

THE BOROUGH OF HANOVER - STORMWATER MANAGEMENT PERMIT INSTRUCTIONS

Revised 7/3/18

Please follow the instructions below in accordance with the Borough stormwater management permit application.

Section I -

Step 1: Project Information:

Property Owner Full Name

Full Property Address

Daytime Phone Number – main line you can be reached

Email Address

Check box for the preferred method of communication

Proposed Development - provide information regarding size, type, distance from property lines and existing site features, etc. The more detail the better understanding the Borough will have.

Step 2: Property owner purposes:

From the proposed development you described, please calculate the square footage of the new/altered development.

Have any other exterior improvements been completed on the property since December 23, 2014?

If you have any other permits with the Borough of Hanover please list the permit number(s).

Step 3: Provide a sketch of the property with property lines, existing improvements and proposed improvements.

The more detail the better the Borough can assess what you want to accomplish. **There are sketch examples attached to the permit to help you properly display what you're looking to install.**

Step 4: Return this form and attached sketch to the Building Permit Officer at the Borough of Hanover office at 44 Frederick St. Hanover PA, 17331.

Section II & III: completed by Borough staff

Please read, sign and date the application after the Building Permit Officer has completed section II & III.

THE BOROUGH OF HANOVER
STORMWATER MANAGEMENT PERMIT APPLICATION
SECTION I – Revised 7/3/18

Attention: If you, as a property owner, are planning to construct any type of structure or improvement to your property – patio, driveway, etc. – that will impact the Stormwater runoff leaving your property, then you must comply with the Hanover Borough Stormwater Management Ordinance No. 2235. Completion of this form will allow the staff to guide you through the associated regulations.

Step 1: Complete the project information

Property Owner: _____

Property Address: _____

Daytime Phone Number: _____

Email Address: _____

Check box for the preferred method of communication above

Proposed Development (please provide information regarding size, type, distance from property lines and existing site features, etc.):

Step 2: Property owner proposes

New/alterd Pavement (Parking area, driveway) _____SF

New/alterd Building (Shed, Garage, Addition) _____SF

New/alterd Sidewalk or Patio (Concrete, Brick) _____ SF

New/alterd swimming pool _____SF

Changing the ground surface cover (Clearing a wooded lot, converting a meadow area to yard)
_____SF

Farming Activities (not new buildings or impervious) – If in compliance with Chapter 102, exempted. _____

Timber Activities – If in compliance with Chapter 102, exempted. _____

Have any other exterior improvements been completed on the property since December 23, 2014?

If so, please list the projects and permit numbers _____.

Step 3: Provide sketch of property with property lines, existing improvements and proposed improvements.

Step 4: Return the entire form and sketch(es) to the *Building Permit Officer*.

Review of this form will allow the Building Permit Officer to determine what requirements of the Stormwater Management Ordinance apply to your project. The Building Permit Officer will contact you at the phone number or email address indicated above once the internal review has been completed (typically within two days) and the application can then be finalized. The application must be completed prior to the Building Permit Officer review.

STORMWATER MANAGEMENT PERMIT APPLICATION SECTION II

Borough Use Only:

Existing Impervious Area on Property (prior to this Application): _____ ft² (Copy from previous permits, if applicable)

Newly Constructed Impervious Area (Result of this Application): _____ ft² (summarized in Step I of Section III)

Total Impervious Area _____ ft²

Project Fees: \$_____ (see fee schedule) _____ Paid by Applicant

Building Permit Officer \$50/hr

Engineer \$85/hr

Engineering Staff \$65/hr

Base Fee \$25

Project Application is:

Exempted from ordinance requirements (Less than 500 ft²); _____

Partially exempted and approved. Required submittals attached (Section 302.B, C or Equivalent DIA): _____ (Refer to Step 2 of Section III)

Project is approved (required submittals attached): _____

SWM Permit No. _____

Municipal Official

Signature

Date

STORMWATER MANAGEMENT PERMIT APPLICATION SECTION III

Guidance Document for Borough Staff on Proper Stormwater Management

Act 167 requires all Municipalities to adopt a Stormwater Management Ordinance in accordance with York County Integrated Water Resources Plan. Therefore, all regulated activities within the Borough should comply with the Borough's SWM Ordinance No. 2235. To accomplish this goal, all regulated activities should be reviewed in accordance with this Guidance Document.

