

**AGREEMENT FOR
STORM WATER SYSTEM MAINTENANCE**

This Agreement is made on June 28, 2013, by Patrick Bismack, a married man, ^{or Gwen Bismack his spouse,} of 2742 Powderhorn Ridge, Rochester Hills, MI 48309 ("Developer"), and the CITY OF ROCHESTER HILLS (the "City"), whose address is 1000 Rochester Hills Drive, Rochester Hills, MI 48309.

WHEREAS, Developer owns and proposes to develop the Property described in attached Exhibit A;

and WHEREAS, the proposed development of the Property will alter the natural flow of surface and storm water drainage; and

WHEREAS, Developer has proposed, and the City has approved, a storm water drainage and detention system (the "System") comprised of storm water detention and water quality treatment facilities and devices, storm sewer pipe, catch basins, manholes, end-sections, ditches, swales, open water courses and rip-rap, for the Property as described and depicted in the Storm Water System Plan attached as Exhibit B; and

WHEREAS, the parties will benefit from the proper operation, use and maintenance of the system and enter into this agreement to provide for the same.

THEREFORE, the parties agree:

1. Use of the System:

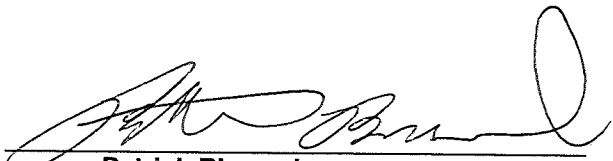
Components of the System, including any and all water conveyance, detention and water quality treatment facilities and devices, pumping system, storm sewer pipe, catch basins, manholes, end-sections, ditches, swales, open water courses and rip-rap, shall be used solely for the purpose of conveying, detaining and treating storm and surface drainage on the property until such time as: (i) The City determines and notifies Developer or Developer's successors, grantees or assigns, in writing, that it is no longer necessary to convey, detain or treat the storm and surface drainage; and (ii) An adequate alternative for conveying, detaining and treating storm and surface drainage has been provided which is acceptable to the City and which includes the granting of any easements to the City or third parties as may be required or necessary for the alternative drainage system.

2. Maintenance:

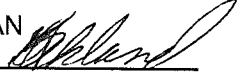
- A. Developer shall be responsible for the proper maintenance, repair and replacement of the System and all parts thereof as detailed in the Maintenance Plan attached as Exhibit "C"
- B. Proper maintenance of the System shall include, but is not limited to: (i) Removing accumulated sediment, trash and debris from the detention basin and at inlet pipes; (ii) Managing deleterious vegetative growth; (iii) Maintaining storm sewer, structures, end-sections and safety features; (iv) Controlling the effects of erosion; (v) Inspection and cleaning of the water quality treatment device; (vi) Inspection of inlet and outlet pipes for structural integrity; (vii) Inspection and replacement of riprap at inlet pipes; (viii) Inspection and cleaning of the storm sewer and catch basins upstream from the detention basin; (ix) Inspection and replacement of stone around the outlet pipe; and (vi) Any other maintenance that is reasonable and necessary to facilitate and continue the proper operation and use of the System.

7/22/13
John Starow
Approved

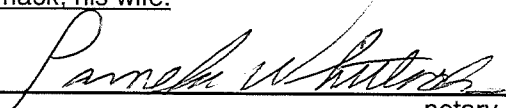
7. **Recording of Agreement:** This agreement shall be recorded at the Oakland County Register of Deeds.

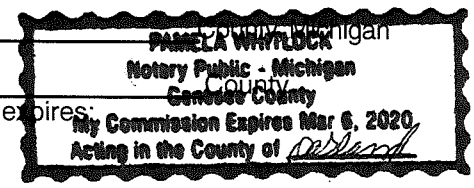
By: 
Patrick Bismack

By: 
Gwen Bismack

STATE OF MICHIGAN
COUNTY OF 

This agreement was acknowledged before me on June 28, 2013,
by Patrick Bismack, a married man and Gwen Bismack, his wife.


