

# Upper Makefield Township

1076 Eagle Road | Newtown, PA 18940 | p 215.968.3340 | f 215.968.9228 | www.uppermakefield.org

## GRADING / DRAINAGE PERMIT FOR EROSION, SEDIMENTATION CONTROL AND/OR DRAINAGE PLAN

PERMIT NO. \_\_\_\_\_

THE UNDERSIGNED HEREBY MAKES APPLICATION FOR PERMIT IN ACCORDANCE WITH THE PROVISIONS OF THE UPPER MAKEFIELD TOWNSHIP CODIFIED ORDINANCES, ESTABLISHING REGULATIONS AND STANDARDS TO GOVERN AND REGULATE THE GRADING OF LAND, THE MODIFICATION OF NATURAL TERRAIN, THE ALTERATIONS OF DRAINAGE, THE MAINTENANCE OF DRAINAGE NECESSARY TO CONTROL SOIL EROSION, THE ISSUING OF GRADING PERMITS, PROVIDING FOR THE ENFORCEMENT THEREOF AND PROVIDING FOR PENALTIES IN THE EVENT OF VIOLATION THEREOF.

DEVELOPER / OWNER: Date of Application \_\_\_\_\_

Name \_\_\_\_\_

Tax Parcel # \_\_\_\_\_

Address \_\_\_\_\_

Lot # \_\_\_\_\_

Subdivision Name \_\_\_\_\_

Telephone # \_\_\_\_\_

Email \_\_\_\_\_

Fax No. \_\_\_\_\_

### CONTRACTOR / BUILDER:

Name \_\_\_\_\_

Telephone # \_\_\_\_\_

Address \_\_\_\_\_

Email \_\_\_\_\_

Fax No. \_\_\_\_\_

Applicant's Signature \_\_\_\_\_

Location of Project \_\_\_\_\_

Project Description \_\_\_\_\_

Flood Zone \_\_\_\_\_

If in SFHA:

Base Flood Elevation \_\_\_\_\_

Lowest Floor Elevation \_\_\_\_\_

Substantial Improvement and Damage Determination

Property Tax Assessed Value or Appraisal Value \$ \_\_\_\_\_

APPROVED TO BEGIN WORK: \_\_\_\_\_

THIS PERMIT IS CONTINGENT UPON THE UPPER MAKEFIELD TOWNSHIP ENGINEER OR HIS DESIGNEE, HAVING THE RIGHT AT ANY TIME PRIOR, DURING AND AFTER CONSTRUCTION TO ENTER THE PREMISES TO INSPECT THE STORMWATER MANAGEMENT FACILITIES.

\_\_\_\_\_  
Township Engineer

\_\_\_\_\_  
Date

### CERTIFICATION

APPROVED FOR TEMPORARY CERTIFICATE

\_\_\_\_\_  
Township Engineer

\_\_\_\_\_  
Date

Comments \_\_\_\_\_

APPROVED FOR OCCUPANCY

\_\_\_\_\_  
Township Engineer

\_\_\_\_\_  
Date

Comments \_\_\_\_\_

**REQUIREMENTS FOR THE SUBMITTAL OF AN APPLICATION FOR EROSION AND SEDIMENTATION  
CONTROL AND GRADING PERMIT**

**UPPER MAKEFIELD TOWNSHIP**

- A. Application - The applicant shall submit a completed application accompanied by three (3) copies of the grading plan.**
- B. Permit - The applicant shall attach to the completed application, in triplicate; a plan indicating the following minimum requirements.**

**1. General Information -**

- a. Plan size - minimum 8 1/2" x 11"
- b. Scale not less than 1" = 50'
- c. Contour interval - not more than 2'
- d. Subdivision name
- e. Lot#
- f. Date
- g. Acreage
- h. Plan preparer/registered engineer or land surveyor

**2. Existing Features –**

- a. Topography
- b. Vegetation
- c. Watercourses
- d. Manmade features
- e. Boundary line survey
- f. Soil Types