Step 1: After the applicant completes and returns Section I of the Application, complete the following:

1. Go to York County's Tax Assessment website located at <http://gis.york-county.org/MapData.aspx>. Find the property in question. Change the map view to the aerial image and print out a copy. Have the property owner label the Regulated Activity and locational information (distance from existing site features and property lines, flow direction, etc.) on the printout.
2. Determine if the proposed project qualifies as a Disconnected Impervious Area (DIA) in accordance with Appendix B of the Ordinance.
 - a. Check all that apply.
 - i. For Structures:
 1. Less than 500ft² draining to individual downspouts. ___ Yes ___ No (if No consult municipal engineer)
_____SF (Downspout I) _____SF (Downspout 2)
a. Check site map created above.
 2. Type D Soils ___ Yes ___ No (if Yes consult municipal engineer)
a. Check soils map, or check Property Management Program, or check Soil Survey website.
 3. 75' Pervious flow path provided? ___ Ft (if No an equivalent DIA approach must be taken)
a. Check site map created above. The pervious flow path should consist of vegetated areas (grass, meadow, etc.) and be completely contained within the property of the Regulated Activity.
 4. Flow path < 5% slope? ___ Yes ___ No (if >5% an equivalent DIA approach must be taken)
a. Property owner knows slope or field verify.
 - ii. For Pavement/Patios At-grade Impervious Areas:
 1. Length of impervious area is less than 75' ___ Yes ___ No (if No consult municipal engineer)
a. Check site map created above. The pervious flow path should consist of vegetated areas (grass, meadow, etc.) and be completely contained within the property of the Regulated Activity.
 2. Pervious flow path is greater than length of impervious ___ Yes ___ No (if No consult municipal engineer)
a. Check site map created above.
 3. No Type D Soils ___ Yes ___ No (if Yes consult municipal engineer)
a. Check soils map, or check Property Management Program, or check Soil Survey website.
 4. Impervious and Pervious Flow Path < 5% slope ___ Yes ___ No (if No consult

municipal engineer)

a. *Property owner knows slope or field verify.*

- iii. If project meets all provisions of Sections i. or ii. then the project is a DIA
- iv. If none, or only a portion, of the provisions of Section i. and ii. are met, the project is Not a DIA.

b. If **DIA** and:

- i. Greater than 500ft² and less than 1,000 ft²?
 - 1. Exempt from SWM Site Plan and Peak Rate Control
 - 2. Applicant should be aware that Stormwater runoff is their responsibility and if a problem arises in the future, they will be required to remediate it.
- ii. Greater than 1,000 ft² and less than 5,000 ft²
 - 1. Exempt from Peak Rate Control
 - 2. SWM Site Plan should be submitted. See requirements in c-i below.

c. If **not DIA** and:

- i. Less than 5,000 ft²
 - 1. Qualifies as Equivalent DIA Project
 - 2. Applicant shall submit:
 - i. Site Plan (Sample -Attachment A)
 - 1. Expend the Site Map to show the proposed storm water facilities.
 - ii. Design (Sample. Attachments B I through B3)
 - 1. These facilities should be installed to control Stormwater runoff. The location and size of the facility should be indicated on the Simple Site Plan.
 - iii. Calculations (See Samples)
 - 1. Sample calculations include a spreadsheet that can be completed for a more variable design. For basic design, use the sample Design Table.
 - iv. Easement in accordance with 50LB
 - 1. *Each municipality should have their solicitor develop an easement. At a minimum, the easement should serve to ensure that the SWM facility is kept in place for as long as the regulated activity exists as well as allow for Municipal access for inspection and if required, maintenance and repair.*
 - v. O&M Agreement in accordance with 502 (Sample -Attachment F)
 - vi. O&M Plan in accordance with 501.C (Sample –Attachment G)
 - vii. Inspection Form (Sample -Attachment H)
 - 1. *This will need to be completed by the property owner on a defined basis and submitted to the Municipality to ensure the proposed facility is working as designed*

Read, sign and date the application below to acknowledge and accept the requirements (including construction requirements and associated administrative items) outlined and reviewed with the Building Permit Officer.

I understand and agree to the following:

1. I will be required to construct all improvements and associated storm water management facilities in accordance with the attached plans and details.
2. Any exemption, permit, or authorization issued or approved based on false, misleading or erroneous information provided by an applicant is void without the necessity of any proceedings for revocation. Any work undertaken or use established pursuant to such permit or other authorization is unlawful. No action may be taken by a board, agency or employee of the Borough purporting to validate such a violation.
3. Upon presentation of proper credentials, the Township may enter at reasonable times upon any property to inspect the condition of the Stormwater structures and facilities in regard to any aspect regulated by this Ordinance.
4. Proper management of Stormwater runoff associated with this permit is the responsibility of the property owner.

Print Name

Signature

Date

O & M Plan for Equivalent DIA Regulated Activities

*For seepage beds and trenches and pervious pavement; all other facilities will need an Inspection Form developed by the property owner.

