Wisconsin Department of Natural Resources
Bureau of Watershed Management (WT/3)
101 S. Webster St.
Madison, WI 53703
PO Box 7921
Madison, WI 53707-7921

# Final Report Form 3400-189 (rev. 7/30/09)

- **Targeted Runoff Management Grant Program (ch. NR 153)**
- **Notice of Discharge Program (ch. NR 153)**
- **Urban Nonpoint Source & Storm Water Management Grant Program (ch. NR 155)**

**NOTICE**: This Final Report is authorized under ss. 281.65 and 281.66., Wis. Stats., and chs. NR 153 and NR 155, Wis. Admin. Code. Personally identified information collected will be used for program administration and may be made available to requesters as required under Wisconsin Open Records Law [ss. 19.31-19.39, Wis. Stats.].

**INSTRUCTIONS: Your grant agreement requires you to submit a Final Report with your final reimbursement request. This Final Report form must be used in conjunction with the "FINAL REPORT INSTRUCTIONS." The instructions detail how to complete and submit the report to DNR as described in the instructions.**

## 1. GRANT TYPE. Check the one that applies.

| | |
|---|---|
| ☐ Targeted Runoff Management Grant – Agricultural | ☐ Targeted Runoff Management Grant – Urban |
| ☒ Urban Nonpoint Source & Storm Water Management Grant – Construction | ☐ Urban Nonpoint Source & Storm Water Management Grant – Planning |
| ☐ Notice of Discharge Grant | |

## 2. PROJECT NAME & LOCATION.

| 2.1. Project Name: | 2.2. Grant Number: | |
|---|---|---|
| **Southbranch Creek SW Devices** | **USC-MI02-40107-12** | |
| 2.3. Governmental Unit Name: | 2.4. Primary Watershed Name: | 2.5. Watershed Code: |
| **Village of Brown Deer** | **Milwaukee River South** | **MI02** |

**NOTE FOR SECTION 2.6 (which follows):**

**Section 2.6.** includes five (5) columns (A. through E.) for recording data about five (5) discrete site locations. If your grant has more than five (5) discrete project locations, attach additional columns for Section 2.6 as described in the instructions. If your project occurs in more than one 12-digit Hydrologic Unit Code (HUC), use the space in adjacent columns to record other HUC numbers.

| 2.6 Site Location(s) → | A. | B. | C. | D. | E. |
|---|---|---|---|---|---|
| Name of Cost-Share Recipient or Governmental Unit | **Village of Brown Deer** | | | | |
| Cost-Share Agreement Number (Agricultural only) | **N/A** | | | | |
| 12-Digit Hydrologic Unit Code(s) (HUC) Where Work Was Completed | **040400030606** | | | | |
| Nearest Surface Receiving Water Affected | | | | | |
| Name: | **Southbranch Creek** | | | | |
| Waterbody Identification Code(s) (WBIC): | **3000073** | | | | |
| Nearest Impaired Water Affected | | | | | |
| Name: | **Milwaukee River** | | | | |
| Waterbody Identification Code(s) (WBIC): | **15000** | | | | |
| Pollutants Reduced | **TSS** | | | | |
| Impairments/Impacts Addressed | **Contaminated Sediment** | | | | |

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| **Project Location(s) (cont.) →** | **A.** | **B.** | **C.** | **D.** | **E.** |
|---|---|---|---|---|---|
| Project Coordinates: | | | | | |
| **Town** | **08N** | | | | |
| **Range** | **21E** | | | | |
| **Section** | **11** | | | | |
| **Quarter** | **SE** | | | | |
| **Quarter-Quarter** | **NE** | | | | |
| **Latitude** (degrees, minutes, seconds North of Equator; use the DNR's Surface Water Data Viewer (SWDV)) | **43 10 13.5** | | | | |
| **Longitude** (degrees, minutes, seconds W of Prime Meridian, use the SWDV) | **87 57 55.5** | | | | |

## 3. SUMMARY OF RESULTS.

**Table A. Agricultural Projects.** – Ch. NR 151 Performance Standards and Prohibitions and Other Water Resources Management Priorities

| A.1. Management Measures | Units of Measure | Quantity | Measurement Method Used |
|---|---|---|---|
| Sheet, rill and wind erosion | Acres meeting "T" | **acres** | |
| Manure Storage Facilities: New Construction/Alterations | Number of facilities | **facilities** | |
| | Number of animal units | **animal units** | |
| Manure Storage Facilities: Closure | Number of facilities | **facilities** | |
| Manure Storage Facilities: Failing/Leaking Facilities | Number of facilities | **facilities** | |
| | Number of animal units | **animal units** | |
| Clean Water Diversions in WQMA | Pollutant load reduction | **lbs.** | |
| | Number of farms with diversions | **farms** | |
| | Number animal units | **animal units** | |
| Nutrient Management on Agricultural Land | Acres planned | **acres** | |
| Prohibition: Manure Storage Overflow | Number of farms | **farms** | |
| | Number of animal units | **animal units** | |
| Prohibition: Unconfined Manure Pile in WQMA | Number of farms | **farms** | |
| Prohibition: Direct Runoff From Feedlot/Stored Manure | Pollutant load reduction | **lbs.** | |
| | Number of facilities | **facilities** | |
| | Number of animal units | **animal units** | |
| Prohibition: Unlimited Livestock Access | Feet of bank protected | **feet** | |
| | Number of farms | **farms** | |

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| **Table A. Agricultural Projects.** (continued) A.2. Other Management Measures | Units of Measure | Quantity | Measurement Method Used |
|---|---|---|---|
| Streambank & Shoreline Protection | Units (use feet, acres or number as applicable) | | |
| | Pollutant load reduction (if method available) | | |
| Other: | Units (use feet, acres or number as applicable) | | |
| | Pollutant load reduction (if method available) | | |
| Other: | Units (use feet, acres or number as applicable) | | |
| | Pollutant load reduction (if method available) | | |
| Other: | Units (use feet, acres or number as applicable) | | |
| | Pollutant load reduction (if method available) | | |

| **Table B. Urban Construction Projects Serving Developed Areas.** | | | |
|---|---|---|---|
| B.1. Required Management Measures | Units of Measure | Quantity | Measurement Method Used |
| 20-40% Total Suspended Solids (TSS) Reduction for NR 216 communities | TSS reduced | **2031 lbs.** | **WinSLAMM version 9.4** |
| | TSS reduction | **9.72 %** | **WinSLAMM version 9.4** |
| B.2. Other Management Measures | | | |
| 20-40% Reduction in TSS for non-NR 216 communities | TSS reduced | **lbs.** | |
| | TSS reduction | **%** | |
| Infiltration | Pre-development stay-on volume | **%** | |
| | Stay-on volume | **$ft^3$/year** | |
| Peak flow discharge for 2 year/24 hour design storm | Change in cubic feet per second for design year | **$ft^3$/sec** | |
| Protective areas | Bank protected | **feet** | |
| Fueling & maintenance areas | Oily sheen presence reduced | ☐ **Yes** ☐ **No** | |
| Streambank & Shoreline Protection | Bank erosion reduced | **tons** | |
| | Bank protected | **feet** | |
| Other: | Pollutant load reduction (if method available) | | |
| | Units (use feet, acres or number as applicable) | | |