_____, notary public

Acting in _____
My commission expires: _____


CITY OF ROCHESTER HILLS

By: _____
Bryan K. Barnett, Mayor

By: _____
Tina Barton, City Clerk

STATE OF MICHIGAN
COUNTY OF OAKLAND

This agreement was acknowledged before me on _____, _____, by Bryan K. Barnett, Mayor, and Tina Barton, Clerk, of the City of Rochester Hills, on behalf of the City.

_____, notary public
County, Michigan
My commission expires: _____

Drafted By:

Carol P. Thurber
Fazal Khan & Associates, Inc.
43279 Schoenherr
Sterling Heights, MI 48313

When Recorded Return to:
Clerks Dept.
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309

EXHIBIT "A"

12-004
GRACE PARC SUBDIVISION

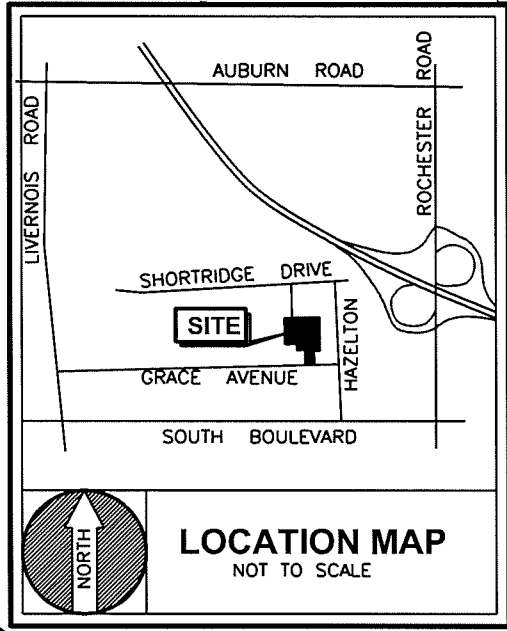
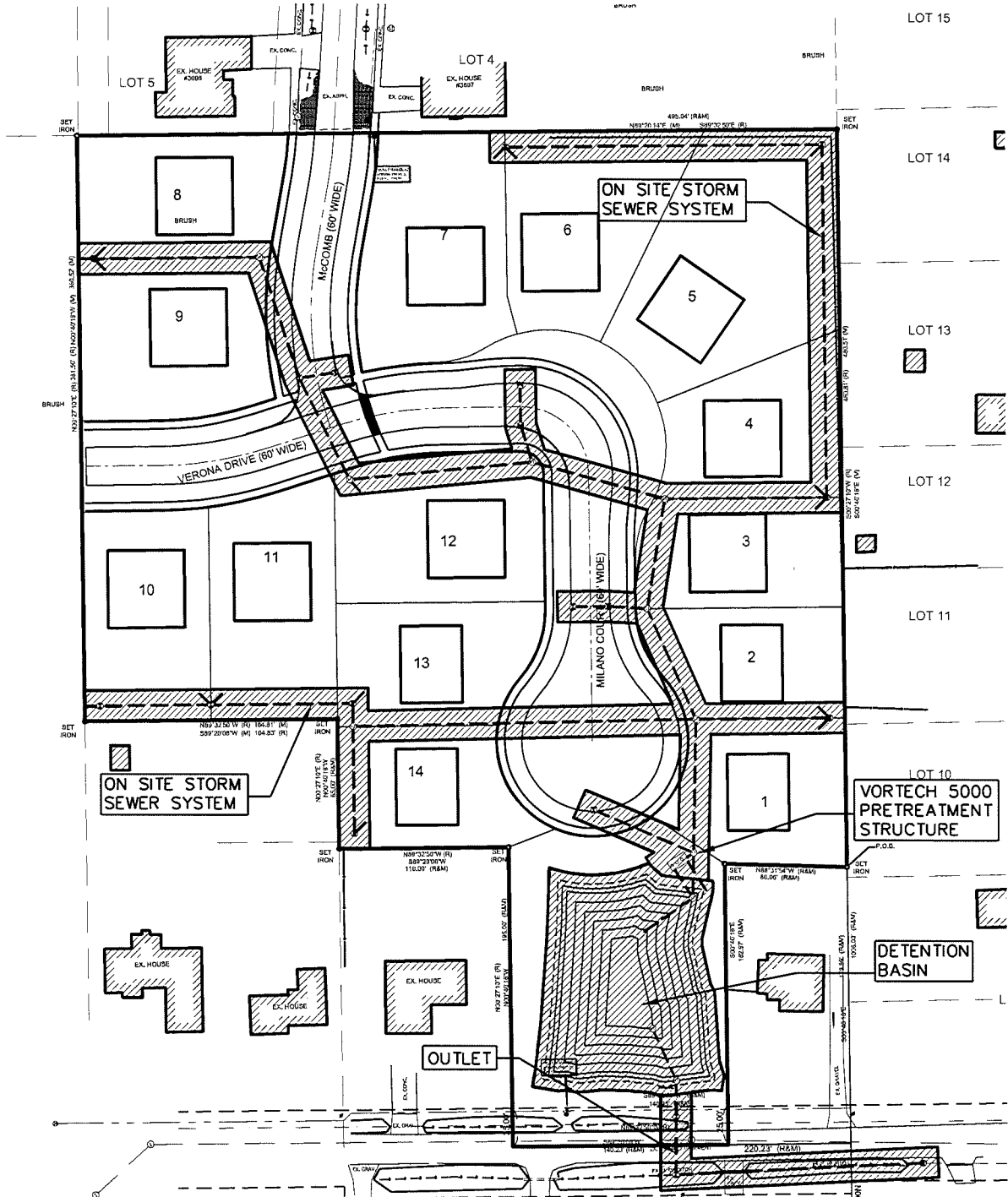
LEGAL DESCRIPTION:

