

ATTACHMENT A
to the GRANT AWARD AGREEMENT
between Lexington-Fayette Urban County Government (LFUCG) and
Lexington Habitat for Humanity, Inc.

GRANT PROGRAM: FY2017 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
 - Construction Only Grant

PROJECT TEAM AND CONTACT INFORMATION

Grantee Organization: **Lexington Habitat for Humanity, Inc.**
700 E. Loudon Avenue
Lexington, KY 40505



Project Site Location: 700 E. Loudon Avenue
Lexington, KY 40505
PVA # 25659000

Property Owner: **Lexington Habitat for Humanity, Inc.**
700 E. Loudon Avenue
Lexington, KY 40505

Primary Project Contact: **Jeremiah Myers**
859-252-2224 ext. 108
JeremiahM@lexhabitat.org

Project Manager: **Harsha Wijesiri**
859-368-0145
harsha@int-engineering.com

Secondary Project Contact: **David Doss**
859-519-1214
ddoss@messenger.com

Design Engineering Firm: **Integrated Engineering, PLLC**
1716 Sharkey Way, Suite 200
Lexington, KY 40511
Harsha Wijesiri, P.E. – Design Engineer
859-368-0145; harsha@int-engineering.com

Project Partners: Not Applicable

PROJECT PLAN ELEMENTS

1) ***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 700 E. Loudon Avenue, Lexington, Kentucky 40505, PVA #25659000 owned by Lexington Habitat for Humanity, Inc.. No other property or Right-of-Way shall be disturbed without the written permission from the property owners.

This project element includes design of stormwater control facilities at the specified site location. The proposed facilities are listed below and are further described in the Organization's incentive grant application. Alterations to these elements can only be made in consultation with

the LFUCG Grant Manager. Significant alteration of these elements may require approval by the LFUCG Water Quality Fees Board.

Grant related project elements to include:

- a. Permeable Pavers: for quality and quantity control. Removal and retrofit of approximately 14,000 square feet of impervious parking lot to permeable pavers (Phase 2). The permeable pavers will receive stormwater runoff from approximately 26,000 square feet of impervious surface. This is for the front parking.
- b. Bio-Retention System: water quality and quantity control. Installation of two rain gardens (Phase 3), located at the front and the back of the building. The rain garden in the front of the building will treat roof water that drains from the roof at the front of the building. The second rain garden will treat and store rainwater that is draining from the industrial site next door.
- c. Education: Signage will be developed at each node and posted on site, complete with a self-guided tour program describing the green infrastructure BMPs so that anyone can gain an understanding of the practices, what they mean for water quality, and the importance of improving the water quality.

Active education opportunities will take the form of more hands-on engagement with the BMPs that will be offered during potential community events, tours, and classes. Attendees at events will be reminded and encouraged to walk the grounds and see the system of BMPs.

Site improvements, once complete, will be utilized for community events and site tours to be offered to school groups.

Note: Phase 1 listed in the Application is not part of this Agreement.

2) ***DESIGN DOCUMENTS:***

Design Plans shall be provided to the LFUCG Grant Manager for review prior to starting construction phase of the project.

- a. The permeable pavement system shall be designed in such a way as to meet the LFUCG definition for an Engineered Pervious Surface (i.e. the design shall follow standard engineering principles and practices for permeable pavements).
- b. The permeable pavement system shall not be installed within 10 feet horizontally of any sanitary sewer line and measures shall be taken to prevent infiltrating water from entering the sanitary sewer trench.
- c. For the permeable pavement systems, the design shall include barriers and underdrains as necessary to prevent washing, scouring, or damage of any kind to the road base of any adjacent roadway or the proposed improvements. The design shall include an underdrain system to allow for hydraulic relief and prevent ponding of water above the stone base. The design documents for the permeable pavement shall include a description of:
 - i) Profile detail of the proposed surface (e.g. stone to paver) indicating all sizes of stone etc. Only open-graded (e.g. single-sized), certified washed stone is allowed. The Aggregate specification in the design documents shall meet or exceed the following:
“All Base and Bedding aggregates shall be washed with less than 1% passing the No. 200 sieve and certified as clean. Certifications shall be provided to the Engineer or Owner prior to unloading on site”.
 - ii) Detail of the proposed underdrain system and plan view of its locations and how it will be connected into an existing storm sewer inlet or discharge into an existing gutter or other stormwater control structure. Water shall not be allowed to discharge onto a public sidewalk either directly via a pipe or from seepage coming from the stone base.
 - iii) Slope of the stone base and use of barriers, if necessary, to prevent high velocities and scour within the stone base.