Construction:

1. Install erosion and sedimentation control facilities.
2. Stormwater Management Facility(ies) shall be installed before impervious areas are completed. If earthwork is involved during the construction of the impervious area, then extreme caution shall be taken so that sediment does not wash into the SWM Facility(ies).
3. Mark the location(s) of the SWM facility(ies).
4. Excavate the SWM Facility to the required depth. Contact municipality for inspection prior to filling. If standing water is encountered, a SWM Site Plan may need to be submitted; contact Municipal Engineer. All excavated materials shall be removed from the site or stabilized.
5. Line excavation with Geotextile, if applicable.
6. Backfill SWM Facility with required stone. If required: Install piping, clean-outs and associated facilities as detailed.
7. If required/applicable: Close geotextile material over stone bedding.
8. If required/applicable: Place topsoil over trench.
9. Stabilize area and if applicable seed all disturbed areas.

Maintenance:

1. The SWM Facility shall be checked regularly to ensure that no standing water exists in the facility 3 days after a rain event.
 - a. If water is encountered, the facility may need to be modified. Notification of the Borough is required before any modifications are made.
2. Monitor the SWM facility to ensure that no sediment, grass clippings, leaves, and other similar accumulations occur on top of, and/or within the SWM Facility.
3. If applicable, an approved cleaning unit should be used bi-annually to avoid clogging.

Inspection Reports:

1. Submit the provided Inspection Form to the Borough on the following schedule:
 - a. One year from the date of installation.
 - b. Every 1 year following the initial inspection.
 - c. After any 10+ year rain event (i.e. after a rain event that results in over 4 inches of rain in a 24 hour period)
2. Keep a record of all inspections.
3. Please provide receipt of biannual cleaning of pervious pavement facility, if applicable.

I have read and agree to the above Operation and Maintenance Plan. I, as the property owner, am responsible for the proper construction, operation and maintenance, and filing the proper inspection reports for the SWM Facility. If I fail to adhere to any of these tasks, the Township may perform the services required and charge me the appropriate fees. Nonpayment of the fees may result in a lien against my property.

Property Owner Name (Printed)

Signature

Date

Inspection Form

*For *Seepage Beds and Trenches* only; all other facilities will need an inspection form developed by the property owner and approved by the Borough.

- 1. Property Owner: _____
- 2. Property Address: _____
- 3. SWM Permit No: _____
- 4. SWM Facility: ___At Grade Seepage Bed/Trench ___Below Grade Seepage Bed/Trench

All facilities:

- 1. SWM Facility
 - a. Is Facility functioning as designed? ___Yes ___No
 - b. No standing water exists after 3 days without rain? ___Yes ___No
- 2. Area surrounding SWM Facility
 - a. Are there signs that the facility is not functioning properly?
 - i. Channels or erosion occurring on the downstream side of the facility, indicating overflow? ___Yes
 ___No
 - ii. If Yes, have the channels been stabilized? ___Yes ___No
 - b. Has any damage or increased runoff occurred across the property line? ___Yes ___No

At Grade Seepage Bed/Trench:

- 1. SWM Facility
 - a. No sediment, leaves, grass clippings, or similar accumulations are present in the facility
 - i. If present, have they been removed? ___Yes ___No
- 2. Area surrounding SWM Facility
 - a. Has any of the Seepage Bed/Trench stone washed away? ___Yes ___No
 - i. Has the stone been replaced? ___Yes ___No
 - ii. If a continuing problem, has larger stone been placed on Bed/Trench for stabilization?
 ___Yes ___No

Below Grade Seepage Bed/Trench:

- 1. SWM Facility
 - a. Overflow piping on downspouts have been inspected and, if necessary, cleaned? ___Yes ___No
 - b. Cleanouts have been inspected and, if necessary, cleaned? ___Yes ___No

Property Owner Name (Printed)

Signature

Date

Inspection Form

*For *pervious pavement* only; all other facilities will need an inspection form developed by the property owner and approved by the Borough.

- 5. Property Owner: _____
- 6. Property Address: _____
- 7. SWM Permit No: _____

All facilities:

- 1. Is the area free from sediment? None Minor Some Severe
- 2. Is the area free from oil or other chemical stains? None Minor Some Severe
- 3. Is the area free of trash or other debris? None Minor Some Severe
- 4. Are there structural defects such as cracking or settling? Yes No
- 5. Has the area ever been accidentally sealed? Yes No I don't know
- 6. Does the surface get vacuumed by a commercial cleaning unit biannually? Yes No Yearly

Any other notable surface observations? *Please use this space to describe.*

Are there cleanouts or grates that allow the inside of the infiltration bed to be observed? Yes No *(if no skip this section)*

- 1. Is there trash, debris, pollutants and other obstructions observable down the cleanout/grate? None Minor Some Severe N/A
- 2. Are all grates and/or caps in good condition? Yes No N/A
- 3. Are all cleanouts, risers, or sumps in good condition? Yes No N/A
- 4. Does the infiltration bed dewater after 3 days of no rain? Yes No N/A

