

# City of Shelbyville

## MCM #6 -

Pollution Prevention/Good Housekeeping for  
Municipal Operations

# **Shelbyville Public Works Stormwater BMP Demonstration Project**

## **Project Description & Purpose:**

Develop a sustainable/green campus for City of Shelbyville Public Works Department with budget constraints

## **To Educate:**

City Employees / Elected Officials  
Developers  
Builders  
Property Managers  
General Public

## **To Provide:**

- Quantity & Quality Stormwater Management for the Public Works Dept. using as many different BMP's as possible
- A teaching facility for the community









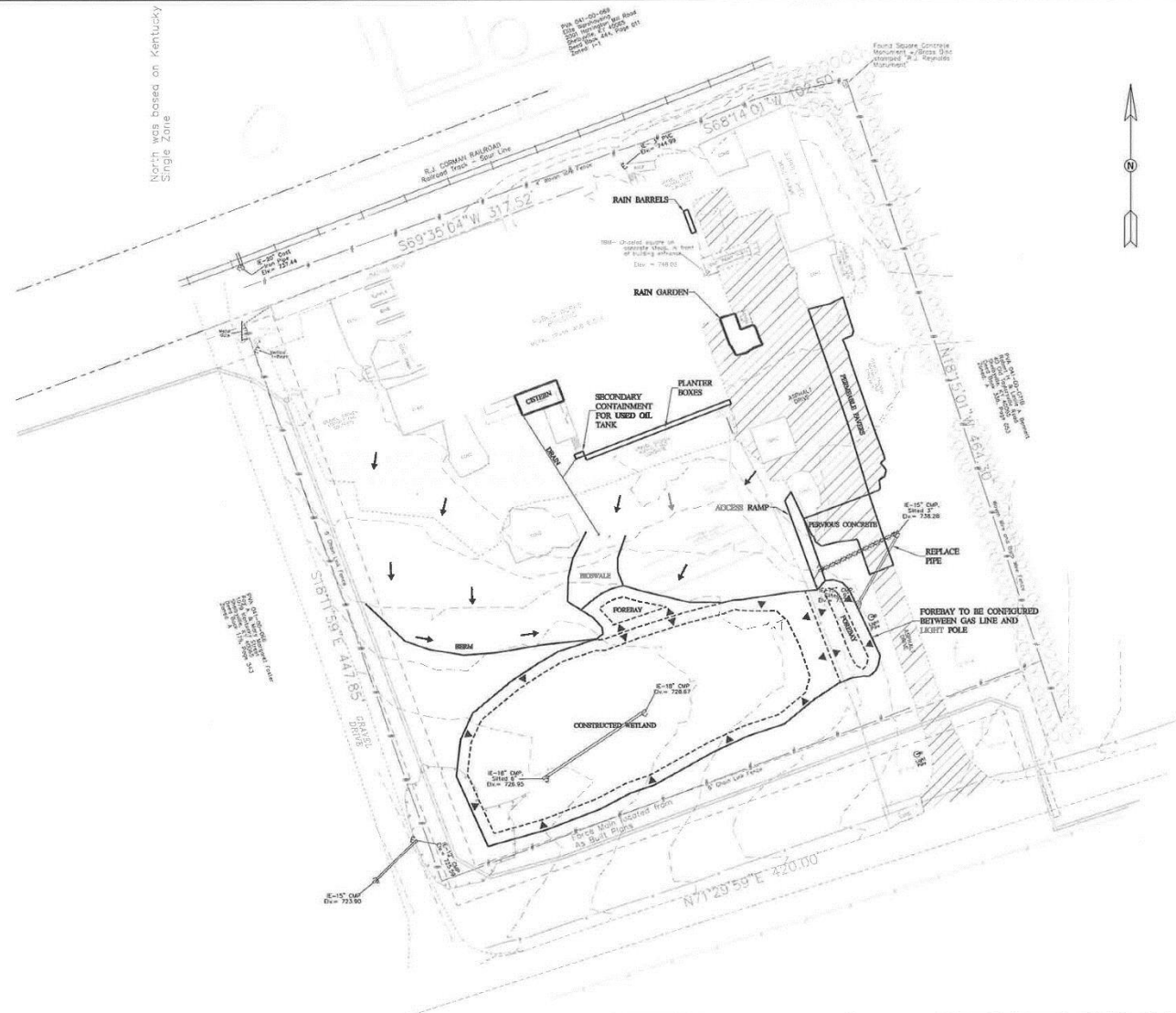


# Shelbyville Public Works Stormwater BMP Demonstration Project

## Project Timeline:

- Boundary /Topographic Survey of Public Works Dept. August 2010
- Applied for Kentucky Water Resources Research Institute (KWRRRI) Sept. 2010
- Conceptual Site Plan Created Sept. 2010
- Received KWRRRI grant Nov. 2010
- Final Design Plan Contract Feb. 2011
- Final Design Complete June 2011
- Construction July –November 2011
- Install plantings May 2012
- Install Rain Barrels August 2012
- Install Pervious Concrete May 2013
- Install Brick Pavers
  - Purchased and delivered Sept. 2015
  - Installation To be determined

North was based on Kentucky  
 Single Zone



CITY OF  
 SHELBYVILLE

**URS**  
 1001 W. MAIN ST. SUITE 100  
 SHELBYVILLE, KY 40001  
 TEL: (502) 639-2000  
 FAX: (502) 639-2004

NO.	REVISIONS	DATE

NOT FOR  
 CONSTRUCTION

SCALE: 1" = 10'  
 1" = 10'  
 1" = 10'

