

**Carroll County Maryland  
Standard Stormwater Management Plan  
For Single Lot Residential Construction**

BP# \_\_\_\_\_ - \_\_\_\_\_

**Owner/Developer/Applicant Information**

<hr/>	<hr/>	<hr/>	<hr/>
Last Name	First Name	M.I.	( ) Phone Number
<hr/>			
Present Address (No. & Street)	City/Town	State	Zip

**Residential Lot Information**

<hr/>	<hr/>	<hr/>	<hr/>
Project Address (No. & Street)	City/Town	State	Zip

<hr/>	<hr/>	<hr/>
Lot Size	House Length & Width	Driveway Length & Width

Number & Size of Drywells \_\_\_\_\_

Number, Length or Slope of Disconnections \_\_\_\_\_

The requirements for Stormwater Management found in Chapter 151 of the Code of Local Laws and Ordinances of Carroll County will be satisfied if the following conditions and limitations are met:

1. The project is single lot residential construction.
2. There is no contiguous land undergoing development by the same owner, builder, or developer.
3. Total site impervious cover shall not exceed 15% of the lot size; and
4. Total land area disturbed during construction shall be less than 20,000 square feet. Land area that is disturbed for septic system construction may be subtracted from the total disturbed area provided it is revegetated.

**Conditions**

The following conditions for design and construction shall be met and maintained. Should circumstance exist preventing one or more of these conditions from being satisfied, alternative techniques may be implemented at the discretion of the Bureau of Resource Management – Environmental Inspection Division.

**Design**

1. All stormwater practices shall be designed and located to prevent basement seepage, erosion, flooding, or other damage to adjacent or downstream properties.
2. The drainage area to all rooftop downspouts shall be 500 square feet or less. Drainage areas to individual downspouts greater than 500 but less than 1,000 square feet shall be treated using drywells constructed according to the Standard Carroll County Design (see item 9).
3. All rooftop downspouts shall discharge to and drain continuously through an adequate length of vegetation (e.g., vegetated channels, swales, or filter strips) in a non-erosive manner to the property line, 75 feet at 5% or flatter.

4. To the extent practical, all other site impervious areas shall discharge to and drain continuously through vegetation in a non-erosive manner.
5. The total impervious area draining to any single discharge point shall be 1,000 square feet or less.
6. All access roads and/or driveways constructed for this project shall use open sections in lieu of curb and gutter.
7. If site conditions exist that prevent all the conditions of this Standard Plan from being met, the owner/developer shall submit a Stormwater Management plan to the Carroll County Bureau of Resource Management in accordance with Chapter 151 of the Code of Local Laws & Ordinances of Carroll County.
8. This Standard Plan shall not be used in areas of special concern (e.g., karst geology or sinkhole activity) without specific approval.
9. The Environmental Inspection Division personnel will inspect the site as part of the preliminary grading inspection prior to issuance of the building permit by the Bureau of Permits and Inspections. They will determine if adequate grading is possible or if drywells are required.
10. The Environmental Inspection Division shall be contacted at least 48 hours prior to the start of drywell construction to schedule an inspection (410) 386-2506.
11. The proposed work shall not impact waters and/or wetlands of the State and any associated buffers without authorization from the appropriate Federal and/or State agencies. Permits required by Federal or State agencies for the protection of wetlands are the responsibility of the property owner, contract purchaser, or authorized agent.
12. All stormwater practices and/or runoff controls shall be installed according to this Standard Plan. Subsequent alteration or modification of these practices requires approval from Environmental Inspection Division personnel.
13. The applicant/homeowner shall maintain in good condition all stormwater practices constructed in accordance with this Standard Plan.
14. Access to the site will be made available at all reasonable times during construction and with reasonable notification after construction for inspection by the Environmental Inspection Division personnel. The stormwater management deed of easement and maintenance agreement must be completed, notarized and security provided.
15. The applicant/homeowners shall promptly repair and/or restore all stormwater practices found in noncompliance by the Environmental Inspection Division.
16. The Environmental Inspection Division reserves the right to deny approval under this Standard Plan and require that a design be prepared according to Chapter 151 of the Code of Local Laws & Ordinances of Carroll County (see item 7).
17. Nothing in this Standard Plan relieves the applicant from complying with any and all Federal, State, and local laws and regulations.
18. Coverage under this Standard Plan shall remain valid for [two] years from the date of approval.