| **Table C. Urban Planning Projects.** | | | |
|---|---|---|---|
| C.1. Governmental unit(s) involved (list by name): | | | |
| C.2. Estimate total acres covered by the | Existing Developed Urban Areas | New Development | Total Acres |

| planning product: | **acres** | **acres** | **acres** |
|---|---|---|---|

| C.3. Products developed (check all below that apply) | Identify Documents by Name (if applicable) |
|---|---|
| ☐ Storm Water Plan | |
| ☐ Construction or Erosion Ordinances | |
| ☐ Post-construction Storm Water Ordinances | |
| ☐ Other Types of Storm Water Quality Ordinances | |
| ☐ Financing Methods: identified and evaluated | |
| ☐ Financing Methods: developed or implemented | |
| ☐ I & E Plan | |
| ☐ I & E Implementation Activities | |
| ☐ Other: | |

| C.4. Identify the Storm Water goals addressed (check all that apply) | |
|---|---|
| ☐ Reduce TSS | **Comments:** |
| ☐ Maintain infiltration | |
| ☐ Control Peak Flow | |
| ☐ Protective Areas | |
| ☐ Control of Fueling & Maintenance Areas | |
| ☐ Remove Illicit Discharges | |
| ☐ Other: | |

**4. Satisfaction of Notice Requirements.** If cost sharing for this project was offered under a formal notice pursuant to chs. NR 151 or 243, provide information for each notice in the table below.

| **Notice Information** | | | | **Notice Satisfaction Information** | | |
|---|---|---|---|---|---|---|
| Chs. NR 151 or 243 Notice Type | Issue Date | From (Name) | To (Name) | Satisfied? Yes | Satisfied? No | Date Letter Sent |
| | | | | ☐ | ☐ | |
| | | | | ☐ | ☐ | |
| | | | | ☐ | ☐ | |
| | | | | ☐ | ☐ | |

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## 5. Additional Information. (Space will expand to fit your text.)

**The project was successfully completed. A new 10K Baysaver proprietery device (2-10-ft diameter manholes) was installed before the outfall to Southbranch Creek (48-inch RCP storm sewer) in the SE quadrant of Meadowside Court & Dean Road within the Village of Brown Deer.**

## 6. Summary of Project Challenges. (Space will expand to fit your text.)

**High groundwater and high water from the adjacent Southbranch Creek posed construction challenges. Pipe plugs and pumps were utilized to ensure a safe work zone and proper installation of the proprietary stormwater device.**

## 7. Grantee Certification.

Checking here ☒ certifies that, to the best of your knowledge, the information contained in this report is correct.

| Name of Authorized Representative (type or print) ↓ | Title of Authorized Representative (type or print) ↓ |
|---|---|
| **Matthew S. Maederer, PE** | **Director of Public Works/Village Engineer** |

| Signature of Authorized Representative | Date |
|---|---|
|  | 09/24/2014 |

## 8. For Departmental Use Only.

Regional NPS Coordinator – Please complete the following:

8.A. Check here ☐ if you have received the following from the project sponsor:

- one (1) printed, signed, original Final Report + attachments
- one (1) electronic version of Final Report.

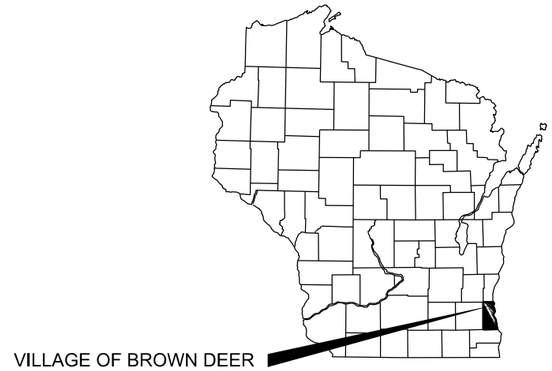
Send the printed, signed original Final Report with attachments + electronic version to the Community Financial Assistance Grants Manager. Community Financial Assistance will forward to Runoff Management Section Grants Coordinator.

8.B. Comments about this project:

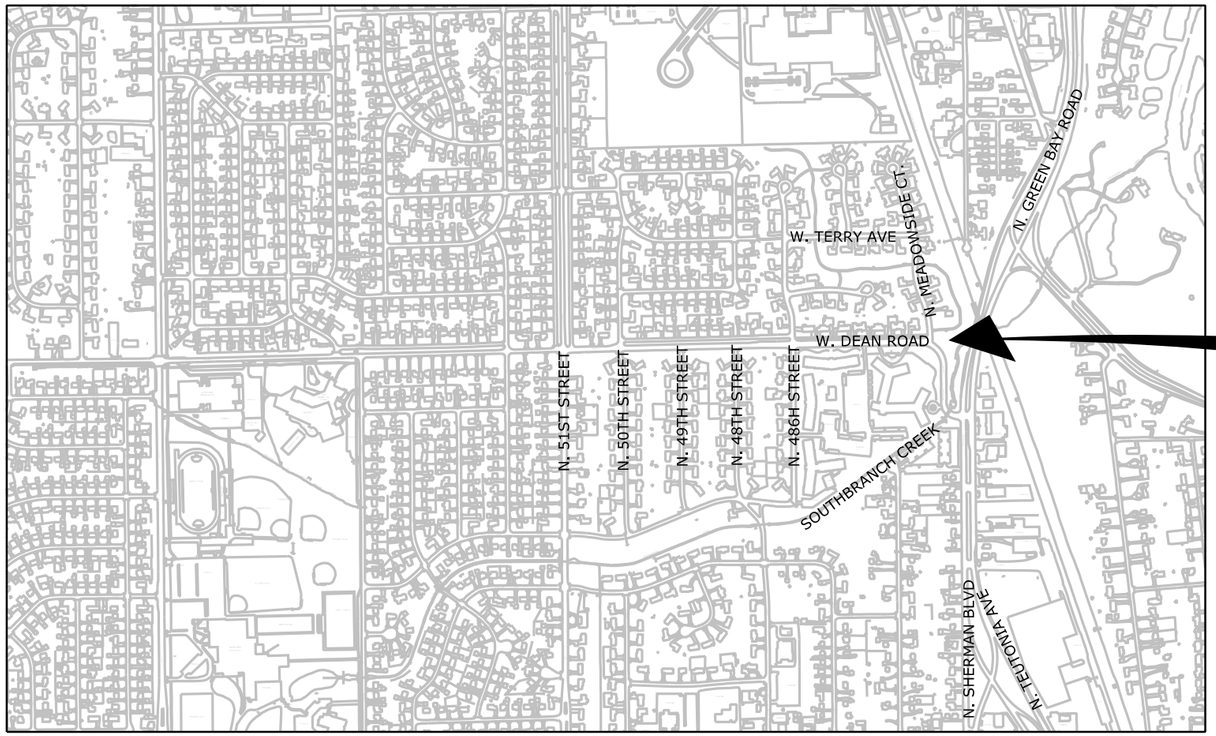
| 8.C. Type or print Name of Regional NPS Coordinator → | |
|---|---|

| 8.D. Signature of Regional NPS Coordinator | 8.E. Date |
|---|---|
| | |

# 2012 MEADOWSIDE COURT
# BEST MANAGEMENT PRACTICE (BMP)
# DEVICE INSTALLATION PROJECT
# MILWAUKEE COUNTY, WI
# VILLAGE OF BROWN DEER
# DECEMBER 2012




