

**AGREEMENT FOR MAINTENANCE OF
STORM WATER DETENTION SYSTEM**

This agreement is made on June 29, 2026, by Rochester Avon Partners, LLC, a Michigan limited liability company, whose address is 251 East Merrill Street, Suite 205, Birmingham, MI 48009, and 85 Avon Development, LLC, a Michigan limited liability company whose address is 251 East Merrill Street, Suite 205, Birmingham, MI 48009 ("**Owners**") and the CITY OF ROCHESTER HILLS (the "**City**"), whose address is 1000 Rochester Hills Drive, Rochester Hills, MI 48309.

RECITALS:

WHEREAS, Owners owns and occupies the property described in attached **Exhibit A**; and

WHEREAS, Owners have proposed, and the City has approved, a storm water drainage and detention system (the system), which includes a detention basin, for the property as described and depicted in the attached **Exhibit B**; and

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

THEREFORE, the parties agree:

1. **Use of the System:** Components of the System, including the detention basin, shall be used solely for the purpose of detaining storm and surface water on the property until such time as: (i) The City may determine and advise Owners, or Owner's successors, grantees or assigns, in writing that it is no longer necessary to use the detention basin to detain storm or surface water; and (ii) An adequate alternative for draining storm and surface water has been provided which is acceptable to the City and which includes the granting of such easements to the City or third parties for the alternative drainage system as may be necessary.

2. **Maintenance:**

A. Owners shall be responsible for the proper maintenance, repair and replacement of the System and any part thereof, including the detention basin as detailed in the Maintenance Plan attached as **Exhibit C**.

B. Proper maintenance of the System shall include, but not limited to: (i) Keeping the bottom of the detention basin free from silt and debris; (ii) Removing harmful algae; (iii) Maintaining steel grating across the basin's inlets; (iv) Controlling the effects of erosion; and (v) Any other maintenance that is reasonable and necessary in order to facilitate or accomplish the intended function and purpose of the System.

3. **Action by City:** In the event Owners or Owner's successors, grantees, or assigns, neglects or fails at any time to properly maintain the System or any part thereof, the City may notify Owners or Owner's successors, grantees or assigns, in writing, and the notice shall include a listing and description of maintenance deficiencies and a demand that they must be corrected within thirty (30) days. The notice shall further specify the date and place for a hearing to be held at least fourteen (14) days after the date of the notice before the City Council, or such other board or official to whom the City Council may delegate responsibility. At the hearing, the City Council (or other board or official) may endorse or modify the listing and description of deficiencies to be corrected and, for good cause, may extend the time within which the deficiencies must be corrected.

Thereafter, if the maintenance deficiencies are not corrected within the time allowed, the City may undertake and make the necessary corrections, and may maintain the System for a period not to exceed one (1) year. Such maintenance of the System by the City shall not be deemed a taking of the property, nor shall the City's actions be deemed to vest in the public any right to use the property. If the City determines maintenance of the system by the City should continue beyond one year, the City shall hold, and provide advance written notice of, a further hearing at which Owner or Owner's successors, grantees or assigns, will not or cannot properly maintain the System, the City may continue to maintain the System for another year, and subject to a similar hearing and determination, in subsequent years.

In the event the City determines an emergency condition caused by or relating to the System threatens the public health, safety or general welfare, the City shall have the right to immediately and without notice enter the property and undertake appropriate corrective action.

4. **Charges:** The City shall charge to the current owner of the property the cost of maintenance or other corrective action undertaken by the City in accordance with this agreement, plus a ten percent (10%) administrative fee. If not timely paid, the City may assess the charges on the City's tax roll, which charges shall be a lien on the real property and shall be collectable and enforceable in the same manner general property taxes are collected and enforced.

5. **Notice:** Any notices required under this agreement shall be sent by certified mail to the address for each party set forth below, or to such other addresses as such party may notify the other parties in writing:

To Rochester Avon Partners, LLC	:	Doraid Markus Rochester Avon Partners, LLC 251 East Merrill Street, Suite 236 Birmingham, MI 48009
To 86 Avon Development, LLC		<i>Same Owner & Address info. as above</i>
To the City:		Clerk City of Rochester Hills 1000 Rochester Hills Drive Rochester Hills, MI 48309

6. **Successors and Assigns:** This agreement shall bind and inure to the benefit of the parties and their respective successors, grantees and assigns. The rights, obligations and responsibilities hereunder shall run with the land and shall bind all current and future owners of the property.

