

ORD.#1-2021 An Ordinance of the Township of Mount Olive, in the County of Morris and State of New Jersey, Authorizing Permanent Easement Agreements in Connection With Development at 215 Waterloo Valley Road (Block 500, Lots 2 & 3 – Scannell Properties 322, LLC)

CLERK:

Delivered to Mayor:

Date: 2/10/2021

Time: 10:15 am

Signed: _____

Township Clerk
Michelle Masser

MAYOR:

Action by Mayor:

Approved: ☒ _____

Date: 2-10-21

Vetoed: ☐ _____

Date: _____

(Reasons for which Mayor has withheld approval of Ordinance, item or part Thereof.)

Signed: _____

Mayor

CLERK:

Returned:

Date: 2/10/2021

Time: 10:20 AM

Not returned with in (10) days

Date: _____

Signed: _____

Township Clerk

ORD.#1-2021

**AN ORDINANCE OF THE TOWNSHIP OF MOUNT OLIVE, IN THE
COUNTY OF MORRIS AND STATE OF NEW JERSEY, AUTHORIZING
PERMANENT EASEMENT AGREEMENTS IN CONNECTION WITH
DEVELOPMENT AT 215 WATERLOO VALLEY ROAD (BLOCK 500,
LOTS 2 & 3)**

WHEREAS, by way of Resolution 228-2018 adopted on July 10, 2018, the Township of Mount Olive ("Township") entered into a developer's agreement with Scannell Properties 322, LLC ("Scannell") for the development of property designated as Block 500, Lots 2 and 3 on the Township Tax Maps, located at 215 Waterloo Valley Road (the "Property"); and

WHEREAS, under the terms of the approvals and developer's agreement, Scannell was required to submit and record a Township-authorized form of easement regarding stormwater control; and

WHEREAS, Scannell constructed a utility "hot box" cabinet upon property encroaching into the Township right of way, requiring Scannell to obtain a right-of-way easement from the Township for permission to utilize the encroachment area; and

WHEREAS, in or about December 2019, Scannell transferred ownership of the Property to C1CF II – NJ1B01, LLC ("Owner"); and

WHEREAS, after becoming aware of the change of ownership, the Township learned that Scannell had executed and recorded the stormwater control easement, attached hereto as Exhibit A, which easement still requires formal acceptance from the Township by way of ordinance; and

WHEREAS, the Township and Owner have negotiated an Encroachment and Easement Agreement regarding the utility hot box cabinet, attached hereto as Exhibit B; and

WHEREAS, the Township is authorized pursuant to law to grant and receive interests in real property, including easements, by ordinance; and

WHEREAS, the Township now wishes to authorize and accept the previously executed and recorded stormwater control easement and authorize and grant the Encroachment and Easement Agreement, subject to the terms and conditions set forth in the agreements, copies of which shall be placed on file with the Township Clerk; and

WHEREAS, the Township Engineer and Township Attorney have reviewed and recommended approving same.

NOW, THEREFORE, BE IT ORDAINED by the Council of the Township of Mount Olive, in the County of Morris and State of New Jersey, as follows:

1. The Township hereby authorizes and accepts the executed Stormwater Maintenance Easement dated December 13, 2019 between Scannell Properties 322, LLC as Grantor and the Township as Grantee, recorded on January 2, 2020 in Book 23685 Page 214, which Easement is attached hereto and incorporated herein as Exhibit A.
2. The Township hereby authorizes and grants the Encroachment Easement with the Township as Grantor and CICF II – NJ1B01, LLC as Grantee, which easement is attached hereto and incorporated herein as Exhibit B.
3. The Mayor and Clerk are authorized and directed to execute the Encroachment and Easement Agreement.
4. The Township Attorney is authorized and directed to record the Encroachment and Easement Agreement upon execution by all parties.
5. Both easement agreements shall be placed on file with the Township Clerk.

BE IT FURTHER ORDAINED that this Ordinance shall This Ordinance shall take effect twenty (20) days following final passage, approval, and publication as required by law.

Introduced: 1/26/2021

Adopted: 2/9/2021

Effective Date: 3/5/2021

TOWNSHIP OF MOUNT OLIVE



Joe Nicastro, Township Council President

ATTEST: 2/9/2021



Michelle Masser, Township Clerk

Chester, Ploussas, Lisowsky Partnership, LLC

PLANNING * ARCHITECTURE * ENGINEERING * SURVEYING

95 Matawan Road, Second Floor, Matawan, NJ 07747

Mailing Address: P.O. Box 943, Matawan, NJ 07747

(732) 566-0297 * Fax (732) 566-5283

17013

October 12, 2020

Description of "Proposed Utility Easement to Scannell Properties" across a portion of Waterloo Valley Road adjacent Lot 2, Block 500, situated in the Township of Mount Olive, Morris County, New Jersey.

Beginning at a point in the widened southwesterly sideline of Waterloo Valley Road (49.50 ft. wide R.O.W.), said point being measured southeasterly 92.96 feet along said sideline from the dividing line between Lot 1.02, Block 500 and Lot 2, Block 500 and from said Point or Place of Beginning running thence;

1. Leaving said southeasterly sideline of Waterloo Valley Road and running into Waterloo Valley Road, North 52° 46' 45" East – 9.81 feet to a point, thence;
2. Still in Waterloo Valley Road, South 37° 13' 15" East – 13.19 feet to a point, thence;
3. Still in Waterloo Valley Road, South 52° 46' 45" West – 7.60 feet to a point in the aforesaid southwesterly sideline of Waterloo Valley Road, thence;
4. Along the southwesterly sideline of Waterloo Valley Road, North 46° 44' 34" West – 13.37 feet to the Point or Place of Beginning.

Area = 115 Square Feet

Subject to Easement and/or Restrictions of Record.

The above description is in accordance with a map entitled "Easement Map", adjacent Lot 2, Block 500, Township of Mount Olive, Morris County, New Jersey" dated October 12, 2020 as prepared by Chester, Ploussas, Lisowsky Partnership, LLC, Engineers and Surveyors, Matawan, New Jersey.



Richard G. Ruchalski

Professional Land Surveyor

License No. 34875

Certificate of Authorization No. 24GA28159000

Morris County Recording Cover Sheet



Honorable Ann F. Grossi, Esq.
Morris County Clerk



MORRIS COUNTY, NEW JERSEY
ANN F. GROSSI, COUNTY CLERK
EAS-DR BOOK 23685 PG 214
RECORDED 01/02/2020 10:51:03
FILE NUMBER 2020000114
RCPT #: 1502536; RECD BY: ASiconolfi
RECORDING FEES \$870.00

Official Use Only - Realty Transfer Fee

Official Use Only - Barcode

Date of Document:
December 13, 2019

Type of Document:
Stormwater Maintenance Easement

First Party Name:
Scannell Properties 322, LLC

Second Party Name:
Township of Mount Olive

Additional Parties:

THE FOLLOWING SECTION IS REQUIRED FOR DEEDS ONLY

Block:

Lot:

Municipality:

Consideration:

Mailing Address of Grantee:

85

**THE FOLLOWING SECTION IS FOR ORIGINAL MORTGAGE BOOK & PAGE INFORMATION FOR AN
ASSIGNMENT, RELEASE, OR SATISFACTION OF A MORTGAGE OR AN AGREEMENT RESPECTING A MORTGAGE**

Original Book:

Original Page:

MORRIS COUNTY RECORDING COVER SHEET

Please do not detach this page from the original document as it contains important recording information and is part of the permanent record.

WARNING: Information contained on the Recording Cover Sheet must exactly match the information within the attached document or the document will be rejected and returned.

NCS 95 2233

STORMWATER MAINTENANCE EASEMENT

THIS STORMWATER MAINTENANCE EASEMENT is made on the 13 day of December, 2019, by and between **SCANNELL PROPERTIES 322, LLC**, with offices located 8801 River Crossing Boulevard, Indianapolis, Indiana 46240 (hereinafter referred to as "Grantor"), and **THE TOWNSHIP OF MT. OLIVE**, a municipal corporation in the State of New Jersey, having a business address at 204 Flanders-Drakestown Road Budd Lake, N.J. 07828 (hereinafter referred to as "Grantee");

The words "Grantor" and "Grantee" shall mean the Grantor and Grantee listed above and all Grantors and all Grantees listed above.

Transfer of Ownership. The Grantor grants and conveys (transfers ownership of) an easement in the property described below to the Grantee. This transfer is made for the sum of ONE AND 00/100 (\$1.00) DOLLAR.

Tax Map Reference. (N.J.S.A. 46:15-1.1) Municipality of the Township of Mt. Olive, County of Morris, State of New Jersey
Block No. 500, Lot Nos 2 & 3

Property. The property consists of the land in the Township of Mt. Olive, County of Morris, and State of New Jersey.

Pursuant to regulations promulgated by the New Jersey Department of Environmental Protection, the Grantor is to maintain certain stormwater management facilities located on the property in accordance with the Stormwater Management Maintenance Manual annexed hereto as Schedule "A". The Grantor, its successors and assigns, shall be responsible for the maintenance of the stormwater management facilities as per the attached Manual including, but not limited to, all structures, features and land associated with these facilities.

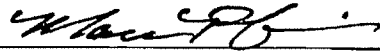
It is the intent and purpose of this Easement to grant unto the Grantee an absolute and exclusive easement, in perpetuity, allowing Grantee an absolute right, but not the obligation, of ingress, egress, and access to the stormwater management facilities on the property at any time to inspect said facilities or upon the occurrence of an emergency or at all other reasonable times to inspect, use, maintain, repair, replace said facilities and equipment installed therein to ensure that those facilities are operating, functioning, and servicing the property in accordance with the approved Stormwater Management Maintenance Manual. Grantor further agrees that all maintenance, repair, and replacement of the stormwater management facilities and the required record keeping for same shall be in accordance with the Township of Mt. Olive Land Development Ordinances.

{00636178-1}

Promises by Grantor. The Grantor promises that the Grantor had done no act to encumber the property. This promise is called a "covenant as to grantor's acts" (N.J.S.A. 46:4-6). This promise means that the Grantor has not allowed anyone else to obtain any legal rights which affect the property (such as by making a mortgage or allowing a judgment to be entered against the Grantor).

Signatures. The Grantor signs this Deed as of the date at the top of the first page.


SCANNELL PROPERTIES 322, LLC

By: 
Marc D. Pfleging, Manager

STATE OF INDIANA :
: SS:
COUNTY OF MARION :

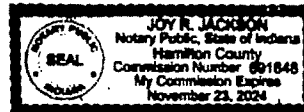
I CERTIFY that on December 12, 2019, Marc D. Pfleging personally came before me and acknowledged under oath to my satisfaction, that this person (or if more than one, each person):

- (a) Marc D. Pfleging is the Manager of SCANNELL PROPERTIES 322, LLC, the Grantor named in this Easement which was the maker of the attached Stormwater Maintenance Easement;
- (b) was authorized to and did execute this Easement on behalf of said corporation as its voluntary act duly authorized by a proper resolution of its Members;
- (c) made this Stormwater Maintenance Easement for \$1.00 as the full and actual consideration paid or to be paid for the transfer of title. (Such consideration is defined in N.J.S.A. 46:15-5.)
- (d) executed this Easement as the act of the entity.


(Notary)

Record and return to:

Michael S. Selvaggi, Esq.
Lavery, Selvaggi, Abromitis & Cohen, PC.
1001 Route 517
Hackettstown, New Jersey 07840
(00636178-1)



SCHEDULE A

[STORMWATER MAINTENANCE MANUAL]

ATTACHED HERETO

{00636178-1}



**CHESTER, PLOUSSAS, LISOWSKY
PARTNERSHIP, LLC**

planning | architecture | engineering | surveying

JOHN P. CHESTER [1947-2006]
FRANK J. LISOWSKY, R.A., P.P.
GREGORY PLOUSSAS, P.E., P.P., C.M.E.
MICHAEL PUCCI, P.E., P.P.
RICHARD G. RUCHALSKI, P.L.S., P.P.
ROBERT S. LARSEN, R.A., P.P.
JOSEPH M. DeLUCIA, R.A.

MARY M. KELLOGG, P.E., P.P.

17013

STORMWATER MANAGEMENT MAINTENANCE MANUAL
FOR
WATERLOO VALLEY ROAD DISTRIBUTION FACILITY
215 WATERLOO VALLEY ROAD
BLOCK 500, LOTS 2 & 3
TOWNSHIP OF MOUNT OLIVE
MORRIS COUNTY, NEW JERSEY

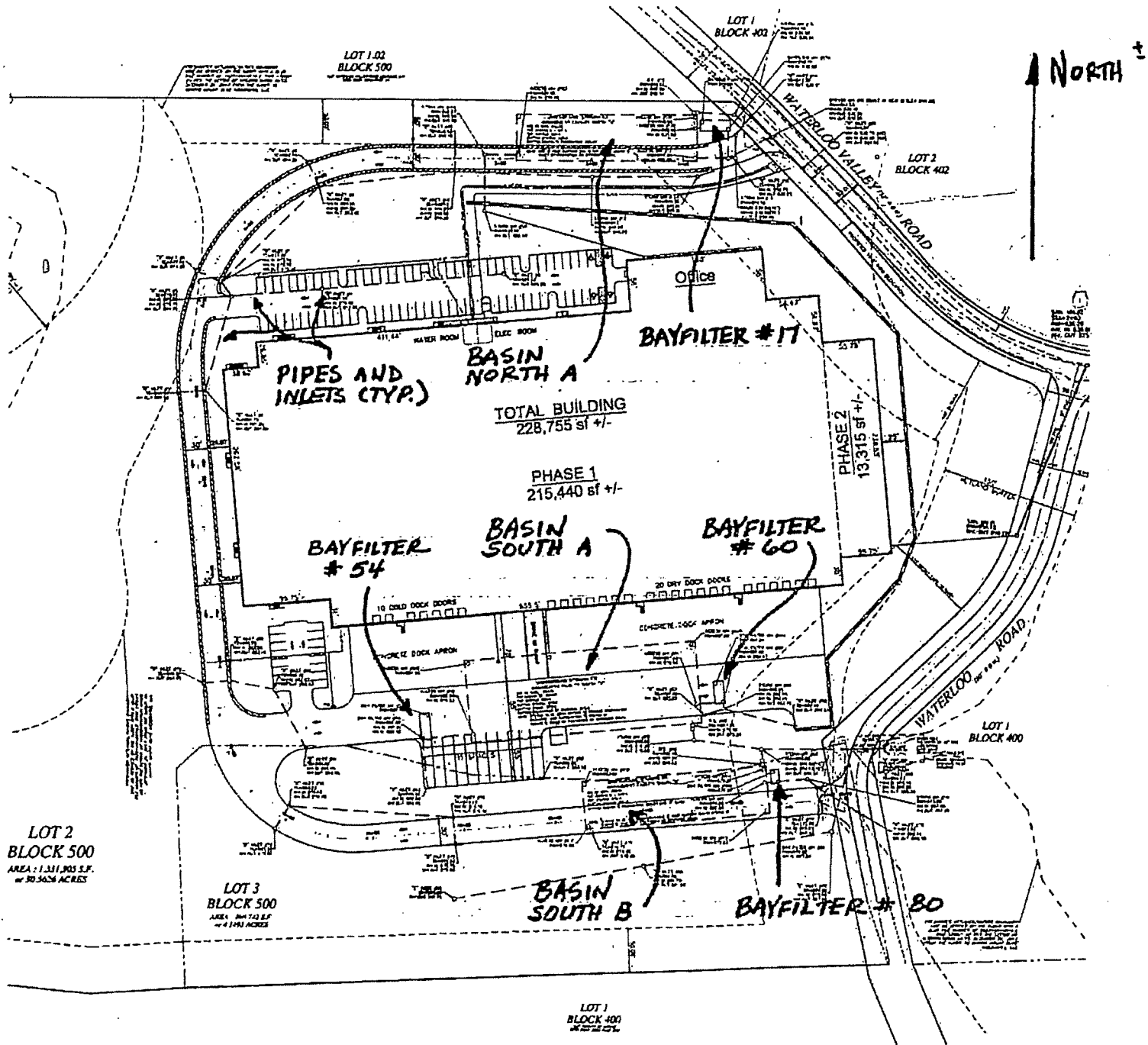
Prepared by:

Chester, Ploussas, Lisowsky Partnership, LLC
95 Matawan Road, Second Floor
Matawan, NJ 07747

March 29, 2018
Revised August 1, 2018
Revised December 20, 2018

95 MATAWAN ROAD, SECOND FLOOR | MATAWAN, NEW JERSEY 07747 | P. 732.566.0297 | F. 732.566.5283 | www.cplpartnership.com
MAILING ADDRESS: PO BOX 943 | MATAWAN, NEW JERSEY 07747

**SCHEMATIC OF STORMWATER
MANAGEMENT FACILITIES**
(NOT TO SCALE)



The New Jersey Department of Environmental Protection Stormwater Management Rules require that a Maintenance Plan be developed for all of the stormwater management measures incorporated into the design of a major development. The Waterloo Road Site Plan in the International Trade Center in the Township of Mount Olive is a major Site Plan containing a 229,000 S.F. building footprint, open space and associated utility and roadway infrastructure. The stormwater management measures proposed for this site are as follows:

1. One (1) underground detention basin in the northern portion of the site beneath the pavement in the northern driveway area. (Use Cupolex Rialto Units in Concrete Vault).
2. Two (2) underground detention basins in the southern portion of the site beneath the pavement in the loading dock area and beneath the pavement in the southern driveway area. (South A: Use Cupolex Rialto Units in open bottom Concrete Vault; South B: Use Cupolex Rialto Units in closed bottom Concrete Vault, sealed).
3. A system of lawn inlets, pavement inlets, manholes and storm sewers that function to carry flow to the onsite underground stormwater basins, as well as from the basins to an existing stream corridor.
4. Four (4) water quality Bayfilter Manufactured Treatment Devices that will remove total suspended solids from paved areas prior to discharging into the underground detention systems.