COUNTY MAP
NTS




BMP PROJECT LOCATION
N. MEADOWSIDE COURT & WEST DEAN ROAD
VILLAGE OF BROWN DEER

MILWAUKEE COUNTY

NORTH

## DRAWING INDEX

| DWG NO | SHT NO | DESCRIPTION |
|---|---|---|
| G1 | 1 | TITLE SHEET |
| G2 | 2 | OVERVIEW SHEET |
| C1 | 3 | BMP PLAN & PROFILE |
| C2 | 4 | MISC. CONSTRUCTION DETAILS |
| C3 | 5 | BMP CONSTRUCTION DETAILS |
| | | |

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12/12/2012
Z:\DGN\51021705 - BMP Meadowside\WD\51021705_G01 Title Sheet.dgn

| | |
|---|---|
| DES BY | MATTHEW MAEDERER |
| DR BY | MATTHEW MAEDERER |
| CHK BY | KRISTINE ANDERSON |
| BOOK NO | BOOK NUMBER |
| JOB NO | 51-0217.05 |
| DATE | NOVEMBER 28, 2012 |

| NO | DATE | REVISION |
|---|---|---|
| 1 | 12/13/2012 | BIDDING DOCUMENTS |

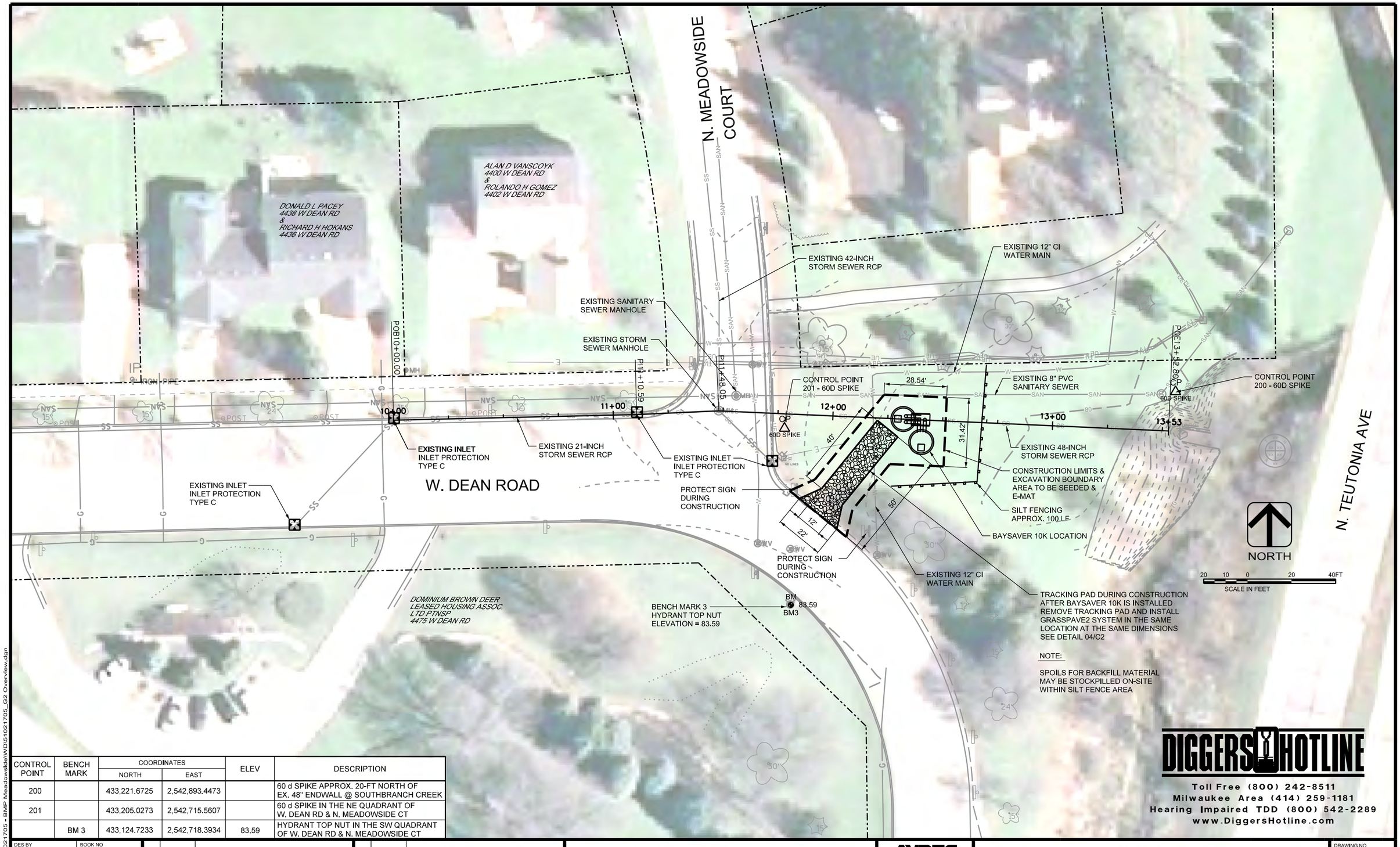
| NO | DATE | REVISION |
|---|---|---|

MEADOWSIDE COURT BMP
W. DEAN ROAD - VILLAGE OF BROWN DEER

AYRES ASSOCIATES
WAUKESHA, WISCONSIN

BMP DEVICE - BAYSAVER 10K
TITLE SHEET

DRAWING NO G1
SHEET NO 1/5




NOTE:

SPOILS FOR BACKFILL MATERIAL MAY BE STOCKPILLED ON-SITE WITHIN SILT FENCE AREA

| CONTROL POINT | BENCH MARK | COORDINATES NORTH | COORDINATES EAST | ELEV | DESCRIPTION |
|---|---|---|---|---|---|
| 200 | | 433,221.6725 | 2,542,893.4473 | | 60 d SPIKE APPROX. 20-FT NORTH OF EX. 48" ENDWALL @ SOUTHBRANCH CREEK |
| 201 | | 433,205.0273 | 2,542,715.5607 | | 60 d SPIKE IN THE NE QUADRANT OF W. DEAN RD & N. MEADOWSIDE CT |
| | BM 3 | 433,124.7233 | 2,542,718.3934 | 83.59 | HYDRANT TOP NUT IN THE SW QUADRANT OF W. DEAN RD & N. MEADOWSIDE CT |