Any other notable sub-surface observations? *Please use this space to describe.*

Is there an outlet pipe from the sub-surface infiltration bed that can be observed? Yes No *(if no skip this section)*

- 1. Is there trash or debris obstructions at the outlet pipe? None Minor Some Severe
- 2. Is the outlet pipe, joint(s), and structure(s) in good condition? Yes No
- 3. Are there signs of erosion, bare spots and sediment downstream of the outlet pipe? None Minor Some Severe

Any other notable sub-surface observations? *Please use this space to describe.*

Are there swales, driveways, or stormwater structures (cleanouts, yard drains, roof drains or foundation drains) that connect to the sub-surface infiltration bed? Yes No *(If no skip to the end)*

- 1. If there is a grass or meadow tributary area(s), do they have full vegetation coverage? Yes No
- 2. Are there signs of erosion, bare spots and sediment in any grass area(s)? Yes No
- 3. Are all cleanouts, roof drains, grates, risers or sumps in good condition? Yes No
- 4. Are all tributary driveway drains in good condition and free from pollutants/debris? Yes No

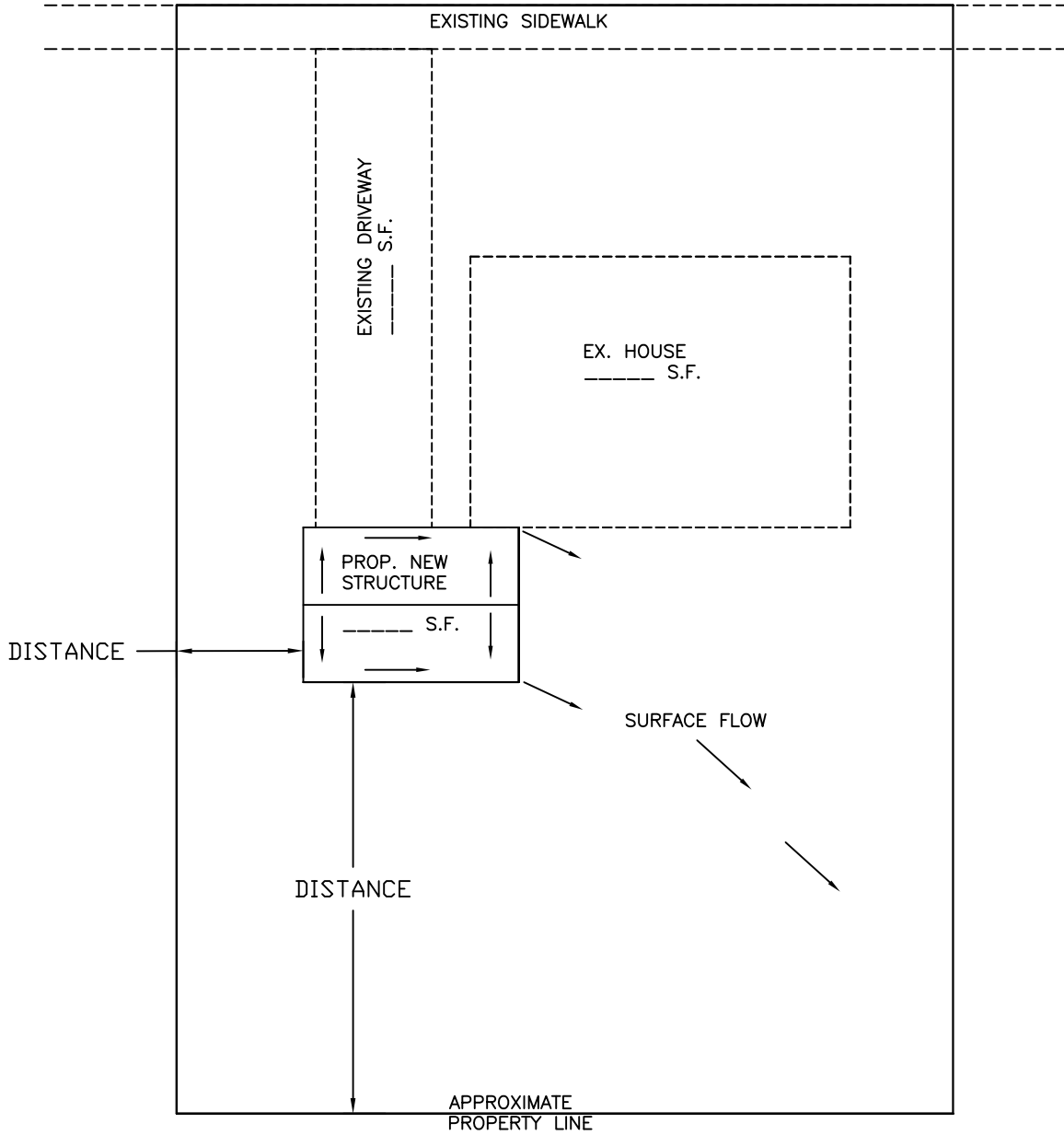
Any other notable observations? *Please use this space to describe.*