PART OF THE SOUTHEAST 1/4 OF SECTION 34, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 34; THENCE S86°55'47"E., 991.01 FEET ALONG THE SOUTH LINE OF SAID SECTION 34 TO THE SOUTHWEST CORNER OF "MARTIN FARMS SUBDIVISION AS RECORDED IN LIBER 18 OF PLATS, PAGE 23, OAKLAND COUNTY RECORDS; THENCE N00°40'18"W, 1006.03 FEET ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING; THENCE N88°31'54"W, 80.06 FEET; THENCE S00°40'18"E, 182.97 FEET TO A POINT ON THE CENTERLINE OF GRACE AVE; THENCE S89°20'06"W, 140.23 FEET (PREVIOUSLY DESCRIBED AS N89°32'50"W) ALONG THE CENTERLINE OF GRACE AVENUE; THENCE N00°40'18"W, 195.00 FEET (PREVIOUSLY DESCRIBED AS N00°27'10"E); THENCE S89°20'06"W, 110.00 FEET (PREVIOUSLY DESCRIBED AS N89°32'50"W); THENCE N00°40'18"W, 85.00 FEET (PREVIOUSLY DESCRIBED AS N00°27'10"E); THENCE S89°20'06"W, 164.81 FEET (PREVIOUSLY DESCRIBED AS N89°32'50"W, 164.63 FEET); THENCE N00°40'18"W, 380.52 FEET (PREVIOUSLY DESCRIBED AS N00°27'10"E, 381.50 FEET); THENCE N89°20'14"E, 495.04 FEET (PREVIOUSLY DESCRIBED AS S89°32'50"E) ALONG THE SOUTH LINE OF "GUNTHER'S RUN SUBDIVISION" AS RECORDED IN LIBER 257 OF PLATS, PAGES 33 & 34, OAKLAND COUNTY RECORDS, TO A POINT ON THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION"; THENCE S00°40'18"E, 480.51 FEET (PREVIOUSLY DESCRIBED AS S00°27'10"W) ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING. CONTAINING 5.621 ACRES. SUBJECT TO GRACE AVE., A PRIVATE ROAD , AND ANY OTHER EASEMENTS, RESTRICTIONS AND RIGHTS OF WAY OF RECORD, IF ANY.