DIGGERS HOTLINE
Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

| | | | |
|---|---|---|---|
| DES BY MATTHEW MAEDERER | BOOK NO BOOK NUMBER | | |
| DR BY MATTHEW MAEDERER | JOB NO 51-0217.05 | 1 | 12/13/2012 BIDDING DOCUMENTS |
| CHK BY KRISTINE ANDERSON | DATE NOVEMBER 28, 2012 | NO | DATE REVISION |

MEADOWSIDE COURT BMP
W. DEAN ROAD - VILLAGE OF BROWN DEER

AYRES ASSOCIATES
WAUKESHA, WISCONSIN

BMP DEVICE - BAYSAVER 10K
OVERVIEW SHEET

DRAWING NO G2
SHEET NO 2/5

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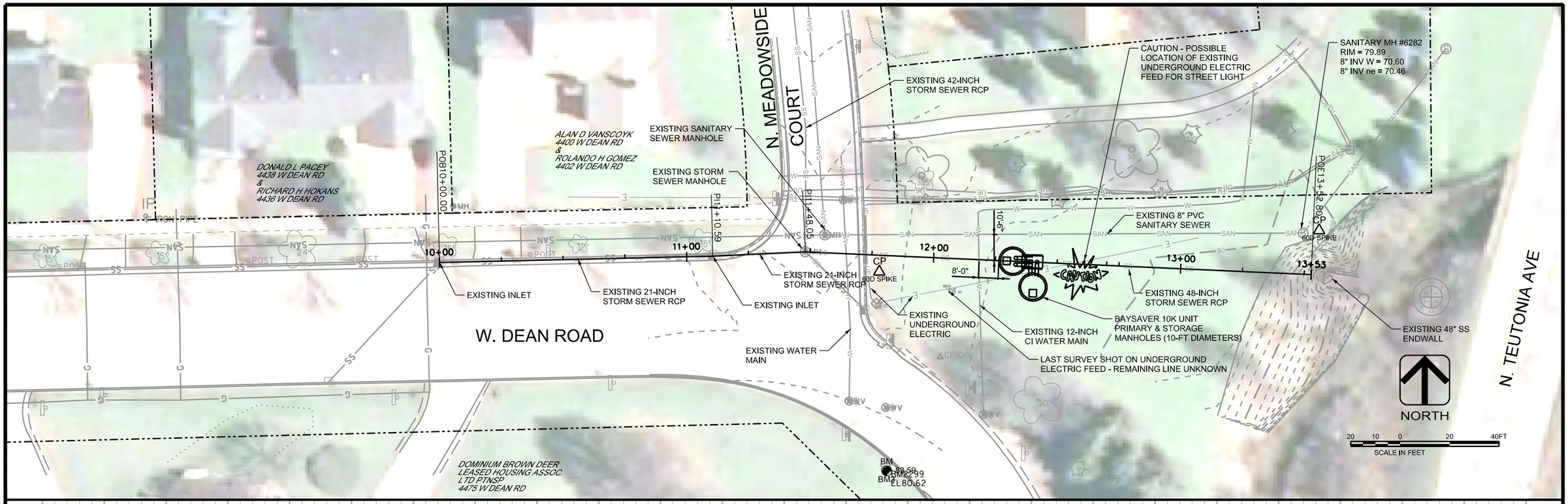


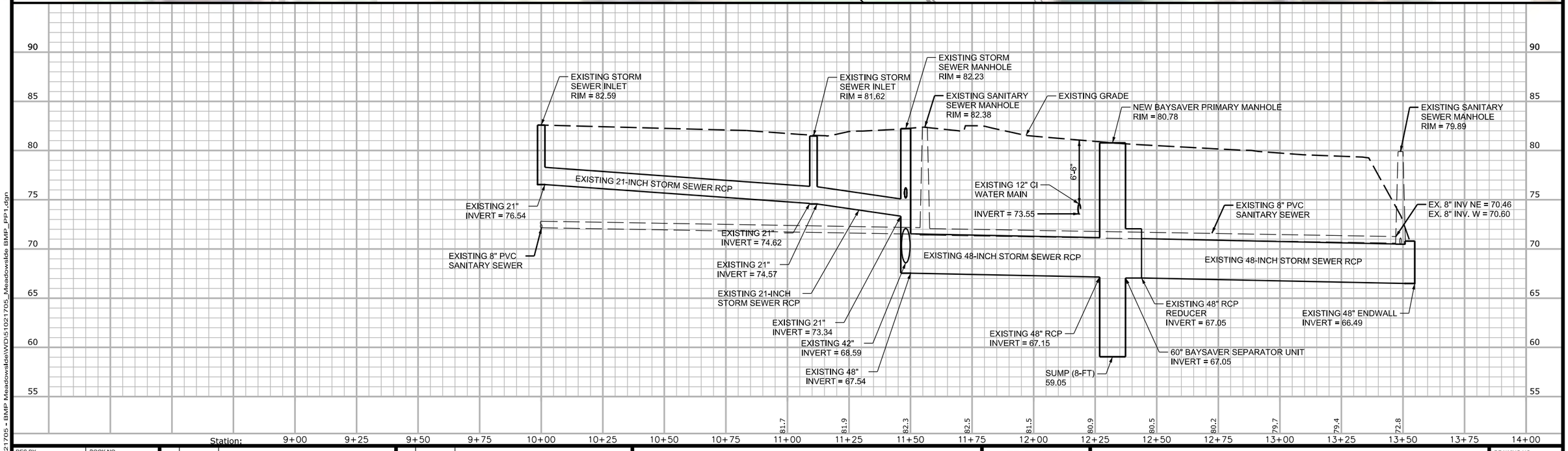


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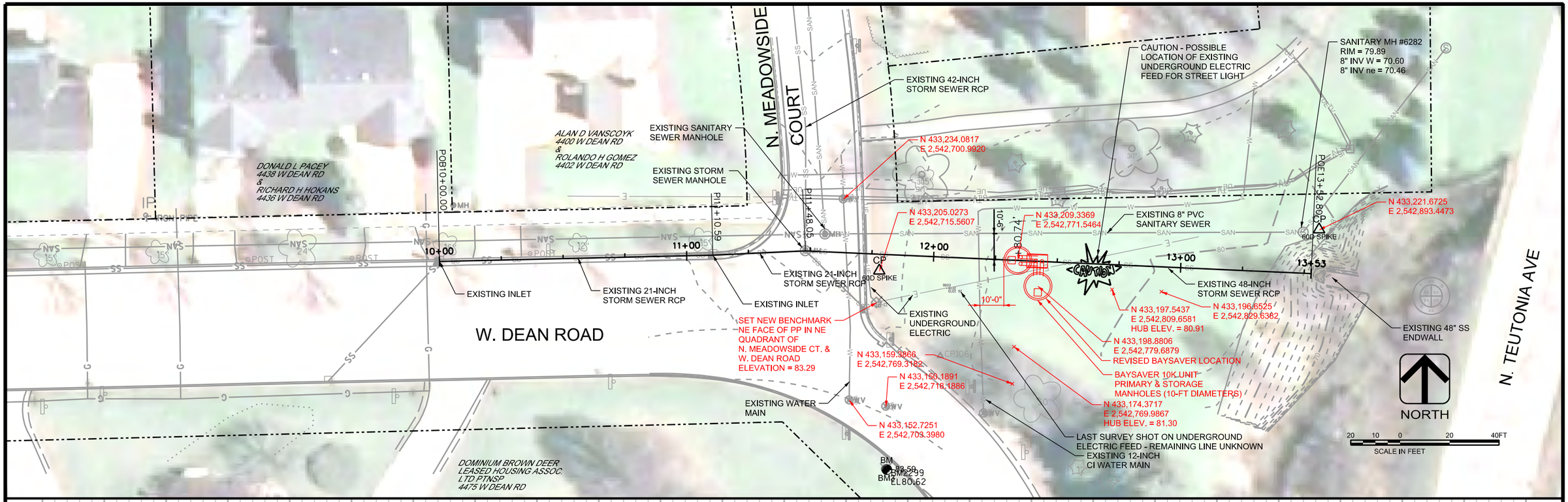
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DES BY MATTHEW MAEDERER | BOOK NO BOOK NUMBER | | | | | | |
| DR BY MATTHEW MAEDERER | JOB NO 51-0217.05 | | | | | | |
| CHK BY KRISTINE ANDERSON | DATE NOVEMBER 28, 2012 | 1 | 12/13/2012 | BIDDING DOCUMENTS | | | |
| | | NO | DATE | REVISION | NO | DATE | REVISION |

