

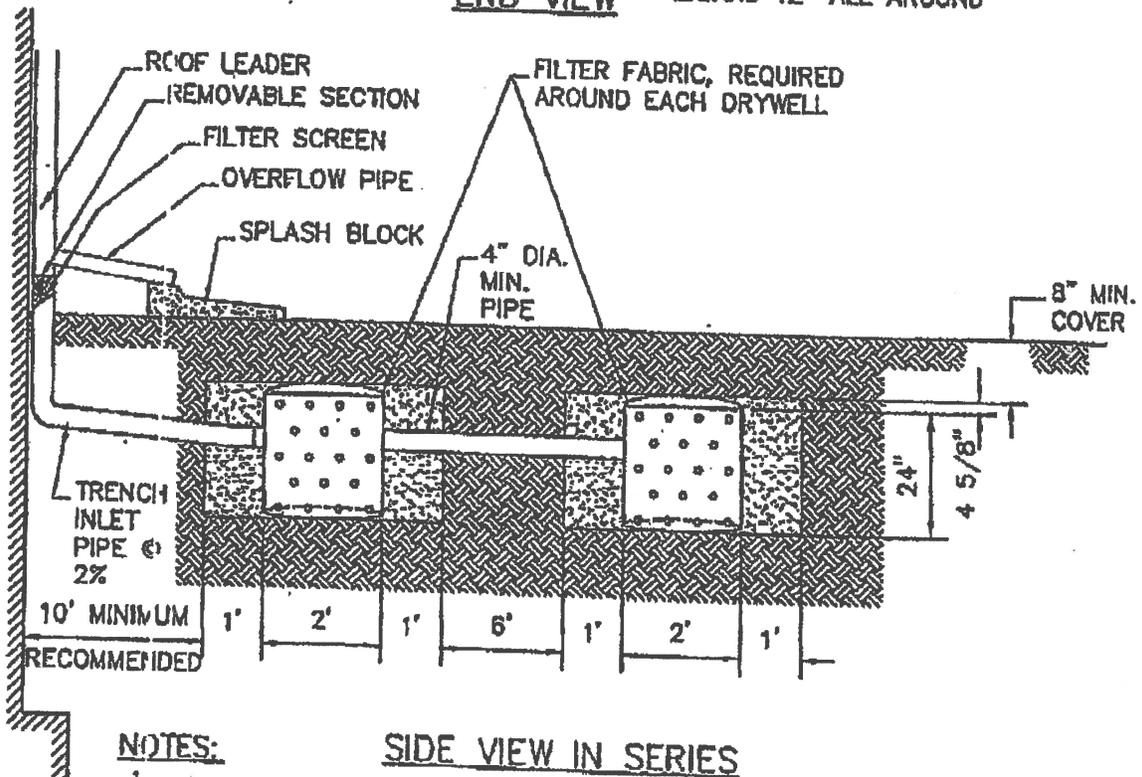
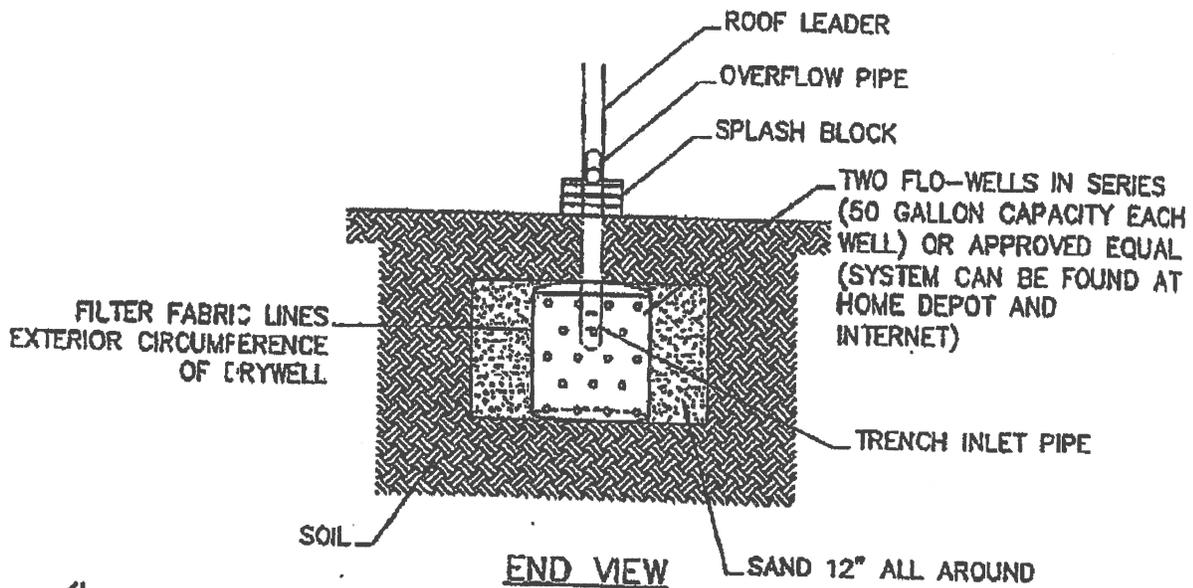
BOROUGH OF FANWOOD