#15-34-402-057
+ #15-34-402-066

MT Approved
6/20/13

EXHIBIT 'B'



GRACE AVENUE (PRIVATE)
 5.14 COR. SEC. 34
 T3N, R11E, L.C.R.C.
 L. 1492, P. 01
 N86°55'47"W
 991.01'
 1858.31' R
 1256.22' M
 S.E. COR. SEC. 34
 T3N, R11E, L.C.I.
 L. 11002, P. 228

 = GRACE PARC STORM SYSTEM MAINTENANCE RESPONSIBILITY

CLIENT GRACE PARC	PROJECT NO. 12-004
	DATE 04-16-2013
SCALE 1" = 100'	DRAWN BY M.B.
	CHECKED BY C.T.

 **FAZAL KHAN & ASSOCIATES, INC.**
CIVIL ENGINEERS & LAND SURVEYORS
 43279 SCHOENHERR STERLING HEIGHTS, MI 48313
 PHONE (586) 739-8007 FAX (586) 739-6994

EXHIBIT 'C'
OPERATIONS AND MAINTENANCE MANUAL

Grace Parc Subdivision
STORMWATER MAINTENANCE PLAN
ROCHESTER HILLS, MICHIGAN
PRELIMINARY COPY

PROPERTY OWNER:
Bismack Designs, Inc.
2742 Powderhorn Ridge
Rochester Hills, MI 48307
Phone: (810) 397-5327
Contact: Patrick Bismack

Prepared by:
Fazal Khan & Associates, Inc.
43279 Schoenherr
Sterling Heights, MI 48313
Phone: (586) 739-8007
Contact: Carol P. Thurber, PE, CFM

OPERATION AND MAINTENANCE MANUAL

INTRODUCTION:

This manual identifies the ownership, operation and maintenance responsibilities for all storm water management systems including the sedimentation and detention basins, underground storm sewer system, mechanical pre-treatment devices and bioswales as incorporated into and detailed on the approved Construction Plans as prepared by Fazal Khan & Associates, Inc. In order to comply with the local best management practices (BMP) and requirements, this manual should serve as a minimum performance standard. This manual should be retained intact and read in its entirety by all parties responsible for the operations and maintenance of the on-site BMP's.

OWNER:

Bismack Designs, Inc.
2742 Powderhorn Ridge
Rochester Hills, MI 48307
Phone: (810) 397-5327

PROPERTY INFORMATION:

This Operations and Maintenance Manual covers the storm water systems located at the following subject property:

LEGAL DESCRIPTION: (see Exhibit 'A' of the Storm Water Maintenance Agreement)
PART OF THE SOUTHEAST 1/4 OF SECTION 34, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 34; THENCE S86°55'47"E., 991.01 FEET ALONG THE SOUTH LINE OF SAID SECTION 34 TO THE SOUTHWEST CORNER OF "MARTIN FARMS SUBDIVISION AS RECORDED IN LIBER 18 OF PLATS, PAGE 23, OAKLAND COUNTY RECORDS; THENCE N00°40'18"W, 1006.03 FEET ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING; THENCE N88°31'54"W, 80.06 FEET; THENCE S00°40'18"E, 182.97 FEET TO A POINT ON THE CENTERLINE OF GRACE AVE; THENCE S89°20'06"W, 140.23 FEET (PREVIOUSLY DESCRIBED AS N89°32'50"W) ALONG THE CENTERLINE OF GRACE AVENUE; THENCE N00°40'18"W, 195.00 FEET (PREVIOUSLY DESCRIBED AS N00°27'10"E); THENCE S89°20'06"W, 110.00 FEET (PREVIOUSLY DESCRIBED AS N89°32'50"W); THENCE N00°40'18"W, 85.00 FEET (PREVIOUSLY DESCRIBED AS N00°27'10"E); THENCE S89°20'06"W, 164.81 FEET (PREVIOUSLY DESCRIBED AS N89°32'50"W, 164.63 FEET); THENCE N00°40'18"W, 380.52 FEET (PREVIOUSLY DESCRIBED AS N00°27'10"E, 381.50 FEET); THENCE N89°20'14"E, 495.04 FEET (PREVIOUSLY DESCRIBED AS S89°32'50"E) ALONG THE SOUTH LINE OF "GUNTAR'S RUN SUBDIVISION" AS RECORDED IN LIBER 257 OF PLATS, PAGES 33 & 34, OAKLAND COUNTY RECORDS, TO A POINT ON THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION"; THENCE S00°40'18"E, 480.51 FEET PREVIOUSLY DESCRIBED AS S00°27'10"W) ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING. CONTAINING 5.621 ACRES. SUBJECT TO GRACE AVE., A PRIVATE ROAD ,AND ANY OTHER EASEMENTS, RESTRICTIONS AND RIGHTS OF WAY OF RECORD, IF ANY.