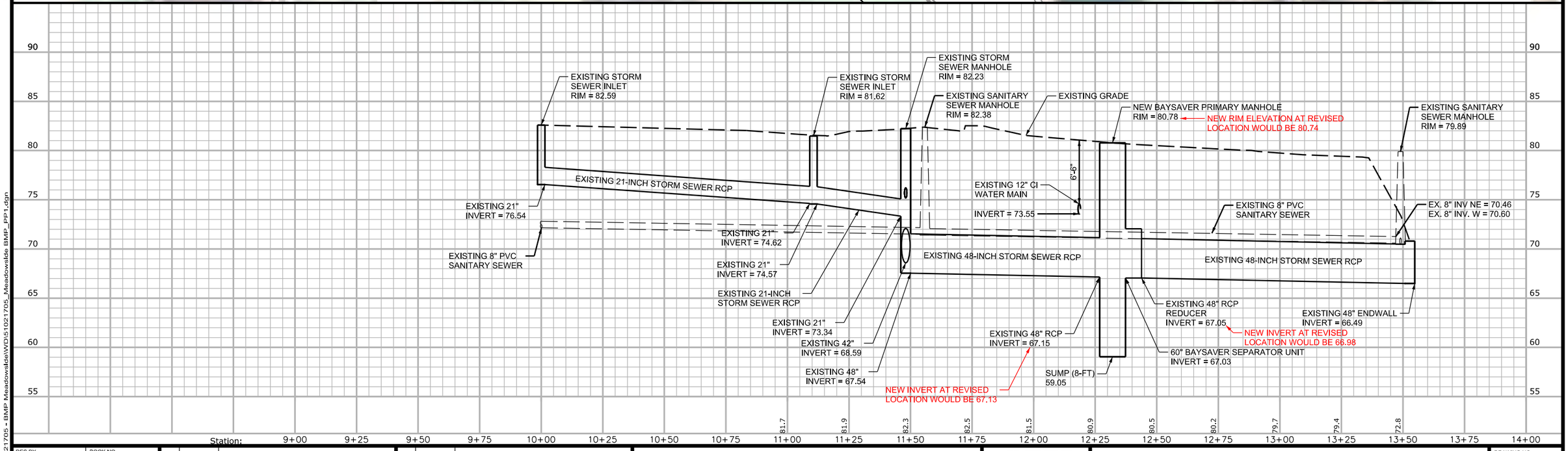
MEADOWSIDE COURT BMP
W. DEAN ROAD - VILLAGE OF BROWN DEER

AYRES ASSOCIATES
EAU CLAIRE, WISCONSIN

BMP DEVICE - BAYSAVER 10K
PLAN/PROFILE SHEET

DRAWING NO C1
SHEET NO 3/5

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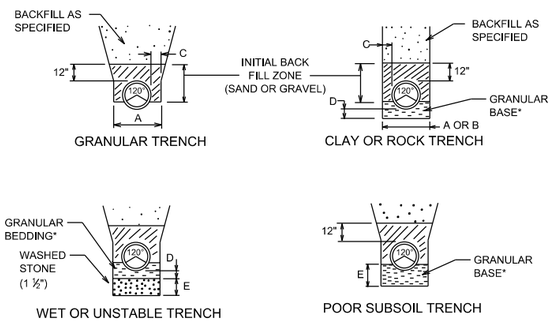
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DES BY MATTHEW MAEDERER | BOOK NO BOOK NUMBER | | | | | MEADOWSIDE COURT BMP<br>W. DEAN ROAD - VILLAGE OF BROWN DEER | AYRES ASSOCIATES<br>EAU CLAIRE, WISCONSIN | BMP DEVICE - BAYSAVER 10K<br>PLAN/PROFILE SHEET | DRAWING NO C1 |
| DR BY MATTHEW MAEDERER | JOB NO 51-0217.05 | | | | | | | | SHEET NO 3/5 |
| CHK BY KRISTINE ANDERSON | DATE NOVEMBER 28, 2012 | | | | | | | | |
| NO | DATE | REVISION | NO | DATE | REVISION | | | | |
| 1 | 12/13/2012 | BIDDING DOCUMENTS | | | | | | | |

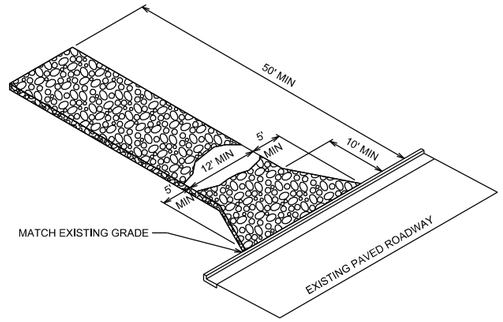



*FOR FLEXIBLE PIPE, BEDDING OR BASE MATERIAL SHALL EXTEND TO SPRING LINE (MID HEIGHT) OF PIPE.

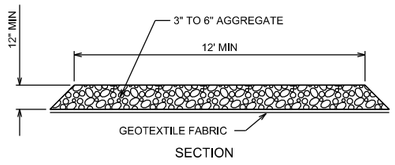
A=O.D. PIPE + 24"(MAX)
B=O.D. PIPE + 18"(MAX) FOR ROCK
C=6" MIN.