Chapter 256 "Fanwood Stormwater and Flood Ordinance for Non-Major Developments"

256.3 Design Standards

Except in particularly unusual situations to be determined by the Borough Engineer, use of the following design standards for a Non-Major Development shall satisfy the requirements of this Chapter.

- a. Route each new downspout to prefabricated, high-density polyethylene drywells with a nominal storage capacity of approximately 100 gallons.
- b. Route each new downspout to a stone-filled infiltration trench with a volume of approximately 36 cubic feet (3 feet wide, 3 feet deep and 4 feet long).
- c. Route each new downspout to a rain garden with a minimum area of 150 square feet.
- d. Existing downspouts may be similarly routed to offset increased runoff from new patios, driveways and other increases in impervious coverage.
- e. In each of the foregoing instances, provisions shall be made for overflow of excess drainage. Overflows shall be discharged to downstream pervious areas as sheet flow. Direct piping of downspouts to the curb will only be allowed in situations where sheet flow is impractical or would create hazards to property.
- f. All facilities shall be designed in accordance with acceptable engineering practices subject to the approval of the Borough Engineer. The Borough Engineer will supply greater specification of these design guidelines upon request. The applicant's engineer may submit alternate designs, which shall be subject to the approval of the Borough Engineer if he/she finds that they are reasonably consistent with this Section.



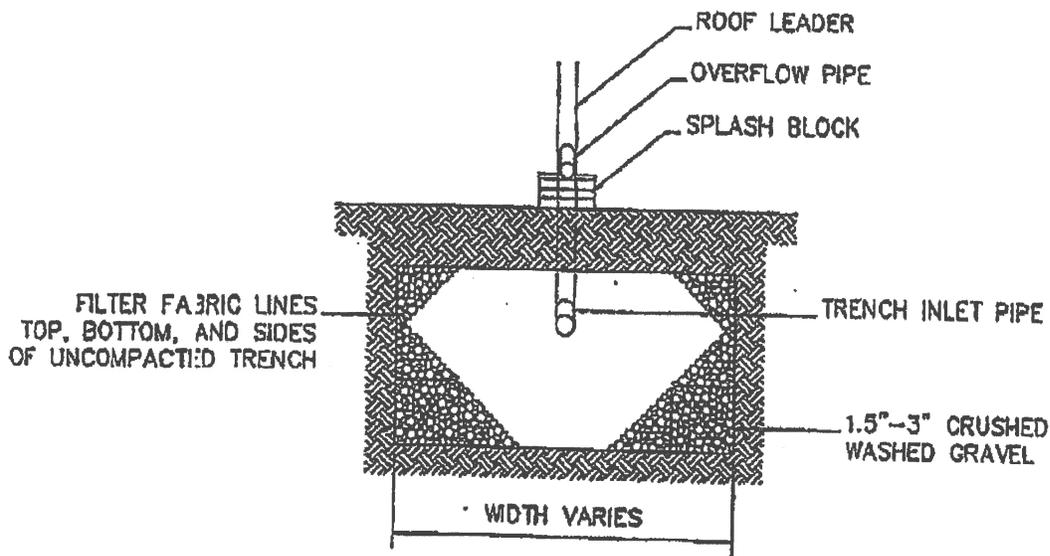
NOTES:

BUILDING FOUNDATION

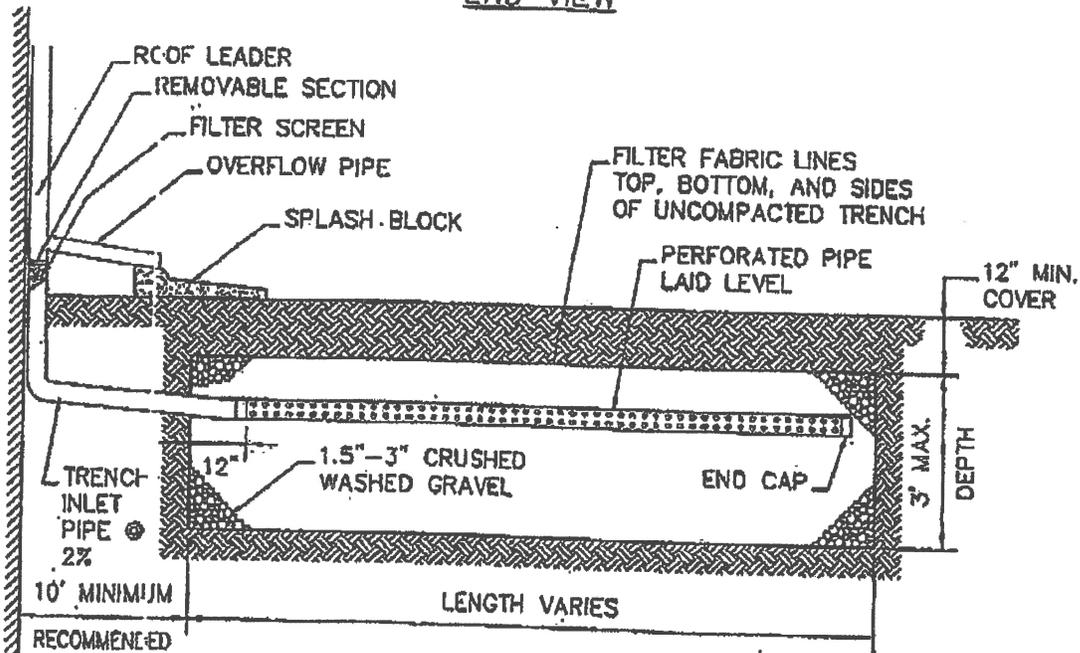
1. THE FILTER FABRIC SHALL BE WRAPPED AND TIED WITH WIRE OR NYLON TWINE OR OTHERWISE TIGHTLY SECURED AROUND THE HORIZONTAL INFLOW PIPE WHERE THE PIPE PROTRUDES THROUGH THE FABRIC.
2. FABRIC SHALL BE OVERLAPPED SIX INCHES IN "SHINGLE" FASHION WHEN MORE THAN ONE SECTION IS REQUIRED TO ENCLOSE THE DRYWELL.

TYPICAL HDPE DRYWELL DETAIL

N.T.S.



END VIEW



SIDE VIEW

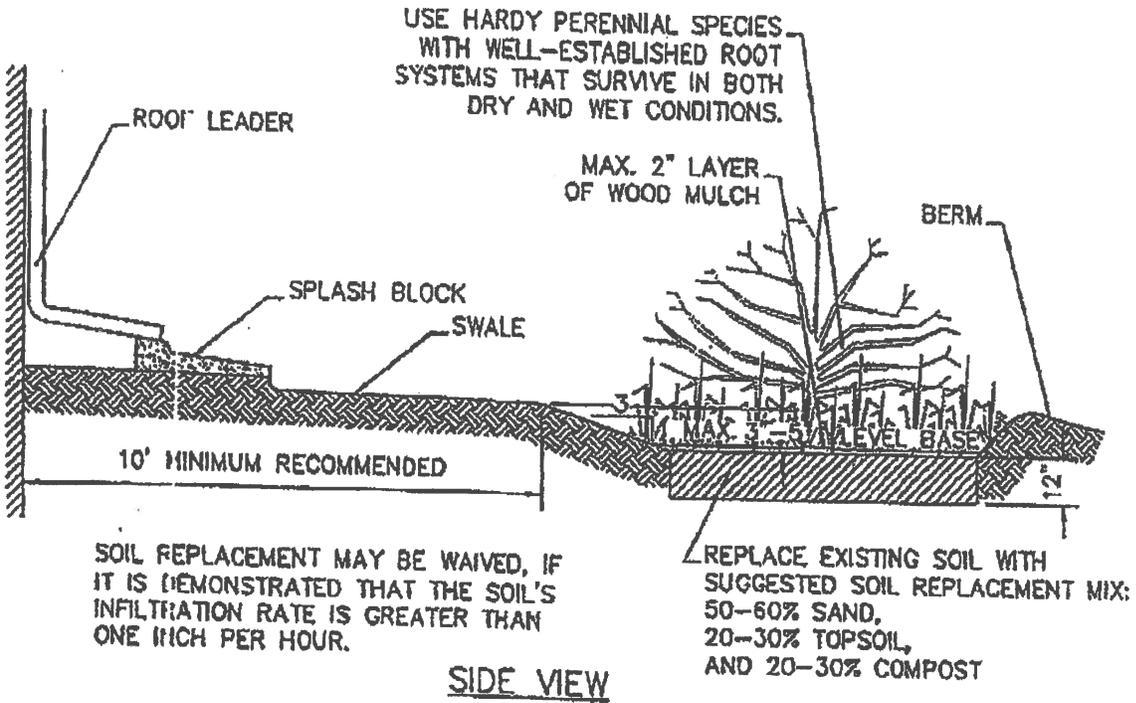
NOTES:

BUILDING
FOUNDATION

1. THE FILTER FABRIC SHALL BE WRAPPED AND TIED WITH WIRE OR NYLON TWINE, OR OTHERWISE TIGHTLY SECURED AROUND THE HORIZONTAL INFLOW PIPE WHERE THE PIPE PROTRUDES THROUGH THE FABRIC.
2. FABRIC SHALL BE OVERLAPPED SIX INCHES IN "SHINGLE" FASHION WHEN MORE THAN ONE SECTION IS REQUIRED TO ENCLOSE THE AGGREGATE.

TYPICAL STONE TRENCH DETAIL

N.T.S.



RAIN GARDEN WEB SITES

RUTGERS COOPERATIVE RESEARCH & EXTENSION
<http://www.rcrc.rutgers.edu/pubs/publication.asp?pld=FS513>

THE NATIVE PLANT SOCIETY OF NEW JERSEY
<http://www.npsnj.org/>

UNIVERSITY OF WISCONSIN-EXTENSION, RAIN GARDENS PUBLICATIONS
<http://clean-water.uwex.edu/pubs/raingarden/>

RAIN GARDENS OF WEST MICHIGAN-HOME
<http://www.raingardens.org/index.php>

SOUTHEASTERN OAKLAND COUNTY RESOURCE RECOVERY AUTHORITY
 HEALTHY LAWN AND GARDENS PROGRAM
http://www.socwa.org/lawn_and_garden.htm

MICHIGAN MINNESOTA RAINWATER GARDEN SITE
<http://www.ci.maplewood.mn.us>

TYPICAL RAIN GARDEN DETAIL

N.T.S.

Table 1 - Northeast/Mid Atlantic Native Plant Suggestions for Wet Sites

	Common Name	Mature size	Bloom Time	Exposure
Perennials				
<i>Asclepias incarnata</i>	Swamp Milkweed - pink	5 ft.	May/June	Sun-partial shade
<i>Chelone glabra</i>	White Turtlehead	2-3 ft.	Aug./Oct.	Sun-partial shade
<i>Eupatorium maculatum</i>	Joe-Pye Weed - pink	2-7 ft.	July/Sept.	Sun
<i>Helenium autumnale</i>	Sneezweed - gold to red	2.5-3 ft.	Aug./Sept.	Sun
<i>Lobelia cardinalis</i>	Cardinal flower - red	1-5 ft.	July/Sept.	Sun-partial shade
<i>Lobelia sp. illinoensis</i>	Great Blue Lobelia - blue	1-3 ft.	Aug./Oct.	Sun to shade
Ferns & Sedges				
<i>Athyrium filix-femina</i>	Lady Fern	2-3 ft.	N/A	part sun to shade
<i>Osmunda regalis</i>	Royal Fern	2-5 ft.	N/A	part sun to shade
<i>Osmunda cinnamomea</i>	Cinnamon Fern	4 ft.	N/A	part sun to shade
<i>Carex penicillata</i>	Drooping Sedge	2-3 ft.	May/June	part shade
<i>Carex stipitata</i>	Tussock Sedge	1-3 ft.	July/Aug.	Sun to part shade
Shrubs				
<i>Fothergilla gardenii</i>	Dwarf Fothergilla - white	1.5-3 ft.	April/May	Sun to part shade
<i>Cephalanthus occidentalis</i>	Buttonbush - white	3-10 ft.	Jul/Aug	Sun
<i>Viburnum dentatum</i>	Arrowwood - white	8-10 ft.	May/June	Sun to part shade
<i>Lindera benzoin</i>	Spicebush - chartreuse	6-12 ft.	March/May	Sun to shade