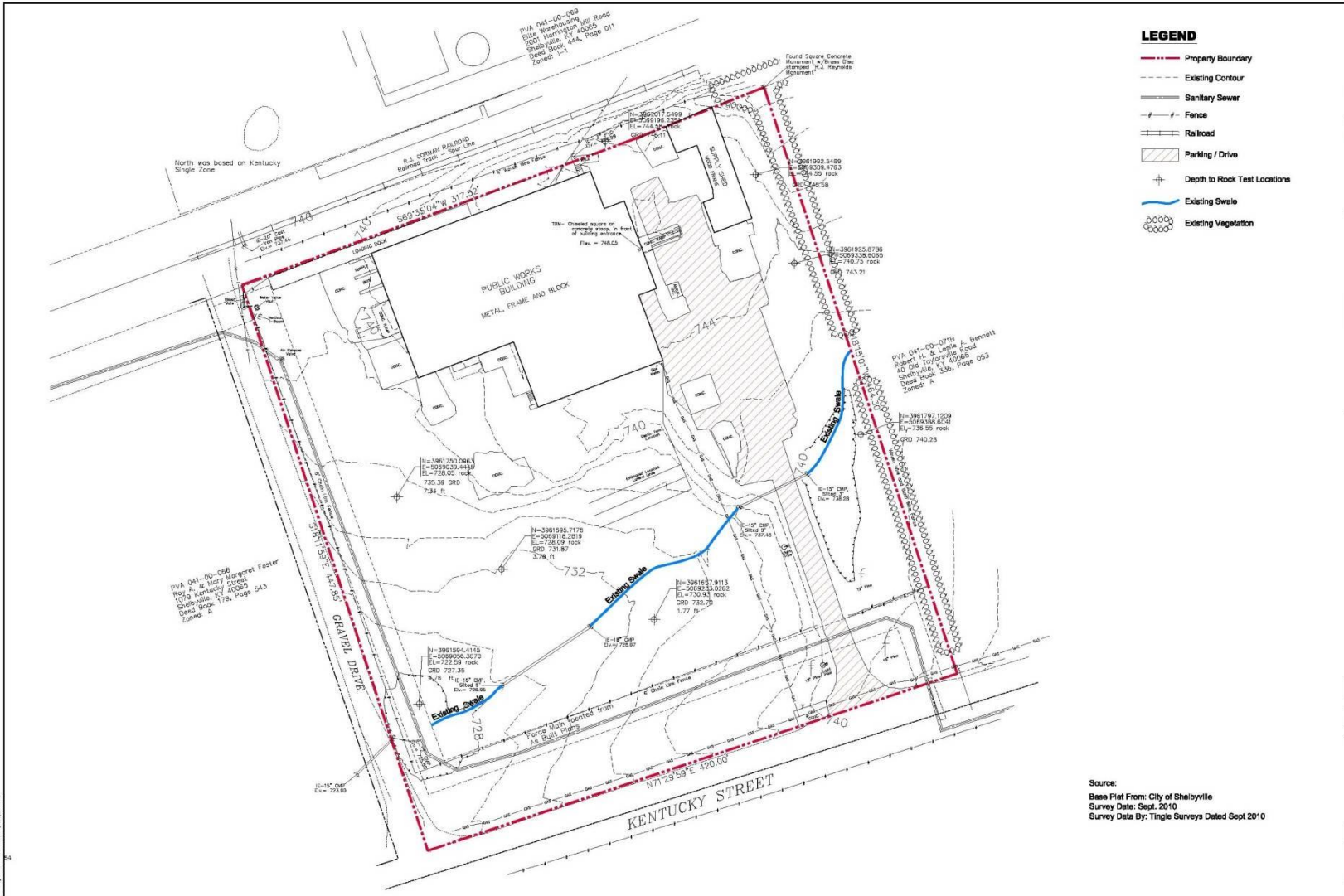


CITY OF SHELBYVILLE  
 PUBLIC WORKS PROPERTY  
 SHELBYVILLE, KENTUCKY

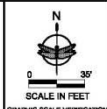
PROJECT NO:  
 41917106  
 SHEET NO:  
 1 / 1  
 SHEET SEQUENCE:  
 01







- LEGEND**
- Property Boundary
  - Existing Contour
  - Sanitary Sewer
  - Fence
  - Railroad
  - Parking / Drive
  - Depth to Rock Test Locations
  - Existing Swale
  - Existing Vegetation



GRAPHIC SCALE VERIFICATION  
 This bar measures 1" on 20'-0" or 1/2" on 11'x17" original.  
 Adhere to scale accordingly.

**Cardno**  
 JF/MS  
 Corporate/Professional  
 708 Rosewood Road  
 Westborough, Indiana 47384  
 874-588-3402

Central Indiana  
 3601 Industrial Boulevard  
 Indianapolis, Indiana 46244  
 317-288-1982

REVISION	JFH
A JUNE 2011 CITY OF SHELBYVILLE ENGINEER COMMENTS LINE 011	

**Existing Site Conditions**  
 Shelbyville Public Works Stormwater BMP Demo Project  
 City of Shelbyville  
 Shelby County, Kentucky

DRAWN BY: JFH  
 DESIGNED BY: NTM  
 DATE: JUNE 2011  
 JOB NO: 1101110

DRAWING NO.  
**2**  
 OF 3

Source:  
 Base Plat From: City of Shelbyville  
 Survey Date: Sept. 2010  
 Survey Data By: Tingle Surveys Dated Sept 2010





**SUBWATERSHED AREAS**

- Northeast (0.70 Acres)
- Southeast (0.30 Acres)
- Southwest (2.42 Acres)
- Bldg South (0.06 Acres)
- Bldg East (0.24 Acres)
- Bldg West (0.12 Acres)

**LEGEND**

- Property Boundary
- Proposed Contour
- Watershed Area (9.94 Acres)

