



FreedomTownship

2184 Pumping Station Road
Fairfield, PA 17320
Phone: 717.337.2926 Fax: 717.337.3545

www.freedomtownship.us

Simplified Design Approach Worksheet A

Property Location/Address: _____

Tax Parcel ID # _____

Approximate Parcel Size _____

OWNER

APPLICANT

Same as owner

Owner Name (print) _____

Applicant Name (print) _____

Address _____

Address _____

City _____ State _____ Zip _____

City _____ State _____ Zip _____

Phone _____ Cell _____

Phone _____ Cell _____

Email _____ Fax _____

Email _____ Fax _____

A Sketch Plan must be included and show the following:

Impervious Area

Total Existing	Proposed New	Total After Completion
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Are there any known existing drainage problems or the potential for the proposed project to create drainage problems? (if yes, please explain)

Acknowledgement – I declare that I am the property owner, or representative of the owner, and that the information provided is accurate to the best of my knowledge. I understand that stormwater may not adversely affect adjacent properties or be directed onto another property without written permission. I also understand that false information may result in a stop work order or revocation of permits. Municipal representatives are also granted access to the property for review and / or inspection of this project if necessary.

Owner/Applicant Signature

Owner/Applicant Print Name

Date

This document was signed before me on _____

Notary Signature

Notary Print Name

Commission Expiration

Type of Stormwater Management Required:*

To be Completed by Authorized Municipal Officer Only

Exempt from stormwater management plan preparation (Worksheet A and Sketch Plan)

Minor stormwater management site plan preparation (Complete Worksheet B to determine necessary BMP's)

Formal stormwater management plan preparation (Consult a professional)

Determined By (Municipal Officer)

Date Determined

*Based on information provided on this Worksheet & Sketch Plan received on: _____



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Freedom Township Simplified Design Approach Worksheet B

Step 1:

Determine the amount of impervious area created by the proposed projects. This includes any new surface area that inhibits the infiltration of stormwater into the ground. New stone and gravel areas are considered impervious. Existing impervious areas are not included in this calculation.

Surface	Length	Width	Total Impervious Area (SF)
Buildings			
Buildings			
Driveways			
Parking Areas			
Patios/Walkways			
Decks			
Other			
Total Proposed Impervious Area:			

Step 2:

Determine the Disconnect Impervious Area (DIA). All or parts of proposed impervious surfaces may qualify as Disconnected Impervious Area if runoff is directed to a pervious area that allows for infiltration, filtration and increased time of concentration. The volume of stormwater that needs to be managed could be reduced through DIA. Prepare a Minor Stormwater Management Site Plan to determine DIA.

Determining Status of DIA

- a) Determine contributing area to the roof/driveway to each disconnected discharge. If it's 500 ft² or less (roof) or 1,000 ft² (driveway), continue to "b". If it's greater than these amounts, the area does not qualify as DIA
- b) Determine the length of down slope pervious flow path available for each disconnected discharge.
- c) Determine the % slope of the pervious flow path, % slope = (rise/ run) x 100. Must be 5% or less.
- d) See the table on the next page to determine the percentage of the area that can be treated as disconnected. If the available length of the flow path is equal to or greater than 75 ft, the discharge qualifies as entirely disconnected.

Freedom Township Simplified Design Approach Worksheet B

Partial Disconnections		
Length of Pervious Flow Path *(ft) Lots 10,000 ft. ² & under	Length of Pervious Flow Path* (ft) Lots >10,000 ft. ²	DIA Credit Factor
0 - 7.9	0 - 14	1.00
8 - 15.9	15 - 29	0.80
16 - 22.9	30 - 44	0.60
23 - 29.9	45 - 59	0.40
30 - 34.9	60 - 74	0.20
35 or more	75 or more	0.00

*Pervious flow path must be at least 15 feet from any impervious surface and cannot include impervious surfaces.

Using step 2 calculations calculated from the minor stormwater site plan, complete the table below. This will determine the impervious area that may be excluded from the area that needs to be managed through stormwater management BMP's. If total impervious area to be managed is zero, the area can be considered entirely disconnected and further calculations are not needed.

TABLE 2			
Surface	Area (sq. ft.)	DIA Credit	Impervious Area to be Managed (sq. ft.)
Buildings			
Buildings			
Buildings			
Buildings			
Buildings			
Driveways			
Driveways			
Parking Areas			

If total impervious surface area to be managed is greater than zero, continue to Step 3.

Freedom Township Simplified Design Approach Worksheet B

Step 3:

Calculate the volume of stormwater runoff created by proposed impervious surfaces.

Impervious Area (sq. ft.) to be Managed (Sum from Table 2)	3.12" / 12" (from 24 hour rainfall)	Volume of Stormwater be Managed (cubic ft.)
X	0.26	X

Step 4:

Select BMP's and size according to the volume of stormwater that needs to be managed in Step 3.

TABLE 3 - BMP Sizing Table*						
BMP Type	Necessary Volume** (from Step 3)	Length	Width	Depth	Void Ratio	Volume***
Infiltration Bed or Tranch					0.4	
Infiltration Berm					1	
Rain Garden					0.4 in stone 1.0 above ground	
Rain Barrel or Other Usable Storage		Use known volume of rain barrel, etc. 1 cubic foot is equal to 7.48 gallons			1	
Other						

* Chart should only be used when a formal SWM Site Plan is not required.

** Should not include areas that were proven to be 100% disconnected.