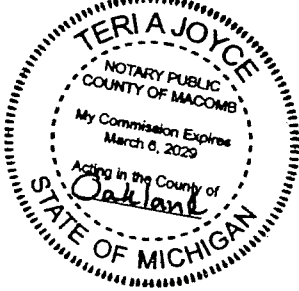
7. **Recording of Agreement:** This agreement shall be recorded at the Oakland County Register of Deeds.

Rochester Avon Partners, LLC

By: *Doraid Markus*
Doraid Markus
Manager

STATE OF MICHIGAN
COUNTY OF Oakland

This agreement was acknowledged before me on June 26, 2026,
By Doraid Markus, who is the Manager of Rochester Avon Partners, LLC, a Michigan limited liability company on behalf of the company.



Teria Joyce, notary public
Macomb County, Michigan
My commission expires: March 6, 2029

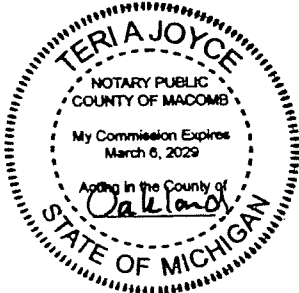
85 Avon Development, LLC

By: *Doraid Markus*

State of Michigan
County of Oakland

Print Name: DORAI MARKUS
Title: MANAGER

This agreement was acknowledged before me on June 29, 2026,
By Doraid Markus, who is the Manager of 85 Avon Development, LLC, a Michigan limited liability company on behalf of the company.



Teria Joyce, notary public
Macomb County, Michigan
My commission expires: March 6, 2029

CITY OF ROCHESTER HILLS

By: _____
Bryan K. Barnett, Mayor

STATE OF MICHIGAN
COUNTY OF OAKLAND

This agreement was acknowledged before me on _____, 2026
by Bryan K. Barnett, Mayor, of the City of Rochester Hills, on behalf of the City.

Drafted By:
Adele Swann
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309

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

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

P. Daw Christ
Approved 6/30/26

LOCATION MAP

SCALE: 1" = 2,000'±

Approved
SJB
City of Rochester Hills
05/07/2026

EXHIBIT "A" - LEGAL DESCRIPTION AND LOCATION MAP

PART OF THE SOUTHWEST 1/4 OF SECTION 14, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 14; THENCE ALONG THE SOUTH LINE OF SAID SECTION 14, SAID LINE BEING ALSO THE CENTERLINE OF EAST AVON ROAD (WIDTH VARIES) SOUTH 89 DEGREES 36 MINUTES 02 SECONDS EAST 595.50 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 28 SECONDS EAST 33.00 FEET TO A POINT ON THE NORTH LINE OF SAID EAST AVON ROAD, SAID POINT BEING THE POINT OF BEGINNING; THENCE ALONG SAID ROAD LINE, SAID LINE BEING 33 FEET NORTH OF, AS MEASURED AT RIGHT ANGLES TO AND PARALLEL WITH THE SOUTH LINE OF SAID SECTION 14, NORTH 89 DEGREES 36 MINUTES 02 SECONDS WEST, 199.92 FEET TO A JOG IN SAID ROAD LINE; THENCE ALONG SAID JOG, NORTH 00 DEGREES 09 MINUTES 02 SECONDS EAST, 27.00 FEET; THENCE CONTINUING ALONG THE NORTH LINE OF SAID EAST AVON ROAD, SAID LINE BEING 60 FEET NORTH OF, AS MEASURED AT RIGHT ANGLES TO AND PARALLEL WITH THE SOUTH LINE OF SAID SECTION 14, NORTH 89 DEGREES 36 MINUTES 02 SECONDS WEST, 335.41 FEET TO THE POINT OF INTERSECTION OF SAID ROAD LINE WITH THE EAST LINE OF SOUTH ROCHESTER ROAD (M-150) (120 FEET WIDE); THENCE ALONG THE EAST LINE OF SAID SOUTH ROCHESTER ROAD, SAID LINE BEING 60 FEET EAST OF, AS MEASURED AT RIGHT ANGLES TO AND PARALLEL WITH THE WEST LINE OF SAID SECTION 14, NORTH 00 DEGREES 14 MINUTES 16 SECONDS EAST, 270.00 FEET; THENCE SOUTH 89 DEGREES 36 MINUTES 02 SECONDS EAST 193.50 FEET; THENCE SOUTH 00 DEGREES 15 MINUTES 28 SECONDS WEST, 24.30 FEET; THENCE SOUTH 89 DEGREES 36 MINUTES 02 SECONDS EAST, 85.00 FEET; THENCE NORTH 00 DEGREES 15 MINUTES 28 SECONDS EAST, 24.30 FEET; THENCE SOUTH 89 DEGREES 36 MINUTES 02 SECONDS EAST, 255.68 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 28 SECONDS WEST, 297.00 FEET TO THE POINT OF BEGINNING. CONTAINING 147,701 SQUARE FEET OR 3.39 ACRES, MORE OR LESS, OF LAND IN AREA.