Table 1. Water Quality Volume Calculations

Subwatershed	Area (ac)	Impervious Area (ac)	Imperv %	Rv	WQv (ac-ft)	WQv (ft3)
northeast	0.70	0.33	47.2	0.48	0.0166	725.0
southeast	0.30	0.01	4.0	0.09	0.0013	56.6
southwest	2.42	0.64	26.3	0.29	0.0347	1512.0
building south	0.06	0.06	100.0	0.95	0.0028	122.7
building east	0.25	0.24	97.1	0.92	0.0118	508.5
building west	0.12	0.12	100.0	0.95	0.0059	256.8
<b>Total Site</b>	<b>3.86</b>	<b>1.41</b>	<b>36.5</b>	<b>0.38</b>	<b>0.0730</b>	<b>3179.6</b>

Table 2. Post-Development Subwatershed Model Inputs

Subwatershed	Drains To *	Area (ac)	Impervious	Width (ft)	Slope
northeast	bioretention	0.701	47.2%	305	3.1%
southeast	wetland	0.301	4.0%	131	3.6%
southwest	wetland	2.419	26.3%	570	4.2%
building south	wetland	0.059	100.0%	103	12.0%
building east	rain barrels / raingarden / wetland	0.252	97.1%	169	4.6%
building west	cistern / wetland	0.124	100.0%	83	4.6%
offsite	outlet	6.079	13.2%	1765	4.2%

\* in scenario with BMPs in place

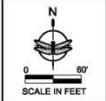
Table 3. 2-Year Design Event Runoff Summary

Subwatershed	2 YR Total Runoff			2 YR Peak Runoff (CFS)		
	PRE-Development Runoff (ac-ft)	POST-Development Runoff (ac-ft)	Difference (ac-ft)	PRE-Development Peak Runoff (cfs)	POST-Development Peak Runoff (cfs)	Difference (CFS)
northeast	0.066	0.072	0.006	1.49	1.51	0.006
southeast	0.028	0.030	0.002	0.84	0.84	0.002
southwest	0.226	0.260	0.034	5.03	5.27	0.034
building south	0.005	0.015	0.009	0.13	1.14	0.009
building east	0.025	0.062	0.037	0.54	0.59	0.037
building west	0.012	0.031	0.019	0.26	0.29	0.019
offsite	0.013	0.013	0.000	13.07	13.07	0.000
<b>TOTAL</b>	<b>0.184</b>	<b>0.108</b>	<b>0.108</b>	<b>21.16</b>	<b>21.51</b>	<b>0.35</b>

Table 4. 100-Year Design Event Runoff Summary

Subwatershed	2 YR Total Runoff			2 YR Peak Runoff (CFS)		
	PRE-Development Runoff (ac-ft)	POST-Development Runoff (ac-ft)	Difference (ac-ft)	PRE-Development Peak Runoff (cfs)	POST-Development Peak Runoff (cfs)	Difference (CFS)
northeast	0.181	0.211	0.051	3.22	3.35	0.13
southeast	0.089	0.075	0.004	1.38	1.30	0.01
southwest	0.550	0.631	0.081	11.08	11.37	0.29
building south	0.014	0.032	0.018	0.22	1.29	0.02
building east	0.069	0.132	0.073	1.15	1.24	0.08
building west	0.029	0.066	0.037	0.37	0.51	0.04
offsite	1.479	1.479	0.000	28.26	28.26	0.0
<b>TOTAL</b>	<b>2.361</b>	<b>2.624</b>	<b>0.263</b>	<b>45.94</b>	<b>46.51</b>	<b>0.57</b>

Source:  
 Base Plat From: City of Shelbyville  
 Survey Date: Sept. 2010  
 Survey Data By: Tingle Surveys Dated Sept 2010  
 Aerial Photograph: 2010



GRAPHIC SCALE REPRESENTATION  
 This bar measures 1" on 1/2" scale  
 or 10" on 11 1/2" original.  
 Adjust scale accordingly.

**Gardno**  
 JPL/NTM  
 Consulting Engineers  
 104 Rosewood Road  
 Westfield, Indiana 46084  
 874-686-5400  
 Central Indiana  
 2801 Industrial Boulevard  
 Indianapolis, Indiana 46254  
 317-588-1982

JPL	REVISION	DATE	DESCRIPTION
		06 JUNE 2011	CITY OF SHELBYVILLE ENGINEER COMMENTS JUNE 2011

**Subwatershed Drainage Plan**  
 Shelbyville Public Works Stormwater BMP Demo Project  
 City of Shelbyville  
 Shelby County, Kentucky

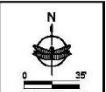
DRAWN BY: JPH  
 DESIGNED BY: NTM  
 DATE: JUNE 2011  
 JOB NO: 1101110

**DRAWING NO.**  
**3**  
**OF 9**



**LEGEND**

- Property Boundary
- - - - Existing Contour
- Pervious Concrete (By Others)
- Bioretention Treatment Basin
- Constructed Wetland
- Bioswale
- Rain Garden
- Control Bems
- Diversion Swale
- Underdrain



GRAPHIC SCALE VERIFICATION  
This scale measures 1" = 20'00"  
or 1/4" = 11'00" height  
Actual scale accuracy:

**Cardno**  
JF New  
Corporation  
100 Riverwood Road  
Westport, Indiana 46384  
874.888.8400  
Central Indiana  
3300 Industrial Boulevard  
Indianapolis, Indiana 46244  
317.566.6100

DESIGNER	JFH
CITY OF SHELBYVILLE ENGINEER	
DATE	JUNE 2011
COMMENTS	JUNE 2011

**Stormwater BMP Retrofit Plan**  
Shelbyville Public Works Stormwater BMP Demo Project  
City of Shelbyville  
Shelby County, Kentucky