**3. Proposed Features –**

- a. Structure location with building dimensions
- b. Setback dimensions and floor elevations
- c. Proposed finished contours
- d. Spot elevations and surface water flow arrows
- e. Location of driveways and other paved areas
- f. Waste disposal systems
- g. Wells
- h. Soil erosion and sedimentation control measures to be established prior to construction

- C. Copy of Bucks County Conservation District permit application. Link:**  
<http://www.bucksccd.org/programs-and-services/applications-for-services/>

## BUILDINGS & STRUCTURES

### DRAINAGE & WATER QUALITY REQUIREMENTS

To obtain an accessory building or structure permit from Upper Makefield Township, all proposed structures must meet the applicable requirements of the Delaware River South Watershed Act 167 Stormwater Management Ordinance for Upper Makefield Township, Per Section 402 of the Ordinance, construction or replacement of impervious area ranging up to 5,000 sq. ft. based on the criteria below, shall be exempt from comprehensive Drainage Plan requirements.

However, this exemption shall not relieve the Applicant from meeting the requirements of Section 303- Water Quality and Section 304- Groundwater Recharge. These requirements can be met through the installation of a stone filled infiltration trench near the proposed impervious area. The table below shows required storage trench sizes based on varying footprint areas of construction or replacement of impervious area.

<b>EXEMPTION CRITERIA</b> Parcel size $\leq$ 1/4 acre		<b>EXEMPTION CRITERIA</b> Parcel size $>$ 1/4 - 1 acre		<b>EXEMPTION CRITERIA</b> Parcel size $>$ 1 acre		Exemption Criteria From: Comprehensive Drainage Plan Only	
FOOTPRINT OF IMPERVIOUS (FT <sup>2</sup> )	VOLUME OF INFILTRATION (CF)*	FOOTPRINT OF IMPERVIOUS (FT <sup>2</sup> )	VOLUME OF INFILTRATION (CF)*	FOOTPRINT OF IMPERVIOUS (FT <sup>2</sup> )	VOLUME OF INFILTRATION (CF)*	FOOTPRINT OF IMPERVIOUS (FT <sup>2</sup> )	VOLUME OF INFILTRATION (CF)*
100	40	1,201	488	2,501	1,017	4,100	1,667
150	61	1,250	508	2,550	1,037	4,150	1,688
200	81	1,300	529	2,600	1,057	4,200	1,708
250	101	1,350	549	2,650	1,078	4,250	1,728
300	121	1,400	569	2,700	1,098	4,300	1,749
350	141	1,450	590	2,750	1,118	4,350	1,769
400	162	1,500	610	2,800	1,138	4,400	1,789
450	182	1,550	630	2,850	1,159	4,550	1,850
500	202	2,000	813	2,900	1,179	4,600	1,871
550	222	2,050	834	2,950	1,200	4,650	1,891
600	242	2,100	854	3,000	1,220	4,700	1,911
650	262	2,150	874	3,050	1,240	4,750	1,932
700	283	2,200	895	3,100	1,261	4,800	1,952
750	303	2,250	915	3,150	1,281	4,850	1,972
800	323	2,300	935	3,200	1,301	4,900	1,993
850	343	2,350	956	3,250	1,322	4,950	2,013
900	363	2,400	976	3,300	1,342	5,000	2,033
950	384	2,450	996	3,350	1,362		
1,000	404	2,500	1,017	3,400	1,383		
1,050	427			3,450	1,403		
1,100	447			3,500	1,423		
1,150	468			3,550	1,443		
1,200	488			3,600	1,464		
				3,650	1,484		
				3,700	1,505		
				3,750	1,525		
				3,800	1,545		
				3,850	1,566		
				3,900	1,586		
				3,950	1,606		
				4,000	1,627		
				4,050	1,647		

\*\*\*SEE FOR DETAIL OF STONE INFILTRATION TRENCH

\*The volumes shown on the chart on the reverse page are the volumes of the required stone filled trench and not the volume of stormwater required to be infiltrated. The stone filled infiltration trench must be filled with stone which has a 40% void ratio.