15-14-351-070



STONEFIELD
engineering & design

Birmingham, MI • Rutherford, NJ • New York, NY
Princeton, NJ • Tampa, FL • Boston, MA
www.stonefieldeng.com

555 S. Old Woodward, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

ROCHESTER SQUARE - PHASE II

**PROPOSED MEDICAL &
PROFESSIONAL OFFICE BUILDING**

PARCEL ID: 15-14-351-016
83 EAST AVON ROAD
CITY OF ROCHESTER HILL
OAKLAND COUNTY, MIC

STORMWATER EXHIBIT

DATE: 04/24/2026

SCALE: AS SHOWN

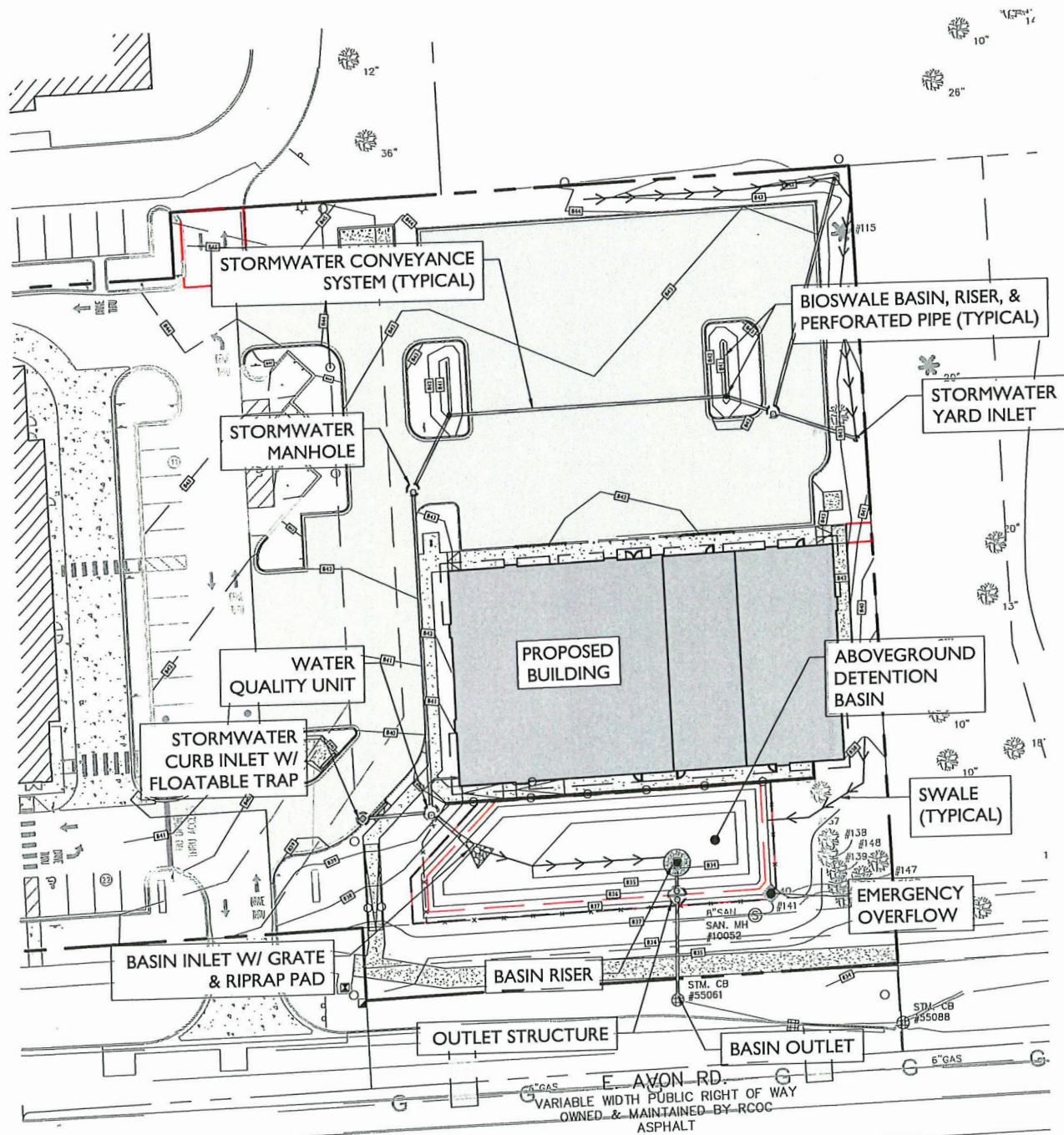
PROJECT ID:	DET-210382
-------------	------------