This manual will provide specific maintenance tasks, schedules, estimated costs and documentation forms to ensure preventative and corrective maintenance is performed on a regular basis, ultimately providing for the effective and reliable performance of the proposed Stormwater Management Plan. This manual also provides the name and contact information of the developers responsible for the project. All work must be performed in accordance with Title 29 of the Code of Federal Regulations (CFR), Part 1926-Safety & Health Regulations For Construction and all other applicable Occupational Safety and Health Administration (OSHA) Guidelines. In addition, the Manual of Uniform Traffic Control Devices (MUTCD) contains specific regulations concerning traffic control signs and devices for construction work zones, and these regulations are covered in the OSHA Guidelines by reference.

MAINTENANCE REQUIREMENTS
FOR
UNDERGROUND DETENTION BASINS

MAINTENANCE REQUIREMENTS FOR UNDERGROUND DETENTION BASIN

The proposed Underground Detention Basins are dry facilities in the northern and southern portions of the project site. See site map for locations. The function of these structures are to provide reduction of peak flow rates in larger 2, 10 and 100-year storm events. Average 100 year storm drain time for each of the basins are as follows:

Basin North A : 41 hr.

Basin South A : 43 hr. (with infiltration)*

Basin South B : 37 hr.

*Basin South A will also provide recharge by infiltrating the water quality design storm volume into the ground per the NJ BMP Manual.

Maintenance

Effective underground detention basin performance requires regular and effective maintenance.

A. General Maintenance

All underground detention system components expected to receive and/or trap debris and sediment must be inspected for clogging and excessive debris and sediment accumulation at least four times annually as well as after every storm exceeding one inch of rainfall. The primary location for debris and particularly sediment accumulation will be at inflow points, the outlet structure, and as specified in the manufacturer's literature. Sediment found upon inspection shall be removed from the basin.

Disposal of debris, trash, sediment and other waste material should be done at suitable disposal/recycling sites and in compliance with all applicable local, state and federal waste regulations.

Care should be taken to remove snow and ice from all inspection manholes for safe passage of inspection and maintenance vehicles during periods of inclement weather.

Tools that might be required to complete the standard inspection and/or maintenance for the underground storage system are the following:

- a) pick-axe or crowbar for entry into the outlet structure box via overhead grate (to remove sediment and/or debris and access to the valve (drain) for testing)
- b) shovels and brooms for removal of sediment build-up, snow, ice

NOTE: The Cupolex Rialto Units by Pontarolo Engineering have their own maintenance procedures that should be followed. See Appendix G of this report for guidelines and requirements from the manufacturer.

MAINTENANCE REQUIREMENTS
FOR
STORM SEWER SYSTEM
(INLETS AND PIPE SYSTEMS)

MAINTENANCE OF INLETS AND PIPE SYSTEMS

The drainage system component of inlets and pipes is limited to and accessible from the pavement and lawn areas of the development for inspection and maintenance purposes. Included are the B inlets (along curblines), E inlets (flat grates) in lawn areas and pavement areas, with manholes which connect pipes from the drains/inlets and facilitate a change in the flow direction.

These components, by virtue of their location, are accessible for inspection and general maintenance, which should include the following:

- 1) Inspection of lawn area and paved area surface inlets and drains twice annually (spring and fall) and subsequent removal of silt, gravel, leaves, trash and debris that may collect in drains and block flow.
- 2) Inspection of same after each storm event of magnitude (rain, snow, ice, etc.) to determine system has not incurred any blockage and is allowing for the flow of stormwater as designed.
- 3) Removal of any silt, gravel, leaves, trash and debris that has collected on the surface of the pavement, drains and/or within the drainage structures. Removal can be accomplished using a mechanical vacuum system or manually. Manual removal would require gloves, a shovel, broom and a garbage can, gaining access where necessary by lifting the grate/manhole cover with a pick-axe or crowbar and climbing down a ladder into the structure. Care should be taken to wear bright colored reflective clothing. Construction cones and a flag person shall be required to block vehicles from traveling in any area being maintained.
- 4) Any trees, shrubs and grasses in the vicinity of the storm drainage components shall be kept pruned and trimmed so that access to these structures can be made for inspection and maintenance purposes.

7

- 5) Paved areas shall be kept clean at all times. Bi-annual cleaning using a mechanical street sweeping contractor is to be provided. A procedure should be in place to notify tenants/employees in advance of the street sweeping operation so that vehicles can be temporarily removed from the paved areas to ensure effective cleaning by the street sweeper.
- 6) In the event of snow and ice storms, all drains and grates in the pavement areas shall be plowed and, if necessary, dug out such that flow from melting snow and ice is not impeded. Sand and salt collection on or within the drains shall be removed as soon as possible after the storm event so as not to contaminate the stormwater which ultimately discharges to the underground detention facilities.

MAINTENANCE REQUIREMENTS
FOR
BAYFILTER MANUFACTURED TREATMENT DEVICES
(PROVIDED BY THE MANUFACTURER)

NOTE:

The following pages present the operations and maintenance guidelines for the Bayfilter Systems incorporated into the project's Stormwater Management Plan. These guidelines are as provided from the manufacturer (Baysaver Technologies, LLC) and are re-printed here for inclusion in this Manual. This office takes no responsibility for the content of same. Any and all questions regarding these guidelines should be directed to the manufacturer.

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	JUSTIN PICCOLLO 917-716-9420 JUSTIN.PICCOLLO@ADS-PIPE.COM
ADS SALES REP	JOSEPH FAIELLA 732-759-7085 JOSEPH.FAIELLA@ADS-PIPE.COM
PROJECT NO	503-113



ADVANCED DRAINAGE SYSTEMS, INC.



WATERLOO VALLEY ROAD DISTRIBUTION FACILITY

MOUNT OLIVE - NEW JERSEY

BAYSAVER BAYFILTER SPECIFICATIONS

PRODUCTS

- A. INTERNAL COMPONENTS: ALL COMPONENTS INCLUDING CONCRETE STRUCTURE(S), PVC MANHOLE PIPING AND FILTER CARTRIDGES, SHALL BE PROVIDED BY BAYSAVER TECHNOLOGIES LLC 1030 DEER HOLLOW DRIVE MOUNT AIRY, MD (800.229.7283)
 - B. PVC MANHOLE PIPING: ALL INTERNAL PVC PIPE AND FITTINGS SHALL MEET ASTM D1785. MANHOLE PIPING SHALL BE PROVIDED TO THE CONTRACTOR PARTIALLY PRE-CUT AND PRE-ASSEMBLED
 - C. FILTER CARTRIDGES: EXTERNAL SHELL OF THE FILTER CARTRIDGES SHALL BE SUBSTANTIALLY CONSTRUCTED OF POLYETHYLENE OR FORTIFLENT MATERIAL ACCEPTABLE TO THE MANUFACTURER. FILTRATION MEDIA SHALL BE ARRANGED IN A SPIRAL LAYERED FASHION TO MAXIMIZE AVAILABLE FILTRATION AREA. AN ORIFICE PLATE SHALL BE SUPPLIED WITH EACH CARTRIDGE TO RESTRICT THE FLOW RATE TO A MAXIMUM OF 45 GPM
 - D. FILTER MEDIA: FILTER MEDIA SHALL BE BY BAYSAVER TECHNOLOGIES LLC AND SHALL CONSIST OF THE FOLLOWING MIX: A BLEND OF ZEOLITE PERLIN AND ACTIVATED ALUMINA
 - E. PRECAST CONCRETE VAULT: CONCRETE STRUCTURES SHALL BE PROVIDED ACCORDING TO ASTM C. THE MATERIALS AND STRUCTURAL DESIGN OF THE DEVICES SHALL BE PER ASTM C478, C857 AND C853. PRECAST CONCRETE SHALL BE PROVIDED BY BAYSAVER TECHNOLOGIES LLC
- MAINTENANCE
- A. THE STORMWATER FILTER SYSTEM SHALL BE AN OFFLINE DESIGN CAPABLE OF TREATING 100% OF THE REQUIRED TREATMENT FLOW AT FULL SEDIMENT LOAD CONDITIONS.
 - B. THE STORMWATER FILTER SYSTEM'S CARTRIDGES SHALL HAVE NO MOVING PARTS.
 - C. THE STORMWATER TREATMENT UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 85% OF SUSPENDED SOLIDS, 65% OF TOTAL PHOSPHORUS, 85% OF TURBIDITY, 40% OF TOTAL COPPER AND 40% OF TOTAL ZINC BASED ON FIELD DATA COLLECTED IN COMPLIANCE WITH THE TECHNOLOGY ACCEPTANCE RECIPROCITY PARTNERSHIP TIER II TEST PROTOCOL
 - D. THE STORMWATER FILTRATION SYSTEM SHALL REDUCE INCOMING TURBIDITY (MEASURED AS NTU) BY 50% OR MORE AND SHALL NOT HAVE ANY COMPONENTS THAT LEACH NITRATES OR PHOSPHATES
 - E. THE STORMWATER FILTRATION CARTRIDGE SHALL BE EQUIPPED WITH A HYDRODYNAMIC BACKWASH MECHANISM TO EXTEND THE FILTER'S LIFE AND OPTIMIZE ITS PERFORMANCE
 - F. THE STORMWATER FILTRATION SYSTEM SHALL BE DESIGNED TO REMOVE A MINIMUM OF 85% OF THE INCOMING TOTAL PHOSPHORUS (TP) LOAD
 - G. THE STORMWATER FILTRATION SYSTEM'S CARTRIDGES SHALL HAVE A TREATED SEDIMENT CAPACITY FOR 20% TSS REMOVAL BETWEEN 150-350 LBS

BAYFILTER MAINTENANCE

THE BAYFILTER SYSTEM REQUIRES PERIODIC MAINTENANCE TO CONTINUE OPERATING AT ITS PEAK EFFICIENCY DESIGN. THE MAINTENANCE PROCESS COMPRISES THE REMOVAL AND REPLACEMENT OF EACH BAYFILTER CARTRIDGE AND THE CLEANING OF THE VAULT OR MANHOLE WITH A VACUUM TRUCK. FOR BEST RESULTS, BAYFILTER MAINTENANCE SHOULD BE PERFORMED BY A CERTIFIED MAINTENANCE CONTRACTOR. A QUICK CALL TO AN ADS ENGINEER OR CUSTOMER SERVICE REPRESENTATIVE WILL PROVIDE YOU WITH A LIST OF RELIABLE CONTRACTORS IN YOUR AREA.

WHEN BAYFILTER IS INITIALLY INSTALLED, WE RECOMMEND THAT AN INSPECTION BE PERFORMED ON THE SYSTEM IN THE FIRST SIX (6) MONTHS AFTER THAT THE INSPECTION CYCLE TYPICALLY FALLS INTO A BIENNIAL PATTERN GIVEN NORMAL STORM OCCURRENCE AND ACTUAL SOLIDS LOADS.

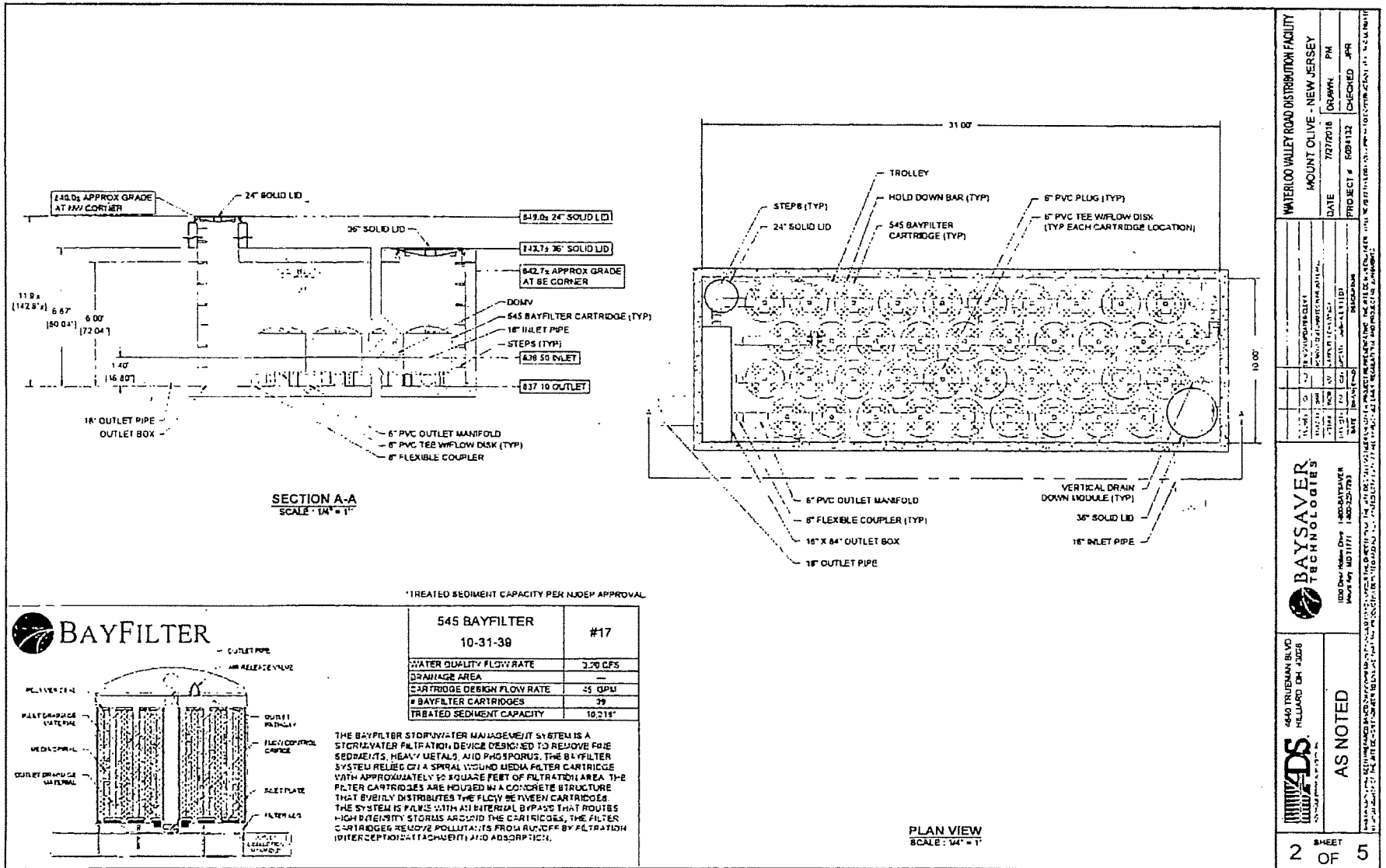
WHEN BAYFILTER EXHIBITS FLOWS BELOW DESIGN LEVELS, THE SYSTEM SHOULD BE INSPECTED AND MAINTAINED AS SOON AS PRACTICAL. REPLACING A BAYFILTER CARTRIDGE SHOULD BE CONSIDERED AT OR ABOVE THE LEVEL OF THE MANHOLE.

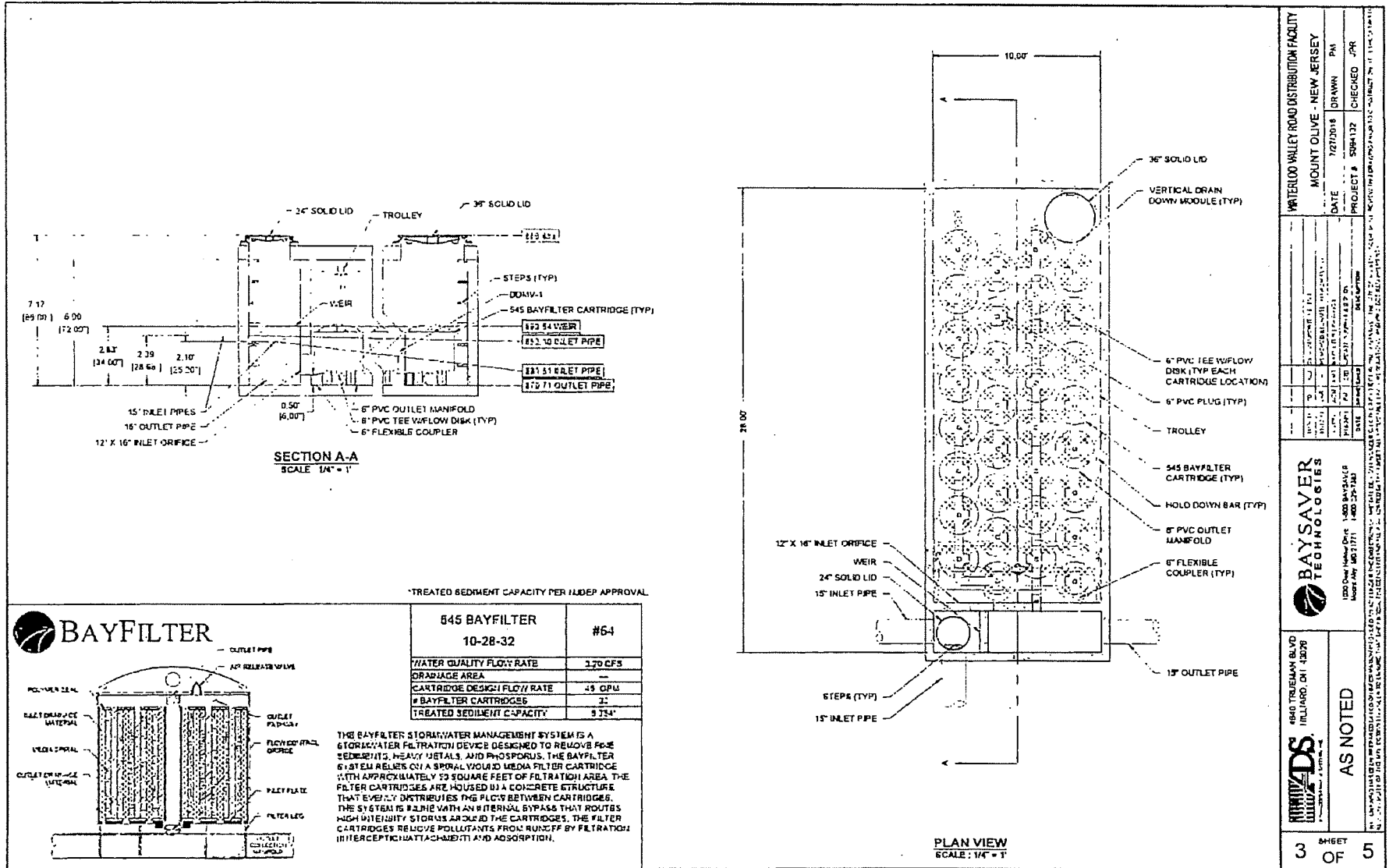
MAINTENANCE PROCEDURES

1. REMOVE THE MANHOLE COVERS AND OPEN ALL ACCESS HATCHES.
2. BEFORE ENTERING THE SYSTEM MAKE SURE THE AIR IS SAFE PER OSHA STANDARDS OR USE A BREATHING APPARATUS, USE LOW O₂, HIGH CO, OR OTHER APPLICABLE WARNING DEVICES PER REGULATORY REQUIREMENTS.
3. USING A VACUUM TRUCK, REMOVE ANY LIQUID AND SEDIMENTS THAT CAN BE REMOVED PRIOR TO ENTRY.
4. USING A SMALL LIFT OR THE ROOM OF THE VACUUM TRUCK, REMOVE THE USED CARTRIDGES BY LIFTING THEM OUT.
5. ANY CARTRIDGES THAT CANNOT BE READILY LIFTED CAN BE EASILY SLID ALONG THE FLOOR TO A LOCATION THEY CAN BE LIFTED VIA A BOOM LIFT.
6. WHEN ALL THE CARTRIDGES HAVE BEEN REMOVED, IT IS NOW PRACTICAL TO REMOVE THE BALANCE OF THE SOLIDS AND WATER. LOOSEN THE STAINLESS CLAMPS ON THE FERNCO COUPLINGS FOR THE MANHOLE AND REMOVE THE DRAINPIPES AS WELL. CAREFULLY CAP THE MANHOLE AND THE FERNCO'S AND RISE THE FLOOR, WASHING AWAY THE BALANCE OF ANY REMAINING COLLECTED SOLIDS.
7. CLEAN THE MANHOLE PIPES, INSPECT AND REINSTALL.
8. INSTALL THE EXCHANGE CARTRIDGES AND CLOSE ALL COVERS.
9. THE USED CARTRIDGES MUST BE SENT BACK TO ADS FOR EXCHANGE/RECYCLING AND CREDIT ON UNDAMAGED UNITS.