D=4" BELOW BARREL FOR CLAY
3" BELOW BELL FOR CLAY
6" BELOW BARREL FOR ROCK
E=DETERMINED BY A/E

## 01 TRENCH SECTIONS
NTS GN100

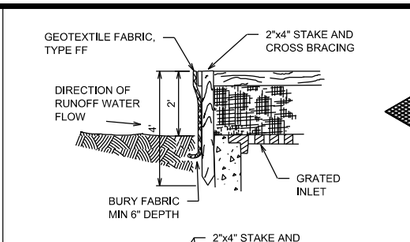


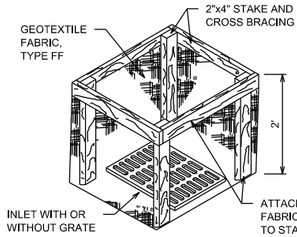

PLAN



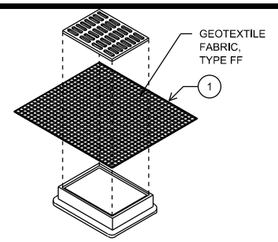

SECTION

## 02 STONE TRACKING PAD
NTS GN101

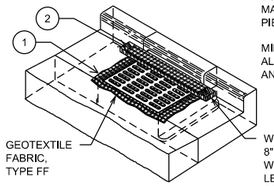


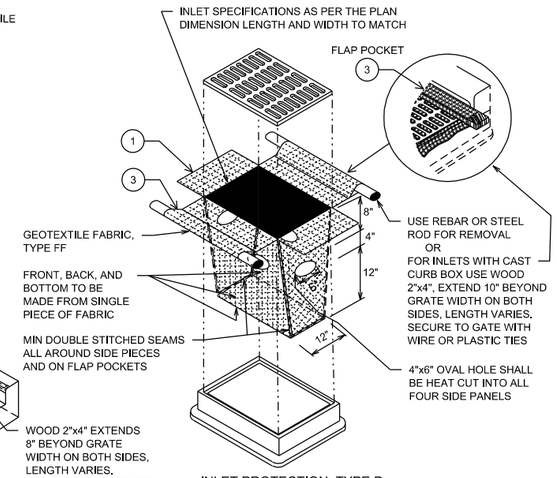

INLET PROTECTION, TYPE A




INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)




INLET PROTECTION, TYPE C
(WITH CURB BOX)

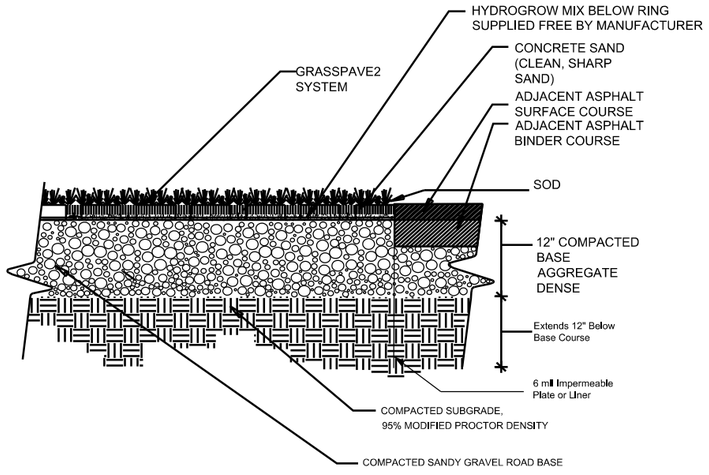



INLET PROTECTION, TYPE D
(WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE (2))

GENERAL NOTES
-MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.
-WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING IN TO THE INLET SHALL BE REMOVED IMMEDIATELY.
(1) -FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
(2) -FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
(3) -FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT A WOOD 2x4.

INSTALLATION NOTES
TYPE B & C:
-TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.
-THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.
TYPE D:
-DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.
-TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.
-THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

## 03 INLET PROTECTION
NTS SS302



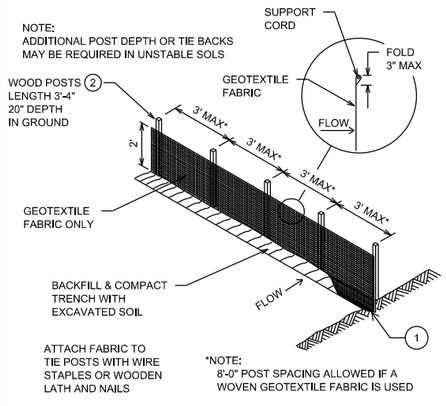

## 04 GRASSPAVE2 AT ASPHALT EDGE

NOT TO SCALE

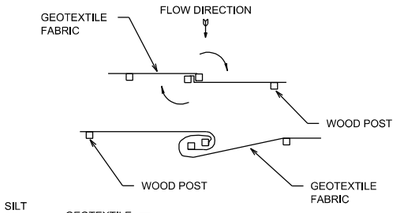
Invisible Structures, Inc.
GP2AsphaltNoDrain03.dwg
1600 Jackson St, SUITE 310
GOLDEN, COLORADO 80401
800-233-1510 OR 303-233-8383
FAX: 800-233-1522 OR 303-233-8282
www.Invisiblestructures.com
Rev. 08/04

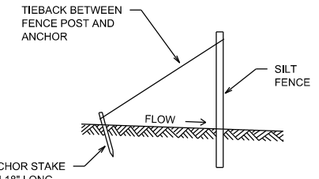
NOTE: GRASS TYPES SHALL BE COORDINATED WITH VILLAGE OF BROWN DEER

GENERAL NOTES
(1) TRENCH SHALL BE A MIN OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC, FOLD THE MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
(2) WOOD POSTS SHALL BE A MIN SIZE OF 1⅛" x 1⅛" OAK OR HICKORY.
(3) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY, USE ONE OF THE FOLLOWING TWO METHODS:
A. TWIST METHOD – OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES.
B. HOOK METHOD – HOOK THE END OF EACH SILT FENCE LENGTH.

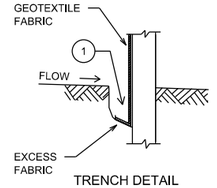



SILT FENCE

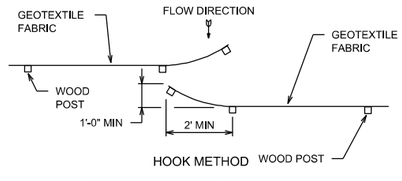



SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT REQUIRED)




TRENCH DETAIL




JOINING 2 LENGTHS OF SILT FENCE

## 05 SILT FENCE
NTS SP100

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DES BY MATTHEW MAEDERER | BOOK NO BOOK NUMBER | | | | | | |
| DR BY MATTHEW MAEDERER | JOB NO 51-0217.05 | | | | | | |
| CHK BY KRISTINE ANDERSON | DATE NOVEMBER 28, 2012 | 1 | 12/13/2012 | BIDDING DOCUMENTS | | | |
| | | NO | DATE | REVISION | NO | DATE | REVISION |