Property Owner Name (Printed)

Signature

Date

STREET NAME



NOTES

1. PROVIDE SQUARE FOOTAGE OF LOT AND OF ALL EXISTING/PROPOSED IMPERVIOUS AREAS
2. PROVIDED DISTANCE OVER LAWN FROM NEW IMPERVIOUS AREAS TO EXISTING, AS SHOWN
4. SHOW DIRECTION OF GRADING/SURFACE FLOW ON LOT
3. THIS PLAN MAY BE HAND DRAWN OR PRINTED

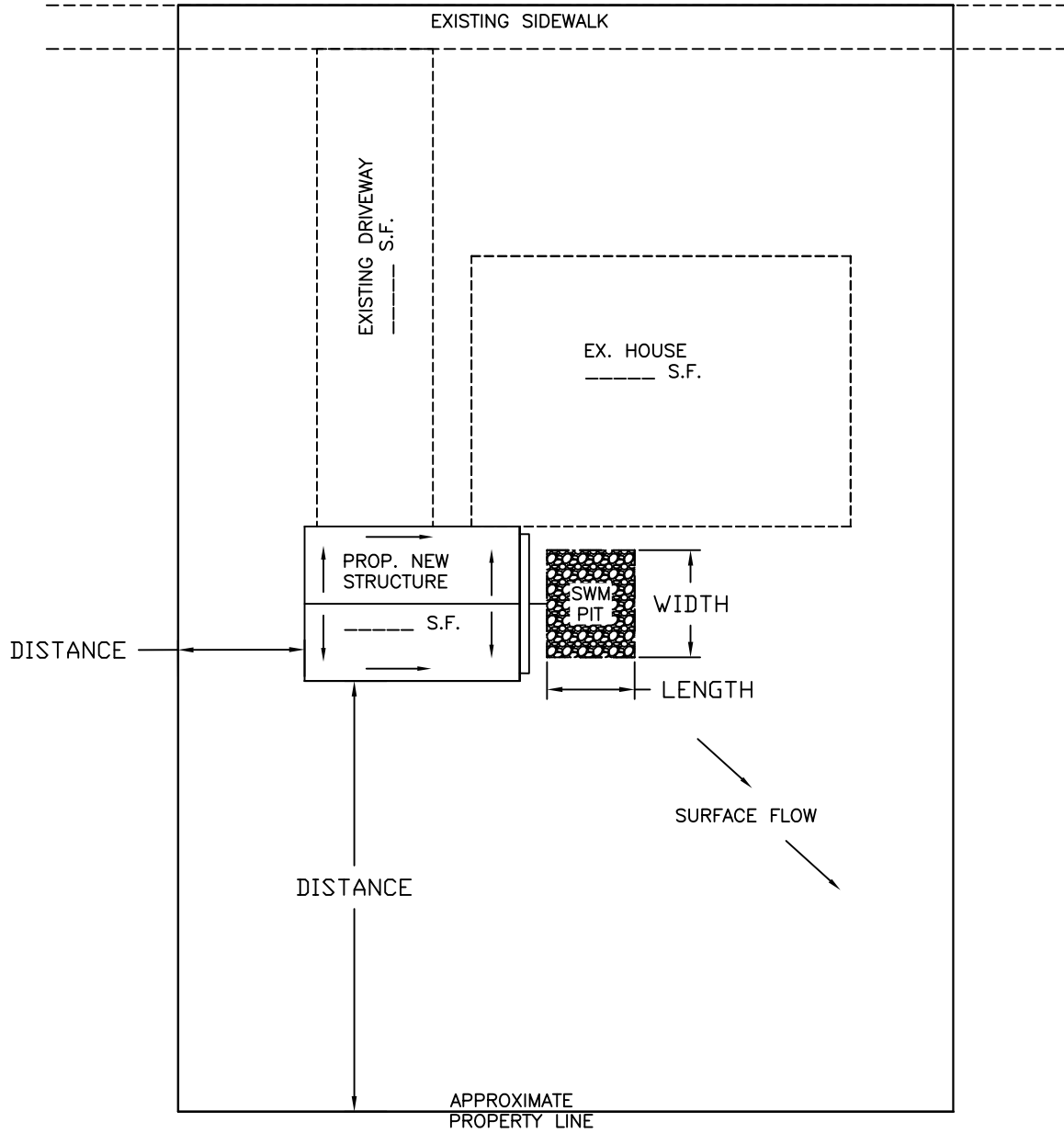


THE BOROUGH OF HANOVER

ATTACHMENT A1
