

OPERATIONS AND MAINTENANCE MANUAL FOR BMPs OF

Homesteads at Hillview - Section 3 & 4

**CITY OF FRANKLIN
JOHNSON COUNTY**

Prepared by:



**CrossRoad Engineers, P.C.
115 N. 17th Ave.**

**Beech Grove, IN 46107
phone: (317) 780-1555**

email: info@crossroadengineers.com

TABLE OF CONTENTS

BMP OWNER/CONTACT INFORMATION.....	3
BMP LOCATION AND DESCRIPTION	3
MAINTENANCE AND INSPECTION GUIDELINES	3
ROUTINE MAINTENANCE	3
REMEDIAL MAINTENANCE	4
BMP INSPECTION	4
SEDIMENT REMOVAL	4
STATEMENT OF COMPLIANCE	6
APPENDIX A	8
BMP SITE DRAWINGS	8
APPENDIX B.....	9
MAINTENANCE PLAN AND INSPECTION FORMS	9

BMP Owner/Contact Information

Hillview Properties, LLC
7502 S. Susan Lane
Trafalgar, IN 46181
phone: (317) 339-9729

BMP Location and Description

A BMP, Best Management Practice, is defined as a structural measure (wetland, pond, sand filter, mechanical unit, etc.) or non-structural measure (restrictive zoning, reduced impervious area, etc.). BMP's are designed for the benefit of water quality and quantity. The following are the BMP's being utilized for this residential subdivision:

- A detention facility shall be employed for the water quality and quantity treatment from the overall subdivision. The ponds will collect all surface water from impervious areas via storm sewer and drainage swales. The ponds will allow for sediment to settle to the bottom of the facility, reducing the amount of sediment leaving the site.

The Homesteads at Hillview Subdivision is located at the southeast quadrant of the Eastview Drive and Upper Shelbyville Road intersection in the City of Franklin. Refer to **Appendix A** for a location map and site drawings of the BMP's.

Direct maintenance access to the pond can be achieved through the proposed roadways and common areas within the subdivision. The roadways and commons areas are platted with access and drainage easements.

Maintenance and Inspection Guidelines

Maintenance and inspection as described below is the responsibility of the BMP owner. Any additional procedures deemed necessary by annual City of Franklin inspections shall be incorporated into these guidelines.

Routine Maintenance

The owner shall be responsible for the following minimum operations for maintaining the BMP:

- Removal of sediment, debris and litter from inlet and outlet structures within the detention facility and overall development.
- Inspect outfall for erosion, regrade, and replace riprap as necessary.
- Remove floatables via netting.
- Inspection and removal of debris and sediment from storm sewer inlets and drainage swales.
- Mowing and/or trimming vegetation within the grassed areas of the subdivision. All clippings should be removed and properly disposed of.
- Mowing and/or trimming vegetation along the banks of the detention facility shall occur a minimum of two times per year. All clippings/trimmings shall be removed and properly disposed of.

- Maintain and update the BMP Operations and Maintenance Manual as necessary

Remedial Maintenance

The owner shall be responsible for correcting and/or replacing any portions of the BMP in unsatisfactory condition. This includes, but is not limited to:

- Repairing/replacing the outlet control structures.
- Replacing any portion of the inlet/outlet pipes or end sections within the detention facilities.
- Grading and reseeding eroded areas of the detention facilities, as well as the overall development.
- Replacing riprap as necessary at all storm sewer outlets.

BMP Inspection

Annual inspections of permanent BMPs shall be performed by the City of Franklin, or their representatives. Routine inspections are the responsibility of the BMP owner. These inspections shall be accomplished as scheduled below:

MAINTENANCE ITEM	INSPECTION SCHEDULE
Embankments	Quarterly and After Major Storms
Outlet Control Structures	Monthly and After Major Storms
Permanent Pool	Monthly and After Major Storms
Storm Sewer Inlets	Monthly and After Major Storms
Riprap at Outlets	Monthly and After Major Storms
Miscellaneous	Monthly

The approved maintenance plan and inspection forms provided in **Appendix B** shall be used as guidance for performing maintenance and inspections activities. These forms shall be completed and retained by the BMP owner and produced upon request by the City.