- h. The Organization shall document construction by taking before, during, and after photographs. Photographs shall be provided in digital format to the LFUCG Grant Manager.
- i. Once construction of the Stormwater Control Facilities 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.
- j. The Organization agrees to enter into the *Agreement to Maintain Stormwater Control Facilities Funded by an LFUCG Stormwater Quality Projects Class B Incentive Grant* 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. It is anticipated the permeable pavement and educational signage will be included in Attachment B.

REPORTING REQUIREMENTS

- 1) Prior to Construction, the Organization shall provide the LFUCG Grant Manager 3 hard copies and one digital copy each of the following 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. (Including one "half-size" set.)
 - Set of final specifications and bidding documents (if applicable).
 - Final detailed engineer's construction cost estimate including quantities and/or bid(s).
 - 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. The O&M Plan must include prohibitions against storage of certain materials on the permeable pavement.
 - Existing Condition photographs.
- 2) 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.
- 3) If the project is 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.
- 4) 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 deviations from the engineer's construction cost estimate.
- 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) 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 original incentive grant application 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.**

- b. All existing utilities shall be located and shown on the design plans.
- c. 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.
- d. 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 Services (street trees), Tim Queary – tqueary@lexingtonky.gov
 Engineering (right-of-way), Dan Kiser – dkiser2@lexingtonky.gov
 Engineering (New Development), Hillard Newman - hnewman@lexingtonky.gov
 Sanitary Sewers, Rod Chervus – rchervus@lexingtonky.gov
 Stormwater, Greg Lubeck – glubeck@lexingtonky.gov

- e. 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.
- f. 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.

- a. Facilities shall be constructed per the design plans and specifications. Construction of the proposed facilities shall also meet the following stipulations:
- b. Construction shall not begin until all permits, approvals, agreements, etc. are obtained and copies provided to the LFUCG Grant Manager.
- c. All existing utilities shall be located, contacted, and coordinated with prior to any work being performed.
- d. The Stormwater Pollution Prevention Plan, including the Erosion and Sediment Control Plan, shall be provided to the LFUCG Divisions of Water Quality and Engineering for review. The LFUCG Land Disturbance Permit shall be obtained by the contractor after placement of the ESC and traffic control measures.
- e. 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.
- f. The Organization shall host a pre-construction/construction meeting with all parties related to the Stormwater Control Facilities. The LFUCG Grant Manager shall be invited 5 days in advance of this meeting.
- g. The Organization is responsible for providing all construction oversight, administration, and daily inspections. LFUCG shall not provide these services.

- 3) The Operations and Maintenance Plan must include prohibitions against storage of certain materials on the permeable pavement

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	Anticipated Date
Notice to Proceed	April 2017
Topographic Survey	5/1/2017
Geotechnical Field Evaluations	6/1/2017
Preliminary Design	7/1/2017
Final Design & Bid Documents	8/1/2017
Plans out for Final Bid	9/1/2017
Submit Plans to LFUCG & DOW	10/30/2017
Negotiations with Contractor & Award Project	11/1/2017
Construction Begins	1/1/2018
Project Closeout	6/30/2018