EXAMPLE SITE PLAN SKETCH

DATE	3/26/2015	DRAWN BY	ZRS	DWG NO.	N/A
SCALE	NOT TO SCALE	CHECKED BY		SHEET	1 OF 2

STREET NAME



NOTES

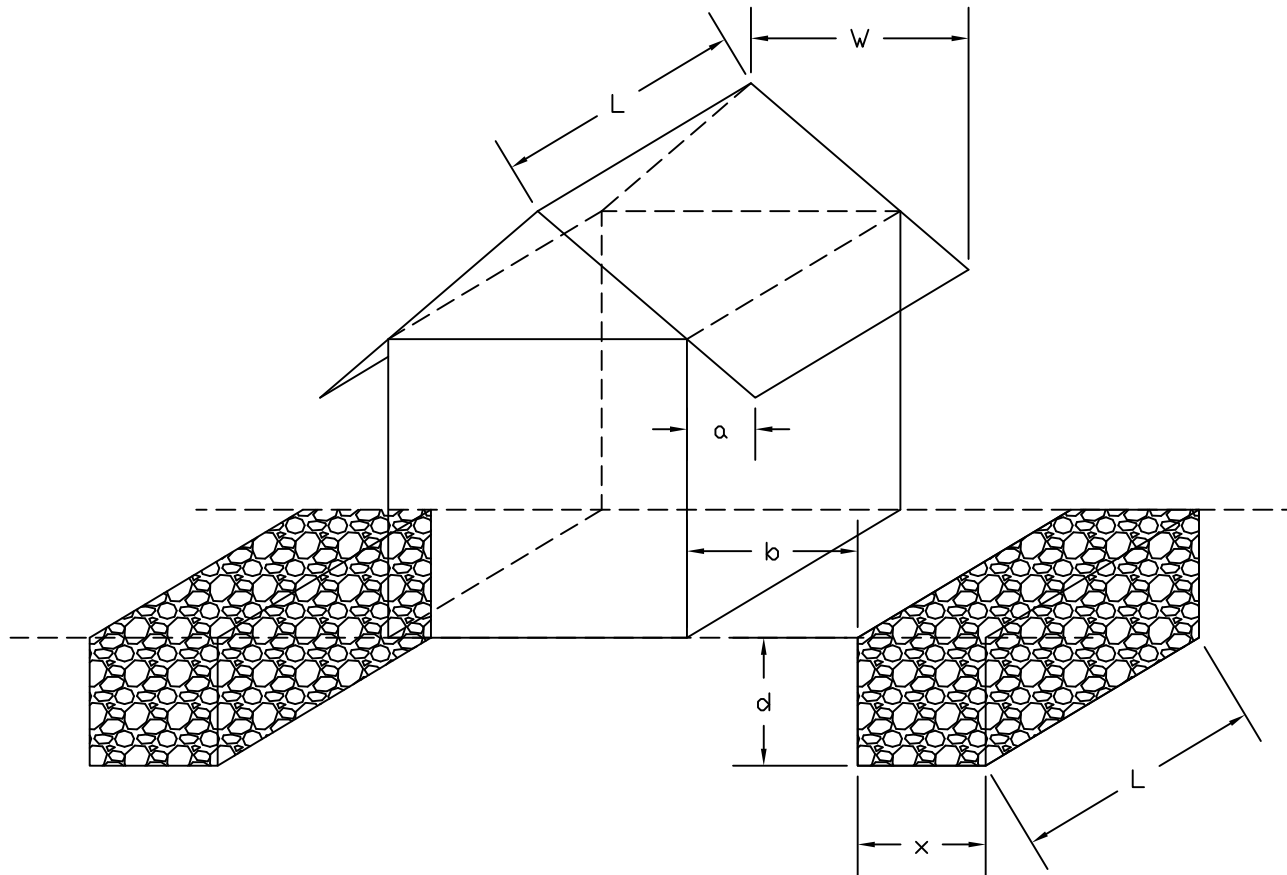
1. PROVIDE SQUARE FOOTAGE OF LOT AND OF ALL EXISTING/PROPOSED IMPERVIOUS AREAS
2. PROVIDED DISTANCE OVER LAWN FROM NEW IMPERVIOUS AREAS TO EXISTING, AS SHOWN
4. SHOW DIRECTION OF GRADING/SURFACE FLOW ON LOT
3. THIS PLAN MAY BE HAND DRAWN OR PRINTED