Note: If the example on-lot infiltration structure is not preferred the applicant may submit an engineered system which meets all the requirements referenced on the reverse page.

## EXAMPLE BUILDING STRUCTURE:

10 X 10 STRUCTURE FOOTPRINT

REQUIRED TRENCH SIZE = 40 CF

2 TRENCHES (LOCATED AT ROOF DRIP LINE)  
EACH 10' LF X 2' X 1' = 20 CF

REQ'D  $\geq$  40 CF  
2 TRENCHES = 40 CF

## EXAMPLE PATIO STRUCTURE:

10 X 20 PATIO FOOTPRINT

REQUIRED TRENCH SIZE = 81 CF

40 LF OF TRENCH REQUIRED (LOCATED AT EDGES OF PATIO)  
40 LF X 2' X 1' = 80 CF, THEREFORE, 40 LF X 2.25' X 1' = 90 CF

REQ'D  $\geq$  81 CF  
2 TRENCHES = 90 CF

\*\*Pursuant to the Upper Makefield Township Code of Ordinance 264, Section 304-1.3, if an on-lot infiltration structure is proposed by the applicant's design professional, it must be demonstrated to the municipality that the soils are conducive to infiltration in the area identified.

Applicant shall provide a professional certification that the soils are appropriate for the system to function.

**UPPER MAKEFIELD TOWNSHIP  
CONTRACT FOR PROFESSIONAL SERVICES**

**THIS AGREEMENT MUST BE COMPLETED AND SIGNED BY THE DEVELOPER/APPLICANT PRIOR TO SUBMISSION OF THE SUBDIVISION/LAND DEVELOPMENT APPLICATION AND PLANS, PLANNING MODULES, OR ANY OTHER SUBMISSION WHICH REQUIRES TOWNSHIP CONSULTANT REVIEW.**

*THIS AGREEMENT* made this \_\_\_\_\_ day of \_\_\_\_\_, A.D., 20\_\_\_\_, by and between *UPPER MAKEFIELD TOWNSHIP*, Bucks County, Pennsylvania, with offices located at 1076 Eagle Road, Newtown, PA 18940 (hereinafter referred to as "*Township*") and \_\_\_\_\_, of \_\_\_\_\_ (hereinafter referred to as "*Developer*").

**WITNESSETH:**

*WHEREAS*, the Developer is the legal or equitable owner of certain real estate bearing Bucks County Tax Map No. 47- \_\_\_\_\_, located at \_\_\_\_\_, within the \_\_\_\_\_ Zoning District; and

*WHEREAS*; the Developer has presented to the Township plans for subdivision, land development, building development or other plans for the use of their land to the Township, or has applied for a building permit to the Township; and

*WHEREAS*, the Developer has requested and/or requires the Township approval and/or review of its proposed plans, and the Township is willing to authorize its professional consultants to review said plans and/or proposals upon execution of this agreement, and upon deposit of an escrow account according to the current Upper Makefield Township Fee Schedule.

*NOW, THEREFORE*, the parties agree as follows:

1. The Developer and Township hereby authorize and direct the Township's professional consultants, as defined at Section 107 of the Pennsylvania Municipalities Planning Code to review Developer's plans or proposals to use its property, and to make such recommendations and specifications as may be necessary with respect to such plans in accordance with all applicable Township ordinances, and State and Federal rules and regulations.

2. The Developer and Township acknowledge that the Township will incur costs and fees relating to the review of Developer's plans by its professional consultants, and Developer agrees to pay and/or reimburse the Township for such costs in accordance with this agreement.

3. The Developer shall pay the professional consultant's charges and fees for the following: (a) review of any and all development plans, proposals, studies, or other correspondence relating to the development; (b) attendance at any and all meetings relating to Developer's plan or proposal; (c) preparation of any studies, reports, engineered plans, surveys, appraisals, legal documents, or other correspondence relating to Developer's plan or proposal; and (d) a monthly administrative charge of Fifty Dollars (\$50.00) for Township-incurred expenses relating to the administration of this agreement. It is understood by the execution of this agreement that the Developer specifically accepts the Fee Schedule currently in effect in the Township.

