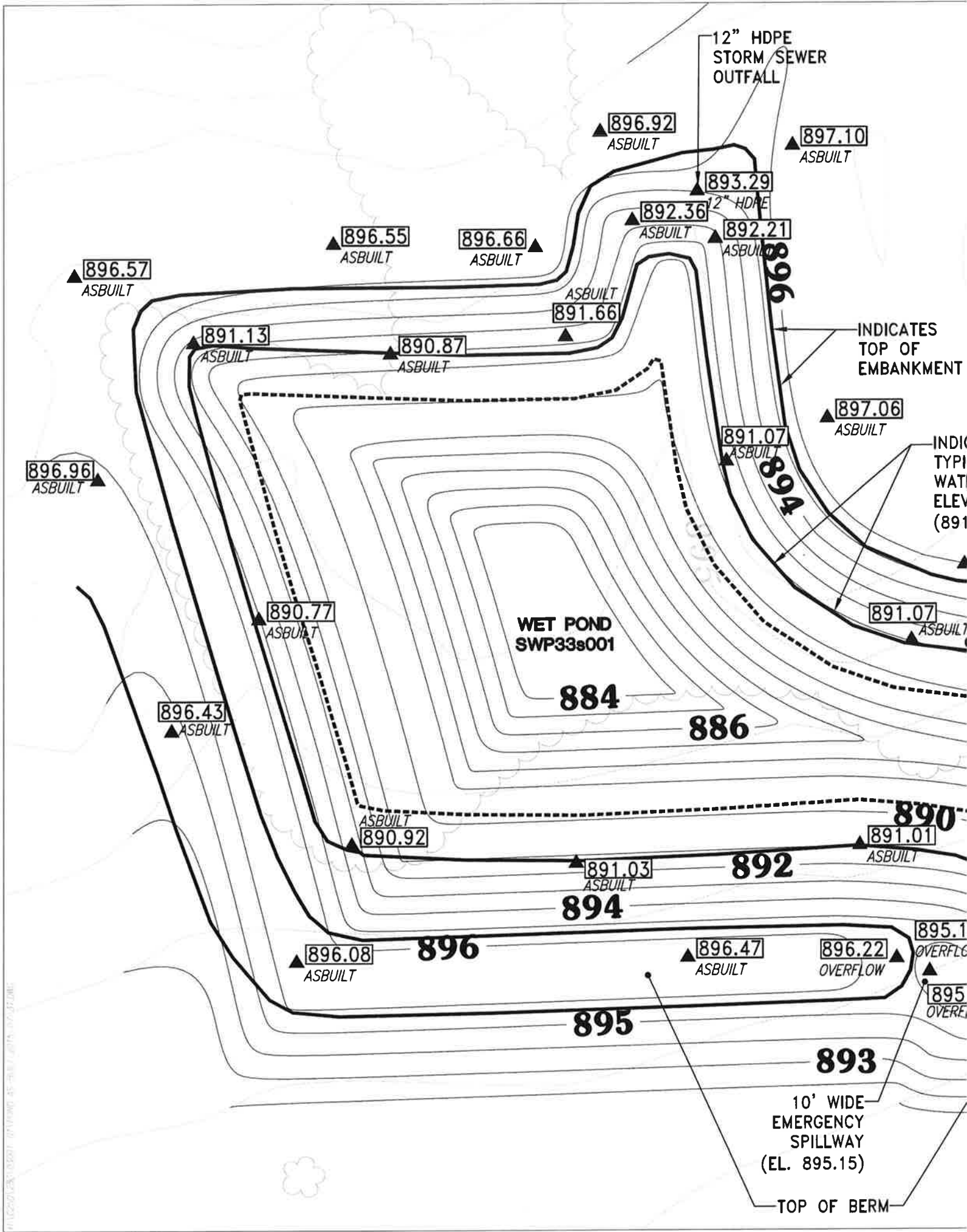
Inspector Name : Ben Honeck
Inspection Date: July 31, 2015

Certifying Professional
Name: Joshua Pudelko
Phone Number: (262) 790-1480



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|------------------------|--|
| Date: <u>8/6/15</u> | Signature:  |
|------------------------|--|

10-3-2012



PL12020128100201 01 W POND AS-BUILT DATA 03/27/2018