TITLE: **LEGAL DESCRIPTION & LOCATION MAP**

SHEET:

EX-A



SYMBOL	DESCRIPTION
 	EXISTING & PROPOSED STORMWATER STRUCTURES
	STORMWATER PIPING
	ABOVEGROUND DETENTION BASIN FOOTPRINT
	SWALE

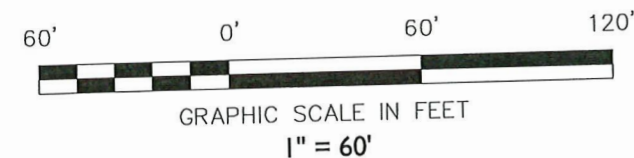


EXHIBIT "B" - PHYSICAL LIMITS OF STORMWATER CONTROL SYSTEM

ARS Approved
5/27/2026

STONEFIELD
engineering & design

Birmingham, MI • Rubenford, NJ • New York, NY
Princeton, NJ • Tampa, FL • Boston, MA
www.stonefieldeng.com

555 S. Old Woodward, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

STORMWATER EXHIBIT

ROCHESTER SQUARE - PHASE II

PROPOSED MEDICAL & PROFESSIONAL OFFICE BUILDING

PARCEL ID: 15-14-331-016
83 EAST AVON ROAD
CITY OF ROCHESTER HILLS
OAKLAND COUNTY, MICHIGAN

DATE: 05/26/2026

SCALE: AS SHOWN

PROJECT ID: DET-210382

STONEFIELD
engineering & design, llc.

TITLE: **LIMITS OF STORMWATER SYSTEM**

SHEET: **EX-B**

EXHIBIT 'C'
OPERATIONS & MAINTENANCE MANUAL

INTRODUCTION

This Stormwater Operations & Maintenance Manual has been prepared to delineate operational and maintenance responsibilities for the stormwater system, as incorporated into, and detailed on the approved construction plans prepared by Stonefield Engineering & Design. 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 BMPs.