DRAWN BY: JFH  
DESIGNED BY: NTM  
DATE: JUNE 2011  
JOB NO: 1101110

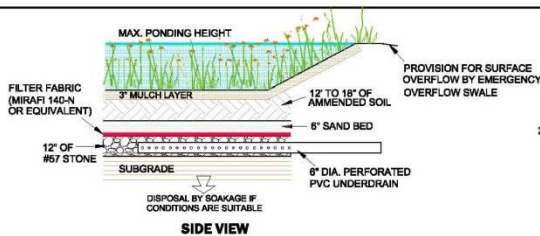
Source:  
Base Plan From: City of Shelbyville  
Survey Date: Sept. 2010  
Survey Data By: Tingle Surveys Dated Sept. 2010

**DRAWING NO.**  
**4**  
OF 8

1. This drawing is the property of the City of Shelbyville, Kentucky. It is not to be used for any other project without the written consent of the City Engineer. 2. The City Engineer is not responsible for the accuracy of the information provided by the client. 3. The City Engineer is not responsible for the accuracy of the information provided by the client. 4. The City Engineer is not responsible for the accuracy of the information provided by the client. 5. The City Engineer is not responsible for the accuracy of the information provided by the client.





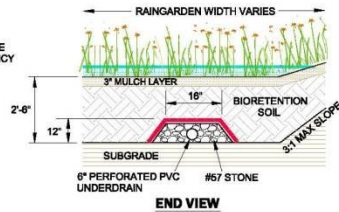


**SIDE VIEW**

REFER TO ASTM/AASHTO SPECIFICATIONS OR MANUFACTURERS RECOMMENDATION FOR BEDDING DEPTH AND MATERIALS.

PONDING DEPTH IN SWALE SHOULD BE BELOW ROAD EDGE OR PARKING LOT SUBBASE.

PVC PIPE IS USED FOR ALTERNATIVE DETENTION STORAGE AND EXFILTRATION INTO BIORETENTION SOIL. STANDARD FOUR OR SIX INCH PVC UNDERDRAIN CAN BE USED IF ADDITIONAL STORAGE IS NOT REQUIRED.

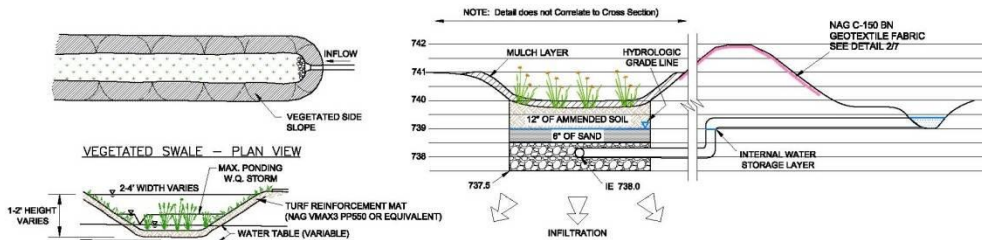


**END VIEW**

TOPSOIL SHALL BE AMENDED WITH 70% COURSE SAND, 10% SHREDDED TOPSOIL, 10% PLANT COMPOST, AND 10% PEA GRAVEL OR OTHER RATIOS AT THE DISCRETION OF THE RESTORATION ECOLOGIST.

SOIL AMENDMENTS TO BE PERFORMED BY CONTRACTOR AND VERIFIED BY THE RESTORATION ECOLOGIST.

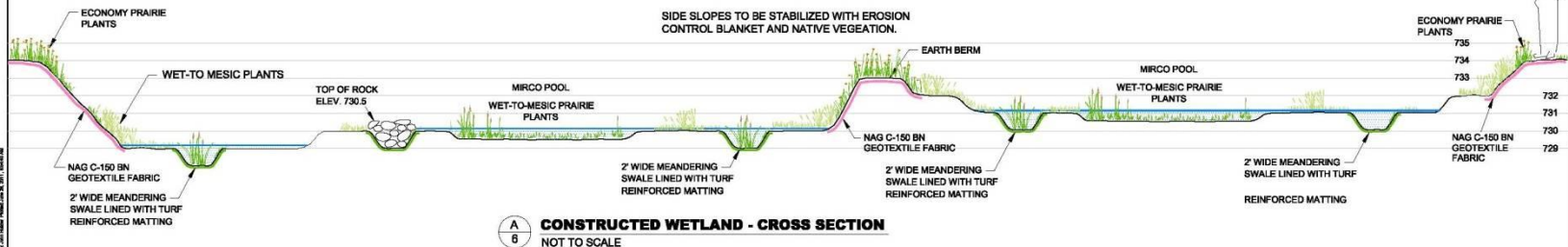
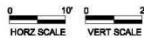
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6** **BIORETENTION - DETAIL**  
NOT TO SCALE