<sup>1</sup> The 2000 Maryland Stormwater Design Manual, Volumes I&II (MDE, April 2000) is available in copy or electronic format. For more information or to order a copy of the Design Manual, see MDE's website [www.mde.state.md.us](http://www.mde.state.md.us) or call (410)-537-3543.

## Certification

I certify that I have the authority to make application using this Standard Plan; that the information contained herein is correct and accurate; and that all clearing, grading, construction, and development will be conducted according to this Standard Plan and all laws and regulations.

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Name (Please Print)

---

Signature

Date

## Inspection

Stormwater Management achieved through grading

          
Yes

          
No

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Environmental Inspection Division Inspector

Date

Stormwater Management achieved through drywells

          
Yes

          
No

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Environmental Inspection Division Inspector

Date

Figures 1 and 2 revised to change drywell sizes. (Revised 11/16/2016)

R:\Martin\Updated Forms\C.C. MD - Standard SWM Plan for Single Lot Residential Construction Updated 2-21-19.doc

Revised 8/21/2015

Revised 12/29/2016

Revised 2/21/2019

# INSPECTION CHART FOR DRYWELL INSTALLATION

DRYWELL NO. \_\_\_\_\_

STAGE	ENGINEER'S APPROVAL	
	INITIALS	DATE
1. ONCE THE INDIVIDUAL HOUSE HAS BEEN CONSTRUCTED AND FINAL GRADING IS COMPLETE.		
2. EXCAVATION OF DRYWELL PRIOR TO SAND PLACEMENT. INSTALL FILTER FABRIC ON SIDES ONLY. PLACE PIPE BLOCK IN THE CENTER OF THE DRYWELL PIT.		
3. PLACEMENT OF SAND		
4. PLACEMENT OF WASHED NO. 2/57 STONE AND PIPE		
5. PLACEMENT OF 4" PVC PIPE & COMPLETE PLACEMENT OF STONE. TEMPORARILY PLUG PIPE.		
6. WRAP TOP OF STONE WITH FILTER FABRIC.		
7. INSTALLATION OF ROOF, GUTTERS AND LEADERS. (MAY OCCUR AT ANY TIME BEFORE THIS POINT)		
8. FINE GRADE & STABILIZATION OF AREAS DISTURBED DURING CONSTRUCTION OF DRYWELL		
9. INSTALLATION OF SURCHARGE FITTING, SCREENS AND CONNECTION TO DRYWELL PIPE. (REMOVE TEMPORARY PLUG)		