OWNER

Rochester Avon Partners, LLC
251 East Merrill Street, Suite ²³⁶~~205~~
Birmingham, MI 48009
248-203-9090

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)

STORMWATER MAINTENANCE EXHIBIT

Exhibit 'B' of the Stormwater Maintenance Agreement is the Physical Limits of Storm Water Control Systems which provides a clear presentation of all components of the stormwater system. This system is subject to the long-term operation and maintenance responsibilities detailed in this manual. This system includes:

- Storm Sewer Pipes
- Storm Sewer Structures (manholes, catch basins, cleanouts, yard inlets)
- Outlet Control Structure
- Basin Risers
- Water Quality Unit
- Bioswale Basins
- Aboveground Detention Basin
- Rip-Rap
- Emergency Overflow Spillway
- Swales

INSPECTIONS

The person responsible for maintenance shall maintain a detailed log of all preventative and corrective maintenance for the structural stormwater management measures incorporated into the design of the development, including a record of all inspections and copies of all maintenance-related work orders.

A maintenance plan shall include a schedule of regular inspections and tasks, and detailed logs of all preventative and corrective maintenance performed on the stormwater management measure, including all maintenance-related work orders. The person with maintenance responsibility must retain records for a minimum of ten (10) years. A copy of all records shall be provided to the City of Rochester Hills Engineering Division. The records shall include this manual, all inspection sheets, approved construction plans, 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.

EXHIBIT 'C'
OPERATIONS & MAINTENANCE MANUAL

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, and outlet control structures may need to be inspected by a practicing civil engineer familiar with their operation.

STORM WATER SYSTEMS MAINTENANCE

Regular inspection and maintenance of BMP's are necessary if these facilities are to consistently perform up to expectations. Stormwater 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 stormwater 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 stormwater 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 *Storm Water Maintenance Agreement* for additional details.

EXHIBIT 'C'
OPERATIONS & MAINTENANCE MANUAL

GENERAL MAINTENANCE

PARKING LOT SWEEPING:

Routine sweeping of all paved surfaces provides a more attractive appearance and removes accumulations of sediment and trash that tend to migrate into stormwater management systems during rainfall events. Parking lot sweeping should be performed quarterly or as necessary to limit sediment and trash build-up.

GRASS MOWING AND MAINTENANCE:

Mowing requirements at a facility should be designed to the specific site conditions, grass types and seasonal variations in climate. Requirements for grasses in bioswales will vary see the applicable section below. 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, stormwater 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.

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 center

STORMWATER SYSTEM MAINTENANCE ITEMS

The following narratives give an overview of the maintenance requirements of the different components of the stormwater 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.

SWALES:

The swales should be kept free of trash, debris or any other foreign matter that would inhibit drainage. The swale yard drain structures should be checked for structural integrity as mentioned above for the storm sewer structures, and any visible signs of erosion or flow bypassing the structure.

BIOSWALES AND RAIN GARDEN:

The bioswales and rain garden should be kept free of dead leaves and vegetation, trash, debris or any other foreign matter that would inhibit infiltration of runoff. The outlet control structures should be checked for structural integrity as mentioned above for the storm sewer structures, and any visible signs of erosion or flow bypassing the structures. The bioswales and rain gardens will trap sediment under normal conditions, so the amount of sediment should be monitored over time, and removed when the accumulated depth reaches 3"-4' total. The planted vegetation within the bioswales and rain garden should conform to that shown on the construction plans, and any invasive species should be

EXHIBIT 'C'

OPERATIONS & MAINTENANCE MANUAL

removed. Regular lawn fertilizing and mowing should not occur within the bioswales or rain garden at all. Mowing should cease at the top of bank for the bioswales and rain garden. The operation of the bioswales and rain garden including the outlet control structures should be observed during a wet weather event to ensure the proper functioning of the systems. A civil engineer should be retained if problems are thought to exist. 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 bioretention areas.

DETENTION BASIN OUTLET CONTROL STRUCTURES 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 AND SEDIMENTATION 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 basins should be inspected for healthy grass growth, side slope erosion, and excessive sedimentation in both basins. The overflow spillway between the basins should be inspected for sedimentation, erosion and overall integrity. The sedimentation basin should trap sediment when working as designed and as such will need regular inspection and removal of sediment once the total sediment depth is 6"-12" or if sediment re-suspension is observed during a rain event. The basins 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 basins.

The planted vegetation within the basins should conform to that shown on the construction plans, and any invasive species should be removed. 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 basins.

Any resident complaints regarding the basins' 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.