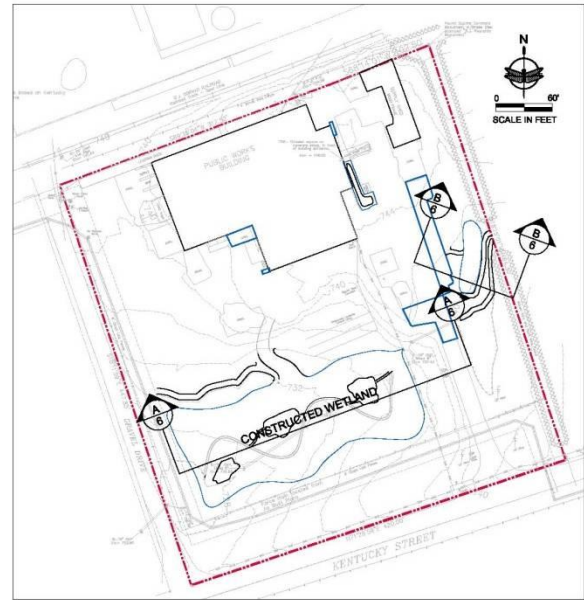
**VEGETATIVE SWALE - PROFILE**

**2  
6** **VEGETATIVE SWALE - DETAIL**  
NOT TO SCALE

**B  
6** **INTERNAL WATER STORAGE - CROSS SECTION**



**A  
6** **CONSTRUCTED WETLAND - CROSS SECTION**  
NOT TO SCALE



**SITE PLAN - PROPOSED LAYOUT**  
SCALE AS NOTED

GRAPHIC SCALE VERIFICATION  
This set measures 1" = 20'-0" or 1/2" = 11'-0" original.  
Adjust scale accordingly.

**JFNew**  
Corporate Center Indiana  
700 Rosemont Road  
Westfield, Indiana 46084  
874-888-3400

Central Indiana  
300 Industrial Boulevard  
Indianapolis, Indiana 46204  
317-358-1952

DATE	DESCRIPTION
01/20/2011	PROJECT START
02/01/2011	PERMIT APPLICATION
03/01/2011	PERMIT REVIEW
04/01/2011	PERMIT ISSUED
05/01/2011	CONSTRUCTION START
06/01/2011	CONSTRUCTION COMPLETE
07/01/2011	FINAL INSPECTION
08/01/2011	PROJECT CLOSEOUT

**Cross Sections and Details**  
Shelbyville Public Works Stormwater BMP Design Project  
City of Shelbyville  
Shelby County, Kentucky

DRAWN BY: JFH  
DESIGNED BY: NTM  
DATE: JUNE 2011  
JOB NO: 1101110

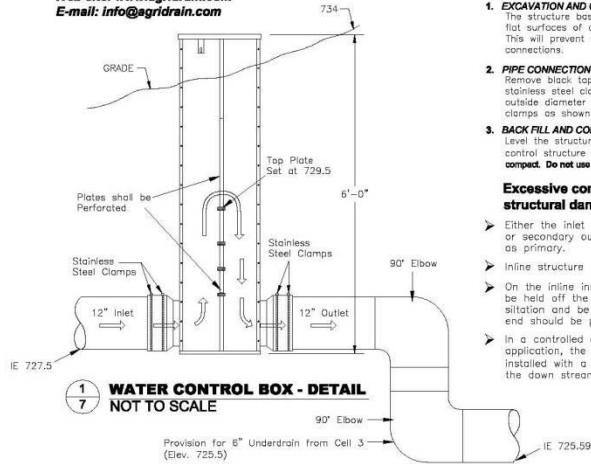
**DRAWING NO.**

**6**

**OF 9**



1462 340th street  
 Adair, Iowa 50002  
 Phone: 800-232-4742  
 Fax: 800-282-3353  
 Web site: www.agridrain.com  
 E-mail: info@agridrain.com

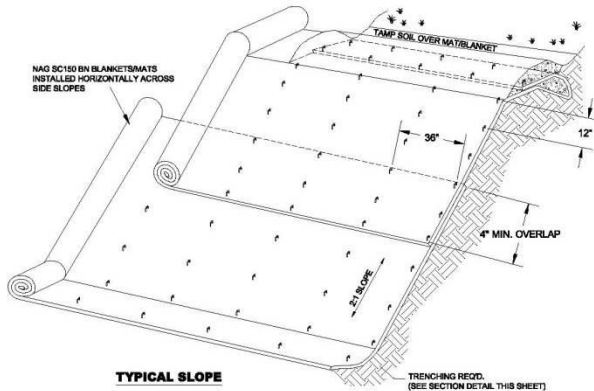


**Inline Water Control Structure Installation Instructions**

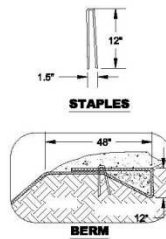
- EXCAVATION AND GRADING**  
 The structure base, the inlet pipe, and the outlet pipe must be set on firm, flat surfaces of compacted soil or fill sand to provide a solid, stable base. This will prevent settling and reduce stress or misalignment of pipe connections.
- PIPE CONNECTION**  
 Remove black tape from both inlet and outlet flex couplers exposing the stainless steel clamps. The flex couplers must be placed directly over the outside diameter of the pipes; then secured by tightening the stainless steel clamps as shown in the illustration.
- BACK FILL AND COMPACTION**  
 Level the structure vertically before placing backfill. Backfill around the control structure by hand in 8" lifts. Hand tamp only - **do not mechanically compact**. Do not use a backhoe or blade to place backfill directly against the water control structure.

**Excessive compaction may cause structural damage or failure.**

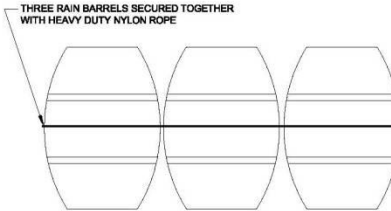
- Either the inlet or inline structure may be used for primary or secondary outlet with larger pipe or emergency spillway as primary.
- Inline structure removes sub-surface water.
- On the inline installation, the inlet end of the pipe should be held off the bottom of the impoundment to allow for siltation and be protected with an inlet guard. The outlet end should be protected with a rodent guard.
- In a controlled drainage or sub-surface irrigation application, the structure nearest the outlet should be installed with a minimum of 20' of non-perforated pipe on the down stream end. Anti seep collars are recommended.



