

ATTACHMENT A
to the GRANT AWARD AGREEMENT
between Lexington-Fayette Urban County Government (LFUCG) and
Bluegrass Stockyards, LLC

GRANT PROGRAM: FY2012 Stormwater Quality Projects Incentive Grant Program
Class B Infrastructure Projects

- Funded through the LFUCG Water Quality Management Fee
- Administered by the LFUCG Division of Water Quality in the Department of Environmental Quality & Public Works

PROJECT TEAM AND CONTACT INFORMATION

Grantee Organization: **Bluegrass Stockyards, LLC**
375 Lisle Industrial Avenue
Lexington, KY 40511

Project Site Location: 375 Lisle Industrial Avenue
Lexington, KY 40511
PVA ##38053580

Property Owner: **BBBBP & S, LLC**
375 Lisle Industrial Avenue
Lexington, KY 040511

Primary Project Contact and Project Manager: **Jim Akers**
859-255-7701 JA
akersjim@bellsouth.net

Secondary Project Contact: **Scott Flannery**
859-255-7701
sflannery@bgstockyards.com

Design Engineering Firm: **CDP Engineers, Inc.**
3250 Blazer Parkway
Lexington, KY 40509
Jonathan Nieman, P.E. – Design Engineer
859-264-7500; jnieman@cdpengineers.com

Project Partners: Conboy Enterprises
7001 Greenwich Pike, Lexington, KY 40511
Ryan Conboy – Owner (animal disposal)
859-221-6998

Fayette County Extension Office
1140 Red Mile Place, Lexington, KY 40504
Nick Carter – Extension Agent
859-257-5582; nick.carter@uky.edu

Locust Trace Agri-science Farm
2208 Liberty Road, Lexington, KY 40509
Todd Harp – Ag Teacher
859-381-3740; todd.harp@fayette.kyschools.us

Fayette County Conservation District
141 Leestown Center Way, Suite 210, Lexington, KY 40511
Carly Burton – Environmental Education Coordinator
859-254-5806 (ext. 3)

UK Biosystems & Agricultural Engineering Dept.
207 C. E. Barnhart Building, Lexington, KY 40546
Carmen Agouridis Ph.D. – Asst. Professor
carmen.agouridis@uky.edu

PROJECT PLAN ELEMENTS

1) *FEASIBILITY STUDY:*

No grant-funded activities shall occur until the LFUCG Grant Manager gives notice-to-proceed, in writing, for the start of the feasibility phase of the project.

This project element includes a feasibility analysis of the following stormwater control facilities at the specified site location proposed in the grant application:

- Bioretention System with grass cover
- Modified Bioretention System with forebay
- Detention Basin
- Biofiltration Swale

Deliverables for this task shall include a Feasibility Report and BMP Certification Letter.

2) *STORMWATER CONTROL FACILITIES DESIGN:*

No grant-funded activities shall occur until the LFUCG Grant Manager gives notice-to-proceed, in writing, for the start of the design phase of the project.

All improvements shall be located on the property at 375 Lisle Industrial Avenue, Lexington, Kentucky 40511, PVA #38053580 owned by BBBB & S, LLC (doing business as Bluegrass Stockyards, LLC). No other property or Right-of-Way shall be disturbed without the written permission from the property owners.

This project element includes design of the stormwater control facilities at the specified site location. The proposed facilities are listed below. Alterations to these elements can be made in consultation with the LFUCG Grant Manager after review of the Feasibility Report.

- a) Bioretention System with grass cover: receives stormwater runoff from approximately 35,000 sf (0.8 ac.)
 - i) This BMP will be designed to capture, retain, and infiltrate pollutants associated with the first-flush runoff coming from impervious areas on industrial properties located to the north of Lisle Industrial Avenue.
 - ii) The proposed BMP will be designed similar to what is described in Chapter 10 of the LFUCG Stormwater Manual with a one foot layer of sand with underdrain overlain by at least three feet of an amended soil mixture. The grass cover will be installed over the base of the bioretention system to allow for easier maintenance on a regular basis.
 - iii) A majority of the captured runoff is expected to exfiltrate into the surrounding soil which will decrease the volume of outflow through the underdrains.
- b) Modified Bioretention System with forebay and Detention Basin: receives stormwater runoff from 140,496 sf (3.22 ac.)
 - i) This BMP will be designed to capture, retain, and infiltrate pollutants associated with the first-flush runoff coming from both on and offsite areas.
 - ii) This BMP will have three elements:
 - (1) A forebay to settle organic solids present on the site.
 - (2) Bioretention system with a sand filter bed to remove pollutants.
 - (3) A detention basin to reduce peak flows.
 - (a) The detention basin will store excess stormwater runoff above the water quality volume that is not retained within the bioretention system.