TABLE I - STORMWATER MAINTENANCE SCHEDULE

TASK	STORMWATER CONVEYANCE SYSTEM	STORMWATER DETENTION BASIN	BIOSWALE BASINS	CATCH BASIN INLET CASTINGS	CATCH BASIN INLETS	OUTLET STRUCTURE & BASIN RISERS	WATER QUALITY UNIT	SCHEDULE
INSPECT FOR SEDIMENTATION ACCUMULATION	X	X	X		X	X	X	ANNUALLY
REMOVAL OF SEDIMENT ACCUMULATION	X	X	X		X	X	X	EVERY 2 YEARS
INSPECTION OF FLOATABLE & DEBRIS				X	X	X	X	ANNUALLY
CLEANING OF FLOATABLE & DEBRIS				X	X	X	X	ANNUALLY
INSPECTION FOR EROSION		X	X		X	X	X	ANNUALLY
INSPECTION OF STORMWATER SYSTEM COMPONENTS AFTER LARGE STORM EVENTS	X	X	X		X	X	X	ANNUALLY
MAKE ADJUSTMENTS OR REPLACE STORMWATER SYSTEM COMPONENTS	X	X	X		X	X	X	AS NEEDED

PROPERTY INFORMATION: 83 EAST AVON ROAD
CITY OF ROCHESTER HILLS
OAKLAND COUNTY, MICHIGAN 48307

PROPERTY OWNER: ROCHESTER AVON PARTNERS, LLC
251 EAST MERRILL STREET, SUITE 205
BIRMINGHAM, MI 48009
248-203-9090

STORMWATER MAINTENANCE NOTES

1. THE OWNER AND ANY CONTRACTORS HIRED TO PERFORM MAINTENANCE DUTIES ARE RESPONSIBLE FOR MEETING ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS DURING THE MAINTENANCE AND CLEANOUT OPERATIONS OF THE STORMWATER MANAGEMENT MEASURES.
2. THE OWNER AND ANY CONTRACTORS HIRED TO PERFORM MAINTENANCE DUTIES ARE RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DISPOSING OF MATERIAL COLLECTED FROM THE STORMWATER MANAGEMENT MEASURES. WATER AND SEDIMENT FROM CLEANOUT PROCEDURES SHOULD BE DUMPED AT A LANDFILL.

A. PHYSICAL LIMITS OF THE STORMWATER CONTROL SYSTEM

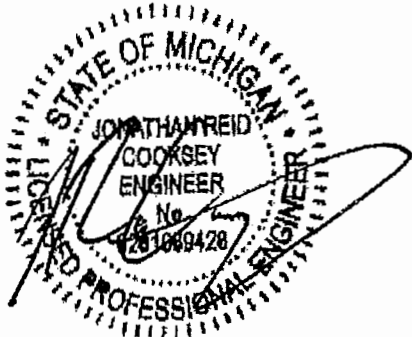
THE STORMWATER CONTROL SYSTEM (SWCS) SUBJECT TO THIS LONG-TERM MAINTENANCE PLAN (PLAN) IS DEPICTED ON EXHIBIT B AND INCLUDES WITHOUT LIMITATION THE STORM SEWERS, SWALES, MANHOLES, CATCH BASINS, STORMWATER INLETS, OUTLET STRUCTURE, AND WATER QUALITY UNIT.

FOR PURPOSES OF THIS PLAN, THIS STORMWATER CONTROL SYSTEM AND ALL OF ITS COMPONENTS AS SHOWN ON EXHIBIT B IS REFERRED TO AS 'ROCHESTER SQUARE - PHASE II STORMWATER SYSTEM'.

B. LONG-TERM MAINTENANCE PLAN AND SCHEDULE

TABLE I IDENTIFIES THE MAINTENANCE ACTIVITIES TO BE PERFORMED, ORGANIZED BY CATEGORY (MONITORING/INSPECTIONS, PREVENTATIVE MAINTENANCE, AND REMEDIAL ACTIONS). TABLE I ALSO IDENTIFIES SITE-SPECIFIC WORK NEEDED TO ENSURE THAT THE STORMWATER CONTROL SYSTEM FUNCTIONS PROPERLY AS DESIGNED.