**2**  
**7** **EROSION CONTROL BLANKET INSTALLATION DETAILS**  
 NOT TO SCALE

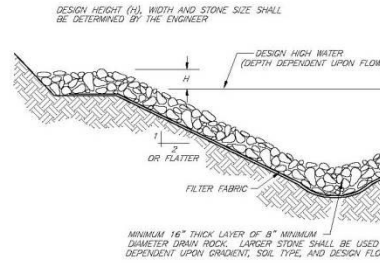


- NOTES:
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
  - APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
  - LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.



REFERENCE: RAIN TRAINER PRODUCT  
 WWW.RAINTRAINER.COM

**3**  
**7** **RAIN BARREL DETAIL**  
 NOT TO SCALE



**4**  
**7** **ROCK CHANNEL PROTECTION DETAIL**  
 NOT TO SCALE

GRAPHIC SCALE VERIFICATION  
 This set measures 1" = 22'-0" or 1/2" = 11'-0" original.  
 Add all scale accuracy.

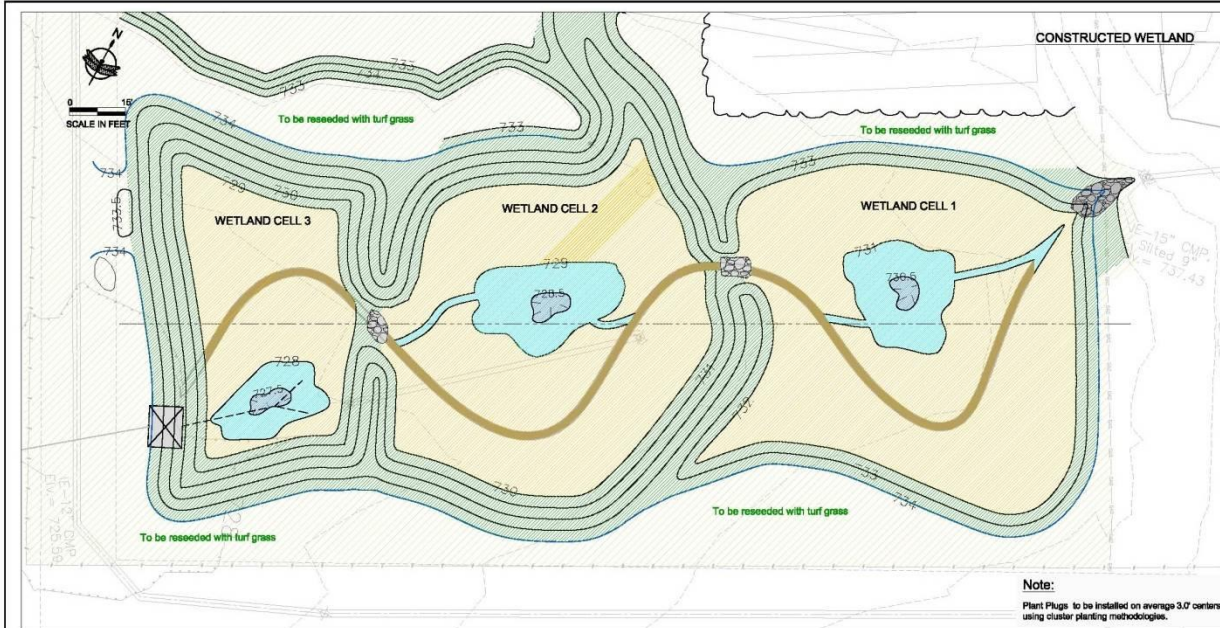
**Cordia**  
 JF Now  
 Corporation: Indiana  
 700 Rosewood Road  
 Westfield, Indiana 46084  
 874-986-3400  
 Contact Indiana  
 300 Industrial Boulevard  
 Indianapolis, Indiana 46254  
 317-338-1952

JFH	
REVISION	
CITY OF SHELBYVILLE ENGINEER	
COMMENTS	
JUNE 2011	

Details  
 Shelbyville Public Works Stormwater BMP Demo Project  
 City of Shelbyville  
 Shelby County, Kentucky

DRAWN BY: JFH  
 DESIGNED BY: NTM  
 DATE: JUNE 2011  
 JOB NO: 110110

DRAWING NO.  
**7**  
 OF 9



Note: See Sheet 9 for Planting List

All Planting / Seeding to be Completed at the Direction of Cardno JFNew.

All Disturbed Areas to be Seeded and Stabilized with Straw Mulch at 2 Tons/Acre

**Constructed Wetland**

- Low Profile Prairie (10,748 SF)
- Sedge Meadow (13,005 SF)
- Wetland Edge (1,807 SF)
- Emergent Wetland (157 SF)

**Bioretention Treatment Basin**

- Low Profile Prairie (816 SF)
- Swale (417 SF)
- Stormwater (1,054 SF)
- Emergent Edge (367 SF)

**Raingarden**

- Raingarden (606 SF)
- Depression (11 SF)

GRAPHIC SCALE VERIFICATION  
This set measures 1" = 25' or 32' on 11x17 original.  
Adjust scale accordingly.