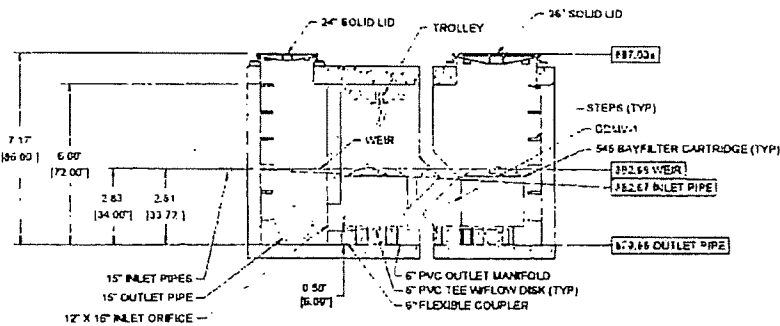
BAYFILTER INSTALLATION NOTES

1. CONTACT UTILITY LOCATOR TO MARK ANY NEARBY UNDERGROUND UTILITIES AND MAKE SURE IT IS SAFE TO EXCAVATE.
2. REFERENCE THE SITE PLAN AND STAKE OUT THE LOCATION OF THE BAYFILTER VAULT.
3. EXCAVATE THE HOLE, PROVIDING ANY SHEETING AND SHORING NECESSARY TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY REGULATIONS.
4. LEVEL THE SUB-GRADE TO THE PROPER ELEVATION. VERIFY THE ELEVATION AGAINST THE MANHOLE DIMENSIONS, THE INVERT ELEVATIONS, AND THE SITE PLANS. ADJUST THE BASE AGGREGATE, IF NECESSARY.
5. HAVE THE SOIL BEARING CAPACITY VERIFIED BY A LICENSED ENGINEER FOR THE REQUIRED LOAD BEARING CAPACITY ON SOIL SUB-GRADE. SET THE FIRST SECTION OF THE BAYFILTER PRE-CAST VAULT.
6. CHECK THE LEVEL AND ELEVATION OF THE FIRST SECTION TO ENSURE IT IS CORRECT BEFORE ADDING ANY RISER SECTIONS.
7. IF ADDITIONAL SECTION(S) ARE REQUIRED, ADD A WATER TIGHT SEAL TO THE FIRST SECTION OF THE BAYFILTER VAULT. SET ADDITIONAL SECTION(S) OF THE VAULT, DOING A WATER TIGHT SEAL TO EACH JOINT.
8. INSTALL THE PVC OUTLET MANHOLE.
9. INSTALL THE INLET PIPE TO THE BAYFILTER VAULT.
10. INSTALL THE INLET PIPE TO THE BAYFILTER VAULT.
11. AFTER THE SITE IS STABILIZED, REMOVE ANY ACCUMULATED SEDIMENT OR DEBRIS FROM THE VAULT AND INSTALL THE FLOW DISKS, DRAINDOWN MODULES (IF APPLICABLE), AND THE BAYFILTER CARTRIDGES.
12. PLACE FULL SET OF HOLD DOWN BARS AND BRACKETS INTO PLACE.

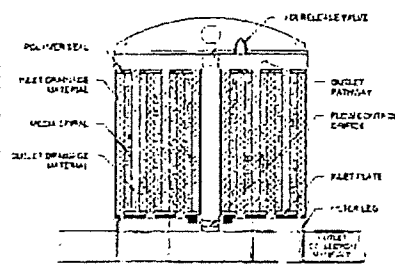




WATERLOO VALLEY ROAD DISTRIBUTION FACILITY										
MOUNT OLIVE - NEW JERSEY	DATE: 7/27/2018 DRAWN: PM									
PROJECT # 5084132	CHECKED: JAR									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>DATE</th> <th>BY</th> <th>REVISION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		DATE	BY	REVISION						
DATE	BY	REVISION								
AS NOTED										
3 OF 5										



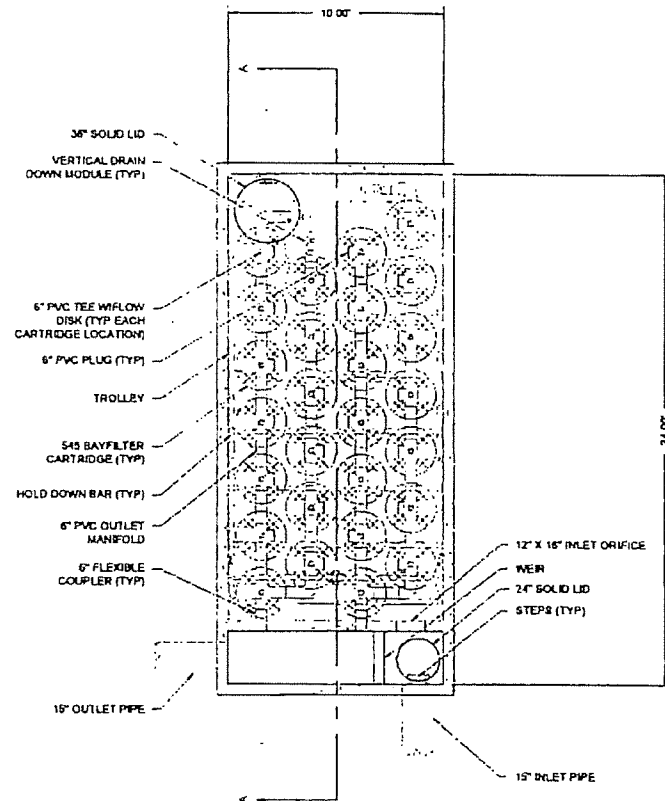
SECTION A-A
SCALE: 1/4\"/>



THE BAYFILTER STORMWATER MANAGEMENT SYSTEM IS A STORMWATER FILTRATION DEVICE DESIGNED TO REMOVE FINE SEDIMENTS, HEAVY METALS, AND PHOSPHORUS. THE BAYFILTER SYSTEM RELIES ON A SPIRAL WOUND MEDIA FILTER CARTRIDGE WITH APPROXIMATELY 63 SQUARE FEET OF FILTRATION AREA. THE FILTER CARTRIDGES ARE HOUSED IN A CONCRETE STRUCTURE THAT EVENLY DISTRIBUTES THE FLOW BETWEEN CARTRIDGES. THE SYSTEM IS BUILT WITH AN INTERNAL BYPASS THAT ROUTES HIGH INTENSITY STORMS AROUND THE CARTRIDGES. THE FILTER CARTRIDGES REMOVE POLLUTANTS FROM RUNOFF BY FILTRATION, INTERCEPTION, ATTACHMENT, AND ADSORPTION.

*TREATED SEDIMENT CAPACITY PER NJDEP APPROVAL

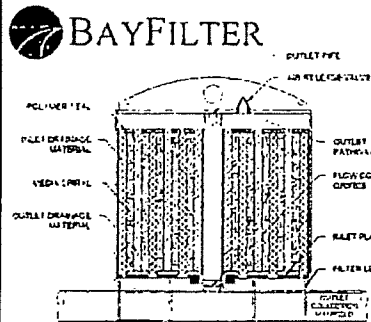
545 BAYFILTER	#80
10-24-27	
WATER QUALITY FLOW RATE	3.70 CFS
DRAINAGE AREA	—
CARTRIDGE DESIGN FLOW RATE	25 GPM
# BAYFILTER CARTRIDGES	2
TREATED SEDIMENT CAPACITY	7.024"



PLAN VIEW
SCALE: 1/4\"/>

WATERLOO VALLEY ROAD DISTRIBUTION FACILITY	
MOUNT OLIVE - NEW JERSEY	
DATE	7/27/2018
DRAWN	PM
CHECKED	JPR
PROJECT #	5084132
<p>4600 TREHMAN BLVD MILLAND OH 43076</p>	
<p>AS NOTED</p>	
4	OF 5


PLAN VIEW
SCALE: 1/4" = 1'



THE BAYFILER STORWATER MANAGEMENT SYSTEM IS A STORWATER FILTRATION DEVICE DESIGNED TO REMOVE FINE SEDIMENTS, HEAVY METALS, AND PHOSPHORUS. THE BAYFILER SYSTEM RELIES ON A SPIRAL WOUND MEDIA FILTER CARTRIDGE WITH APPROXIMATELY 50 SQUARE FEET OF FILTRATION AREA. THE FILTER CARTRIDGES ARE HOUSED IN A CONCRETE STRUCTURE WITH A FLOW DISTRIBUTOR TO EVENLY DISTRIBUTE THE WATER. THE SYSTEM IS FLUSHED WITH AN INTERNAL PASSAGE THAT ROUTES HIGH INTENSITY FLOW AROUND THE CARTRIDGES. THE FILTER CARTRIDGES REMOVE POLLUTANTS FROM RUNOFF BY FILTRATION, INTERCEPTION (TRAPPING), AND ADSORPTION.

TREATED SEDIMENT CAPACITY PER MDEP APPROVAL	
545 BAYFILTER 8-14-10	#80
WATER QUALITY FLOW RATE	10 CFS
DRAINAGE AREA	—
CARTRIDGE DESIGN FLOW RATE	48 GPM
# BAYFILTER CARTRIDGES	10
TREATED SEDIMENT CAPACITY	2.03

*TREATED SEDIMENT CAPACITY PER NJDEP APPROVAL



**BAYSAYER
TECHNOLOGIES**

18200 DOWNEY ROAD
DOWNEY, CA 90241
TEL: (714) 471-1771

AS NOTED

4640 TREEMAN BLVD
HILLIARD OH 44130

WATERLOO VALLEY ROAD DISTRIBUTION FACILITY

MOUNT OLIVE - NEW JERSEY

DATE	PROJECT #	DRAWN	PIA
7/17/2018	5094132	DRAWN	PIA

Maintenance of the BayFilter™ System

The BayFilter™ system requires periodic maintenance to continue operating at the design efficiency. The maintenance process comprises the removal and replacement of each BayFilter™ cartridge and drain down module and the cleaning of the vault or manhole with a vacuum truck. BayFilter™ maintenance should be performed by a BaySaver Technologies, Inc. certified maintenance contractor.

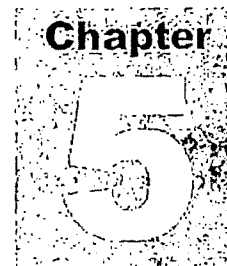
The maintenance cycle of the BayFilter™ system will be driven mostly by the actual solids load on the filter. The system should be periodically monitored to be certain it is operating correctly. Since stormwater solids loads can be variable, it is possible that the maintenance cycle could be more or less than the projected duration.

The BayFilter systems in New Development applications are designed to treat the WQv in 24 hours initially. Later in the cycle these cartridges will flow at a slower rate, and when the WQv does not drain down within +/- 40 hours after the storm event, the system must be maintained.

When a BayFilter™ system is first installed, it is recommended that it be inspected every six (6) months. When the filter system exhibits flows below design levels the system should be maintained. Filter cartridge replacement should also be considered when sediment levels are at or above the level of the 4 inch manifold system. Please contact the BaySaver Technologies Inc. Engineering Department for maintenance cycle estimations or assistance at 1.800.229.7283.

Maintenance Procedures

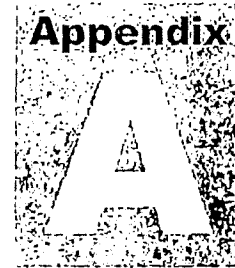
1. Remove the manhole covers and open all access hatches.
2. Before entering the system make sure the air is safe per OSHA Standards or use a breathing apparatus. Use low O₂, high CO, or other applicable warning devices per regulatory requirements.
3. Using a vacuum truck remove any liquid and sediments that can be removed prior to entry.
4. Using a small lift or the boom of the vacuum truck, remove the used cartridges by lifting them out.
5. Any cartridges that cannot be readily lifted directly out of the vault should be removed from their location and carried to the lifting point using the Trolley system installed in the Vault (if applicable).
6. When all cartridges and drain down modules are removed, remove the balance of the solids and water; then loosen the stainless clamps on the Fernco couplings in the pipe manifold; remove the drain pipes as well. Carefully cap the manifold and the Fernco's and rinse the floor removing the balance of the collected solids.
7. Clean the manifold pipes, inspect, and reinstall.
8. Install the exchange cartridges and close all covers.
9. The used cartridges must be sent back to BaySaver Technologies, Inc. for exchange/recycling and credit on undamaged units.



BayFilter™ System Costs and Availability

BayFilter™ systems are available throughout the United States from ADS. Material, installation, and maintenance costs can vary significantly with location. For BayFilter™ pricing in your area, please contact ADS at 1-800-821-6710.

BayFilter™ cartridges and outlet components can be shipped anywhere in the continental United States. Manholes and precast vaults are also supplied by BaySaver Technologies, Inc. as part of a complete stormwater filtration system.



BayFilter™ Detailed Operating Sequence

The cycle operation of a BayFilter™ is as follows:

- A. Vault Fill and Air Release: Water enters the system through an inlet pipe which fills the BayFilter™ vault. As the vault fills, water enters the cartridge through the inlet plate on the bottom.

As the water level rises in the vault, air from inside the BFC is exhausted via an air release valve. This operation is critical for the proper functioning of the siphon, which drives the BayFilter™ during periods of low water level in the vault. (Refer to Figure A-1 for details on this operation).

BAYSAVER TECHNOLOGIES, INC.