The City of Franklin shall be notified of any changes in BMP ownership, major repairs, or BMP failure in writing within 30 days. Notification shall be addressed to:

*City of Franklin Planning & Engineering
70 E. Monroe St.
Franklin, IN 46131*

In the event that the City finds a BMP in need of maintenance or repair, the City will notify the BMP owner of the necessary maintenance or repairs and give the landowner a timeframe for completing the maintenance or repairs. If the maintenance or repairs are not completed within the designated timeframe, the City shall perform the repairs or maintenance and bill the landowner for the actual costs for the work.

Sediment Removal

Sediment accumulation in the detention basin, forebays, and storm sewer structures shall be inspected on a quarterly basis and after major storm events. Removal of the sediment accumulation shall be completed as necessary as visual inspection indicates. The

sedimentation and any other debris taken from the detention basin shall be disposed in compliance with all applicable Federal, State and Local requirements. The removal of sediment shall be accomplished by methods which will not disturb or destroy the basin bottoms, side slopes, or storm structures. Immediate remedial maintenance shall be completed in the case of any of the aforementioned occurrences.

Statement of Compliance

I hereby certify that I am the _____ and duly authorized agent of
(title)

_____, and that I have read the preceding manual and shall comply
(company/agency)
with all terms and requirements stated herein.

I understand that this BMP O&M Manual has been created per requirements of the City of Franklin and that the recommendations and requirements shall be revised and/or updated to comply with any changes implemented by the City.

I recognize that it shall be the right of the City and authorized representatives to enter the property containing the BMP for maintenance and inspection purposes, and that this access shall be granted without hindrances by means of the utility and drainage easement previously described in this manual.

(printed name)

(signature)

(date)

ACKNOWLEDGMENT

State of Indiana, County of Johnson, SS:

Before me, the undersigned Notary Public in and for said County, personally appeared _____, _____ of
*(name)**(title)*
_____, and acknowledged the execution of the foregoing
(company/agency)
Manual on this _____ day of _____, _____ and stated that he/she is the party authorized by the said company/agency to execute the foregoing Manual.

Witness my hand and seal this said last named date.

My Commission Expires

Notary Public

County of Residence

Printed Name

APPENDIX A

BMP Site Drawings

APPENDIX B

Maintenance Plan and Inspection Forms

MAINTENANCE AND INSPECTION CHECKLIST

Regular inspection and maintenance is critical to the effective operation of storm water ponds. The following inspection checklist, to be completed at periods indicated, is provided for the BMP owner and should be retained as a record by the owner for a period of five (5) years from the approval date of the Storm Water Pollution Prevention Plan. Evidence of inspection and maintenance shall be provided to the City of Franklin upon request.

Project Name/Site Location: _____

Owner Name: _____ Phone: _____

Owner Address: _____

Date: _____ Inspector: _____

MAINTENANCE ITEM	YES/NO	COMMENTS
<u>Embankment and Emergency Spillway</u>		<u>Inspect Annually</u>
1. Vegetation established and thriving?		
2. Any erosion?		
3. Animal burrows present?		
4. Cracking, bulging, or sliding of dam?		
5. All drains clear and functioning?		
6. Any leaks or seeps in embankment?		
7. Any slope failure?		
8. Other problems evident?		
<u>Outlet Structure</u>		<u>Inspect Annually</u>
1. Low flow orifice blocked?		
2. Trash rack clear of debris?		
3. Any corrosion evident on trash rack?		
4. Excessive sediment in riser?		
5. Cracks or spalling in concrete?		
6. Any corrosion evident on metal pipes?		
7. Are all control valves operational?		
8. Outfall channels functioning?		
9. Other problems evident?		

<u>Permanent Pool</u>		<u>Inspect Monthly</u>
1. Undesirable vegetative growth?		
2. Floatable debris removal needed?		
3. Any visible pollution?		
4. Any shoreline problems?		
5. Other problems evident?		
<u>Other</u>		<u>Inspect Monthly</u>
1. Erosion at inflow or outfall points?		
2. Condition of headwalls satisfactory?		
3. Encroachments in pond easement area?		
4. Complaints from area residents?		
5. Any public hazards present?		
6. Other problems evident?		

Additional Comments: _____

Recommended Actions: _____

Recommended Timeframe for Actions: _____