**Cardno**  
JFNew  
Corporate Offices: Indiana  
708 Rosemont Road  
Westfield, Indiana 46074  
874-3863430  
Central Offices  
3801 Industrial Boulevard  
Indianapolis, Indiana 46254  
317-338-1952

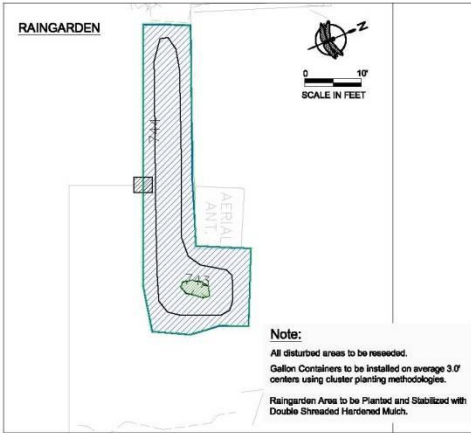
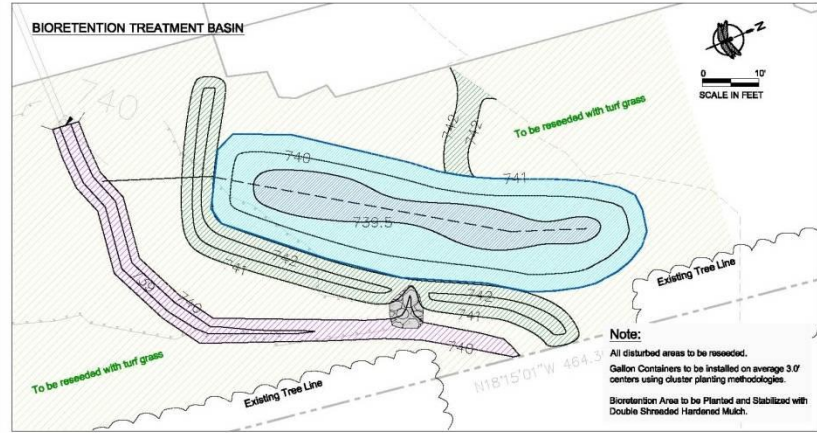
JFH	
JFH	
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JFH	
JFH	
JFH	
JFH	
JFH	
JFH	

REVISION  
DESIGNER: CITY OF SHELBYVILLE ENGINEER  
DATE: 06/08/2011 COMMENT: JUNE 2011

**Planting Plan**  
 Shelbyville Public Works Stormwater BMP Demo Project  
 City of Shelbyville  
 Shelby County, Kentucky

DRAWN BY: JFH  
 DESIGNED BY: NTM  
 DATE: JUNE 2011  
 JOB NO: 110110

**DRAWING NO.**  
**8**  
**OF 9**



Project: 110110 - Shelbyville Public Works Stormwater BMP Demo Project  
 Date: 06/08/2011  
 Job No: 110110  
 Drawing No: 8  
 Scale: As Shown  
 Author: JFH  
 Designer: NTM  
 Checker: JFH  
 Engineer: JFH  
 Project Manager: JFH  
 Client: City of Shelbyville



Cardno JFNew Live Plant Plugs

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Little Blue Stem, Side-Oats Grama, Sand Coriopsis, etc.

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Carex lasiocarpa, Brown Fox Sedge, Common Rush, etc.

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Avena sativa, Lolium multiflorum, Setaria faberiana, etc.

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Amaranthus retrofractus, Bromus inermis, Galium aparine, etc.

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Amaranthus retrofractus, Bromus inermis, Galium aparine, etc.

Cardno JFNew Live Gallon Container

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Side-Oats Grama, Sand Coriopsis, Rough Blazing Star, etc.

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like New England Aster, Brandy Sedge, Dark Green Rush, etc.

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Carex lasiocarpa, Fowl Manns Grass, Common Rush, etc.

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Carex lasiocarpa, Fowl Manns Grass, Common Rush, etc.

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Carex lasiocarpa, Fowl Manns Grass, Common Rush, etc.

Cardno JFNew Gallon Container

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Rain garden (605 SF), Common Name, Scientific Name, Qty.

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Blue Flag, Common Name, Scientific Name, Qty.

Table with 3 columns: Common Name, Scientific Name, Qty. Lists plants like Blue Flag, Common Name, Scientific Name, Qty.

Low Profile Prairie Seed Mix

Table with 3 columns: Botanical Name, Common Name, PLS Ounces/Acre. Lists plants like Little Blue Stem, Side Oats Grama, Prairie Cane Milk, etc.

Table with 3 columns: Botanical Name, Common Name, PLS Ounces/Acre. Lists plants like Annual Ryegrass, Annual Ryegrass, Annual Ryegrass, etc.

Table with 3 columns: Botanical Name, Common Name, PLS Ounces/Acre. Lists plants like Lead Plant, Thimbleweed, Wild Columbine, etc.

Table with 3 columns: Botanical Name, Common Name, PLS Ounces/Acre. Lists plants like Purple Coneflower, Rattlesnake Master, Round-head Bush Clover, etc.

Table with 3 columns: Botanical Name, Common Name, PLS Ounces/Acre. Lists plants like Purple Prairie Clover, White Prairie Clover, False Dropseed, etc.

Table with 3 columns: Botanical Name, Common Name, PLS Ounces/Acre. Lists plants like Black-Eyed Susan, Sweet Woodruff, Foamflower, etc.

Table with 3 columns: Botanical Name, Common Name, PLS Ounces/Acre. Lists plants like Black-Eyed Susan, Sweet Woodruff, Foamflower, etc.

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Table with 3 columns: Botanical Name, Common Name, PLS Ounces/Acre. Lists plants like Black-Eyed Susan, Sweet Woodruff, Foamflower, etc.

Sedge Meadow Seed Mix

Table with 3 columns: Botanical Name, Common Name, PLS Ounces/Acre. Lists plants like Blue Joint Grass, Brandy Sedge, Bottlebrush Sedge, etc.

Table with 3 columns: Botanical Name, Common Name, PLS Ounces/Acre. Lists plants like Blue Joint Grass, Brandy Sedge, Bottlebrush Sedge, etc.

Table with 3 columns: Botanical Name, Common Name, PLS Ounces/Acre. Lists plants like Blue Joint Grass, Brandy Sedge, Bottlebrush Sedge, etc.