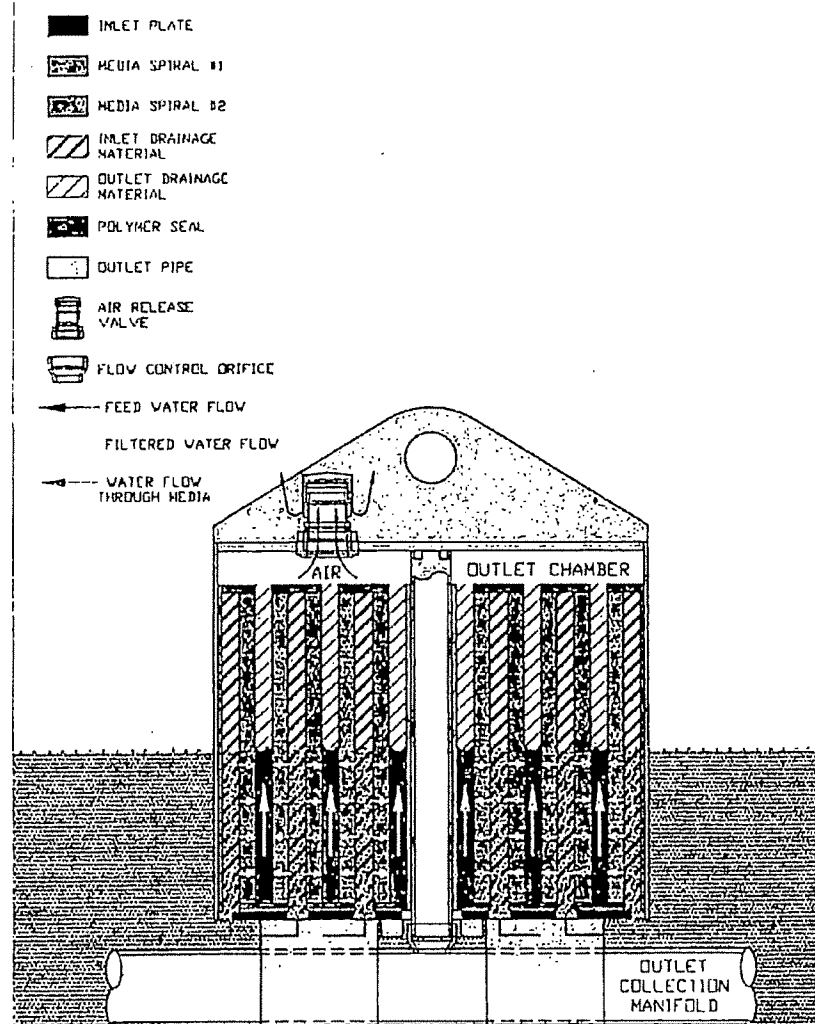


Figure A-1: Vault filling operation and release

B. Filtration: As water enters the continuous inlet drainage spiral, air is exhausted. Water then flows horizontally through the engineered media. Next it flows to the outlet drainage spiral which is also one continuous piece material. Filtered water then flows vertically to the outlet chamber located at the top of the filter media inside of the cartridge. Finally, filtered water flows in to the center outlet drain and leaves the system via the outlet manifold below the inlet plate. (Figure A-2)

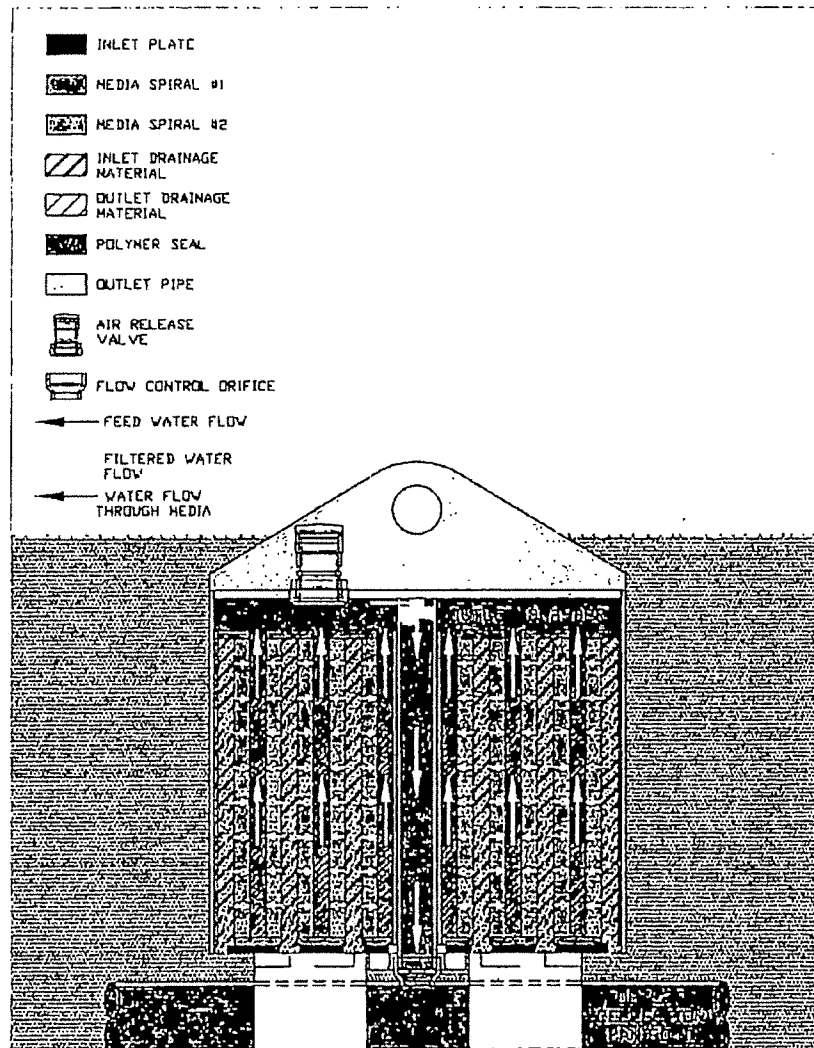


Figure A-2: Normal filter operation

BAYSAVER TECHNOLOGIES, INC.

- C. Siphon Filtration: After the water level in the vault falls below the top of the filter cartridge, a siphon is established and water will continue to flow (Figure A-3) until the siphon is broken. During siphon the water level in the vault will decrease until it reaches the base of the BFC; air then enters the filter cartridge and breaks the siphon. This cause's filtration flow to stop and hydrodynamic backwash begins.

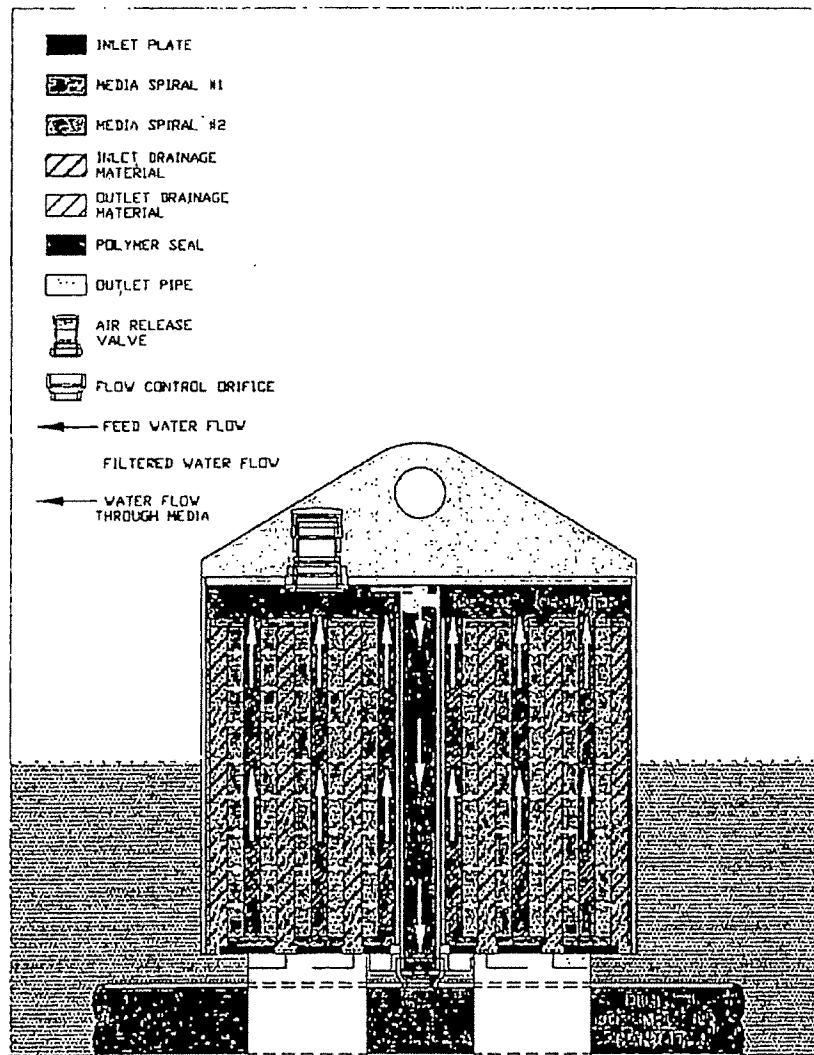


Figure A-3: Siphon filtration

- D. When air enters the filter, the siphon breaks (Figure A-4), and a gravity-driven backwash occurs with all of the water flowing from the outlet chamber backwards through the filter media (Figure A-5). This backwash has the effect of dislodging particles captured in the filtration layers and re-establishing porosity. Dislodged particles are transported back in to the filter vault and accumulate on the filter vault floor.

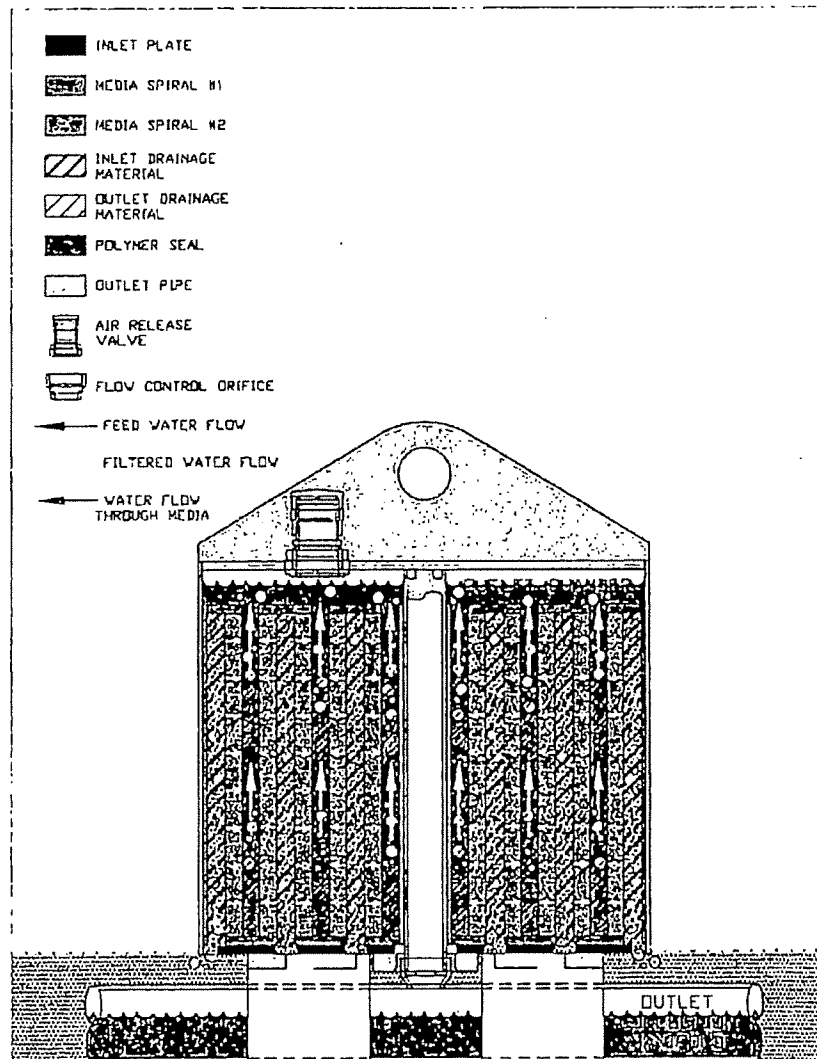


Figure A-4: Siphon Break

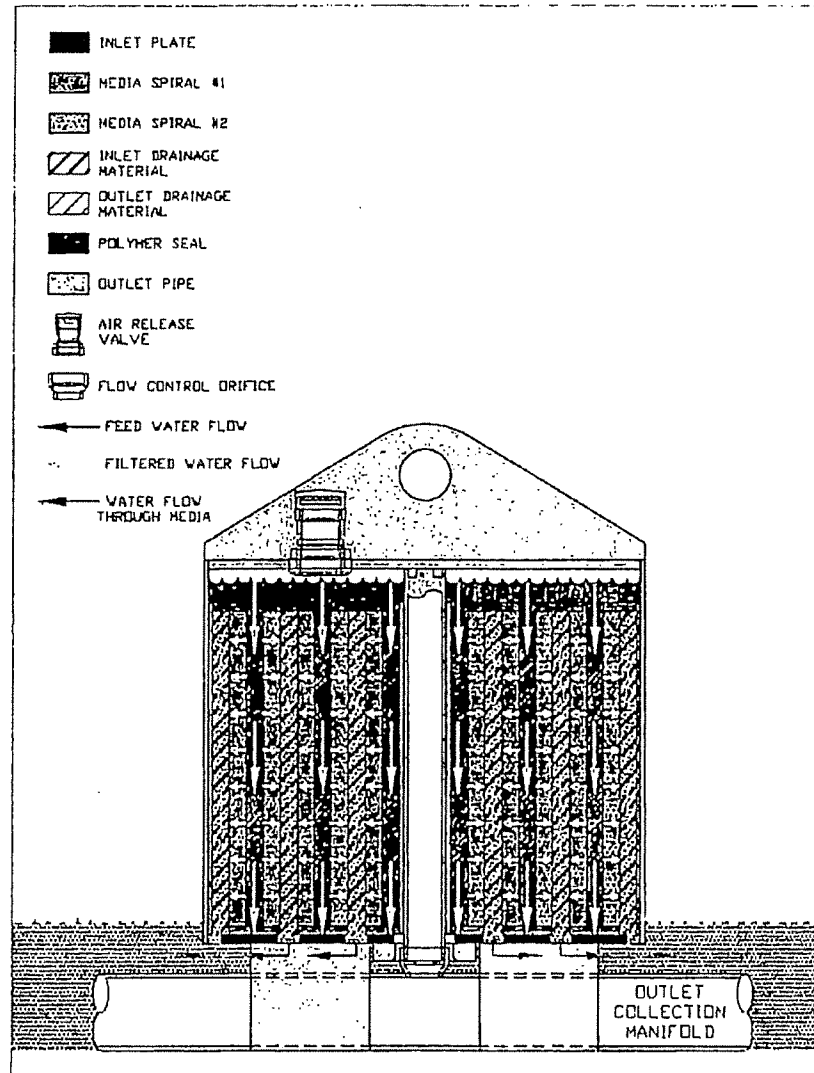


Figure A-5: Backwash



**BAYSAYER
TECHNOLOGIES**

ADS

BAYFILTER™ INSPECTION AND MAINTENANCE MANUAL

The BayFilter system requires periodic maintenance to continue operating at the design efficiency. The maintenance process is comprised of the removal and replacement of each BayFilter cartridge, vertical drain down module; and the cleaning of the vault or manhole with a vacuum truck.

The maintenance cycle of the BayFilter system will be driven mostly by the actual solids load on the filter. The system should be periodically monitored to be certain it is operating correctly. Since stormwater solids loads can be variable, it is possible that the maintenance cycle could be more or less than the projected duration.

BayFilter systems in volume-based applications are designed to treat the WQv in 24 to 48 hours initially. Late in the operational cycle of the BayFilter, the flow rate will diminish as a result of occlusion. When the drain down exceeds the regulated standard, maintenance should be performed.

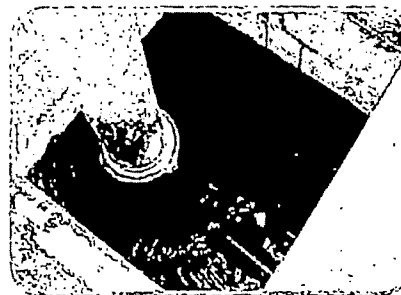
When a BayFilter system is first installed, it is recommended that it be inspected every six (6) months. When the filter system exhibits flows below design levels the system should be maintained. Filter cartridge replacement should also be considered when sediment levels are at or above the level of the manifold system. Please contact the BaySaver Technologies Engineering Department for maintenance cycle estimations or assistance at **1.800.229.7283**.



BayFilter System Cleanout



Vector Truck Maintenance



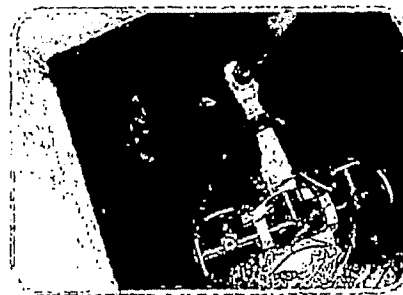
Jet Vactoring Through Access Hatch

THE MOST ADVANCED NAME IN WATER MANAGEMENT SOLUTIONS™

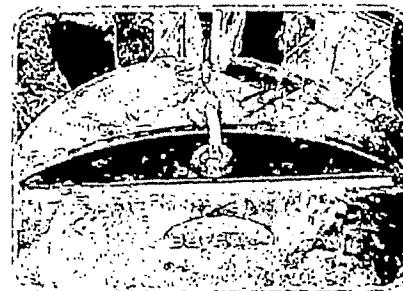


Maintenance Procedures

1. Contact BaySaver Technologies for replacement filter cartridge pricing and availability at 1-800-229-7283.
2. Remove the manhole covers and open all access hatches.
3. Before entering the system make sure the air is safe per OSHA Standards or use a breathing apparatus. Use low O₂, high CO, or other applicable warning devices per regulatory requirements.
4. Using a vacuum truck remove any liquid and sediments that can be removed prior to entry.
5. Using a small lift or the boom of the vacuum truck, remove the used cartridges by lifting them out.
6. Any cartridges that cannot be readily lifted can be easily slid along the floor to a location they can be lifted via a boom lift.
7. When all the cartridges have been removed, it is not practical to remove the balance of the solids and water. Loosen the stainless clamps on the Fernco couplings for the manifold and remove the drain pipes as well. Carefully cap the manifold and the Ferncos and rinse the floor, washing away the balance of any remaining collected solids.
8. Clean the manifold pipes, inspect, and reinstall.
9. Install the exchange cartridges and close all covers.
10. The used cartridges may be sent back to BaySaver Technologies for recycling.



Manifold Tee View of a Cleaned System



Cartridge Holst Point

For more information please see the BaySaver website at www.baysaver.com or contact 1-800-229-7283.

THE MOST ADVANCED NAME IN WATER MANAGEMENT SOLUTIONS™

The ADS Advanced Drainage Systems, Inc. is a leading manufacturer of advanced drainage systems, including manholes, catch basins, and trench boxes. For more information, please contact ADS at 1-800-229-7283 or visit our website at www.ads-pipe.com.