\* PLEASE NOTIFY CERTIFYING ENGINEER OR LAND SURVEYOR 48 HRS PRIOR TO CONSTRUCTION \*

ENGINEER'S NAME : \_\_\_\_\_

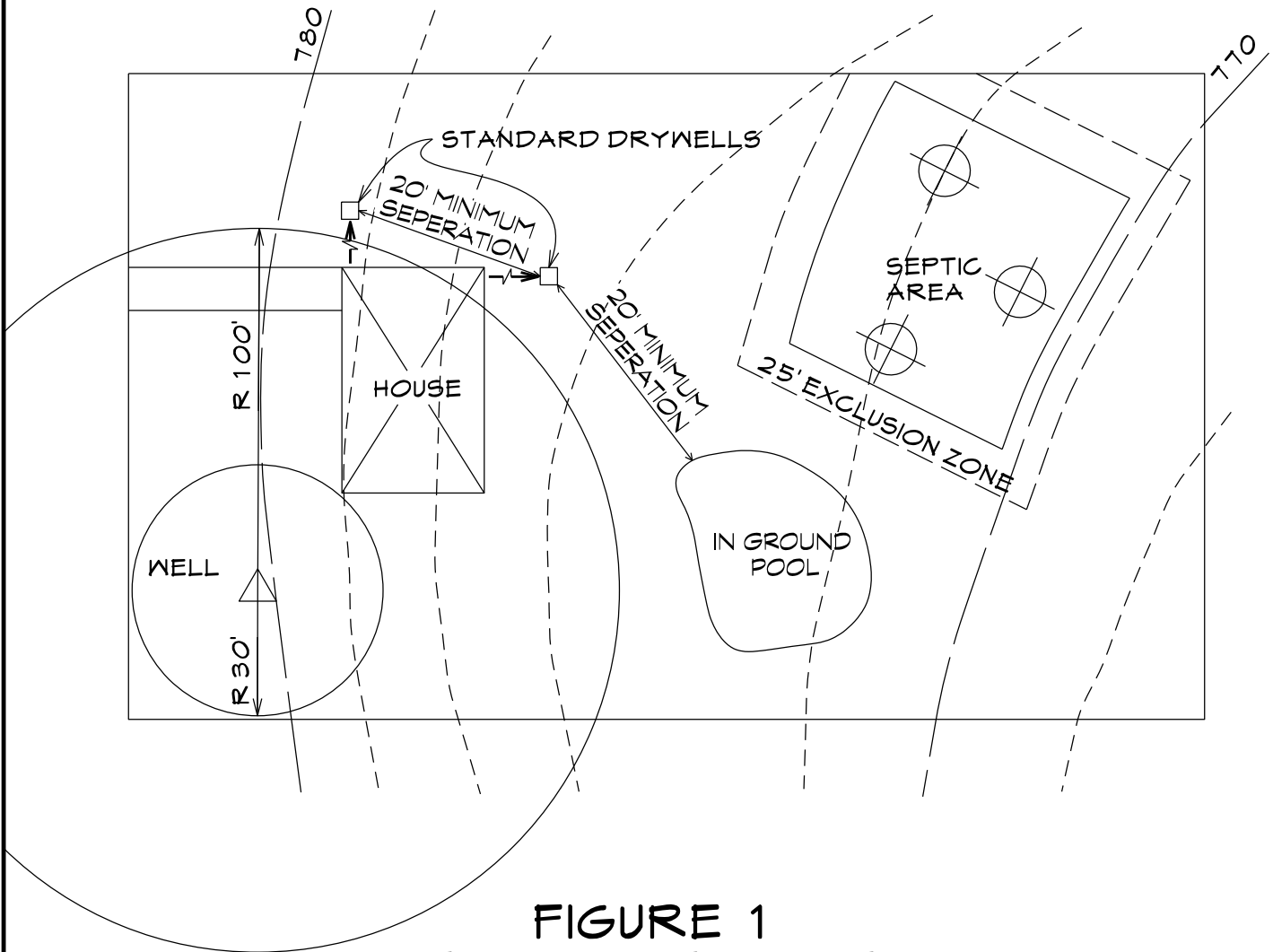
PHONE NUMBER: \_\_\_\_\_

NOTE: THIS INSPECTION CHART APPLIES TO A 1 YEAR OR LESS STORM ON A 1000 SQ. FT. RESIDENTIAL ROOFTOP. ANY GREATER STORM OR LARGER DRAINAGE AREA WILL REQUIRE SPECIAL DESIGNS.