PROJECT BUDGET – GRANT ELIGIBLE EXPENSES

The project budget is broken into the following components based upon the Organization’s incentive grant application:

1. Phase 2 (Permeable Pavers): **\$ 282,802.32**
2. Phase 3 (Rain Gardens): **\$ 77,197.68**

TOTAL PROJECT COSTS: \$ 360,000.00

The Organization has offered to provide a cost share amount of the minimum program requirements of 20% of Project costs. The minimum cost share required for this project shall be \$72,000.00 based on the Water Quality Fees Board Determination. The total project cost estimate and breakdown of grant to cost share is as follows:

Total Grant Share	\$ 288,000.00 not to exceed
Estimated Cost Share	\$ <u>72,000.00</u>
Est. Total Project Cost	\$ 360,000.00

Table 2 lists the Eligible Expenses for the design and construction phases of this project. Figures 2 and 3 are provided as informational purpose only. Only properly invoiced items shall be reimbursed with grant monies or counted toward the Organization’s cost share.

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 cost share with the following exception:

- NONE

Construction cost items given in Table 2 are conceptual and the construction estimate will be revised and submitted to LFUCG Grant Manager for review prior to construction and again once bids are received. 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 or re-development unrelated to the stormwater quality improvement project as described herein that were to occur on-site at the same time as this project. Donated professional service hours, valued at the Median Hourly Wage for the expense provided – from the U.S. Department of Labor, Bureau of Labor Statistics, State Occupational Employment and Wage Estimates for Kentucky (current website: http://www.bls.gov/oes/current/oes_kv.htm)

- 7) After construction is completed, the Project Final Report shall include digital and hard 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) and any permit closure documents.
 - 3 copies of a 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 Funded by an LFUCG Stormwater Quality Projects Class B Incentive Grant* (Note: This form will be provided by LFUCG after construction is completed and final costs determined.).
 - Any materials generated and documentation of course materials utilized in curriculum.
- 8) LFUCG shall make final payment of the 10% retainer after acceptance of the Project Final Report.

EDUCATIONAL OPPORTUNITIES

- 1) Signage will be developed at each node and posted on site, complete with a self-guided tour program describing the green infrastructure BMPs so that anyone can gain an understanding of the practices, what they mean for water quality, and the importance of improving the water quality.
- 2) Active education opportunities will take the form of more hands-on engagement with the BMPs that will be offered during potential community events, tours, and classes. Attendees at events will be reminded and encouraged to walk the grounds and see the system of BMPs.
- 3) Site improvements, once complete, will be utilized for community events and site tours (to be offered to school groups).

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 by an LFUCG Stormwater Quality Projects Class B Incentive Grant* 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.

ADDITIONAL GRANT STIPULATIONS

Construction shall meet the following requirements:

- 1) Replacement of existing detention basin with underground detention mentioned in the application as part of Phase 1 is not an eligible project element. Do not include the portion of the cost share that covers that cost in the Grant Award Agreement for eligible cost share.
- 2) Permeable pavement shall not be installed within 10' of either side of the existing sanitary sewer and measures taken to prevent infiltrating water from entering into the sanitary sewer stone trench.

FIGURE 1 – PHASE 2: CONSTRUCTION BUDGET (FROM APPLICATION)