Advanced Drainage Systems, Inc.
1640 Trueman Blvd., Hilliard, OH 43026
1-800-621-6710 www.ads-pipe.com

NAME AND CONTACT INFORMATION
(DEVELOPERS RESPONSIBLE FOR PROJECT)

The New Jersey Department of Environmental Protection Stormwater Management Rules state that all Stormwater Management Maintenance Plans name a person or parties responsible for preventive and corrective maintenance of the stormwater management elements for any major development project. For the project, the following person/parties will accept this responsibility:

Name: Scannell Properties #322, LLC
an Indiana Limited Liability Company

Address: 8801 River Crossing Blvd. #300
Indianapolis, IN 46240

Telephone Number: (317) 218-1666

Contact: Ms. Jill Marcotte

1. SCHEDULE OF INSPECTION/MAINTENANCE TASKS

The following schedule has been set as a rough guide for Inspection and Maintenance of Stormwater Management facilities proposed for the project site:

A. Underground Detention Basins*

Inspection of inflow points, access manholes, outlet structure for removal of debris/sediment	4x/year (change of seasons) and after each storm exceeding 1" rainfall
Inspection of all structural components outlet structures, access manholes, etc.)	1x/year
Record of basin drain time after large storm events should be on-going for evaluation of pond performance. (Be sure to note rainfall event in inches of rain/24 hrs.)	As necessary
Measurement of sediment build-up in basin inspection manholes	1x/year

*In addition, recommendations for manufacturer of systems must be met, see Appendix G

B. Storm Sewer System (Inlets and Pipes)

Inspection of vegetative health near inlets 1x/2 weeks (during establishment/restoration of ground cover only)	
Mowing/trimming of established vegetation during growing season only (near inlets)	1x/week
Inspection of inlet grates and catch basin interiors for removal of sediment/debris	2x/year (Spring & Fall) and after each storm exceeding 1" of rainfall
Street cleaning of paved areas	2x/year
Removal of snow and ice from all drains, grates And along curbing	As required

C. Bayfilter Manufactured Treatment Devices

See manufacturer's recommendations provided in
Maintenance Requirements

APPENDIX C
COST ESTIMATES
FOR
INSPECTION/MAINTENANCE TASKS

COST ESTIMATE
FOR INSPECTION AND MAINTENANCE TASKS

Underground Detention Basins

	<u>Unit Cost</u>	<u>Annual Cost</u>
Inspection/sediment and debris removal		
4x/year	\$400.00	\$1,600.00
After each rainfall > 1"	\$400.00	As needed
Inspection of Structural Components		
1x/year	\$500.00	\$500.00
Recording of Pond Drain Time		
After large storms	\$200.00	As needed
Measurement of sediment build-up		
1x/year	\$300.00	\$300.00
Sediment removal		
Approximately every 10 years	\$24,000.00	\$2,400.00*
Reporting/record keeping	\$200.00	As required

*Assumed based upon 10 year interval

Storm Sewer System

	<u>Unit Cost</u>	<u>Annual Cost</u>
Inspection of vegetative health 1x/2 weeks during establishment/restoration	\$300.00	\$2,400.00*
Mowing/trimming 1x/week during growing season	\$300.00	\$9,000.00
Inspection of Inlets/Grates and Sediment/debris removal 2x/year	\$150.00	\$300.00
After each rainfall > 1"	\$150.00	As needed
Street cleaning of paved areas 2x/year	\$2,000.00	\$4,000.00
Removal of snow/ice from all drains/grates as needed	\$2,000.00	As needed
Reporting/record keeping	\$200.00	As required

*one time fee for initial vegetation establishment

32

Bayfilter Manufactured Treatment Device

All costs for on-going maintenance of system must be obtained from the manufacturer.

Note:

These estimates are for inspection and maintenance required for the stormwater management facilities only. These estimates are prepared as a guide for the projection of unit costs and annual costs. This office takes no responsibility for the accuracy of same.

APPENDIX D
DETAILED LOGS OF PERFORMED
INSPECTION/MAINTENANCE TASKS

DETAILED LOGS OF PERFORMED INSPECTION/MAINTENANCE TASKS

Include

- ◆ copies of work orders
- ◆ record of inspections
 - preventive maintenance
 - corrective maintenance
- ◆ plan and logs to be provided to any public entity responsible for Authority over development
- ◆ sample logs and checklists attached; to be copied and made part of permanent record of facility as required

D. 1. STORM SEWER SYSTEM

Table 4-5

**Inspection Checklist
for
Storm Sewer System**

Name of Facility: _____

Location: _____ Date: _____

Weather: _____

Facility Item	O.K. ¹	Routine ²	Urgent ³	Comments ⁴
1. Inlet Structure				
A. Condition of Structure				
B. Erosion				
C. Trash & Debris				
D. Sediment				
E. Aesthetics				
F. Other:				
2. Access Roads				
A. Vegetation				
B. Pavement Surface				
C. Fences & Gates				
D. Erosion				
E. Aesthetics				
F. Other:				
3. Miscellaneous				
A. Effectiveness of Ex. Maint. Prog.				
B. Potential Mosquito Habitats				
C. Mosquitoes				

¹ The item checked is in good condition, and the maintenance program is adequate.² The item checked requires attention, but does not present an immediate threat to the facility function or other facility components.³ The item checked requires immediate attention to keep the facility operational or to prevent damage to other facility components.⁴ Provide explanation and details if columns 2 or 3 are checked.

Remarks (Refer to Item No., If Applicable):

Inspector: _____

Table 4-6
Inspection Log
for
Storm Sewer System

Name of Facility: _____

Location: _____

Date:

--	--	--	--	--	--	--	--	--	--

Facility Item

Indicate Condition (i.e. 1, 2 or 3)

1. Inlet Structure

A. Condition of Structure											
B. Erosion											
C. Trash & Debris											
D. Sediment											
E. Aesthetics											
F. Other											

2. Access Roads

A. Vegetation											
B. Pavement Surface											
C. Fences & Gates											
D. Erosion											
E. Aesthetics											
F. Other											

3. Miscellaneous

A. Effectiveness of Ex. Maint. Prog.											
B. Potential Mosquito Habitats											
C. Mosquitoes											

¹ The item checked is in good condition, and the maintenance program is adequate.

² The item checked requires attention, but does not present an immediate threat to the facility function or other facility components.

³ The item checked requires immediate attention to keep the facility operational or to prevent damage to other facility components.

Remarks (Refer to Item No., If Applicable):

Inspector: _____

40

Table 4-3

**Maintenance Work Order and Checklist
for
Storm Sewer System**

Name of Facility: _____

Location: _____

Crew: _____

Work Started: date _____ time _____

Equipment: _____

Work Completed: date _____ time _____

Weather: _____

Total Manhours of Work: _____

A. Preventative Maintenance

Work Item	Items Required (√)	Items Done (√)	
1. Trash and Debris Removal			
A. Bottoms			
B. Embankments and Side Slopes			
C. Perimeter Areas			
D. Access Areas and Roads			
E. Inlets			
F. Outlets and Trash Racks			
G. Other:			
2. Other Preventative Maintenance			
A.			
B.			
C.			

B. Corrective Maintenance

Work Item	Items Required (√)	Items Done (√)	Location, Comments and Special Instructions
1. Removal of Debris & Sediment			
2. Structural Repairs			

Work Item	Items Required (✓)	Items Done (✓)	Location, Comments and Special Instructions
3. Elimination of Trees, Brush, Roots & Animal Burrows			
4. Snow & Ice Removal			
5. Other			

C. Aesthetic Maintenance

Work Item	Items Required (✓)	Items Done (✓)	Location, Comments and Special Instructions
1. Graffiti Removal			
2. Grass Trimming			
3. Weeding			
4. Other:			

Remarks (Refer to Item No., If Applicable):

Work Order Prepared By: _____

Work Completed By: _____

Table 4-4
Maintenance Log
for
Storm Sewer System

Name of Facility: _____

Location: _____

A. Preventative Maintenance

Date:

--	--	--	--	--	--	--	--	--	--	--

Work Item

(✓) Completed

1. Trash and Debris Removal

A. Access Areas and Roads										
B. Inlets										
C. Other										

2. Other Preventative Maintenance

A.										
B.										
C.										

B. Corrective Maintenance

Work Item

1. Removal of Debris & Sediment

--	--	--	--	--	--	--	--	--	--

2. Structural Repairs

--	--	--	--	--	--	--	--	--	--

3. Elimination of Trees, Brush, Roots & Animal Burrows

--	--	--	--	--	--	--	--	--	--

4. Snow & Ice Removal

--	--	--	--	--	--	--	--	--	--

5 Other

--	--	--	--	--	--	--	--	--	--

Date:

--	--	--	--	--	--	--	--	--	--

C. Aesthetic Maintenance

Work Item

1. Graffiti Removal

--	--	--	--	--	--	--	--	--	--

2. Grass Trimming

--	--	--	--	--	--	--	--	--	--

3. Weeding

--	--	--	--	--	--	--	--	--	--

4. Other:

--	--	--	--	--	--	--	--	--	--

Remarks (Refer to Item No., If Applicable):

D. 2. STORMWATER MANAGEMENT SYSTEMS
UNDERGROUND DETENTION

D. 3 UNDERGROUND STORMWATER MANAGEMENT FACILITIES

The manufacturer's specifications for construction and maintenance of the Underground Stormwater Storage Facilities have been provided in Appendix G in this report. Underground facilities to be maintained as per manufacturer's specifications. This office takes no responsibility for required maintenance of the interior of these systems, and suggests that those responsible for the maintenance of these systems obtain information directly from the system manufacturer and follow through accordingly.

The following checklists are provided only for maintenance of inlet/outflow areas from the underground storage facilities.

SWM Inspection List

Table 4-5
Inspection Checklist
for
Stormwater Management Systems (Underground Detention Basins)

Name of Facility: _____

Location: _____ Date: _____

Weather: _____

Facility Item	O.K. ¹	Routine ²	Urgent ³	Comments ⁴
1. Inlet Structures/Access Manholes				
A. Condition of Structure				
B. Erosion				
C. Trash & Debris				
D. Sediment				
E. Aesthetics				
F. Other				
2. Outlet Structure (Detention)				
A. Condition of Structure				
B. Erosion				
C. Trash & Debris				
D. Sediment				
E. Mechanical Components				
F. Aesthetics				
G. Other				
3. Access Roads				
A. Vegetation				
B. Road Surface				
C. Fences & Gates				
D. Erosion				
E. Aesthetics				
F. Other:				
4. Miscellaneous				
A. Effectiveness of Exit. Maint. Program				

¹ The item checked is in good condition, and the maintenance program is adequate.

² The item checked requires attention, but does not present an immediate threat to the facility function or other facility components.

³ The item checked requires immediate attention to keep the facility operational or to prevent damage to other facility components.

⁴ Provide explanation and details if columns 2 or 3 are checked.

Remarks (Refer to Item No., If Applicable):

Inspector: _____

48

Table 4-6
Inspection Log
for
Stormwater Management Systems (Underground Detention Basins)

Name of Facility: _____

Location: _____

Date:

--	--	--	--	--	--	--	--	--	--

Facility Item

Indicate Condition (i.e. 1, 2 or 3)

1. Inlet Structure and Access Manholes

A. Condition of Structure											
B. Erosion											
C. Trash & Debris											
D. Sediment											
E. Aesthetics											
F. Other											

Date:

--	--	--	--	--	--	--	--	--	--

2. Outlet Structure (Detention)

A. Condition of Structure											
B. Erosion											
C. Trash & Debris											
D. Sediment											
E. Mechanical Components											
F. Aesthetics											
G. Other											

3. Access Roads

A. Vegetation											
B. Road Surface											
C. Fences & Gates											
D. Erosion											
E. Aesthetics											
F. Other											

4. Miscellaneous

A. Effectiveness of Ex. Maint. Pro.											
-------------------------------------	--	--	--	--	--	--	--	--	--	--	--

¹ The item checked is in good condition, and the maintenance program is adequate.

² The item checked requires attention, but does not present an immediate threat to the facility function or other facility components.

³ The item checked requires immediate attention to keep the facility operational or to prevent damage to other facility components.

Remarks (Refer to Item No., If Applicable):

Table 4-3

**Maintenance Work Order and Checklist
for
Stormwater Management Systems (Underground Detention Basins)**

Name of Facility: _____
Location: _____

Crew: _____ Work Started: date _____ time _____
Equipment: _____ Work Completed: date _____ time _____
Weather: _____ Total Manhours of Work: _____

A. Preventative Maintenance

Work Item	Items Required (√)	Items Done (√)	
1. Trash and Debris Removal			
A. Perimeter Areas			
B. Access Areas and Roads			
D. Inlets			
E. Outlets			
F. Other			
2. Sediment Removal			
A. Inlets			
B. Outlets			
C. Bottoms			
D. Other:			
3. Mechanical Components			
A. Locks			
B. Access Hatches			
C. Other			
4. Pond Maintenance			
A. Debris & Trash Removal			
B. Other			
5. Other Preventative Maintenance			
A.			
B.			
C.			

B. Corrective Maintenance

Work Item	Items Required (✓)	Items Done (✓)	Location, Comments and Special Instructions
1. Removal of Debris & Sediment	<input type="checkbox"/>	<input type="checkbox"/>	
2. Structural Repairs	<input type="checkbox"/>	<input type="checkbox"/>	
3. Snow & Ice Removal	<input type="checkbox"/>	<input type="checkbox"/>	
4. Other	<input type="checkbox"/>	<input type="checkbox"/>	

Work Order Prepared By: _____

Work Completed By: _____

Table 4-4
Maintenance Log
for
Stormwater Management Systems (Underground Detention Basins)

Name of Facility: _____

Location: _____

A. Preventative Maintenance

Date:

--	--	--	--	--	--	--	--	--	--	--

Work Item

(√) Completed

1. Trash and Debris Removal

A. Perimeter Areas										
B. Access Areas and Roads										
C. Inlets										
D. Outlets										
E. Other										

Date:

--	--	--	--	--	--	--	--	--	--	--

2. Sediment Removal

A. Inlets										
B. Outlets										
C. Bottoms										
D. Other:										

3. Maintenance Components

A. Locks										
B. Access Hatches										
C. Other										

4. Pond Maintenance

A. Debris & Trash Removal										
B. Other										

9. Other Preventative Maintenance

A.										
B.										
C.										

B. Corrective Maintenance

Work Item

1. Removal of Debris & Sediment

--	--	--	--	--	--	--	--	--	--

2. Structural Repairs

--	--	--	--	--	--	--	--	--	--

Date:

--	--	--	--	--	--	--	--	--	--

3. Pond Maintenance

--	--	--	--	--	--	--	--	--	--

4. Snow & Ice Removal

--	--	--	--	--	--	--	--	--	--

5. Other

--	--	--	--	--	--	--	--	--	--

Remarks (Refer to Item No., If Applicable):

D. 5. BAYFILTER MANUFACTURED TREATMENT DEVICES
(PROVIDED BY MANUFACTURER)

Maintenance of the BayFilter™ System

The BayFilter™ system requires periodic maintenance to continue operating at the design efficiency. The maintenance process comprises the removal and replacement of each BayFilter™ cartridge and drain down module and the cleaning of the vault or manhole with a vacuum truck. BayFilter™ maintenance should be performed by a BaySaver Technologies, Inc. certified maintenance contractor.

The maintenance cycle of the BayFilter™ system will be driven mostly by the actual solids load on the filter. The system should be periodically monitored to be certain it is operating correctly. Since stormwater solids loads can be variable, it is possible that the maintenance cycle could be more or less than the projected duration.

The BayFilter systems in New Development applications are designed to treat the WQv in 24 hours initially. Later in the cycle these cartridges will flow at a slower rate, and when the WQv does not drain down within +/- 40 hours after the storm event, the system must be maintained.

When a BayFilter™ system is first installed, it is recommended that it be inspected every six (6) months. When the filter system exhibits flows below design levels the system should be maintained. Filter cartridge replacement should also be considered when sediment levels are at or above the level of the 4 inch manifold system. Please contact the BaySaver Technologies Inc. Engineering Department for maintenance cycle estimations or assistance at 1.800.229.7283.

Maintenance Procedures

1. Remove the manhole covers and open all access hatches.
2. Before entering the system make sure the air is safe per OSHA Standards or use a breathing apparatus. Use low O₂, high CO, or other applicable warning devices per regulatory requirements.
3. Using a vacuum truck remove any liquid and sediments that can be removed prior to entry.
4. Using a small lift or the boom of the vacuum truck, remove the used cartridges by lifting them out.
5. Any cartridges that cannot be readily lifted directly out of the vault should be removed from their location and carried to the lifting point using the Trolley system installed in the Vault (if applicable).
6. When all cartridges and drain down modules are removed, remove the balance of the solids and water; then loosen the stainless clamps on the Fernco couplings in the pipe manifold; remove the drain pipes as well. Carefully cap the manifold and the Fernco's and rinse the floor removing the balance of the collected solids.
7. Clean the manifold pipes, inspect, and reinstall.
8. Install the exchange cartridges and close all covers.
9. The used cartridges must be sent back to BaySaver Technologies, Inc. for exchange/recycling and credit on undamaged units.

BayFilter™ System Costs and Availability

BayFilter™ systems are available throughout the United States from ADS. Material, installation, and maintenance costs can vary significantly with location. For BayFilter™ pricing in your area, please contact ADS at 1-800-821-6710.

BayFilter™ cartridges and outlet components can be shipped anywhere in the continental United States. Manholes and precast vaults are also supplied by BaySaver Technologies, Inc. as part of a complete stormwater filtration system.

APPENDIX E
APPROVED DISPOSAL/RECYCLING SITES

The Morris County Municipal Utilities Authority, Solid Waste Division, maintains a Transfer Station in Parsippany-Troy Hills which accepts the following:

- Type 10 waste - Municipal waste collected from residents, businesses and institutions;
- Type 13 waste - Bulky waste such as construction and demolition debris, tires, furniture, appliances and logs;
- Type 23 waste - Vegetative waste such as grass and branches (leaves have been banned from all landfills in New Jersey since 1989);
- Type 25 waste - Food-processing waste from packing plants, butchers, etc.;
- Type 27 waste - Non-hazardous waste from industries, which must be pre-approved by the MCUA. No hazardous waste or asbestos is permitted in the landfill.

Hazardous Waste

Hazardous wastes are prohibited in the landfill.

For general information regarding disposal of any waste collected on site, it is recommended that the responsible party contact the Morris County Municipal Utilities Authority for the appropriate information including hours of operation and disposal rates for the specific material to be disposed of.