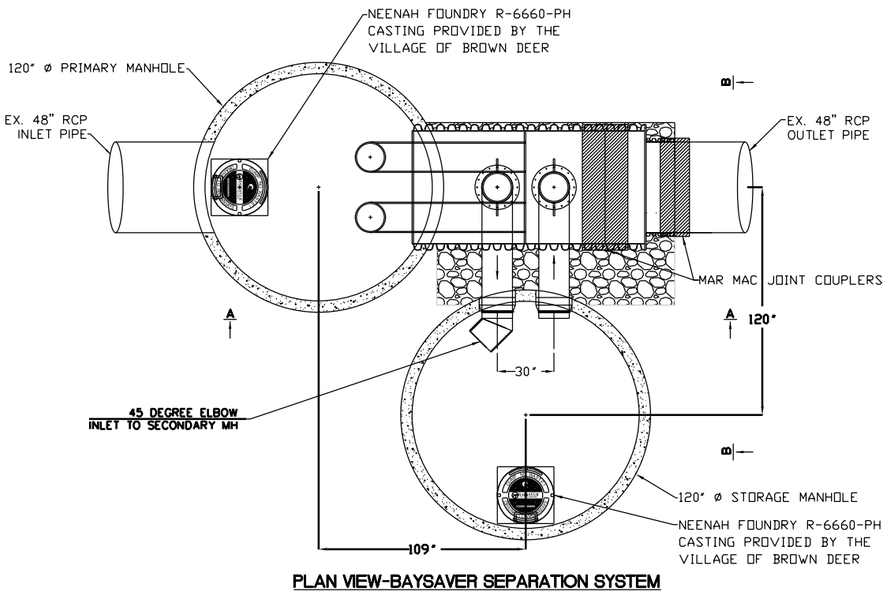
MEADOWSIDE COURT BMP
W. DEAN ROAD - VILLAGE OF BROWN DEER

AYRES ASSOCIATES
WAUKESHA, WISCONSIN

BMP DEVICE - BAYSAVER 10K
MISC. CONSTRUCTION DETAILS

DRAWING NO C2
SHEET NO 4/5

Ayres_pdf.pltcfg
ES_Standard.tbl
12/12/2012
21DGN\51021705 - BMP Meadowside\WD\51021705_C2 Details.dgn




## PLAN VIEW-BAYSAVER SEPARATION SYSTEM

(RIGHT HAND ORIENTATION SHOWN)

STRUCTURE UNIT 1 - PRIMARY MANHOLE:

120" LOCALLY APPROVED STORM DRAIN

MANHOLE WITH WATERTIGHT JOINTS

FLOOR ELEVATION AT 59.05'

48" RCP INLET PIPE INVERT AT 67.15'

60" HDPE BAYSAVER INVERT AT 67.05'

30" FRAME AND COVER ELEVATION AT 80.78'

STRUCTURE UNIT 1A - STORAGE MANHOLE:

120" LOCALLY-APPROVED STORM DRAIN

MANHOLE WITH WATERTIGHT JOINTS.

FLOOR ELEVATION AT 59.05'

30" FRAME & COVER ELEVATION AT 80.58'

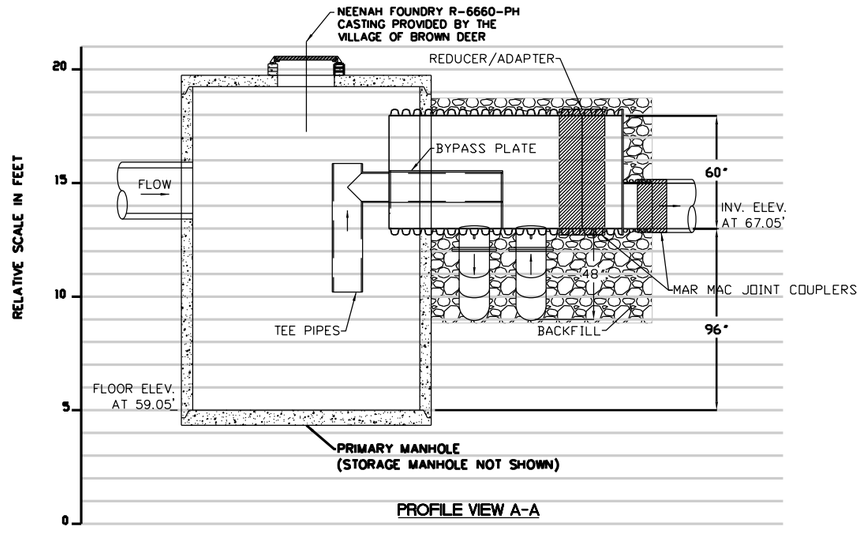
2 x 16.0" OD SMOOTH-WALL HDPE PIPES

INVERTS AT 63.05'

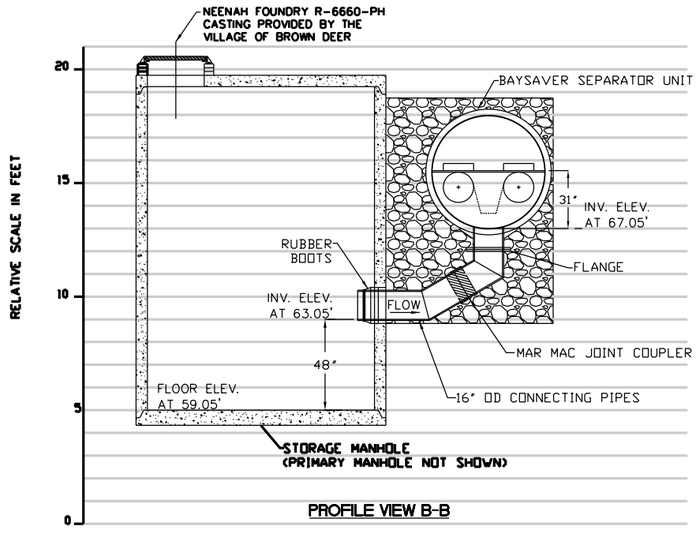
WATERTIGHT SEALS

PARALLEL TO EACH OTHER

30" C/C




## PROFILE VIEW A-A




## PROFILE VIEW B-B



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DES BY MATTHEW MAEDERER | BOOK NO BOOK NUMBER | | | | | | |
| DR BY MATTHEW MAEDERER | JOB NO 51-0217.05 | 1 | 12/13/2012 | BIDDING DOCUMENTS | | | |
| CHK BY KRISTINE ANDERSON | DATE NOVEMBER 28, 2012 | NO | DATE | REVISION | NO | DATE | REVISION |

MEADOWSIDE COURT BMP
W. DEAN ROAD - VILLAGE OF BROWN DEER

AYRES ASSOCIATES
WAUKESHA, WISCONSIN

BMP DEVICE - BAYSAVER 10K
BMP CONSTRUCTION DETAILS

DRAWING NO C3

SHEET NO 5/5

Data file name: G:\DPW\DPW Shared\STORM WATER\PROJECTS\BMP 2013 Meadowside\Meadowside BMP_WinSLAMM.dat
SLAMM Version 9.4.0
Rain file name: C:\Program Files (x86)\WinSLAMM\Rain Files\WI Milwaukee 69.RAN
Particulate Solids Concentration file name: C:\Program Files (x86)\WinSLAMM\WI_AVG01.psc
Runoff Coefficient file name: C:\Program Files (x86)\WinSLAMM\WI_SL06 Dec06.rsv
Particulate Residue Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_DLV01.prr
Residential Street Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\Program Files (x86)\WinSLAMM\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\Program Files (x86)\WinSLAMM\WI_GEO01.ppd
Seed for random number generator: -42
Study period starting date: 01/05/69 Study period ending date: 12/31/69
Start of Winter Season: 12/06 End of Winter Season: 03/28
Date: 09-24-2014 Time: 10:21:26
Fraction of each type of Drainage System serving study area:

1. Grass Swales 0
2. Undeveloped roadside 0

Curb and Gutters, `valleys', or sealed swales in:

3. Poor condition (or very flat) 0
4. Fair condition 1
5. Good condition (or very steep) 0

Site information:
Meadowside BMP

| | \|<===== Areas for each Source (acres) =====>\| | | | | |
|---|---|---|---|---|---|
| Source Area | Resi-dential Areas | Institu-tional Areas | Commercial Areas | Industrial Areas | Other Urban Areas |
| Roofs 1 | 17.500 | 0.000 | 0.000 | 0.000 | 0.000 |
| Roofs 2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Roofs 3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Roofs 4 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Roofs 5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Paved Parking/Storage 1 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Paved Parking/Storage 2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Paved Parking/Storage 3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Unpaved Prkng/Storage 1 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Unpaved Prkng/Storage 2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Playground 1 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Playground 2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Driveways 1 | 5.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Driveways 2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Driveways 3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Sidewalks/Walks 1 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 |
| Sidewalks/Walks 2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Street Area 1 | 5.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Street Area 2 | 2.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Street Area 3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

| | | | | | |
|---|---|---|---|---|---|
| Large Landscaped Area 1 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Large Landscaped Area 2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Undeveloped Area | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Small Landscaped Area 1 | 60.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Small Landscaped Area 2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Small Landscaped Area 3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Isolated/Water Body Area | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Other Pervious Area | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Other Dir Cnctd Imp Area | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Other Part Cnctd Imp Area | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total | 90.000 | 0.000 | 0.000 | 0.000 | 0.000 |

| Freeway Source Area | Area (acres) |
|---|---|
| Pavd Lane & Shldr Area 1 | 0.000 |
| Pavd Lane & Shldr Area 2 | 0.000 |
| Pavd Lane & Shldr Area 3 | 0.000 |
| Pavd Lane & Shldr Area 4 | 0.000 |
| Pavd Lane & Shldr Area 5 | 0.000 |
| Large Turf Areas | 0.000 |
| Undeveloped Areas | 0.000 |
| Other Pervious Areas | 0.000 |
| Other Directly Conctd Imp | 0.000 |
| Other Partially Conctd Imp | 0.000 |
| Total | 0.000 |

| | |
|---|---|
| Total of All Source Areas | 90.000 |
| Total of All Source Areas less All Isolated Areas | 90.000 |

Source Area Control Practice Information

Land Use: Residential

Roofs 1 Source area number: 1

The roof is pitched

The Source Area is directly connected or draining to a directly connected area

Driveways 1 Source area number: 13

The Source Area is directly connected or draining to a directly connected area

Sidewalks/Walks 1 Source area number: 16

The Source Area is draining to a pervious area (partially connected impervious area)

The SCS Hydrologic Soil Type is Silty

Street Area 1 Source area number: 18

1. Street Texture: smooth
2. Total study area street length (curb-miles): 3.4
3. Initial Street Dirt Loading (lbs/curb-mi): 0
4. Street Dirt Accumulation Coefficients: Default value used

Street Area 2 Source area number: 19

1. Street Texture: smooth
2. Total study area street length (curb-miles): 1
3. Initial Street Dirt Loading (lbs/curb-mi): 0

4. Street Dirt Accumulation Coefficients: Default value used

Small Landscaped Area 1 Source area number: 24

The SCS Hydrologic Soil Type is Silty

Drainage System

Control Practice 1 : Catchbasin Cleaning Controls

1. Area served by catchbasins (acres) = 90
2b. Number of catchbasins = 2
3. Average sump depth below catchbasin outlet invert (feet) = 10
4. Depth of sediment in catchbasin sump at beginning of study period (ft) = 0
5. Typical outlet pipe diameter (ft) = 4
6. Typical outlet pipe Mannings n = 0.013
7. Typical outlet pipe slope (ft/ft) = 0.005
8. Typical catchbasin sump surface area (square feet) = 78.5
9. Total catchbasin depth (feet) = 21.7
10. Inflow hydrograph peak to average flow ratio = 3.8
11. Leakage rate through sump bottom (in/hr) = 0
12. Catchbasin Critical Particle Size File Name: C:\Program Files (x86)\WinSLAMM\NURP.CPZ

Outfall

Pollutants to be Analyzed and Printed:

| Pollutant Name | Pollutant Type |
|---|---|
| Solids | Particulate |

SLAMM for Windows Version 9.4.0


Data file name: G:\DPW\DPW Shared\STORM WATER\PROJECTS\BMP 2013 Meadowside\Meadowside BMP_WinSLAMM.dat
Data file description: Meadowside BMP
Rain file name: C:\Program Files (x86)\WinSLAMM\Rain Files\WI Milwaukee 69.RAN
Particulate Solids Concentration file name: C:\Program Files (x86)\WinSLAMM\WI_AVG01.psc
Runoff Coefficient file name: C:\Program Files (x86)\WinSLAMM\WI_SL06 Dec06.rsv
Particulate Residue Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_DLV01.prr
Residential Street Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\Program Files (x86)\WinSLAMM\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\Program Files (x86)\WinSLAMM\Freeway Dec06.std
Pollutant Relative Concentration file name: C:\Program Files (x86)\WinSLAMM\WI_GEO01.ppd
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Model Run Start Date: 01/05/69 Model Run End Date: 12/31/69
Date of run: 09-24-2014 Time of run: 10:21:11
Total Area Modeled (acres): 90
Years in Model Run: 0.99

| | Runoff Volume (cu ft) | Percent Runoff Volume Reduction | Particulate Solids Conc. (mg/L) | Particulate Solids Yield (lbs) | Percent Solids Reduction |
|---|---|---|---|---|---|
| Source Area Total without Controls: | 3.069E+06 | 0 % | 109.1 | 20904 | 0 % |
| Total Before Drainage System: | 3.069E+06 | 0.00% | 109.1 | 20903 | 0.00% |
| Total After Drainage System: | 3.069E+06 | 0.00% | 98.50 | 18872 | 9.72% |
| Total After Outfall Controls: | 3.069E+06 | 0.00% | 98.50 | 18872 | 9.72% |
| Annualized Total After Outfall Controls: | 3.112E+06 | | | 19134 | |

# Memorandum

**To:** Jamie Lambert, WDNR Wastewater Specialist – Water Division

**CC:** Jim Buske, Engineering & GIS Services Manager

Nicole Theys, Accountant

Nate Piotrowski, Community Development Director

**From:** Matthew Maederer, PE, Director of Public Works/Village Engineer

**Date:** 9/24/2014

**Re:** UNPS&SW Final Report

Southbranch Creek SW Devices

USC-MI02-40107-12

Photo Log

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Below is the photo log for the Southbranch Creek SW Devices project which was constructed and completed in the spring of 2014.

**Construction**


Link-Belt


CASE
UNIT 1
BRONX DEER
CO CONTRACTORS

**Post-Construction**