STORMWATER MAINTENANCE EXHIBIT:

Exhibit 'B' of the Storm Water Maintenance Agreement is the Storm Water System Plan which provides a clear presentation of all components of the storm water system. This system is subject to the long-term operation and maintenance responsibilities detailed in this manual. The system includes:

- Storm sewer pipes
- Storm sewer structures (manholes, inlets, catch basins etc.)
- Detention Basin
- Pre-Treatment Device (Vortech 5000)

INSPECTIONS:

The frequency of system inspections outlined in the manual and attached exhibits should be considered the minimum, if no events warrant additional inspections. The frequency of inspections should be fine-tuned over time as system specific conditions are better known and the rate at which certain maintenance operations need to be performed is better understood. Maintenance Inspection Checklists are provided for each of the BMP's in this system. Inspections should be performed by personnel responsible for maintenance and may need to be certified for confined space entry, depending on the component being inspected. Operation of the detention basin, sediment basin, outlet control structures and pre-treatment devices may need to be inspected by a practicing civil engineer familiar with their operation.

Records of all routine inspections and any work performed on the system for maintenance, repair or replacement should be maintained by the owner and kept for a minimum of ten (10) years. A copy of all records should be provided to the City of Rochester Hills Engineering Division. The records should include this manual, all inspection sheets, approved construction plans and as-built documents, a maintenance log of work performed to the system(s) and contact information for the system inspector, civil engineer, landscape architect, geotechnical engineer and contractor involved with the system.

STORM WATER SYSTEMS MAINTENANCE:

Regular inspection and maintenance of BMP's are necessary if these facilities are to consistently perform up to expectations. Storm water systems are expected to perform quality and quantity control functions as long as the land use they serve exists. Failure to maintain these systems can create the following adverse impacts:

Increased pollutants to surrounding surface water features
Potential loss of life or property resulting from catastrophic failure of the facility
Aesthetic or nuisance conditions, such as mosquitoes or reduced property values due to a degraded facility appearance.

Most of these impacts can be avoided through proper and timely inspection and maintenance. A major concern associated with these impacts is the general public's expectations related to the quality of life provided, in part, by construction of these systems. Inadequate maintenance means the general public may have a false sense of security. The most common cause of storm water system failure is the lack of adequate and proper operation, inspection, maintenance and management.

Good design and construction can reduce subsequent maintenance needs and costs, but they cannot eliminate the need for maintenance altogether. Maintenance requires a long term commitment of time, money, personnel and equipment. Monitoring the overall performance of the storm water management system is a major aspect of any maintenance program.

The maintenance responsibilities for these systems lie with the current property owner and transfer with the property in perpetuity. If maintenance of the system is not performed, the City of Rochester Hills reserves the right to enter the property and perform all necessary work at the property owners' cost. Refer to the Agreement for Storm Water System Maintenance for additional details.

General Maintenance Items:**Grass Mowing and Maintenance:**

Mowing requirements for a development should be designed to the specific site conditions, grass types and seasonal variations in climate. Grassed areas require periodic fertilizing, de-thatching and soil conditioning in order to maintain healthy growth. Provisions will need to be made to reseed and reestablish grass cover in areas damaged by sediment accumulation, storm water flow, erosion or other causes. Dead turf will need to be replaced after being discovered. Inspection of the grass areas and other landscaping features should be made annually. Grass mowing and maintenance shall be the responsibility of the individual homeowners.

Trash and Debris Removal:

Removal of trash and debris from all areas of the property should be performed monthly. Removal of these items will prevent damage to vegetated areas and eliminate their potential to inhibit the operation of any of the stormwater management systems. Sediment, debris and trash that are removed and collected should be disposed of according to local, State and Federal regulations at suitable disposal and/or recycling centers.