- iii) The proposed BMP will be designed per the requirements listed in chapter 10 of the LFUCG Stormwater Manual and will include a riser structure for overflow volumes greater than the design storm event.
- c) Biofiltration Swale: receives stormwater runoff from 26,717 sf (0.6 ac.)
 - i) This BMP is essentially a bioretention system without the pipe underdrain and is listed in Table 1-1 of the LFUCG Stormwater Manual for use as a quality BMP in industrial areas.
 - ii) The biofiltration swale will include a riser structure for overflow volumes greater than the design storm event.
 - iii) The biofiltration swale will treat nutrients such as nitrogen and phosphorous, metals, oils, greases and organic and inorganic chemicals by filtration.
- d) Educational signage shall be placed at each BMP giving a description of its function and benefits.

Design shall also account for the following stipulations:

- The Design Engineer shall meet with the LFUCG Grant Manager and Grant Program Administrator for at least three meetings during the design phase:
 - i) Prior to the start of design
 - ii) At the completion of approximately 50% design
 - iii) At the 95% completion of the design documents.

The Design Engineer shall provide a copy of the preliminary plans (working drawings) and specifications (if available) representing 50% and 95% completion. These submittals shall be used to assist LFUCG staff in understanding the project components and allow for feedback to ensure the Government's funds shall be utilized for sustainable and effective infrastructure.

- All existing utilities shall be located and shown on the design plans.
- All existing easements, adjacent property lines, and Rights-of-Way shall be shown on the design plans. If any work is proposed to occur within any easement (i.e. utility, etc.), whether public or private, the Organization shall obtain all necessary encroachment agreements for the authorized agencies prior to the start of construction.
- Any work proposed within or on public right-of-way, easement, or LFUCG owned property will require one or more permits or approvals. This includes installation permits for connection into any existing curb inlet or stormwater manhole located within public right-of-way. Please contact the appropriate staff:

Environmental Policy (street trees), Tim Queary – tqueary@lexingtonky.gov
 Engineering (right-of-way), Dan Kiser – dkiser2@lexingtonky.gov
 Sanitary Sewers, Rod Chervus – rchervus@lexingtonky.gov
 Stormwater, Susan Plueger – splueger@lexingtonky.gov

- All federal, state, and local permits, approvals, and agreements required for construction of the proposed improvements shall be obtained prior to the start of construction. If the timing of construction is such that a permit may expire before construction can be completed, then the Organization shall coordinate with the LFUCG Grant Manager and permitting agencies on appropriate timing for permit submittals. The Organization is fully responsible to determine which approvals, permits, and encroachments are required for the project.
- Erosion and sediment control and traffic control measures shall be designed to meet all standards and follow guidelines in the LFUCG Engineering Manuals, and shall be shown on the design plans with appropriate notes.

3) ***STORMWATER CONTROL FACILITIES CONSTRUCTION:***

No grant-funded construction activities shall occur until the LFUCG Grant Manager gives notice-to-proceed, in writing, for the start of the construction phase of the project.

Facilities shall be constructed per the design plans and specifications. Construction of the proposed facilities shall also meet the following stipulations:

- Construction shall not begin until all permits, approvals, agreements, etc. are obtained and copies provided to the LFUCG Grant Manager.
- All existing utilities shall be located, contacted, and coordinated with prior to any work being performed.
- The Erosion and Sediment Control Plan shall be provided to LFUCG for review and comment. The LFUCG Land Disturbance Permit shall be obtained by the contractor after placement of the ESC and traffic control measures.
- Failure to place acceptable erosion and sediment control measures into service prior to start of construction will result in shut-down of the job site until the measures are put in place. Construction practices shall be put in place to prevent the illicit discharge of sediment, dirt, sand, fluids, trash, and any other pollutant into the Municipal Separate Storm Sewer System or Waters of the Commonwealth.
- The Organization shall host a pre-construction meeting with all parties. The LFUCG Grant Manager shall be invited to this inspection and given 5 days notice.
- The Organization is responsible to provide all construction oversight, administration, and daily inspection. LFUCG shall not provide these services.
- The Organization shall document construction by taking before, during, and after photographs.
- Once construction is complete, a final walk-thru inspection shall be performed. The LFUCG Grant Manager shall be invited to this inspection and given 5 days notice. If punch-list items are identified, a second inspection shall be performed once those items are resolved, and the LFUCG Grant Manager shall be invited to this inspection and given 3 days notice.
- The Organization agrees to enter into the Maintenance Agreement included in Attachment B of the Grant Award Agreement within 21 calendar days of the final (post punch-list) inspection. This Agreement shall be recorded by LFUCG at the Fayette County Clerk's office.

REPORTING REQUIREMENTS

- 1) At the completion of the Feasibility Phase, the Organization shall provide the LFUCG Grant Manager with 3 hard copies and one digital copy of the following two deliverables:
 - Feasibility Report evaluating the use of the potential BMP(s) on the proposed site, a conceptual design concept, a detailed cost estimate for design, and a conceptual cost estimate for construction.
 - Letter certifying all BMPs proposed for design as viable and feasible for the specific site and application, signed and sealed by either a registered landscape architect or professional engineer.
- 2) At the completion of the Design Phase, the Organization shall provide the LFUCG Grant Manager 3 hard copies and one digital copy each of the following five deliverables, each sealed by a professional licensed to perform such work in accordance with Kentucky Revised Statutes (KRS):

- Set of all final design calculations.
 - Set of final construction plans, including erosion and sediment control plans, grading plans, etc.
 - Set of final specifications and bidding documents (if applicable).
 - Final detailed engineer's construction cost estimate including quantities.
 - All local, state or federal required permits, approvals, public or private encroachment agreements etc. received to date for the project.
 - Inspection, Operation, and Maintenance Plan laying out the plan for regular inspection and maintenance of each proposed facility for design performance and safety in accordance with manufacturer's specifications and LFUCG's Stormwater Manual.
- 3) The Organization shall allow LFUCG twenty-one (21) calendar days to review the submittals and provide comments. If revised submittals are required, the Organization shall allow LFUCG ten (10) calendar days for review per submittal. LFUCG may choose to have a third party engineering consultant assist LFUCG in review of these submittals.
- 4) **The design phase shall end when the LFUCG Grant Manager provides written acceptance of the design submittals.**
- 5) **The construction phase shall begin only after the LFUCG Grant Manager gives notice-to-proceed, in writing, for the start of the construction phase of the project.**
- 6) The Organization shall submit copies of all required local, state or federal permits, approvals, public or private encroachment agreements etc. to the LFUCG Grant Manager prior to the start of construction.
- 7) If the project is to be competitively bid, the selected contractor's unit price contract/bid list shall be provided to the LFUCG Grant Manager prior to the start of construction.
- 8) If the project is not competitively bid, the selected contractor's unit price contract shall be provided to the LFUCG Grant Manager prior to the start of construction, along with a justification for any derivations from the engineer's construction cost estimate.
- 9) If, during construction, the contractor requests a deviation or addition to the quantities or costs in the construction contract, the LFUCG Grant Manager shall be notified within 2 business days. Additions or modifications to the project that are not directly related to the intended and correct function of the stormwater control project elements as described in the Project Plan Elements listed above and in Attachment B to the Grant Award Agreement are not eligible for Grant reimbursement. Therefore, the Organization is advised that it should coordinate closely with the LFUCG Grant Manager during construction to ensure the work being performed is in compliance with this Agreement. Note that per the Grant Award Agreement all over-runs that result in the project costs exceeding the Grant amount are the responsibility of the Organization.
- 10) After construction is completed, the Project Final Report shall include 3 copies of the following:
- Summary of final construction costs and quantities.
 - Copies of all federal, state, and local permits obtained for the project (if not previously provided).
 - Record Drawing showing all field changes, and signed and sealed by the professional of record certifying the project as shown meets all original design intent.
 - Copies of final inspection minutes, punchlists, etc.
 - Photo documentation of site conditions and improvements before, during, and after construction.
 - Signed *Agreement to Maintain Stormwater Facilities*.
- 11) LFUCG shall make final payment of the 10% retainer after acceptance of the Project Final Report.