EXHIBIT "C" - MANUFACTURER'S OPERATION AND MAINTENANCE PLANS



Birmingham, MI • Rochester, NY • New York, NY
Princeton, NJ • Tampa, FL • Boston, MA
www.stonfieldeng.com

555 S. Old Woodward, Suite 12L, Birmingham, MI 48009
Phone: 248.247.1115

STORMWATER EXHIBIT

ROCHESTER SQUARE - PHASE II

PROPOSED MEDICAL &
PROFESSIONAL OFFICE BUILDING

PARCEL ID: 15-14351-016
83 EAST AVON ROAD
CITY OF ROCHESTER HILLS
OAKLAND COUNTY, MICHIGAN

DATE:	05/26/2026
SCALE:	AS SHOWN
PROJECT ID:	DET-210382
TITLE:	OPERATIONS & MAINTENANCE MANUAL
SHEET:	EX-C



Cascade Separator® Inspection and Maintenance Guide



CASCADE
separator®

Maintenance

The Cascade Separator® system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects sediment and debris will depend upon on-site activities and site pollutant characteristics. For example, unstable soils or heavy winter sanding will cause the sediment storage sump to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (i.e. spring and fall). However, more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment wash-down areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

A visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet chamber, flumes or outlet channel. The inspection should also quantify the accumulation of hydrocarbons, trash and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified during inspection. It is useful and often required as part of an operating permit to keep a record of each inspection. A simple form for doing so is provided in this Inspection and Maintenance Guide.

Access to the Cascade Separator unit is typically achieved through one manhole access cover. The opening allows for inspection and cleanout of the center chamber (cylinder) and sediment storage sump, as well as inspection of the inlet chamber and slanted skirt. For large units, multiple manhole covers allow access to the chambers and sump.

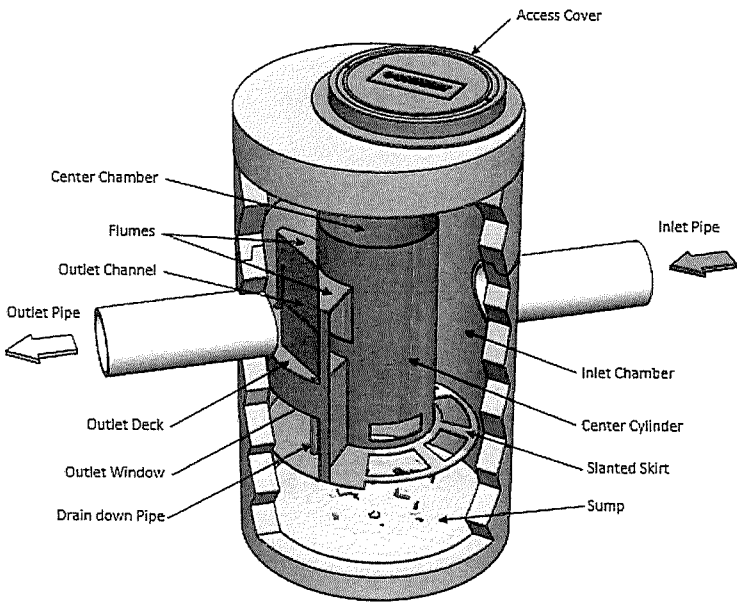
The Cascade Separator system should be cleaned before the level of sediment in the sump reaches the maximum sediment depth and/or when an appreciable level of hydrocarbons and trash has accumulated. If sorbent material is used, it must be replaced when significant discoloration has occurred. Performance may be impacted when maximum sediment storage capacity is exceeded. Contech recommends maintaining the system when sediment level reaches 50% of maximum storage volume. The level of sediment is easily determined by measuring the distance from the system outlet invert (standing water level) to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Finer, silty particles at the top of the pile typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the chart in this document to determine if the height of the sediment pile off the bottom of the sump floor exceeds 50% of the maximum sediment storage.