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**RUTGERS COOPERATIVE RESEARCH & EXTENSION
N.J. AGRICULTURAL EXPERIMENT STATION
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY
NEW BRUNSWICK**

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**Borough of Fanwood
Chapter 256 Stormwater Control**

Completion Certification

Please submit an executed copy of this form and the requested sketch upon completion of your **HDPE Drywell**. Failure to do so may delay your certificate of occupancy. Fax or mail the completed form and sketch to:

Peter Bondar, P.E., Borough Engineer
c/o T&M Associates
1455 Broad Street, Suite 250
Bloomfield, NJ 07003
Phone: 973-614-0005
Fax: 973-614-0025

PROJECT IDENTIFICATION:

Owner: _____
Address: _____
Lot: _____ Block: _____ Phone No.: _____
Contractor: _____

AS-BUILT INFORMATION

- Date(s) of installation: _____
- Attach a sketch showing the as-built location and approximate dimensions of each drywell installed, as well as downspout locations.
- Was ground water encountered during excavation? Yes _____ No _____
- Was filter fabric wrapped around the exterior circumference of the drywell?
Yes _____ No _____
- Were filter screens, overflow pipes and splash blocks provided per the typical HDPE drywell detail? Yes _____ No _____
- Describe below any minor exceptions to the approved plans and/or drywell detail.

CERTIFICATION: (Both the **Owner and Contractor** must sign)

I certify that the foregoing information is true.

Owner Date

Contractor Date

**Borough of Fanwood
Chapter 256 Stormwater Control**

Completion Certification

Please submit an executed copy of this form and the requested sketch upon completion of your **Infiltration Trench**. Failure to do so may delay your certificate of occupancy. Fax or mail the completed form and sketch to:

Peter Bondar, P.E., Borough Engineer
c/o T&M Associates
1455 Broad Street, Suite 250
Bloomfield, NJ 07003
Phone: 973-614-0005
Fax: 973-614-0025

PROJECT IDENTIFICATION:

Owner: _____
Address: _____
Lot: _____ Block: _____ Phone No.: _____
Contractor: _____

AS-BUILT INFORMATION

- Date(s) of installation: _____
- Attach a sketch showing the as-built location and approximate dimensions of each trench installed, as well as downspout locations.
- Was ground water encountered during excavation: Yes _____ No _____
- Were stone fill, filter fabric and perforated pipe installed per the stone trench detail?
Yes _____ No _____
- Were filter screens, overflow pipes and splash blocks provided, per the detail?
Yes _____ No _____
- Describe below any minor exceptions to the approved plans and/or stone trench detail.

CERTIFICATION: (Both the **Owner and Contractor** must sign)

I certify that the foregoing information is true.

Owner Date

Contractor Date

**Borough of Fanwood
Chapter 256 Stormwater Control**

Completion Certification

Please submit an executed copy of this form and the requested sketch upon completion of your **Rain Garden**. Failure to do so may delay your certificate of occupancy. Fax or mail the completed form and sketch to:

Peter Bondar, P.E., Borough Engineer
c/o T&M Associates
1455 Broad Street, Suite 250
Bloomfield, NJ 07003
Phone: 973-614-0005
Fax: 973-614-0025

PROJECT IDENTIFICATION:

Owner: _____
Address: _____
Lot: _____ Block: _____ Phone No.: _____
Contractor: _____

AS-BUILT INFORMATION

- Date(s) of installation: _____
- Attach a sketch showing the as-built location and approximate dimensions of each rain garden installed.
- Were swales and splash blocks installed per the detail? Yes _____ No _____
- Was existing soil replaced with suggested soil replacement mix to a depth of twelve (12") inches? Yes _____ No _____
- Were hardy perennial species with well established root systems that survive in both wet and dry conditions planted in the rain garden? Yes _____ No _____
- Was a two (2") inch layer of mulch provided? Yes _____ No _____
- Describe below any minor exceptions to the approved plans and/or rain garden detail.

CERTIFICATION: (Both the **Owner and Contractor** must sign)

I certify that the foregoing information is true.

Owner Date

Contractor Date