Phase 2 (Side and entrance to building)	Engineer's Estimated Probable Quantity	Unit	Installation Unit Cost	Cost
Owner Purchased Items (Materials)				
Parking lot Striping	800	LS	1.07	\$ 856.00
Parking Lot Light Relocation (Utility Relocation)	1	LS	1380	\$ 1,380.00
Relocate Gate keypad	1	LF	2300	\$ 2,300.00
Relocated sliding electric gate	1	LS	1200	\$ 1,200.00
New fence panels, posts for extension of electronic gate	1	LS	1200	\$ 1,200.00
Paver	234	SF	37542.9	\$ 8,7850.39
Perforated 6" pipe	575	LF	1.21	\$ 695.75
ADS Pipe -6"	175	LF	1.21	\$ 211.75
ADS Pipe -15"	15	LF	6.59	\$ 98.85
Storm Sewer Inlets	2	EA	710.5	\$ 1,421.00
Stone	2160	Ton	16.39	\$ 35,402.40
Silt Fence	80	LF	2.53	\$ 202.40
Concrete Curb & Gutter	393	LF	7.61	\$ 2,990.73
Heavy Duty Concrete Paving	1	LS	4945	\$ 4,945.00
Concrete Walk	2	CY	230	\$ 460.00
Concrete Retaining Wall	1	LS	4025	\$ 4,025.00
Geotextile Fabric	1	LS	805	\$ 805.00
8' tall chain link fence with barbed wire on top	1	LS	5175	\$ 5,175.00
HC signs	3	EA	575	\$ 1,725.00
Recycled Wheelstops	3	EA	920	\$ 2,760.00
Trench Drain	1	EA	1150	\$ 1,150.00
Educational Signage	1	EA	1500	\$ 1,500.00
ADA pavers	1	LS	575	\$ 575.00
Concrete Header Curb	95	LS	8.6	\$ 817.00
			Sub-Total	\$ 159,746.27
Owner Purchased - Contractor Installed (Labor)				
Silt Fence	1	LS	160.00	\$ 160.00
Concrete curb and gutter	1	LS	2,950.00	\$ 2,950.00
Header curb	1	LS	720.00	\$ 720.00
Demolition of parking lot and haul off	1	LS	14,950.00	\$ 14,950.00
Pervious pavers PH2 only	1	LS	49,621.00	\$ 49,621.00
Stone	1	LS	5,097.00	\$ 5,097.00
Perforated 6" pipe	1	LS	310.50	\$ 310.50
ADS Pipe -6"	1	LS	152.25	\$ 152.25
ADS Pipe -15"	1	LS	1,218.00	\$ 1,218.00
Storm Sewer Inlets	1	LS	4,945.00	\$ 4,945.00
Concrete retaining wall	1	LS	4,300.00	\$ 4,300.00
Heavy Duty Concrete Paving (storage pad & entry apron)	1	LS	460.00	\$ 460.00
4.5" Concrete Walk	1	LS	805.00	\$ 805.00
8' tall chain link fence with barbed wire on top	1	LS	920.00	\$ 920.00
Fabric Geotextile Type 1	1	LS	805.00	\$ 805.00
ADA Pavers	1	LS	862.00	\$ 862.00
Educational Signage	1	LS	460.00	\$ 460.00
Trench Drain	1	LS	1,058.00	\$ 1,058.00
Recycled wheelstops	1	LS	805.00	\$ 805.00
Miscellaneous Labor	1	LS	1730	\$ 1,730.00
HC signs	1	LS	920.00	\$ 920.00
			Sub-Total	\$ 93,056.05
Total Construction (Materials and Labor)				
				\$ 252,802.32
Engineering				
Engineering Fees		LS	30,000.00	\$ 30,000.00
			Total	\$ 282,802.32

TABLE 2 – ELIGIBLE EXPENSE

Activities	Unit Price	Quantity	Funded by Organization	Funded by Grant	Total Expense	Total by Activity
Phase 2 (Side and entrance to building)						
1						
2	Owner purchased items (Materials)	\$ 159,746.27	LS	1		\$ 159,746.27
3	Owner purchased - Contractor Installed (Labor)	\$ 93,056.05	LS	1		\$ 93,056.05
4	Engineering Fees	\$ 30,000.00	LS	1		\$ 30,000.00
5	Total Phase 2 Expenses		\$ 56,560.46	\$ 226,241.86		\$282,802.32
Phase 3 (Rain Gardens)						
6						
7	Owner purchased items (Materials)	\$ 29,277.68	LS	1		\$ 29,277.68
8	Owner purchased - Contractor Installed (Labor)	\$ 39,920.00	LS	1		\$ 39,920.00
9	Engineering Fees	\$ 8,000.00	LS	1		\$ 8,000.00
10	Total Phase 3 Expenses -->		\$ 15,439.54	\$ 61,758.14		\$77,197.68
11	TOTAL PROJECT BUDGET:		\$ 72,000.00	\$ 288,000.00		\$ 360,000.00
12			ORGANIZATION SHARE	GRANT SHARE		
13			20.0%	80.0%		