ADDED TO DRYWELL DETAIL:  
POSTED TO WEBSITE JULY, 2025  
MARTIN B. COVINGTON III, PE  
C.C. SWM PROGRAM ENGINEER

# STORMWATER MANAGEMENT STANDARD DRYWELL INSTALLATION

MARTIN BRYAN COVINGTON, III. P.E. 1



**FIGURE 1**  
**TYPICAL LOT LAYOUT**

## NOTES:

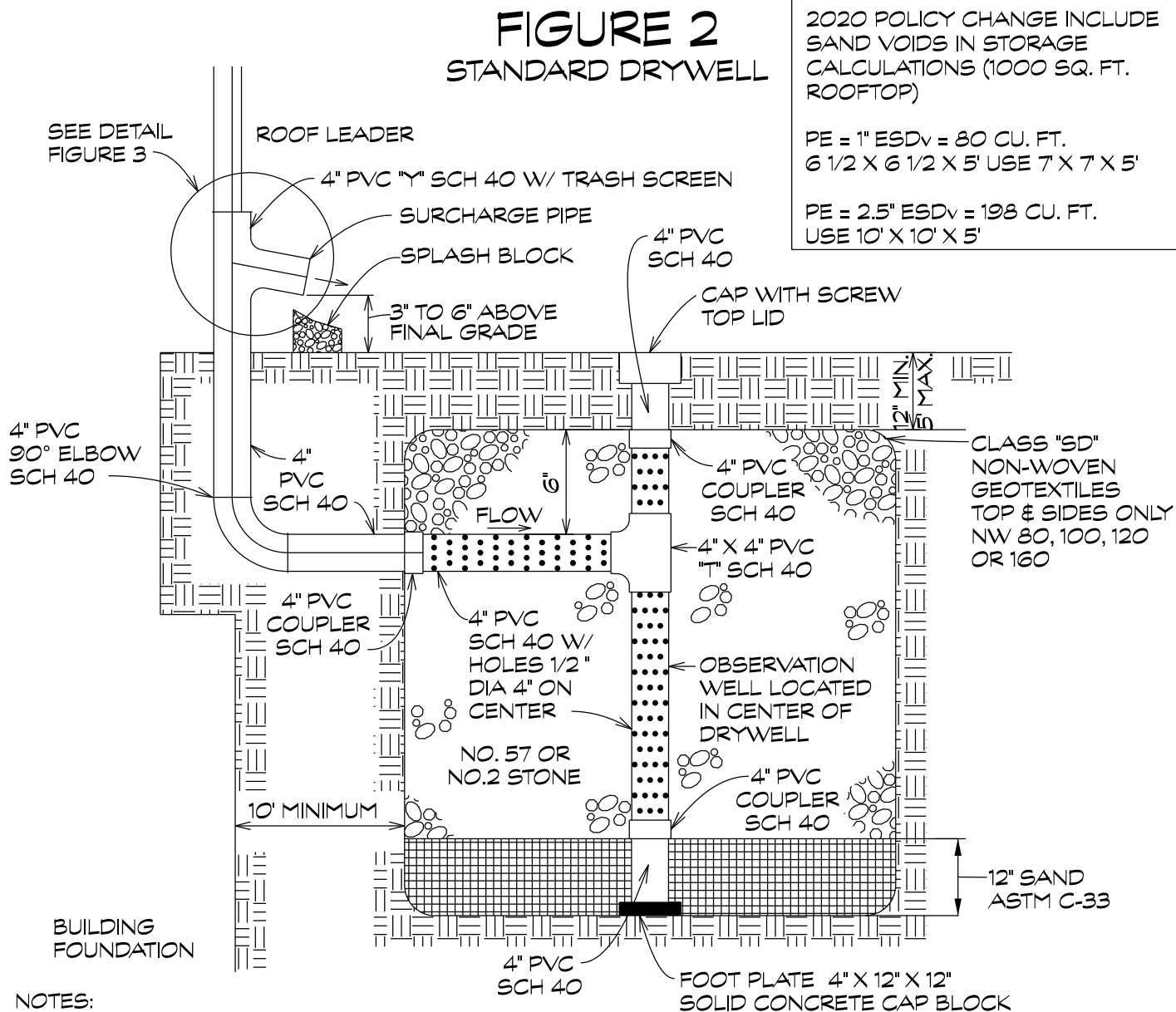
1. STANDARD CARROLL COUNTY DRYWELLS ARE NORMALLY 8'x8'x5' WITH SAND FILLING THE BOTTOM FOOT. THIS PROVIDES MINIMUM ESD STORMWATER CONTROL AND GROUNDWATER RECHARGE FOR 1000 SQUARE FEET OF ROOFTOP.
2. STANDARD DRYWELLS MUST BE LOCATED AT LEAST 100 FEET FROM ANY WELL, 20 FEET FROM OTHER DRYWELLS, 20 FEET FROM IN GROUND SWIMMING POOLS AND 25 FEET FROM THE SEPTIC AREA.
3. DRY WELLS ARE TO BE INSTALLED AT OR AFTER FINAL GRADING. (WHEN DOWNSPOUTS ARE INSTALLED)
4. ALL ROOF LEADERS MUST BE CONNECTED TO THE DRYWELLS