Contact information is as follows:

Morris County Municipal Utilities Authority

60

214a Center Grove Road, Randolph, NJ 07869
(973) 285-8390

Parsippany Transfer Station, 1100 Edwards Road, Parsippany, NJ 07054
(973) 808-9651

This information is likely to change over the life span of the development and should be updated as required.

APPENDIX F
AS-BUILT CONSTRUCTION PLANS

62

As-built construction plans must be kept in this Appendix of the Maintenance Manual.

The permanent files shall include the following:

- ◆ Preliminary and Final Site Plans for Waterloo Valley Road Distribution Facility
- ◆ easements for access and maintenance
- ◆ completion certificates
- ◆ copies of lab test results for permeability (prepared by Melick-Tully & Associates)
- ◆ copies of Stormwater Management Report for the project, prepared by Chester, Ploussas, Lisowsky Partnership, LLC, latest revised

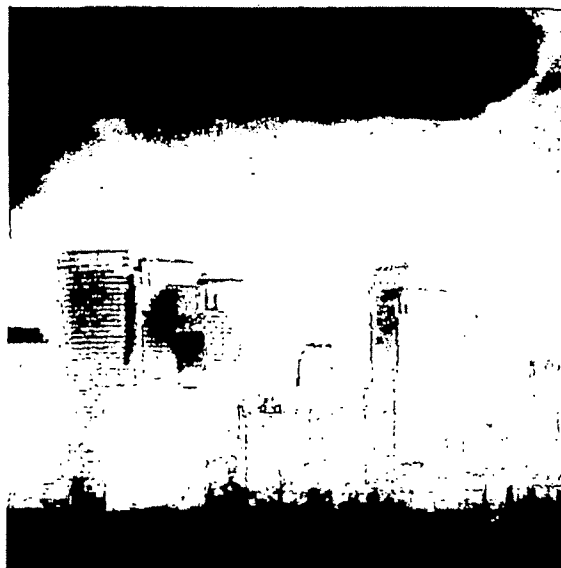
APPENDIX G
MANUFACTURER'S TECHNICAL SPECIFICATIONS
FOR CONSTRUCTION & MAINTENANCE OF
UNDERGROUND STORMWATER
DETENTION BASIN FACILITIES

NOTE:

The following pages present the operations and maintenance guidelines for the underground detention facilities incorporated into the project's Stormwater Management Plan. These guidelines are as provided from the manufacturer (Coplex-Rialto Units by Pontarolo Engineering) and are re-printed here for inclusion in this Manual. This office takes no responsibility for the content of same. Any and all questions regarding these guidelines should be directed to the manufacturers.



OPERATION AND MAINTENANCE GUIDELINES



STORMWATER MANAGEMENT
FORMING SOLUTIONS FOR
SUBSURFACE DETENTION AND
RETENTION SYSTEMS



OPERATION AND MAINTENANCE GUIDELINES



This manual contains guidelines recommended by PONTAROLO ENGINEERING, INC. and CUPOLEX BUILDING SYSTEMS USA, LLC, and may be used in conjunction with, but does not supersede, local regulations or regulatory authorities. OSHA Guidelines must be followed when inspecting or cleaning any structure.

Introduction

CUPOLEX® is a forming system designed to provide an easy, efficient and fast solution for constructing cast in place subsurface concrete stormwater storage tanks. CUPOLEX® concrete tanks can be designed at various depths as either shallow or deep tanks. The CUPOLEX® Dome Forming System with depths from 260mm (10 inches) to 700mm (28 inches) can be used for constructing shallow tanks on sites with a high groundwater elevation. If deeper tanks are required for maximum volume or to minimize the footprint area, then the CUPOLEX-RIALTO forming system can be used to create stormwater tanks from 500mm (20 inches) to 2000mm (79 inches) deep. This cutting edge forming system comprises of CUPOLEX® domes, pipes and bases manufactured using 100% recycled materials.

The CUPOLEX® elements quickly interlock and connect to each other composing a bearing structure ready for the placement of concrete, creating the most structurally sound underground stormwater tank on the market. This highly efficient stormwater management method is supported by the matrix of domes and arches formed by the CUPOLEX® elements, allowing for easy inspection/cleaning.

In order to minimize the amount of sediment which may enter the CUPOLEX® tank, a sediment collection device (stormwater pretreatment device) is recommended. Examples of pretreatment devices include, but are not limited to, an appropriately sized catch basin with sump, pretreatment catchment device, oil grit separator, or baffled distribution box. Manufactured pretreatment devices may also be used in accordance with CUPOLEX® concrete tanks. Installation, operation, and maintenance of these devices shall be in accordance with manufacturer's recommendations. Almost all of the sediment entering the CUPOLEX® concrete tank system will be collected within the pretreatment device. Best Management Practices allow for the maintenance of the preliminary collection systems prior to feeding the CUPOLEX® concrete tank. The pretreatment structures shall be inspected for any debris that will restrict inlet flow rates. Outfall structures, if any, such as outlet control, must also be inspected for any obstructions that would restrict outlet flow rates. OSHA Guidelines must be followed when inspecting or cleaning any structure.

Operation and Maintenance Requirements

I. Operation

CUPOLEX® concrete stormwater tank management systems shall be operated to receive only stormwater run-off in accordance with applicable local regulations. CUPOLEX® subsurface concrete stormwater management tanks operate at peak performance when installed in series with pretreatment. Pretreatment of suspended solids is superior to treatment of solids once they have been introduced into the system. The use of pretreatment is adequate as long as the structure is maintained and the site remains stable with finished pervious or impervious surfaces such as parking lots, walkways, and green space areas properly maintained. If there is to be an unstable condition, such as improvements to buildings or parking areas, all proper silt control measures shall be implemented according to local regulations.

II. Inspection and Maintenance Options

CUPOLEX BUILDING SYSTEMS USA, LLC
8275 Eastern Avenue, Ste. 200-898, Las Vegas, NV, 89123
Toll Free: 1-866-766-8276 - Fax: 905-669-6354

WWW.CUPOLEX.COM

A. The CUPOLEX® concrete tank system may be equipped with an inspection port located on the Isolator rows or at any location on the tank. Any type of inspection port can be installed with CUPOLEX®. When the lid is removed, this will provide access to the CUPOLEX® tank. From the surface, the sediment may be measured at this location. A stadia rod may be used to measure the depth of sediment if any in the Isolator row or the main tank. If the depth of sediment is in excess of 3 inches (75 mm), then the Isolator row or main tank area should be cleaned with high pressure water and Hydrovac truck.

B. If the CUPOLEX® tank is not equipped with an inspection port then access to the Isolator row or main tank area will be through an upstream manhole.

1. Manhole Access

This inspection should only be carried out by persons trained in confined space entry and sewer inspection services. After the manhole cover has been removed a gas detector must be lowered into the manhole to ensure that there are not high concentrations of toxic gases present. The inspector should be lowered into the manhole with the proper safety equipment as per OSHA requirements. The inspector may be able to observe sediment from this location. If this is not possible, the inspector will need to deploy a CCTV robot to permit viewing of the sediment.

2. Tank Access

Remove the manhole cover to allow access to the tank. Typically a 30-inch (750 mm) pipe is used as a riser from the tank to the surface. As is the case with manhole access, this access point requires a technician trained in confined space entry with proper gas detection equipment. This individual must be equipped with the proper safety equipment for entry into the tank and the technician will be lowered onto the tank. The hatch on the unit must be removed. Once entering the tank, the inspector can launch the CCTV camera robot.

C. The Isolator row or main tank can be flushed with high pressure water. The nozzle is to be extended to the end of the Isolator row or main tank. The water is turned on and the Isolator row is back-flushed into the manhole. This water is to be removed from the manhole or using a hydro-vacuum truck.

III. Maintenance Guidelines

The following guidelines shall be adhered to for the operation and maintenance of the CUPOLEX® concrete stormwater tank management system:

- A. The owner shall keep a maintenance log which shall include details of any events which would have an effect on the system's operational capacity.
- B. The operation and maintenance procedure shall be reviewed periodically and changed to meet site conditions.
- C. Maintenance of the stormwater management system shall be performed by qualified workers and shall follow applicable occupational health and safety requirements.
- D. Debris removed from the concrete stormwater tank management system shall be disposed of in accordance with applicable laws and regulations.

CUPOLEX BUILDING SYSTEMS USA, LLC
8275 Eastern Avenue, Ste. 200-898, Las Vegas, NV, 89123
Toll Free: 1-888-766-8276 - Fax: 905-669-6354

WWW.CUPOLEX.COM

IV. Suggested Maintenance Schedules

A. Minor Maintenance

The following suggested schedule shall be followed for routine maintenance during the regular operation of the stormwater system:

Frequency Action Monthly in first year	Check inlets and outlets for clogging and remove any debris as required.
Spring and Fall	Check inlets and outlets for clogging and remove any debris as required.
One year after commissioning and remove any every third year following	Check inlets and outlets for clogging and debris as required.

B. Major Maintenance

The following suggested maintenance schedule shall be followed to maintain the performance of the CUPOLEX® concrete stormwater management tank. Additional work may be necessary due to insufficient performance and other issues that might be found during the inspection of the stormwater management tank. (See table on next page)

Inlets and Outlets

Every 3 years - Obtain documentation that the inlets, outlets and vents have been cleaned and will function as intended.

Spring and Fall - Check inlet and outlets for clogging and remove any debris as required.

CUPOLEX® Stormwater Tank

2 years after commissioning - Inspect the interior of the stormwater management tank through inspection port for deficiencies using CCTV or comparable technique. Obtain documentation that the stormwater management tank and feed connectors will function as anticipated.

9 years after commissioning, every 9 years following - Clean stormwater management tank and feed connectors of any debris. Inspect the interior of the stormwater management tank for deficiencies using CCTV or comparable technique. Obtain documentation that the stormwater management tank and feed connectors have been cleaned and will function as intended.

45 years after commissioning - Clean stormwater management tank and feed connectors of any debris. Determine the remaining life expectancy of the stormwater management tank and recommended schedule and actions to rehabilitate the stormwater management tank as required. Inspect the interior of the stormwater management tank for deficiencies using CCTV or comparable technique.

Surrounding Site

Monthly in 1st year - Check for depressions in areas over and surrounding the Stormwater tank management system.

CUPOLEX BUILDING SYSTEMS USA, LLC
8275 Eastern Avenue, Ste. 200-898, Las Vegas, NV, 89123
Toll Free: 1-866-765-8276 - Fax: 905-669-6354

WWW.CUPOLEX.COM



Spring and Fall - Check for depressions in areas over and surrounding the Stormwater tank management system.

Yearly - Confirm that no unauthorized modifications have been performed to the site.

For additional information concerning the maintenance of CUPOLEX® Concrete Subsurface Stormwater Management Tanks, please contact CUPOLEX BUILDING SYSTEMS USA, LLC. at 1-888-786-8276.



CUPOLEX BUILDING SYSTEMS USA, LLC
8275 Eastern Avenue, Ste. 200-898, Las Vegas, NV, 89123
Toll Free: 1-888-786-8276 - Fax: 906-869-6354

WWW.CUPOLEX.COM

SECTION _____
CUPOLEX MODULAR FORMING
FOR SUBSURFACE STORMWATER STORAGE TANK

PART 1: GENERAL

- A. Refer to _____ and Civil and Structural drawings.

1.1 SECTION INCLUDES

- A. Cupolex Cast in Place concrete, modular stormwater detention/retention.

1.2 DOCUMENTS REFERRED TO:

- A. Documents referred to in this section are:
- a. Cupolex by Pontarolo Engineering info@pontarolo.ca
 - b. Documents listed above and cited in the clauses that follow are part of spec. However, this specification takes precedence in the event of it being at variance with the cited document.
 - c. Section 31 00 00 – Earthwork
 - d. Section 03 30 00 – Cast-in-Place Concrete Tank
 - e. Section 03 40 00 – Cast In place Concrete Walls

1.3 SUPPLIERS DOCUMENTS

- A. Supplier's documents relating to work in this section are available on the website:
www.cupolex.com

Further information or help is available by phone at 1-866-766-8276

1.4 PERFORMANCE REQUIREMENTS

- A. Product Data: For the following:
- 1. Plastic domes.
 - 2. Polypropylene elements.
- B. Shop Drawings: Show construction and installation details for the Subsurface Stormwater Tank.
- 1. Include plans, elevations, sections, and details of Subsurface Stormwater Tank.
 - 2. For installed products indicate compliance with design loads, include structural analysis calculations and sealed by a qualified professional engineer responsible for their preparation.
- C. Engineering Review Compliance Statement: Signed by the manufacturer certifying that the products supplied comply with the manufacturer's requirements.
- D. Cast In Place Concrete Modular Stormwater Detention shall comply with ASTM Standard _____.
- E. Underground Cast In Place concrete stormwater management system shall be sized in accordance with the design requirements provided by the Engineer of Record (EOR) and approved by the reviewing agency.

F. The system shall be designed so modules are aligned and have channels that extend to the bottom of the modules allowing for relatively unrestricted fluid flow in both directions.

G. Minimum Structural Design Loading: ASTM ____.

1. Total Cover:

a. Minimum: As indicated on the drawings.

b. Maximum: As indicated on the drawings.

2. Concrete chamber shall be designed for AASHTO HS-20 or HS-40 wheel load as indicated on design drawings.

3. Minimum Soil Pressure:

a. CUPOLEX Modules: As indicated on the drawings for concrete pad.

4. Vertical and lateral soil pressures shall be determined using:

a. Groundwater: At or below invert of system.

b. Lateral soil pressures to be based on Active earth pressure

1) Lateral soil pressure = 35 pcf for 120 pcf backfill unit weight

c. Vertical soil pressures

1) Live load = HS-____ Dead load = ____ cover fill unit weight

d. Engineer to verify geotechnical requirements

1.5 SUBMITTALS

A. Comply with Section ____ - Submittal Procedures.

B. Product Data: Submit manufacturer's product data and installation instructions.

C. Record Documents:

1. Shop Drawings:

a. Submit manufacturer's shop drawings, including plans, elevations, sections, and details indicating layout, dimensions, foundation, cover, and joints.

b. Indicate size and location of roof openings and inlet and outlet pipe openings.

c. Indicate sealing of joints.

D. Operation and Maintenance Data: Submit manufacturer's operation and maintenance instructions

1.6 DELIVERY, STORAGE AND HANDLING

A. Delivery of Accessories: Deliver to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Storage of Accessories:

1. Store in accordance with manufacturer's instructions.
2. Store in clean, dry area, out of direct sunlight.

C. Handling:

1. Protect materials during handling and installation to prevent damage.
2. Handle CUPOLEX with safety gloves and safety glasses
3. Avoid impact
4. Avoid tipping CUPOLEX® pallets
5. See specific instructions for installing product in temperatures below 0°C or above 35°C.
6. CUPOLEX® waste can be completely recycled.

PART 2: PRODUCTS

2.1 MANUFACTURER

Pontarolo Engineering Inc. North America, 55 Administration Rd., #6, Vaughan, ON, Canada L4K 4G9

Pontarolo Engineering S.p.A., Europe, Via Clauzetto n°20 – ZIPR, San Vito al Tagliamento (PN) Italy

A. This section Includes Cupolex Modular Forming system for Concrete Stormwater Tanks made of recycled plastic domes:

1. CUPOLEX DOME

The (100% recycled plastic) structural domes which easily interlock to create a self-supporting structure which acts as a permanent form-work having sizes in plan approximately 56cm (22") x 56cm (22") or 70cm (27.5") x 70cm (27.5") and varying heights.

2. BETON STOP

The (100% recycled plastic) end stop which prevents concrete from entering under the Cupolex domes and provides the ability to adjust the form work to suit the geometry of each specific slab

3. CUPOLEX RIALTO BASES

The (100% recycled plastic) bases which easily interlock to create a grid to install the Cupolex Rialto Tubes which acts as a permanent formwork having sizes in plan approximately 57 cm x 57 cm (22.4" x 22.4").

4. CUPOLEX RIALTO DOMES

The (100% recycled plastic) structural domes which easily interlock to the Rialto Tube to create a self-supporting structure which acts as a permanent formwork having sizes in plan approximately 57 cm x 57 cm (22.4" x 22.4").

5. CUPOLEX RIALTO TUBES:

The (100% recycled plastic) PVC pipes with a diameter of 125 mm, which are easily inserted into the Cupolex Rialto Bases and create a self-supporting structure which acts as a permanent formwork and are installed on plan at 57 cm (22") o/c.

6. CUPOLEX RIALTO FLAT STOPS:

The (100% recycled plastic) Flat Stops installed on every perimeter Rialto Dome following the installation on the Domes, to ensure no concrete enters the Concrete Pavement Forming system during the placement of the concrete pavement.

2.2 GENERAL PROPERTIES

- A. The domes central cone absorbs the vibrations that occur during the mechanical finishing of the top surface of the concrete tank.
- B. They have the following advantages:
 - 1. Quick and easy placement and assembly
 - 2. Determined layout for the entire surface area.
 - 3. Very high load bearing capacity
 - 4. Provides subsurface tank for stormwater detention or infiltration storage.
 - 5. Can be laid on any resting surface- mud slab, soil, gravel, etc. refer to design drawings.
 - 6. Supports working loads on product before and during concrete placement
 - 7. Very adaptable to any shape of the resting surface.

2.3 PROPERTIES

A. CUPOLEX

- a) Height of forms: ____
- b) Plan Dimension per unit: ____
- c) Plan dimension assembled: ____
- d) Concrete consumption: ____

B. CUPOLEX RIALTO

- a) Height of forms: ____
- b) Plan Dimension per unit: ____
- c) Plan dimension assembled: ____
- d) Concrete consumption: ____

2.3 DOMES' PERFORMANCE REQUIREMENTS

Cupolex Subsurface Stormwater Tank

SECTION#-4

- A. Concrete Consumption: ____
- B. Clear Void Equivalent: ____
- C. Passing of pipes: ____

2.4 DOMES' PERFORMANCE REQUIREMENTS

- D. Product Data: For the following:
 - 1. Plastic domes.
 - 2. Polypropylene elements.
- E., Shop Drawings: Show construction and installation details for the Concrete Cupolex Tank.
 - 3. Include plans, elevations, sections, and details of Modular Concrete Tank.
 - 4. For installed products indicate compliance with design loads, include structural analysis calculations, and sealed by a qualified professional engineer responsible for their preparation.
- A. Engineering Review Compliance Statement: Signed by the manufacturer certifying that the products supplied comply with the manufacturer's requirements.