Cleaning

Cleaning of a Cascade Separator system should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole cover and insert the vacuum tube down through the center chamber and into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The areas outside the center chamber and the slanted skirt should also be washed off if pollutant build-up exists in these areas.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. Then the system should be power washed to ensure it is free of trash and debris.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and to ensure proper safety precautions. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the Cascade Separator system must be done in accordance with local regulations. In many locations, disposal of evacuated sediments may be handled in the same manner as disposal of sediments removed from catch basins or deep sump manholes. Check your local regulations for specific requirements on disposal. If any components are damaged, replacement parts can be ordered from the manufacturer.



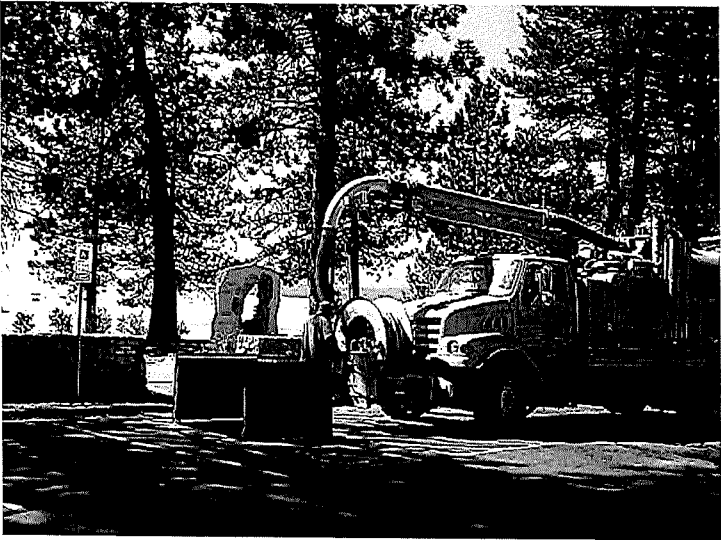
Cascade Separator® Maintenance Indicators and Sediment Storage Capacities

Model Number	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	y³	m³
CS-3	3	0.9	1.5	0.5	0.4	0.3
CS-4	4	1.2	2.5	0.8	0.7	0.5
CS-5	5	1.3	3	0.9	1.1	0.8
CS-6	6	1.8	3.5	1	1.6	1.2
CS-8	8	2.4	4.8	1.4	2.8	2.1
CS-10	10	3.0	6.2	1.9	4.4	3.3
CS-12	12	3.6	7.5	2.3	6.3	4.8

Note: The information in the chart is for standard units. Units may have been designed with non-standard sediment storage depth.



A Cascade Separator unit can be easily cleaned in less than 30 minutes.



A vacuum truck excavates pollutants from the systems.

Cascade Separator® Inspection & Maintenance Log

Cascade Model:			Location:		
Date	Depth Below Invert to Top of Sediment¹	Floatable Layer Thickness²	Describe Maintenance Performed	Maintenance Personnel	Comments

1. The depth to sediment is determined by taking a measurement from the manhole outlet invert (standing water level) to the top of the sediment pile. Once this measurement is recorded, it should be compared to the chart in the maintenance guide to determine if the height of the sediment pile off the bottom of the sump floor exceeds 50% of the maximum sediment storage. Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile.

2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.

SUPPORT

- Drawings and specifications are available at www.ContechES.com.
- Site-specific design support is available from our engineers.

©2021 Contech Engineered Solutions LLC, a QUIKRETE Company

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater, and earth stabilization products. For information, visit www.ContechES.com or call 800.338.1122

NOTHING IN THIS CATALOG SHOULD BE CONSTRUED AS A WARRANTY. APPLICATIONS SUGGESTED HEREIN ARE DESCRIBED ONLY TO HELP READERS MAKE THEIR OWN EVALUATIONS AND DECISIONS, AND ARE NEITHER GUARANTEES NOR WARRANTIES OF SUITABILITY FOR ANY APPLICATION. CONTECH MAKES NO WARRANTY WHATSOEVER, EXPRESS OR IMPLIED, RELATED TO THE APPLICATIONS, MATERIALS, COATINGS, OR PRODUCTS DISCUSSED HEREIN. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND ALL IMPLIED WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE ARE DISCLAIMED BY CONTECH. SEE CONTECH'S CONDITIONS OF SALE (AVAILABLE AT WWW.CONTECHES.COM/COS) FOR MORE INFORMATION.