1MARTIN BRYAN COVINGTON, III. P.E., PROGRAM ENGINEER, CARROLL COUNTY GOVERNMENT, MD  
225 NORTH CENTER STREET, WESTMINSTER, MD 21157-2194 [MCOVINGTON@CCG.CARR.ORG](mailto:MCOVINGTON@CCG.CARR.ORG)

REVISED TO REDUCE SIZE OF DRYWELLS  
DISTRIBUTED FOR COMMENT AT  
C.C. SURVEYORS MTG NOV 16, 2016  
EFFECTIVE DATE: DEC 16, 2016  
REVISED AND POSTED JULY, 2025

# FIGURE 2

## STANDARD DRYWELL



2020 POLICY CHANGE INCLUDE SAND VOIDS IN STORAGE CALCULATIONS (1000 SQ. FT. ROOFTOP)

PE = 1" ESDv = 80 CU. FT.  
6 1/2 X 6 1/2 X 5' USE 7 X 7 X 5'

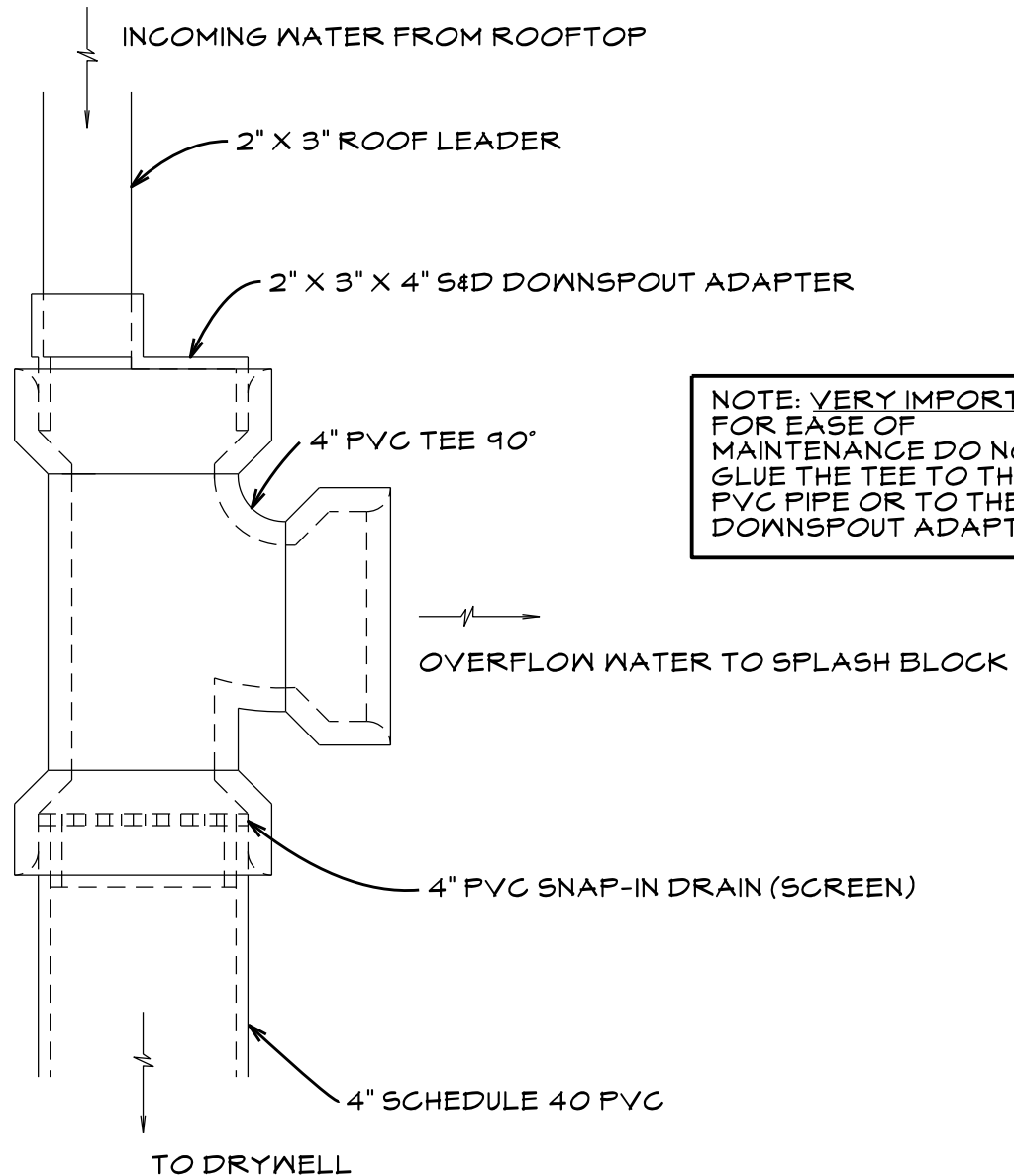
PE = 2.5" ESDv = 198 CU. FT.  
USE 10' X 10' X 5'