Storm water System Maintenance Items:

The following narratives give an overview of the maintenance requirements of the different components of the storm water system. The inspection checklists attached to this report offer a more complete listing of what should be inspected, when inspection should occur and the likely frequency of maintenance activities.

Storm Sewer and Structures:

Catch basins, inlets, manholes and sewer pipes should be inspected to check for sediment accumulation and clogging, floatable debris, dead vegetation etc. The structures and sewers should also be observed during a wet weather event to ensure their proper operation. Accumulated sediment and debris should be removed on an annual basis or as needed based on observed conditions. Structural repairs or maintenance should occur as needed based on observed conditions such as cracks, spalling, joint failure, leakage, misalignment or settlement of structures. A civil engineer should be retained if problems are thought to exist.

Storm water Pre-Treatment Device (Vortech 5000):

Refer to the attached maintenance manual from the manufacturer for all inspection and maintenance requirements for the Vortech structure.

Detention Basin Outlet Control Structure and Overflow Structure:

Both the outlet control and overflow structures and connecting pipes should be inspected for sediment accumulation, floatable debris, trash and any other foreign matter that may impede flow or restrict the devices from working properly. The stone jacket surrounding the outlet control structure should be inspected for sediment build up, and the holes at the base of the outlet control structure should be inspected to make sure they do not become blocked. The grates of the two structures should be inspected for structural integrity and build up of debris. The outlet control system should be inspected during a wet weather event to ensure all components are functioning properly. A civil engineer should be retained if problems are thought to exist.

Maintenance will include the removal of any debris, trash or sediment from the structures and/or pipe, cleaning of the stone jacket on the outlet control structure and removal of debris from the structure grates. The stone jacket may need replacement if cleaning does not adequately remove sediment build-up.

Detention Basin:

The inlet pipes to the basins should be inspected for structural integrity (pipes cracked, broken, spalled) and that the grates are free from debris. The area around and immediately downstream of the inlet pipes should be inspected for sediment build-up, erosion and the riprap should be inspected for integrity and sedimentation. Maintenance of the inlet pipes would include removal of any sediment build-up and debris, repair or replacement of any components that are in need of attention and to restore any areas that have eroded.

The basin should be inspected for healthy grass growth, side slope erosion, and excessive sedimentation. The basin should be inspected during a wet weather event to ensure all aspects of the basin are functioning correctly. A civil engineer should be retained if problems are thought to exist or if the inspection personnel are not familiar with the operating conditions of the basin.

The planted vegetation within the basin should conform to that shown on the construction plans, and any invasive species should be removed from the swale. The vegetation should be inspected for healthy growth by a landscape architect if the inspection personnel are not familiar with the specific plantings inside the basin.

Any resident complaints regarding the basin's aesthetics or operation should be investigated during inspections and wet weather operations.

The following pages include inspection checklists for the various devices and components listed above as well as the manufacturer's manual for the Vortech storm water treatment structure.

SEDIMENTATION AND DETENTION BASINS

DATE / TIME OF INSPECTION: _____

INSPECTOR: _____

SYSTEM COMPONENTS	Riprap at Inlets	Overflow Spillway	Sideslopes & Banks	Buffer Strips	Basins	FREQUENCY	COMMENTS
MAINTENANCE TASKS AND SCHEDULE							
POST-CONSTRUCTION MAINTENANCE ACTIVITIES							
MONITORING / INSPECTION							
Inspect for Sediment Accumulation	x	x			x	Annually	
Inspect for Floatables, dead vegetation and debris	x	x	x	x	x	Annually and after major rainfall	
Inspect for erosion	x	x	x	x	x	Annually	
Inspect all components during wet weather and compare to as-built plans*	x	x			x	Annually	
Inspect for Invasive Plant Species			x	x	x	Annually	
PREVENTATIVE MAINTENANCE							
Remove accumulated sediment	x	x		x	x	Annually or as needed	
Remove floatables, dead vegetation and debris	x	x	x	x	x	Annually or as needed	
Professional application of herbicide for invasive species that may be present			x	x	x	Annually or as needed	
Repair Erosion and/or reseed bare areas	x	x	x	x	x	Annually or as needed	
REMEDIAL ACTIONS							
Repair / stabilize areas of erosion	x	x	x	x	x	As Needed	
Structural repairs	x	x				As Needed	
Make adjustments / repairs to ensure proper functioning	x	x			x	As Needed	
Excavate and reshape Sed. Basin after major sediment removal (once sediment accumulates to 6"-12" or re-suspension of sediment is observed)*					x	As Needed	