THE BOROUGH OF HANOVER

ATTACHMENT A2
EXAMPLE SITE PLAN SKETCH

DATE	3/26/2015	DRAWN BY	ZRS	DWG NO.	N/A
SCALE	NOT TO SCALE	CHECKED BY		SHEET	2 OF 2



KEY

- L = LENGTH OF STRUCTURE ROOF = LENGTH OF SEEPAGE TRENCH (FT)
- W = HORIZONTAL WIDTH OF ONE SIDE OF ROOF (FT)
- a = EAVE OVERHANG (FT)
- b = DISTANCE FROM STRUCTURE WALL TO SEEPAGE TRENCH (FT)
= a + 1 FT (PLACE SEEPAGE TRENCH ONE FOOT PAST EAVES)
- x = WIDTH OF SEEPAGE TRENCH (FT) = APPROXIMATELY 2 TO 3 FT
- d = DEPTH OF SEEPAGE TRENCH (FT)

REQUIRED RUNOFF CAPTURE VOLUME OF TRENCH = $L*W^2/12 = L*x*d*0.4 = X=0.28W$ (D=1.5')

RATIO: 3.6 TO 1
(IMPERVIOUS TO INFILTRATION)

NOTES

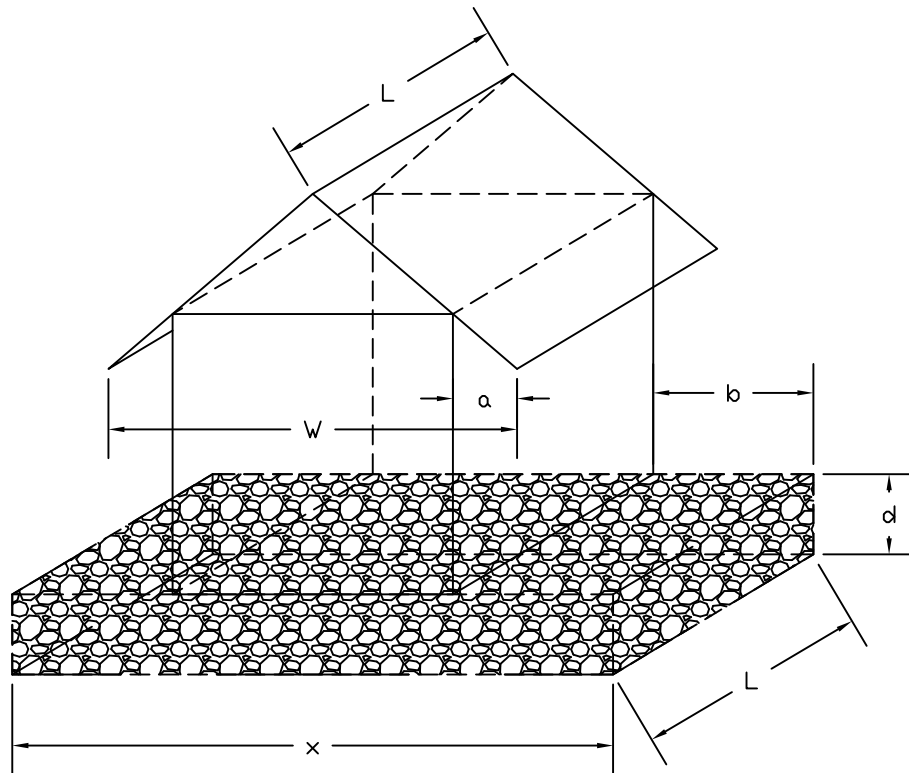
1. TRENCH MUST BE PROVIDED ON EACH SIDE OF STRUCTURE.
2. TRENCH TO BE WRAPPED IN CLASS 1 GEOTEXTILE.
3. TRENCH TO BE FILLED WITH CLEAN STONE (AASHTO #2 TYP.).
4. TRENCH TO BE CONSTRUCTED AT 0% SLOPE ON UNDISTURBED SOIL.
5. TRENCH TO BE CHECKED REGULARLY TO MAINTAIN PROPER OPERATION.



THE BOROUGH OF HANOVER

ATTACHMENT B1 STORMWATER MANAGEMENT EXAMPLE: STRUCTURES WITHOUT GUTTERS A

DATE	11/29/11	DRAWN BY	ZRS	DWG NO.	N/A
SCALE	NOT TO SCALE	CHECKED BY		SHEET	1 OF 4



KEY

- L = LENGTH OF STRUCTURE ROOF = LENGTH OF SEEPAGE BED (FT)
- W = HORIZONTAL WIDTH OF ENTIRE ROOF (FT)
- a = EAVE OVERHANG (FT)
- b = DISTANCE FROM STRUCTURE WALL TO SEEPAGE BED (FT)
= a + 1 FT (PLACE SEEPAGE BED ONE FOOT PAST EAVES)
- x = WIDTH OF SEEPAGE BED (FT)
x = W + 2 FT
- d = DEPTH OF SEEPAGE BED (FT)
d = 6" TO 8" (AVERAGE)