### NOTES:

1. IF USING ONE DRYWELL THE STANDARD DRYWELL IS 7 X 7 X 5' WITH SAND FILLING THE BOTTOM FOOT. THIS PROVIDES MINIMUM ESD (1") STORMWATER CONTROL FOR 1000 SQUARE FEET OF ROOFTOP (MANUAL PAGE 5.92). IF ADDITIONAL CONTROL IS REQUIRED TO PROVIDE TOTAL ESD TO MEP (UP TO 2.5") LARGER PRACTICES MAY BE USED. DRYWELLS LARGER THAN 198 CU. FT. OF STORAGE VOLUME MUST BE DESIGNED AS INFILTRATION FACILITIES.
2. MINIMUM SETBACKS:
  - A. 100 FT FROM WELLS
  - B. 25 FT FROM SEPTIC AREAS
  - C. 10 FT FROM BUILDINGS
  - D. 20 FT FROM OTHER DRYWELLS
  - E. 20 FT FROM IN GROUND SWIMMING POOLS
3. FROM THE DOWNSPOUT TO THE DRYWELL THE DRAIN PIPE MUST BE AT LEAST 12" BELOW GRADE.
4. THE LOCATIONS AND SIZE OF ALL DRYWELLS MUST BE SHOWN ON THE GRADING PLOT PLAN.
5. THESE GEOTEXTILES ARE AVAILABLE IN FINKSBURG @ ES&G DISTRIBUTORS 2601 EMORY RD. BLDG 8. 866-744-5001, ANY EQUIVALENT GEOTEXTILE IS ACCEPTABLE.
6. ALL GUTTERS, LEADERS, FITTINGS, SCREENS, AND PIPING ARE SIZED FOR 1 YEAR STORM RUNOFF FOR A 1000 SQ. FT. ROOF. LARGER STORMS AND LARGER ROOFS REQUIRE INDIVIDUAL DESIGN.

Martin B. Covington III, PE  
 ORIGINALLY EFFECTIVE APRIL, 2006  
 REVISED TO REDUCE DA AUGUST, 2016  
 DISTRIBUTED AT C.C. SURVEYORS MTG  
 FOR COMMENT NOV 16, 2016  
 EFFECTIVE DATE: DEC 16, 2016  
 REVISED AND POSTED JULY, 2025

# FIGURE 3 STANDARD DRYWELL DOWNSPOUT FITTINGS (ALTERNATE)



NOTE: VERY IMPORTANT  
FOR EASE OF  
MAINTENANCE DO NOT  
GLUE THE TEE TO THE  
PVC PIPE OR TO THE  
DOWNSPOUT ADAPTER.