* A civil engineering should be retained to observe basin operation

SUMMARY:

INSPECTOR'S REMARKS: _____

OVERALL CONDITION OF SYSTEM: _____

RECOMMENDED ACTIONS NEEDED: _____

DATES ANY MAINTENANCE MUST BE COMPLETED BY: _____

OUTLET CONTROL AND OVERFLOW STRUCTURES

DATE / TIME OF INSPECTION: _____

INSPECTOR: _____

SYSTEM COMPONENTS	Structures	Outlet Pipes	Rip Rap	Grates	FREQUENCY	COMMENTS
MAINTENANCE TASKS AND SCHEDULE						
POST-CONSTRUCTION MAINTENANCE ACTIVITIES						
MONITORING / INSPECTION						
Inspect for Sediment Accumulation	x	x	x		Annually	
Inspect for Floatables, dead vegetation and debris	x	x	x	x	Annually and after major rainfall	
Inspect for erosion			x		Annually	
Inspect all components during wet weather and compare to as-built plans*	x	x			Annually	
Inspect inside of structures and pipes for cracks spalling, joint failure, settlement, sagging and misalignment.	x	x			Annually	
PREVENTATIVE MAINTENANCE						
Remove accumulated sediment	x	x	x		Annually or as needed	
Remove floatables, dead vegetation and debris	x	x	x	x	Annually or as needed	
Replace or wash/clean stone filter jacket	x				Annually or as needed	
REMEDIAL ACTIONS						
Repair / stabilize areas of erosion			x		As Needed	
Structural repairs	x	x			As Needed	
Make adjustments / repairs to ensure proper functioning	x	x	x	x	As Needed	

* A civil engineering should be retained to observe basin operation

SUMMARY:

INSPECTOR'S REMARKS: _____

OVERALL CONDITION OF SYSTEM: _____

RECOMMENDED ACTIONS NEEDED: _____

DATES ANY MAINTENANCE MUST BE COMPLETED BY: _____

STORM WATER SYSTEM INSPECTION CHECKLIST

DATE / TIME OF INSPECTION: _____

INSPECTOR: _____

MAINTENANCE TASKS AND SCHEDULE	SYSTEM COMPONENTS					FREQUENCY	COMMENTS
	Catch Basins, Inlets, and Manholes	Storm Sewer Pipes	Rip Rap	Buffer Strip			
POST-CONSTRUCTION MAINTENANCE ACTIVITIES							
MONITORING / INSPECTION							
Inspect for Sediment Accumulation	x	x				Annually	
Inspect for Floatables, dead vegetation and debris	x	x		x		Annually and after major rainfall	
Inspect for erosion			x	x		Annually	
Inspect all components during wet weather and compare to as-built plans	x	x				Annually	
Inspect inside of structures and pipes for cracks spalling, joint failure, settlement, sagging and misalignment.	x	x				Annually	
PREVENTATIVE MAINTENANCE							
Remove accumulated sediment	x	x		x		Annually or as needed	
Remove floatables, dead vegetation and debris			x	x		Annually or as needed	
REMEDIAL ACTIONS							
Repair / stabilize areas of erosion			x	x		As Needed	
Structural repairs	x	x				As Needed	
Make adjustments / repairs to ensure proper functioning	x	x	x			As Needed	

SUMMARY:

INSPECTOR'S REMARKS: _____

OVERALL CONDITION OF SYSTEM: _____

RECOMMENDED ACTIONS NEEDED: _____

DATES ANY MAINTENANCE MUST BE COMPLETED BY: _____