FIGURE 2 – PHASE 3: CONSTRUCTION BUDGET (FROM APPLICATION)

Phase 3 Rain Gardens	Engineer's Estimated Probable Quantity	Unit	Installation Unit Cost	Cost	Installation Cost
Owner Purchased Items (Materials)					
Paver	234	SF	2614	\$	6,116.76
Perforated 6" Pipe	575	LF	1.21	\$	695.75
ADS Pipe -6"	175	LF	1.21	\$	211.75
ADS Pipe -15"	15	LF	6.59	\$	98.85
Storm Sewer Inlets	2	EA	710.5	\$	1,421.00
Stone 6" depth in pedestrian paver areas	53	Ton	16.39	\$	868.67
Silt Fence	80	LF	2.53	\$	202.40
Metal Edging for pavers	375	LF	5.5	\$	3,162.50
Prefabricated Bridge	8000	LS	1	\$	8,000.00
Educational Signage for Site RMP's	8500	LS	1	\$	8,500.00
			Sub-Total	\$	29,277.68
Owner Purchased - Contractor Installed (Labor)					
Demolition miscellaneous and Earthwork					
Large Trees	1	LS	1,500.00	\$	1,500.00
Ornamental Trees	7	EA	250.00	\$	1,750.00
Shrubs	6	EA	150.00	\$	900.00
Rain Garden Plants	92	EA	40.00	\$	3,680.00
Rain Garden Special Soil Mix	850	EA	20.00	\$	17,000.00
Seeding Disturbed Areas	28	CY	30.00	\$	840.00
Pre-emergent herbicide and Fertilizer	1	LS	2,500.00	\$	2,500.00
Place Boulders (includes cost of boulders)	12	TON	500.00	\$	500.00
Install Educational Signage	3	EA	100.00	\$	1,200.00
Install Pavers and base (6" stone base for pedestrian areas)	1	LS	150.00	\$	450.00
Install Prefabricated Bridge	1	LS	8,500.00	\$	8,500.00
Install ADS Pipe & Storm Sewer Yard Inlets	1	LS	300.00	\$	300.00
			Sub-Total	\$	39,920.00
Total Construction (Materials and Labor)				\$	69,197.68
Engineering					
Engineering Fees		LS	8,000.00	\$	8,000.00
Total Construction Cost Design + Construction			Total	\$	77,197.68

FIGURE 3 – CONSTRUCTION PHASES (FROM APPLICATION)

CONSTRUCTION PHASES	Total Cost	Total Project Cost	Amount Paid by Habitat
Phase 1	\$ 101,789.38		
Phase 2	\$ 282,802.32		
Phase 3	\$ 77,197.68		
Total Construction Cost Design + Construction	\$ 360,000.00		

LFUCG Grant Funding	\$ 288,000.00	LHFH Matching 20%	\$ 72,000.00
Total Project Cost	\$ 360,000.00	Total Paid By Habitat- Independently and within Grant terms	\$ 72,000.00

NOTE: Activities listed as Phase 1 in the above Figure 3, are not included as part of the Lexington Habitat for Humanity FY 2017 Stormwater Incentive Grant.

FIGURE 4 – HABITAT FOR HUMANITY (STORMWATER QUALITY INCENTIVE GRANT PLAN)



NOTE: Project area Phase 1 shown above in Figure 4 is not an eligible project element.