## NOTES:

1. THE SNAP IN SCREEN IS REQUIRED TO PREVENT CLOGGING OF THE DRYWELL WITH DEBRIS.
2. SEE FIGURE 3a "LIST OF POTENTIAL SUPPLIERS TO ACCOMPANY FIGURE 3 STANDARD DRYWELL DOWNSPOUT FITTINGS" FOR INFORMATION ON SOME LOCAL RETAILERS THAT SUPPLY COMPONENTS FOR THIS SYSTEM.
3. IF DRYWELLS ARE DESIGNED FOR STORMS LARGER THAN 1 YEAR, OR COMMERCIAL BUILDINGS THE GUTTERS, ROOF LEADERS, TEES, SCREENS; AND UNDERGROUND PIPING MUST BE SIZED TO CAPTURE AND CONVEY THE PEAK FLOW OF THE DESIGN STORM.

Martin B. Covington III, PE  
DISTRIBUTED AT C.C. SURVEYORS MTG.  
MARCH 21, 2012  
EFFECTIVE APRIL, 2012  
REVISED AND POSTED JULY, 2025

**Figure 3a**  
**List of Potential Suppliers to Accompany Figure 3**  
**Standard Drywell Downspout Fittings**  
March 2008

**2" x 3" x 4" S&D Downspout Adapter**

BT Plumbing Supply, Inc., 486 Lucabaugh Mill Road, Westminster, MD 21157; 410-876-2118-  
Part No. PSDDSA234

Ferguson Enterprises, Inc., 900 Wakefield Valley Road, New Windsor, MD 21776; 410-635-6682-  
Part No. PSDAKMP

Lowes Home Improvement Warehouse of Westminster, 777 Market Street, Westminster, MD 21157;  
410-857-7445- Part No. NDS L9P04

The Plumbery Home Center (two locations), 15 N. Main Street, Mt Airy, MD 21771; 301-829-1770 or  
410-0331; or 418 E. Baltimore Street, Taneytown, MD 21787; 410-751-1113 – Part No.- requires bushing

**4" PVC WYE 45°**

BT Plumbing Supply, Inc., 486 Lucabaugh Mill Road, Westminster, MD 21157; 410-876-2118-  
Part No. PY4

Ferguson Enterprises, Inc., 900 Wakefield Valley Road, New Windsor, MD 21776; 410-635-6682-  
Part No. PDWVYP

Lowes Home Improvement Warehouse of Westminster, 777 Market Street, Westminster, MD 21157;  
410-857-7445- Part No. Charlotte CPF600 1400

**4" PVC Snap-in Drain Screen**

BT Plumbing Supply, Inc., 486 Lucabaugh Mill Road, Westminster, MD 21157; 410-876-2118-  
Part No. JSD42004

Jones-Stephens Corp.; [www.plumbest.com](http://www.plumbest.com); 800-355-6637 – Part No. D42-004

Lowes Home Improvement Warehouse of Westminster, 777 Market Street, Westminster, MD 21157;  
410-857-7445- Part No. Oatey 435693

The Plumbery Home Center (two locations), 15 N. Main Street, Mt Airy, MD 21771; 301-829-1770 or  
410-0331; or 418 E. Baltimore Street, Taneytown, MD 21787; 410-751-1113 – Part No.- requires cutting  
to fit

**Note: The Carroll County Bureau of Resource Management obtained this part information after sending out a letter to known local plumbing supply companies and after receiving information from each respective company. The suppliers listed above are provided for reference purposes only. Any equivalent schedule 40 PVC fittings from any vendor may be used.**

Martin B. Covington, III, P.E. , Carroll County Stormwater Management Program Engineer  
First Effective March 19, 2008  
Revised to provide 1" of ESD.  
Distributed for comment May 3, 2010.  
Comments received at the Carroll County Surveyors Meeting on May 19, 2010.  
Effective Date: July 29, 2010