EDUCATIONAL OPPORTUNITIES

- 1) The Organization is partnering with the UK Dept. of Biosystems and Agricultural Engineering to allow researchers access to the BMPs for monitoring of pollutant removal and infiltration rates.
- 2) The Organization is partnering with the Locust Trace Agri-Science Farm to incorporate the BMPs into a field classroom project within the environmental science program.
- 3) The Organization will make the site available to the Bluegrass Rain Garden Alliance, UK, Fayette County Conservation District, public and local professionals, etc. to hold on-site tours.
- 4) The Organization is partnering with Carly Burton at the Fayette County Conservation District who plans to incorporate the BMPs into educational programs funded by grants through her office.

PERMANENT FACILITIES/INFRASTRUCTURE

Ownership: The proposed facilities are expected to reside on private property in Fayette County and be owned by the property owner.

Future Inspection and Maintenance: The Organization (and/or Property Owner) agrees to sign and abide by the terms of the *Maintenance Agreement for Stormwater Control Facilities* included as Attachment B to the Grant Award Agreement.

Monitoring by LFUCG: The Organization agrees to allow LFUCG staff future access to any property on which work is performed to monitor the installed features for compliance with this Agreement during the grant period. After the grant period has ended, the Organization agrees to allow LFUCG access for monitoring per the terms of the Maintenance Agreement. Water quality sampling via grab samples or other methods may be employed by LFUCG staff as part of LFUCG's annual reporting requirement of its Kentucky Pollutant Discharge Elimination System (KPDES) MS4 Phase 1 permit.

GRANT PERIOD & PROJECT SCHEDULE

The grant period starts on the date of execution by the Mayor and extends for the time period as listed in the Grant Award Agreement. Any time extensions must be approved in writing by the LFUCG Grant Manager. The project schedule shown in Table 1 is preliminary. Proposed changes to the project which alter this schedule significantly shall be discussed with the LFUCG Grant Manager prior to implementation.

TABLE 1. PROJECT SCHEDULE

Activity	Time Period	Anticipated Date
Notice to Proceed		December 2011
Pre-design meeting with LFUCG		December/January 2012
Rock Soundings		January 2012
Site Survey		February 2012
50% Design Submittal to LFUCG		March 2012
90% Design Submittal to LFUCG		April 2012
Final Design Submittal and Review by LFUCG	21 calendar days	April 2012
Permitting, Encroachment Agreements, etc.		January - May 2012
Pre-Construction Meeting		June 2012
Construction (Biofiltration Swale)		June - Sept 2012
Construction (Bioretention w/Grass Cover)		June - Sept 2012
Construction (Bioretention w/Forebay and Detention)		June - Sept 2012
Final walk-thru		Oct. 2012
Project Final Report		Nov. 2012
Final Payment (10% retainer)	After acceptance of Final Report	

PROJECT BUDGET – GRANT ELIGIBLE EXPENSES

The Grant budget is broken into the following components:

1.	Feasibility Phase:	\$ 7,090.00
2.	Design Phase:	\$ 33,685.00
3.	Construction Phase:	<u>\$109,225.00</u>
		\$150,000.00 Total Grant Amount

Table 2. lists the Eligible Expenses for the design and construction phases of this project. Only properly invoiced items shall be reimbursed with grant monies or counted toward the Organization’s match. Table 3. provides more detail on the design phase services.

Any work performed on this project prior to grant award by Urban County Council and Notice to Proceed from the LFUCG Grant Administrator is NOT an eligible expense and shall not be reimbursed or counted toward the match.

The construction estimate will be revised as part of the design process. The Grant is a not-to-exceed amount, and any cost overruns are the responsibility of the Grantee. Note that the Grant shall not be used to fund any project element that is required by local, state or federal regulation in relation to any new development occurring on-site in conjunction with this project.