2.5 CONCRETE & PAD (PROVIDED BY CONTRACTOR)

- A. Concrete and base pad foundation shall be gravel layers or cast-in-place base slab as specified on design drawings.
 - 1. Foundation shall have a 1-foot overhang as indicated on the drawings.
 - 2. Minimum Compressive Strength: As indicated on design drawings.
 - 3. Reinforcing Bar Design: As indicated on the drawings.

PART 3: EXECUTION

3.1 STORAGE

- A. Take delivery of and accept product and accessories undamaged. Store on a level firm base and protected from excessive UV-light and away from current work areas.

3.2 HANDLING

- A. Avoid distribution of and contact with damaging substances. Do not drag products across each other and other materials. Protect edges and surface finishes from damage.

3.3 INSTALLATION

- A. Comply with manufacturer's installation manual
- B. Layout complies with a grid system
- C. Each CUPOLEX® Form has an installation arrow

- D. Forms are installed by starting from left to right and top to bottom
- E. Ensure that the feet connection pins are correctly inserted into their holes

3.4 CUTTING

- A. Cutting of plastic components can be carried out where ground, inlet, outlet penetrations and existing portals etc. occur.

3.5 ERECT AND PLACE

- A. Set out Cupolex domes, Foundation Tubes, Bases, Flat Stops and Beton Stops as indicated on the plan. Domes should be placed with arrows up, from left to right and top to bottom.

3.6 EDGE BOXING

- A. Form and fix edge timber boxing to contain the wet concrete.

3.7 PLACE REINFORCEMENT

- A. Place mesh and reinforcement as detailed on drawings.

3.8 CONCRETE

- A. Ensure Cupolex system is clean, free of debris and water. Place and vibrate concrete to the requirements of the concrete manufacturer.

3.9 FINISHING

- A. Concrete finishing as to specifications.

3.10 CONCRETE CURING

- A. Keep continuously damp for seven days. Keep time between placing and start of curing concrete to an absolute minimum.

3.11 BOXING REMOVAL

- A. Do not remove temporary boxing until concrete has achieved a full 28 days curing, without the written direction of the design engineer.

3.12 LEAVE

- A. Leave work to the standard required by following procedures.

3.13 CLEAN UP

A. Clean up surrounding areas following completion of the concrete placement.

3.14.REMOVE

A. Remove debris, unused materials and elements from the site.

END OF SECTION

PRODUCT DATA

MasterFormat: 07 13 26

W. R. MEADOWS
SEALTIGHT

NO. 714

OCTOBER 2013
(Supersedes July 2012)

MEL-ROL®

Rolled, Self-Adhering Waterproofing Membrane

DESCRIPTION

MEL-ROL waterproofing system is a flexible, versatile, dependable, roll-type waterproofing membrane. It is composed of a nominally 56 mil thick layer of polymeric waterproofing membrane on a heavy duty, four-mil thick, cross-laminated polyethylene carrier film. The two components are laminated together under strict quality-controlled production procedures.

A handy overlap guideline is printed 2 1/2" (63.5 mm) in from the material edge on each side to assure proper overlap coverage and to assist in maintaining a straight application. Special exposed polymeric membrane strips are provided on both sides for positive membrane-to-membrane adhesion in the overlap area. The membrane strips are protected by a pull-off release strip. All components of the MEL-ROL waterproofing system work together to provide a cost-effective, positive waterproofing system that's quick and easy to apply.

W. R. MEADOWS accessory products included in the MEL-ROL waterproofing system are: BEM, MEL-ROL LIQUID MEMBRANE, MEL-PRIME™ adhesive (solvent-based and water-based), POINTING MASTIC, DETAIL STRIP, CATALYTIC BONDING ASPHALT, TERMINATION BAR, PROTECTION COURSE and MEL-DRAIN™ drainage board.

USES

MEL-ROL waterproofing system provides a cost-effective answer to properly waterproof foundations, vertical walls, and below-grade floors in residential and commercial construction. It is equally effective for use as between-slab waterproofing on plaza decks, parking decks, and structural slabs. Use it as a waterproofing membrane to isolate mechanical and electronic rooms, laboratories, kitchens, and bathrooms. MEL-ROL offers positive protection when "wrapped around" major rapid transit, vehicular, utility, and pedestrian tunnel projects. MEL-ROL can also be used on insulated concrete forms (ICF).

Installation of PROTECTION COURSE from W. R. MEADOWS is recommended before backfilling. MEL-ROL can also be used with drainage boards when specified.

FEATURES/BENEFITS

- Provides cost-effective, flexible, versatile, dependable, positive waterproofing protection against damaging moisture migration and the infiltration of free water.
- Offers a quick and easy-to-apply system for maximum productivity.
- Special membrane-to-membrane adhesion provides additional overlap security.
- Meets or exceeds the test requirements of all currently applicable specifications.
- Components work together for positive waterproofing protection.
- Handles with ease on the jobsite.
- Available in a low temperature version for use when air and surface temperatures are between 20° F (-7° C) and 60° F (16° C). An extra-low temp version is also available, ideal for application in extra-low temperatures down to 0° F (-18° C).

PACKAGING

38.5" (977.9 mm) wide x 62.5' (19.1 m) long, one roll per carton.

COVERAGE

Provides 200 ft.² (18.6 m²) per roll. Gross coverage is 200 ft.² (18.6 m²). [Net coverage is 187.5 ft.² (17.4 m²) with overlap of 2 1/2" (63.5 mm).]

STORAGE AND HANDLING

Store membrane cartons on pallets and cover if left outside. Keep materials away from sparks and flames. Store where temperature will not exceed 90° F (32° C) for extended periods of time.

SPECIFICATIONS

- A.R.E.M.A.® Specifications Chapter 29, Waterproofing
- LARR Report 26022

APPLICATION

Surface Preparation ... Concrete should be cured at least 72 hours, be clean, dry, smooth, and free of voids. Repair spalled areas; fill all voids and remove all sharp protrusions.

CONTINUED ON REVERSE SIDE...

W. R. MEADOWS, INC.
P.O. Box 338 • HAMPSHIRE, IL 60140-0338
Phone: 847/214-2100 • Fax: 847/683-4544
1-800-342-5978
www.wrmeadows.com

HAMPSHIRE, IL / CARTERSVILLE, GA / YORK, PA
FORT WORTH, TX / BENICIA, CA / POMONA, CA
GOODYEAR, AZ / MILTON, ON / ST. ALBERT, AB

MEL-ROL COMBINES POSITIVE WATERPROOFING PROTECTION WITH EASE OF HANDLING

EXCLUSIVE FEATURES

A handy overlap guideline is printed 2 1/2" (63.5 mm) in from the material edge on each side, assuring proper overlap coverage and assisting in maintaining a straight application. The polymeric waterproofing membrane is protected by a special, easy-to-remove release paper. The exposed membrane strips on the material edges are protected by a pull-off release strip. Exposed polymeric membrane strips are provided on both sides of MEL-ROL for positive membrane-to-membrane adhesion in the overlap area ... note the detail, as shown in inset photo.

TECHNICAL DATA		
PROPERTY	TYPICAL VALUE	TEST METHOD
COLOR ... Carrier Film	White	
Polymeric Membrane	Black	
THICKNESS ... Carrier Film	4 mils	
Polymeric Membrane	56 mils	
TENSILE STRENGTH ... Carrier Film	5900 psi min. (40.71 MPa)	ASTM D 412
Membrane	460 psi (3230 KPa)	(Die C)
ELONGATION	971.3%	ASTM D 412
LOW TEMP CRACK BRIDGING 100 Cycle -25° F (-32° C)	Pass	ASTM C 836
PEEL ADHESION	11.8 lb/in. (2068 N/m)	ASTM D 903
LAP ADHESION	8.62 lb/in. (1508.5 N/m)	ASTM D 1876
WATER VAPOR PERMEABILITY	0.036 Perms	ASTM E-96, B
WATER ABSORPTION	0.1%, 72 hrs. max.	ASTM D 1970
HYDROSTATIC RESISTANCE	Equiv. to 230.9' (70.38 m) of water	ASTM D 5385
PUNCTURE RESISTANCE	48.24 lbf (214.6 N)	ASTM E 154
EXPOSURE TO FUNGI	Pass, 16 weeks	Soil Test
FLEXIBILITY @ -20° F (-29° C)	Pass	ASTM D 1970

MEL-ROL IS QUICK AND EASY TO APPLY

Temperature ... Apply in dry, fair weather when the air and surface temperatures are above 40° F (4° C). Do not apply to frozen concrete.

MEL-ROL LOW TEMP can be used when air and surface temperatures are between 20° F (-7° C) and 60° F (16° C).

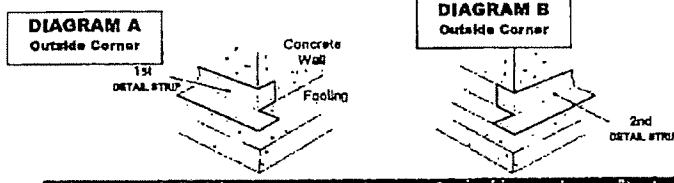
Surface Conditioning ... Apply MEL-PRIME adhesive to surfaces that will be covered within one working day. If left exposed overnight, additional adhesive must be applied. Follow all instructions and precautions on containers.

REMOVE release paper from MEL-ROL from the top edge of the roll and firmly press exposed area to the wall. Remove the release paper from the rolls in a downward direction, pressing MEL-ROL into place on the wall.

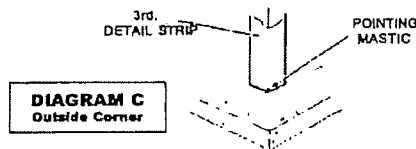
Footing Details ... Use DETAIL STRIP for impaction sheet coverage. First, fold strips lengthwise and then cut at the fold. Material is then ready to install as 4 1/2" (114.3 mm) strips on either side of the rebar. Any excess can be turned down on the face of the footing. Next, fill the voids around rebars in the keyway with CATALYTIC BONDING ASPHALT. Pour the walls. Install DETAIL STRIP horizontally along the wall where it meets the footing, placing half the material up the wall and the other half onto the footing. Extend the material 4 1/4" (114.3 mm) beyond outside corners. Slit extended portion of DETAIL STRIP lengthwise. Place the horizontal flap out onto the footing and bend the vertical flap around the wall. (See Diagram A.) Repeat this procedure in the opposite direction as shown in Diagram B.

MEL-ROL can be applied to concrete, masonry surfaces, wood, insulated wall systems, and metal. All substrates must be clean, dry, and free of all surface irregularities.

Horizontal Application ... Remove release paper on edge, then position the MEL-ROL membrane. Pull balance of release paper off, running the roll from low to high points, so all laps will shed water. Stagger end laps and overlap all seams at least 2 1/2" (63.5 mm). Apply a double-thickness of the MEL-ROL membrane over construction; control, all expansion joints and over cracks greater than 1/16" (1.59 mm) wide.



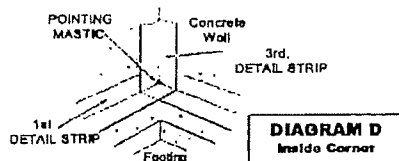
Vertical Wall Application ... Masonry walls may require the application of a cementitious parge-coat. Allow the parge-coat to dry before priming and applying MEL-ROL. When applied, the parge-coat will produce a smooth, uniform, and well-bonded surface. Remove release paper, then apply vertically in lengths approximately 8' (2.44 m) long over the top of the horizontal DETAIL STRIP at the footing. Overlap seams at least 2 1/2" (63.5 mm). Tightly butt edges of membrane and apply POINTING MASTIC in corner applications. (See Diagram C.)



To the top terminations, apply POINTING MASTIC at least 1/8" (3.18 mm) thick and 1" (25.4 mm) wide. As an option, TERMINATION BAR may be used to mechanically fasten the membrane.

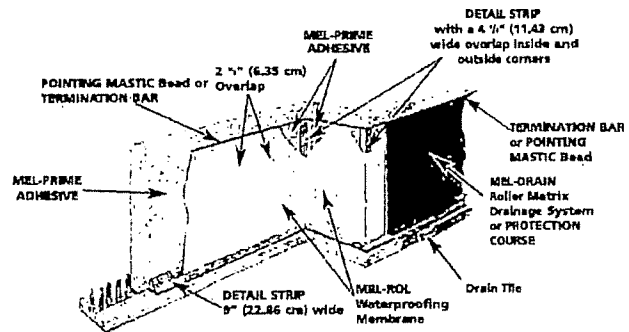
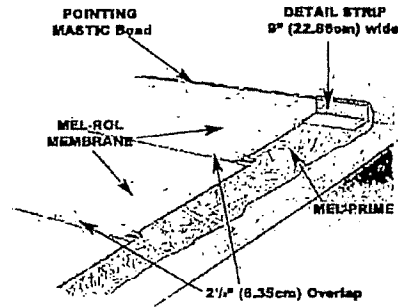
Hand-Rub and Roll Press ... Once positioned, immediately hand-rub the MEL-ROL membrane firmly to the surface, removing any bubbles or wrinkles, then pressure roll the complete surface to assure positive adhesion.

Inside Corners ... Before MEL-ROL is applied, place a vertical DETAIL STRIP on inside corners extending the material 4 1/2" (114.3 mm) beyond each side of the corner. (See Diagram D.) Terminate at the footing and finish the corner with POINTING MASTIC.



Outside Corners ... Bend DETAIL STRIP vertically over the outside corner and extend 4 1/2" (114.3 mm) beyond each side of the corner. Terminate the material at the footing. Finish the corner with POINTING MASTIC. (See Diagram C.)

Drains and Protrusions ... All protrusions should be sealed with two layers of membrane applied at least 6" (152.4 mm) in all directions. Seal all terminations with POINTING MASTIC. Around drains, apply two layers of MEL-ROL and put a bead of POINTING MASTIC between the membrane and clamping rings and at all terminations, drains, and protrusions. See ASTM D 5898.



Inspect and Repair ... A thorough inspection should be made before covering and all necessary repairs made immediately. Tears and inadequate overlaps should be covered with MEL-ROL ... slit fish mouths and patch. Seal edges of all patches with POINTING MASTIC. Where applicable, horizontal applications can be flood-tested for 24 hours. All leaks should be marked and repaired when membrane dries.

Protect the Membrane ... on all vertical and horizontal installations with the immediate application of PROTECTION COURSE if no drainage system is used, or MEL-DRAIN. To secure PROTECTION COURSE, use POINTING MASTIC as an adhesive, and/or physically attach at the top edge using TERMINATION BAR. Backfilling should be done immediately, using care and caution to avoid damaging the waterproofing application.

PRECAUTIONS

Avoid the use of products that contain tars, solvents, pitches, polysulfide polymers, or PVC materials that may come into contact with MEL-ROL. The use of MEL-ROL does not negate the need for relief of hydrostatic heads. A complete drain tile system should be placed around the exterior of footing and under slabs, as required.

ACCESSORIES

MEL-PRIME W/B ... This water-based adhesive prepares concrete surfaces for MEL-ROL application. Arrives ready to use. Requires no additional mixing. MEL-PRIME W/B emits no unpleasant odors and works with all W. R. MEADOWS waterproofing membranes. Applies easily with manual sprayer or roller; VOC-compliant. MEL-PRIME W/B is for use at temperatures of 40° F (4° C) and up.

COVERAGE: 150 - 200 ft.²/gal. (3.7 - 4.9 m²/L)

PACKAGING: 1 Gallon (3.79 Liter) Units (4 units per carton), 5 Gallon (18.93 Liter) Pails

MEL-PRIME ... This solvent-based adhesive is for use at temperatures of 25° F (-4° C) and above. Apply by roller.

COVERAGE: 250-350 ft.²/gal. (6.14 to 8.59 m²/L) PACKAGING: 5 Gallon (18.93 Liter) Pails

MEL-ROL LIQUID MEMBRANE ... A two-component material used as a flashing to form fillets at corners and at protrusions. May be used as a substitute for POINTING MASTIC. Product can also be used in between walls and footings in lieu of DETAIL STRIP.

COVERAGE: As a fillet, approximately 135 lineal feet per gallon (10.87 m per liter) PACKAGING: 1 Gallon (3.79 Liter) Units, 4 Units per carton.

BEM ... BEM can be used as a fillet to round out 90° angles, such as the wall-footing connection, and can be used as a substitute for MEL-ROL LIQUID MEMBRANE.

COVERAGE: As a fillet, approximately 135 lineal ft./gal. (10.9 m/L). PACKAGING: 28 Oz. (828 mL) Cartridges (12 per Carton)

POINTING MASTIC ... Used as an adhesive and for sealing top edge terminations on DETAIL STRIP and membrane, and to adhere PROTECTION COURSE.

COVERAGE: 1/8" x 1" x 200'/gal. (3.18 mm x 25.4 mm x 16.10 ml). PACKAGING: 5 Gallon (18.93 Liter) Pails, 29 Oz. (857.65 ml) Cartridges, 12/ctn.

CATALYTIC BONDING ASPHALT ... Easy-to-apply, one-component material for sealing around rebar.

COVERAGE: 5 gal/1000 ft.²/gal. (4.9 m²/L) PACKAGING: 5 Gallon (18.93 Liter) Pails.

DETAIL STRIP ... Convenient, easy-to-use DETAIL STRIP provides an economical and effective method for sealing vertical and horizontal butt joints, i.e. inside or outside corners and where walls and footings meet.