NOTES

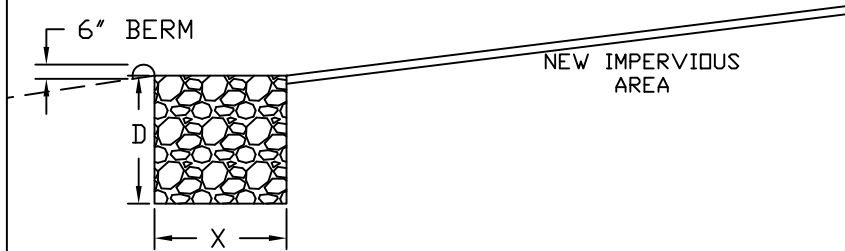
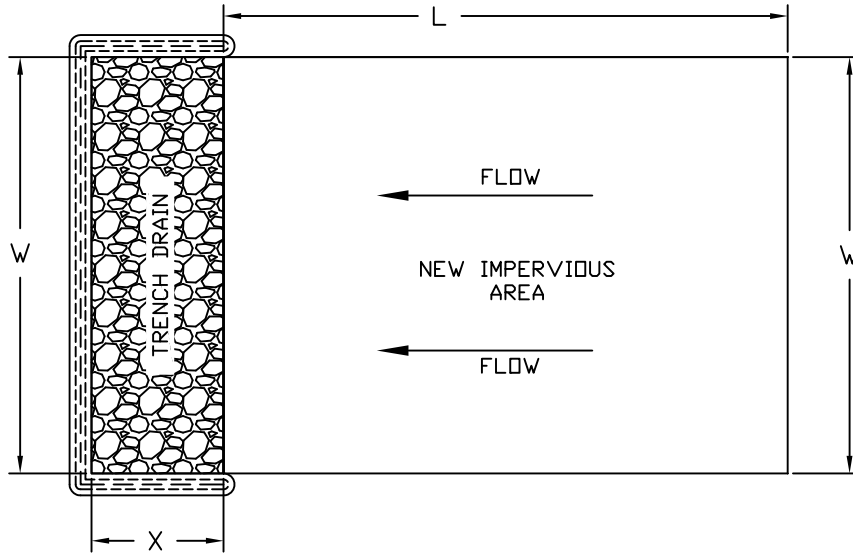
1. BED TO BE WRAPPED IN CLASS 1 GEOTEXTILE.
2. BED TO BE FILLED WITH CLEAN STONE (AASHTO #2 TYP.)
3. BED TO BE CONSTRUCTED AT 0% SLOPE ON UNDISTURBED SOIL.
4. BED TO BE CHECKED REGULARLY TO MAINTAIN PROPER OPERATION.



THE BOROUGH OF HANOVER

ATTACHMENT B2 STORMWATER MANAGEMENT EXAMPLE: STRUCTURES WITHOUT GUTTERS B

DATE	11/29/11	DRAWN BY	ZRS	DWG NO.	N/A
SCALE	NOT TO SCALE	CHECKED BY		SHEET	2 OF 4



KEY

- L = LENGTH OF NEW IMPERVIOUS SURFACE (FT)
- W = WIDTH OF NEW IMPERVIOUS SURFACE (FT)
- W = LENGTH OF SEEPAGE TRENCH/BED (FT)
- X = WIDTH OF SEEPAGE TRENCH/BED (FT)

REQUIRED VOLUME OF RUNOFF CAPTURE = $L*W*2/12 = X*W*D*0.4$
 FOR BASIC DESIGN ASSUME: $X=.21*L$, $D=2FT$ WITH PIPE IN TRENCH;
 $X=.28*L$, $D=1.5FT$ WITHOUT PIPE

REQUIRED VOLUME OF TRENCH/BED = $X*W*D$

NOTES

1. PIPING AND CLEANOUTS TO BE CENTERED WITHIN INFILTRATION BED.
2. BOTTOM AND SIDES OF BED TO BE WRAPPED IN CLASS 1 GEOTEXTILE.
3. BED TO BE FILLED WITH CLEAN STONE (AASHTO #2 TYP.)
4. BED TO BE CONSTRUCTED AT 0% SLOPE ON UNDISTURBED SOIL.
5. BED TO BE CHECKED REGULARLY TO MAINTAIN PROPER OPERATION.



THE BOROUGH OF HANOVER

ATTACHMENT B4
 STORMWATER MANAGEMENT EXAMPLE:
 AT-GRADE IMPERVIOUS

DATE	3/26/2015	DRAWN BY	ZRS	DWG NO.	N/A
SCALE	NOT TO SCALE	CHECKED BY		SHEET	4 OF 4