TABLE 2. ELIGIBLE EXPENSES							
Activities		Unit Price	Quantity	Funded by Organization*	Funded by Grant	Total Expense	Total by Activity
Feasibility Phase Costs**							
1.	Professional Services - CDP Engineers						
	Feasibility Analysis and Report	\$ 7,090.00	Lump Sum	1	\$ -	\$ 7,090.00	\$ 7,090.00
Design Phase Costs**							
2.	Professional Services - CDP Engineers						
	Design	\$ 33,685.00	Lump Sum	1	\$ -	\$ 33,685.00	\$ 33,685.00
Construction Phase Costs (Conceptual)							
3.	Biointiltration Swale						
	Excavation	\$ 15.00	CY	350	\$ -	\$ 5,250.00	
	Riser Structure	\$ 1,000.00	EA	1	\$ -	\$ 1,000.00	
	8" HDPE Pipe	\$ 12.00	LF	50	\$ -	\$ 600.00	
	8" Headwall	\$ 500.00	EA	1	\$ -	\$ 500.00	
	Silt Fence	\$ 3.00	LF	150	\$ -	\$ 450.00	
	Amended Soil	\$ 35.00	CY	80	\$ -	\$ 2,800.00	
	Sand	\$ 30.00	TN	50	\$ -	\$ 1,500.00	
	Seeding	\$ 1.50	SY	500	\$ -	\$ 750.00	
	Erosion Control Blanket	\$ 2.00	SY	500	\$ -	\$ 1,000.00	
	Interpretive Signage Fabrication & Install	\$ 1,200.00	Lump Sum	1	\$ -	\$ 1,200.00	
	Contingency	\$ 1,500.00	Lump Sum	1	\$ -	\$ 1,500.00	\$ 16,550.00
3.	Bioretention with Grass Cover						
	Excavation	\$ 15.00	CY	140	\$ -	\$ 2,100.00	
	Riser Structure	\$ 1,000.00	EA	1	\$ -	\$ 1,000.00	
	4" HDPE Perforated Pipe	\$ 8.00	LF	150	\$ -	\$ 1,200.00	
	8" HDPE Pipe	\$ 12.00	LF	50	\$ -	\$ 600.00	
	8" Headwall	\$ 500.00	EA	1	\$ -	\$ 500.00	
	Silt Fence	\$ 3.00	LF	125	\$ -	\$ 375.00	
	Amended Soil	\$ 35.00	CY	130	\$ -	\$ 4,550.00	
	8" Pea Gravel Curtain Drain	\$ 30.00	TN	50	\$ -	\$ 1,500.00	
	Sand	\$ 30.00	TN	55	\$ -	\$ 1,650.00	
	Seeding	\$ 1.50	SY	525	\$ -	\$ 788.00	
	Erosion Control Blanket	\$ 2.00	SY	525	\$ -	\$ 1,050.00	
	Interpretive Signage Fabrication & Install	\$ 1,200.00	Lump Sum	1	\$ -	\$ 1,200.00	
	Contingency	\$ 1,500.00	Lump Sum	1	\$ -	\$ 1,500.00	\$ 18,013.00
4.	Bioretention with Forebay and Detention						
	Forebay						
	Clearing and Grubbing	\$ 2,000.00	Lump Sum	1	\$ -	\$ 2,000.00	
	Excavation	\$ 15.00	CY	56	\$ -	\$ 840.00	
	Embankment	\$ 18.00	CY	44	\$ -	\$ 792.00	
	6" Perforated Standpipe	\$ 250.00	EA	2	\$ -	\$ 500.00	
	6" HDPE Pipe	\$ 10.00	LF	30	\$ -	\$ 300.00	
	Bioretention System						
	Excavation	\$ 15.00	CY	1000	\$ -	\$ 15,000.00	
	Amended Soil	\$ 35.00	CY	340	\$ -	\$ 11,900.00	
	Sand	\$ 30.00	TN	150	\$ -	\$ 4,500.00	
	8" Pea Gravel Curtain Drain	\$ 30.00	TN	100	\$ -	\$ 3,000.00	
	4" HDPE Perforated Pipe	\$ 8.00	LF	350	\$ -	\$ 2,800.00	
	Riser Structure	\$ 1,000.00	EA	1	\$ -	\$ 1,000.00	
	Plant Material	\$ 3,000.00	Lump Sum	1	\$ -	\$ 3,000.00	
	Detention Basin						
	Excavation	\$ 15.00	CY	1000	\$ -	\$ 15,000.00	
	Embankment	\$ 18.00	CY	1500	\$ -	\$ 27,000.00	
	Riser Structure	\$ 2,000.00	EA	1	\$ -	\$ 2,000.00	
	8" HDPE Pipe	\$ 10.00	LF	80	\$ -	\$ 800.00	
	8" Headwall	\$ 300.00	EA	1	\$ -	\$ 300.00	
	Silt Fence	\$ 3.00	LF	300	\$ -	\$ 900.00	
	Seeding	\$ 1.00	SY	2500	\$ -	\$ 2,500.00	
	Erosion Control Blanket	\$ 2.00	SY	2000	\$ -	\$ 4,000.00	
	Interpretive Signage Fabrication & Install	\$ 1,200.00	Lump Sum	1	\$ -	\$ 1,200.00	
	Contingency	\$ 1,500.00	Lump Sum	1	\$ -	\$ 1,500.00	\$ 100,832.00
	Construction Expenses -->			\$ 26,170.00	\$ 109,225.00		\$ 135,395.00
	TOTAL PROJECT BUDGET:			\$ 26,170.00	\$ 150,000.00		\$ 176,170.00
				ORGANIZATION SHARE*	GRANT SHARE		
				14.85%	85.15%		