PACKAGING: 9" x 50' (.23 x 15.24 m) roll, 4 rolls per carton.

PROTECTION COURSE ... Use for vertical and horizontal applications. Adhere with POINTING MASTIC or use mechanical fasteners.

PACKAGING: 4' x 8' (1.22 x 2.44 m) panels.

MEL-DRAIN ... is a dimple-raised molded polystyrene fabric designed to provide high flow capacity to reduce hydrostatic pressure buildup around waterproofing and vaporproofing membranes. Choice of drain types are available for vertical, horizontal, and site applications. Use MEL-PRIME to condition surface prior to application of MEL-DRAIN.

TERMINATION BAR ... is a high strength, pre-formed, multi-purpose, plastic strip designed to support vertical membrane systems and PROTECTION COURSE at their termination point.

PACKAGING: 10' (Holes every 6" o/c, 2" from either end), 25 pieces per carton.

MAINTAIN ENERGY EFFICIENCY

Wet insulating materials lose much of their "R" factor performance characteristics, reducing the energy efficiency of the structure. W. R. MEADOWS thermal and moisture protection products play a key role in *maintaining* the structure's energy efficiency and aiding in the integrity of other structural systems, such as insulation.

LEED INFORMATION

May help contribute to LEED credits:

- EA Credit 1: Optimize Energy Performance
- IEQ Credit 3.1: Construction Indoor Air Quality Management Plan: During Construction
- IEQ Credit 7.1: Thermal Comfort - Design
- MR Credit 2: Construction Waste Management
- MR Credit 5: Regional Materials

For CAD details, most recent data sheet, further LEED information, and MSDS, visit www.wrmeadows.com.

LIMITED WARRANTY

W. R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request.

Disclaimer



The information contained herein is included for illustrative purposes only, and to the best of our knowledge, is accurate and reliable. W. R. MEADOWS, INC. cannot however under any circumstances make any guarantee of results or assume any obligation or liability in connection with the use of this information. As W. R. MEADOWS, INC. has no control over the use to which others may put its product, it is recommended that the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine the suitability of products for specific application and assume all responsibilities in connection therewith.

ENCROACHMENT AND EASEMENT AGREEMENT

THIS ENCROACHMENT AND EASEMENT AGREEMENT ("Agreement") is made and entered into this ___ day of _____, 2021, by and between **CICF II – NJ1B01, LLC**, a Delaware limited liability company whose address is c/o Cabot Properties, Inc., One Beacon Street, Suite 2800, Boston, MA 02108 ("**Owner**"), and **THE TOWNSHIP OF MT. OLIVE**, a municipal corporation in the State of New Jersey, having a business address at 204 Flanders-Drakestown Road Budd Lake, NJ 07828 (the "**Township**").

RECITALS

A. Owner is the owner of the real estate described in Exhibit A attached hereto and made a part hereof ("**Owner Parcel**"), having acquired such interest by Bargain and Sale Deed recorded in Deed Book 23685, Page 299 in the Morris County Clerk's Office on January 2, 2020.

B. Scannell Properties 322, LLC, Grantee's predecessor in title to the Property ("**Scannell**"), certain parcels of land formerly comprising portions of the Property to the Township for use as public rights-of-way identified as Waterloo Valley Road and Waterloo Road pursuant to a Road Right of Way Deed recorded in in Deed Book 23685, Page 204 in the Morris County Clerk's Office on January 2, 2020 (collectively, the "**ROW**").

C. Scannell installed a hot box utility cabinet (the "**Improvement**") on the Property which encroaches approximately eight feet (8') onto the southern portion of the ROW (the "**Encroachment Area**") as more particularly described on Exhibit B attached hereto and made a part hereof. Owner has been using the Improvement for the purpose of water backflow and metering for fire line and domestic water line (the "**Existing Use**").

D. The location of the Improvement as shown on Exhibit B does not materially interfere with the Township's use of the ROW.

E. Owner has requested the Township's permission to continue the Existing Use of the Improvement, and the Township has agreed to such continued Existing Use upon and subject to the terms contained herein.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Consent to Encroachment Area. The Township consents to the Improvement in the Encroachment Area for only so long as:

- a. The Improvement exists; and
- b. Owner complies with the terms and provisions of this Agreement.

2. Grant of Easement. The Township hereby grants to Owner, for the benefit of the Owner and its successors, assigns, mortgagees, and tenants from time-to-time as owners and occupants of the Property, a permanent non-exclusive easement (the “**Easement**”) over and across the Encroachment Area for the use, enjoyment, maintenance, repair, and replacement of the Improvement solely for purposes of continuing the Existing Use thereon for the benefit of the Property. The Township reserves the right to use the Encroachment Area in any manner not inconsistent with the Easement granted herein.

3. Use and Maintenance. Throughout the term of this Agreement, Owner shall, at its sole cost and expense, maintain, repair, and replace the Improvement and Encroachment Area in good, safe and sightly condition. Such maintenance shall include, without limitation, keeping the Improvement thereon in an adequate state of repair and keeping the Encroachment Area free from litter and debris. No abandoned vehicles or vehicles which are not in operable condition shall be permitted on the Encroachment Area, nor shall vehicle repair or maintenance be performed on the Encroachment Area. Owner shall not permit any nuisance to exist on the Encroachment Area. Under no circumstances shall Owner have the right to enlarge or expand the Improvement on the Encroachment Area, except as may be required by law, but this prohibition shall not be construed to prevent Owner from repairing, maintaining, upgrading or replacing said Improvement as it deems necessary or appropriate for purposes of continuing the Existing Use. In the event of an overriding public health and safety issue, the Township shall retain the right to have the Improvement removed at the Owner’s expense.

4. Indemnification. Owner agrees to indemnify and hold harmless the Township, its officers, officials, members, employees, invitees, licensees and agents, from and against any and all losses, liabilities, damages, claims, judgments, reasonable attorneys’ fees and costs arising from any bodily injury and/or death, and from any destruction or damage to any property or improvements, located within the Encroachment Area, to the extent caused by the negligence or willful misconduct of the Owner, its employees, officers, officials, invitees, licensees and agents in the Encroachment Area. The provisions of this paragraph shall survive the termination of this Agreement.

5. Termination. If the Improvement is removed or abandoned for the purposes herein granted, this Agreement shall terminate. In such event, upon the request of Owner or Township, the parties shall enter into and record a formal termination.

6. Appurtenance. This Agreement and the terms and conditions stated herein shall be appurtenant to, imposed upon and run with the Property and shall be binding upon and inure to the benefit of Owner and the Township and their respective successors and assigns.

7. Enforceability. The failure of either Owner or Township to enforce the terms of this Agreement, or any forbearance by either Owner or Township in the exercise of its rights under this Agreement, shall not be deemed or construed to be a waiver of any rights under this Agreement. No delay or admission by either Owner or Township in the exercise of any right or remedy shall impair such right or remedy or be construed as a waiver.

8. Notice. Any notice required or permitted to be given under this Agreement shall be in writing and delivered by the United States Postal Service, registered or certified mail, postage prepaid, return receipt requested, or by a nationally recognized overnight courier, and addressed as indicated to each respective party in the introductory paragraph of this Agreement, and shall be deemed to have been given when delivered (or when delivery is refused).

9. Governance. This Agreement shall be governed by the laws of the State of New Jersey and all terms and covenants shall be interpreted in accordance therewith.

10. Counterparts. This Agreement may be executed in any number of counterparts, each of which will constitute an original document.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as of the day and year first above written.

[Execution on following pages.]

SIGNATURE PAGE OF OWNER
TO
ENCROACHMENT AND EASEMENT AGREEMENT

CICF II – NJ1B01, LLC,
a Delaware limited liability company

By: Cabot Industrial Core Fund II Operating
Partnership, L.P., a Delaware limited
partnership,
Its sole member

By: _____
Name: _____
Title: _____

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF SUFFOLK) ss.

On this ____ day of _____, 2021, before me, the undersigned notary public, personally appeared _____, as _____ of Cabot Industrial Core Fund II Operating Partnership, L.P., a sole member of CICF II – NJ1B01, LLC, proved to me through satisfactory evidence of identification, which was _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose as _____ of Cabot Industrial Core Fund II Operating Partnership, L.P., a sole member of CICF II – NJ1B01, LLC.

Notary Public:
My commission expires:

Prepared by and after recording
return to:

Sue Sharpe, Esq.
Dorsey & Semrau, LLC
714 Main Street
P.O. Box 228
Boonton, NJ 07005

SIGNATURE PAGE OF TOWNSHIP
TO
ENCROACHMENT AND EASEMENT AGREEMENT

ATTEST:

TOWNSHIP OF MOUNT OLIVE

Michelle Masser, Township Clerk

Rob Greenbaum, Mayor

[ADD ACKNOWLEDGMENTS]

EXHIBIT A

[PROPERTY]

Real property in the Township of Mount Olive, County of Morris, State of New Jersey, described as follows:

Parcel 1 (Lot 2 Block 500)

BEGINNING at the intersection of the Southerly sideline of Waterloo Valley Road (33 feet R.O.W.) and the Westerly sideline of Waterloo Road (50 feet R.O.W.); and running thence:

- (1) Along the Westerly sideline of Waterloo Road, South 34 degrees, 55 minutes, 00 seconds West, 164.79 feet to a point; thence
- (2) Still along same on a curve to the right having a radius 225.00 feet and an arc length of 125.32 feet to a point; thence
- (3) Still along same South 66 degrees, 49 minutes, 45 seconds West, 202.16 feet to an iron rod; thence
- (4) Still along same South 9 degrees, 46 minutes, 00 seconds West, 8.15 feet to a cross cut on a rock; thence
- (5) Leaving said sideline and running North 83 degrees, 44 minutes, 00 seconds West, 159.75 feet to a point; thence
- (6) North 66 degrees, 55 minutes, 38 seconds West, 232.03 feet to a point; thence
- (7) North 56 degrees, 14 minutes, 00 seconds West, 139.26 feet to a point; thence
- (8) North 69 degrees, 14 minutes, 00 seconds West, 159.06 feet to a point; thence
- (9) South 67 degrees, 46 minutes, 00 seconds West, 37.29 feet to a point; thence
- (10) South 18 degrees, 31 minutes, 00 seconds West, 246.18 feet to an iron rod; thence
- (11) North 72 degrees, 48 minutes, 56 seconds West, 103.62 feet to an iron rod; thence
- (12) North 63 degrees, 33 minutes, 56 seconds West, 651.42 feet to a concrete monument; thence
- (13) North 18 degrees, 21 minutes, 46 seconds East, 927.46 feet to an iron rod; thence
- (14) South 69 degrees, 11 minutes, 27 seconds East, 1388.81 feet to an iron rod set in the Southerly sideline of Waterloo Valley Road; thence
- (15) Along the Southerly sideline of Waterloo Valley Road, South 26 degrees, 20 minutes, 00 seconds East, 36.02 feet to a point; thence
- (16) Still along same South 22 degrees, 57 minutes, 38 seconds East, 136.49 feet to a point; thence
- (17) Still along same South 20 degrees, 12 minutes, 00 seconds East, 94.58 feet to a point; thence
- (18) Still along same on a curve to the left having a radius of 333.00 feet, an arc length of 196.76 and a delta of 33 degrees, 51 minutes, 15 seconds to the point and place of BEGINNING.

LESS AND EXCEPT the land conveyed in the Road Right of Way Deed recorded in Book 23685, Page 204

Also described as:

Beginning at a point in the Westerly sideline of Waterloo Road (50 ft. wide R.O.W.), where said is intersected by the Southwesterly sideline of Waterloo Valley Road (33 ft. wide R.O.W) and from said Point or Place of Beginning, running thence.

- (1) Along said Westerly sideline of Waterloo Road (50 ft. wide R.O.W.), South 11° 08' 04" West – 164.79 feet to a point of curvature, thence;
- (2) Still along the same, Southwesterly on a curve to the right having a radius of 225.00, an arc length of 125.32 and a chord bearing and distance of South 27° 05' 26" West – 123.71 feet to a point tangency, thence;

- (3) Still along the same, South 43° 02' 49" West – 202.16 feet to a point, thence;
- (4) Still along the same, South 14° 00' 56" East – 8.15 feet to a point, thence;
- (5) Leaving said sideline and running along the dividing line between Lot 3, Block 500 (lands n/f Morris Realty, LLC) and Lot 2, Block 500 (lands herein being described), South 72° 29' 04" West – 159.75 feet to a point, thence;
- (6) Still along the same, South 89° 17' 26" West – 232.03 feet to a point, thence;
- (7) Still along the same, North 80° 00' 56" West – 139.26 feet to a point, thence;
- (8) Still along the same, South 86° 59' 04" West – 159.06 feet to a point, thence;
- (9) Still along the same, South 43° 59' 04" West – 37.29 feet to a point, thence;
- (10) Still along the same, South 05° 15' 56" East – 246.18 feet to a point, thence;
- (11) Along the dividing line between Lot 1, Block 400 (lands n/f County of Morris) and Lot 2, Block 500 (lands herein being described), South 83° 24' 08" West – 103.62 feet to a point, thence;
- (12) Still along the same, North 87° 20' 52" West – 651.42 feet to a point marked by a concrete monument found, thence;
- (13) Along the dividing line between Lot 4, Block 500 (lands n/r New Jersey Department of Environmental Protection) and Lot 2, Block 500 (lands herein being described), North 05° 25' 10" West – 927.46 feet to a point, thence;
- (14) Along the dividing line between Lot 1.02, Block 500 (lands n/f Waterloo Valley Road Holdings, L.P.) and Lot 2, Block 500 (lands herein being described), North 87° 01' 37" East – 1388.81 feet to a point in the foresaid southwesterly sideline of Waterloo Valley Road (33 ft. wide R.O.W.), thence;
- (15) Along said Southwesterly sideline of Waterloo Valley Road (33 ft. wide R.O.W.), South 50° 06' 56" East – 36.02 feet to a point, thence;
- (16) Still along the same, South 46° 44' 34" East – 136.49 feet to a point, thence;
- (17) Still along the same, South 43° 58' 56" East – 94.58 feet to a point of curvature, thence;
- (18) Still along the same, Southeasterly on a curve to the left having a radius of 333.00 feet, an arc length of 196.76 feet and a chord bearing and distance of South 60° 54' 33" East – 193.91 feet to the Point or Place of Beginning.

LESS AND EXCEPT the land conveyed in the Road Right of Way Deed recorded in Book 23685, Page 204

Parcel 2 (Lot 3 Block 500)

BEING the Fourth and Fifth Tracts conveyed to Norman Hill and Margaret Hill, his wife, by deed of Ann F. West, a widow, dated April 3, 1946, recorded in the Morris County Clerk's Office on April 16, 1946 in Book S-40 of Deeds for said County, on page 137 and therein described as follows:

BEGINNING at a bolt on the East side of black oak tree also a corner of Abraham Force and runs as the needle now point:

- (1) North 2 degrees 45 minutes East 3 chains and 73 links to an iron bolt driven along the South side of an old private road; thence
- (2) Down said road North 52 degrees East 56.5 links to an iron bolt in said road; thence
- (3) South 85 degrees East 2 chains and 41.5 links to an iron bolt along said road; thence
- (4) South 72 degrees East 2 chains and 11.5 links to an iron bolt along said road; thence
- (5) South 83 degrees East to an iron bolt in said road; thence
- (6) North 80 degrees 30 minutes East 2 chains and 80 links to an iron bolt driven in the side of the road leading from Waterloo to Abraham Force's; thence
- (7) Along said road South 6 degrees East 3 chains and 86 links to an iron bolt along said road in the line of Abraham Force; thence
- (8) Along said line North 87 degrees West 11 chains and 70 links to the place of BEGINNING.

LESS AND EXCEPT the land conveyed in the Road Right of Way Deed recorded in Book 23685, Page 204

Also described as:

Beginning at a point in the dividing line between Lot 2, Block 500 and Lot 3, Block 500 (lands herein being described) said point also being intersected by the Northerly line of Lot 1, Block 400 (lands n/f

County of Morris). Said point being the same beginning as described in a certain deed from Margaret F. Swentzel to Morris Realty Associates, LLC recorded on October 8, 2003 in Deed Book 5936, Page 253 and from said Point or Place of Beginning, running thence;

(1) Along said dividing line between Lot 2, Block 500 and Lot 3, Block 500 (lands herein being described), North $51^{\circ} 15' 56''$ West – 246.18 feet to a point, thence;

(2) Still along the same, North $43^{\circ} 59' 04''$ East – 37.29 feet to a point, thence;

(3) Still along the same, North $86^{\circ} 59' 04''$ East – 159.06 feet to a point, thence;

(4) Still along the same, South $80^{\circ} 00' 56''$ East – 139.26 feet to a point, thence;

(5) Still along the same, North $89^{\circ} 17' 26''$ East – 232.03 feet to a point, thence;

(6) Still along the same, North $72^{\circ} 29' 04''$ East – 184.80 feet to a point in the centerline of Waterloo Road (50 ft wide R.O.W. per tax map), thence;

(7) Along said centerline of Waterloo Road, South $14^{\circ} 00' 56''$ East – 254.76 feet to a point, thence;

(8) Leaving said sideline and running along the dividing line between Lot 1, Block 400 (n/f County of Morris) and Lot 3, Block 500 (lands herein being described), South $84^{\circ} 59' 04''$ West – 772.21 feet to the Point or Place of Beginning

LESS AND EXCEPT the land conveyed in the Road Right of Way Deed recorded in Book 23685, Page 204

NOTE: FOR INFORMATION ONLY: Being Lot(s) Lot(s) 2 & 3 XLot B159 L11, Block 500; Tax Map of the Township of Mount Olive, County of Morris, State of New Jersey.

Parcel 3

Non-Exclusive Easement as created, limited and defined in Easement for Right of Storm Water Discharge dated September 14, 2018 from Morris Mount Olive Associates, LLC to Scannell Properties 322, LLC, recorded September 19, 2018 in Book 23418, Page 1203.

EXHIBIT B

[Encroachment Area]