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Swale Seed Mix

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Stormwater Seed Mix

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CONSTRUCTED WETLAND

BIORETENTION TREATMENT BASIN

RAIN GARDEN

Vertical text on the left side of the page, likely a title or reference.

CARDNO SCALE VERIFICATION... 1/8" or 1/16" depth... Adjust scale accordingly.

Cardno JFNew... 100 Rowland Road... 614.668.5400

Common Name... 300 Industrial Boulevard... Indiana, Indiana 46254... 317.968.9821

JFH... REVISION... 01 JUNE 2011... CITY OF SHREVEPORT... COMMENTS: JUNE 2011

Seed Mix List... Shelbyville Public Works Stormwater BMP Demo Project... City of Shelbyville... Shelby County, Kentucky

DRAWN BY: JFH... DESIGNED BY: NTM... DATE: JUNE 2011... JOB NO: 110110

DRAWING NO. 9... OF 9

Note: See Sheet 8 for Planting Zones



















# Shelbyville Public Works Stormwater BMP Demonstration Project Green Infrastructure

## Budget:

Grant from :	\$24,000
City Funds :	<u>\$21,000</u> **
Total:	\$45,000

\*\* Labor cost not included

## Actual Cost:

Conceptual Design:	\$2,550
Topographic and Boundary Survey	\$3,400
Green Infrastructure	
Final Design –	\$12,500
On Site Construction Management	\$4,800
Materials/Supplies/Equipment Rental	<u>\$24,500</u>
Total:	\$47,750

\*\* Labor cost not included



# Shelbyville Public Works Stormwater BMP Demonstration Project

## Pervious Concrete – Spring 2013





# Shelbyville Public Works Stormwater BMP Demonstration Project

## Pervious Concrete



### Budget:

In-Kind :	\$5,000
(discounts, donations)	
City Funds :	<u>\$8,000</u> **
Total:	\$13,000

\*\* Labor cost not included



# Shelbyville Public Works Stormwater BMP Demonstration Project

## Pavers

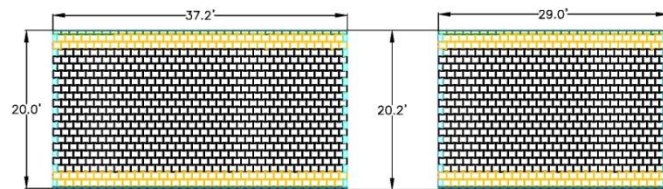


### Budget:

City Funds Spent to date: \$8,000  
 Estimated Expenses: \$ 5,000\*\*  
 Total: \$13,000

\*\* Labor cost not included

AREA OF COVERAGE, AS TAKEN FROM DWG FILES PROVIDED BY: CITY OF SHELBYVILLE, KY.



**HAND-PLACED COVERAGE**

ARCHED BLOCKS	1,070 +/- UNITS (1,006 SF)
FULL-BORDER BLOCKS	282 +/- UNITS (237 SF)
HALF-BLOCK	44 +/- UNITS (33 SF)
END BLOCKS	128 +/- UNITS (60 SF)
<b>PROJECT TOTAL:</b>	<b>1,324 SF.</b>

**DISCLAIMER:**  
 PAVEDRAIN, LLC AND ITS LICENSEES, DISTRIBUTORS AND MANUFACTURERS MAKE NO WARRANTY OR REPRESENTATION AND SHALL HAVE NO LIABILITY TO CUSTOMER OR ANY THIRD PARTY WITH RESPECT TO ANY DAMAGE, OR SUBJECT TO THE EXTENT IT COMPLETS WITH ANY ENGINEERED PLANS AND/OR SPECIFICATIONS.  
 PAVEDRAIN, LLC AND ITS LICENSEES, DISTRIBUTORS AND MANUFACTURERS MAKE NO WARRANTY OR REPRESENTATION AND ARE NOT RESPONSIBLE FOR PROPER BARRIAGE PREPARATION INCLUDING ADEQUATE FILL, ADEQUATE DITCH, ADEQUATE COMPACTING, PROPER TIE-IN AND ANY OTHER SOIL CONSTRUCTION.  
 THIS DRAWING IS NOT BE CONSIDERED FOR THE PROJECT PRESENTED ONLY. ANY PARTY ACCEPTING THIS CONTRACT UNDER NO BY CONTRACTOR AND AGREEES THAT IT SHALL NOT BE ENLARGED IN ANY MANNER AND SHALL BE HELD TO THE TERMS OF PAVEDRAIN, LLC.

REVISIONS	
DATE	DESCRIPTION

PROJECT NAME:  
**CITY OF SHELBYVILLE, KY**

PREPARED BY:  
**PAVEDRAIN, LLC**  
 4886 W. ARBORY AVE., GREENSBORO, NC 27409  
 (703) 615-0211 FAX: (703) 615-0212  
 www.pavedrain.com

PAVEDRAIN 5.6" UNIT  
 DATE: 08-17-15  
 DRAWING CODE: PLAN VIEW LAYOUT  
 SCALE: AS SHOWN  
 NOT TO SCALE

## **Shelbyville Public Works Stormwater BMP Demonstration Project Miscellaneous Projects**

- Public Works New Salt Bin
- Shelbyville Police Garage Bioretention Basin
- Shelbyville Police Department – Basin for Parking Lot additions
- 5 - Storm Drain Inserts for City Curb Box Inlets
- Asset Management Program with Tablets



**Jennifer Herrell, P.E.**

**City Engineer/Director of Public Works & MS4 Coordinator**

**City of Shelbyville**

**502-633-1094**

**[jpherrell@mw.twcabc.com](mailto:jpherrell@mw.twcabc.com)**