* FY 2012 Class B Infrastructure Grants do not require a cost-share from the Grantee, therefore no minimum match is set.

** Additional detail on design phase costs are provided as Table 3.

TABLE 3. DETAILED DESIGN EXPENSES

Bluegrass Stockyards - Draft Detailed Feasibility Analysis Estimate (CDP Engineers)

Site/Civil Related Services	Manhours					Cost
WORK ELEMENT	PROJECT MANAGER	PROJECT ENGINEER II	PROJECT LANDSCAPE ARCHITECT II	CADD TECHNICIAN	CLERICAL	
Subsurface Investigation						
Rock Soundings/Field Assessments	-	-	-	-	-	\$1,000
Subsurface Investigation total						\$1,000
Feasibility Components						
report evaluating use of BMP's	1	4			1	\$595
conceptual design	2	10	10	16		\$3,230
detailed cost estimate for design	1	4	4			\$965
conceptual cost estimate for construction	1	4	4			\$965
letter certifying all BMP's	1	2				\$335
Feasibility Components Total						\$6,090
TOTALS	6	24	18	16	1	\$7,090
Rate	\$125	\$105	\$105	\$55	\$50	

TABLE 3. DETAILED DESIGN EXPENSES (cont'd)

Bluegrass Stockyards - Draft Detailed Design Estimate (CDP Engineers)

Site/Civil Related Services	Manhours						Cost
WORK ELEMENT	PROJECT MANAGER	PROJECT ENGINEER II	PROJECT LANDSCAPE ARCHITECT II	CADD TECHNICIAN	SURVEY CREW	CLERICAL	
Project Administration							
project coordination w/BG Stockyards	10	5	5			2	\$2,400
coordination w/ project team partners	8	4	4				\$1,840
education outreach	1	4	4				\$965
project administration total							\$5,205
Site Survey							
Surveying/data collection	1				30		\$3,000
Easement Description/Determination	1	9					\$1,070
survey total							\$3,000
Site Construction Documents							
base map preparation	1	8		16			\$1,845
initial site visit/scoping mtg	1	2	2				\$545
Biofiltration Swale Design	1	10	8	2			\$2,125
Bioretention w/Grass Cover Design	1	10	8	2			\$2,125
Bioretention W/Forebay	1	10	8	2			\$2,125
Detention Pond	1	12	0	2			\$1,495
drainage design calculation	1	8	6	2		1	\$1,755
site demolition plan	1	2	0	2			\$445
site layout plan	1	8	8	10			\$2,355
site grading plan	1	8	6	10			\$2,145
details and notes	1	8	4	10			\$1,935
erosion control plan	1	2	6	10			\$1,515
review mtgs w/LFUCG	4	6	6				\$1,760
Cost Estimates and Quantities	2	4	4			2	\$1,190
Site Construction Total							\$23,360
Interpretive Signage							
design			16	8			\$2,120
Interpretive Signage Total							\$2,120
TOTALS	39	120	95	76	30	5	\$33,685
Rate	\$125	\$105	\$105	\$55	\$125	\$50	