4. The Developer hereby agrees to deposit with the Township the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), payable as cash in U.S. Dollars or check drawn on a Pennsylvania bank, as security for the payment of all costs and expenses, charges and fees as set forth in Paragraph 3 above, upon execution of this agreement, which shall be held in a non-interest-bearing account by the Township.

In the event that the above deposited escrow fund shall fall below fifty percent (50%) of the original deposit, the Developer shall immediately, upon receipt of written notice from the Township or its agent(s), deposit sums with the Township necessary to replenish the account to its original balance. In the event that this is insufficient to pay current Township-incurred expenses, Developer agrees to pay the total amount currently due for Township-incurred expenses without delay in addition to re-establishing the base escrow account balance. The Township will use its best efforts to advise the Developer of the impending likelihood that its costs have exceeded the required escrow account sums as described above.

5. Developer and Township agree that upon completion of the Township's review of Developer's plan or proposal, all unused portions of the escrow account as described above shall be returned to the applicant upon written request to the Township Manager. If the plan or proposal constitutes a subdivision or land development for which a Development and/or Financial Security Agreement is required by the Township, Developer shall execute a new Development Agreement which will estimate the professional consultant's costs for the period

governing the beginning of construction through the end of dedication. The parties acknowledge and agree that any new Development Agreement shall provide a schedule for periodic release of professional consultant fees for the construction and dedication phase of the project.

6. Developer and Township acknowledge that Sections 22-203 of the Upper Makefield Township Subdivision and Land Development Ordinance require Developer to pay Township's professional consultant fees relating to this plan or project, and in the event that Developer fails to provide sufficient funds in the above-described revolving escrow account upon fifteen (15) days written notice to the Developer or make the initial deposit payment described above within five (5) days of the date of this agreement, Developer shall be in default of this agreement and in violation of the above Sections of the Subdivision and Land Development Ordinance.

In the event of Developer's default as described above, the Township may refuse to issue any permit or grant any approval necessary to further improve or develop the subject site until such time as the terms of this agreement are strictly met by Developer.

7. Developer and the Township further agree that all fees or costs arising out of this agreement shall be paid prior to the issuance of any permit, occupancy or otherwise, for the use, improvement or construction of the buildings as proposed on the Developer's final plan or project. The Developer agrees and acknowledges that no permit, occupancy or otherwise, or recordable liens, shall be released by the Township until all outstanding professional consultant fees and costs are paid to the Township, and provided that the Developer is not in default under this agreement.

8. The Developer may at any time terminate all further obligations under this Agreement by giving fifteen (15) days written notice to the Township that it does not desire to proceed with the development as set forth on the plan and upon receipt of such written notice by the Developer to the Township, the Developer shall be liable to the Township for its costs and expenses incurred to the date and time of its receipt of the notice, plus the applicable administrative costs and expenses as outlined in Paragraph 3 above.

9. The Developer and the Township further agree that the Township shall have the right and privilege to sue the Developer or the property owner in assumpsit for reimbursement or to lien the property or both, in its sole discretion, for any expense in excess of the then current balance of funds on deposit with the Township in accordance with this agreement incurred by the

Township by reason of any review, supervision and inspection of Developer's project by its professionals including, but not limited to, the Township Engineer and Solicitor. The Township's election of its remedies under this paragraph shall not constitute a waiver of any other remedies the Township may have.

10. The Developer and the Township acknowledge that this agreement represents their full understanding as to the Township's reimbursement for professional or consultant services and that the parties intend to execute Development and Financial Security Agreements if the project constitutes a subdivision or land development under Township ordinances. Any such Development and Financial Security Agreements may incorporate or replace the parties agreement and escrow fund established under this contract.

11. This agreement shall be binding on and inure to the benefit of the successors and assigns of Developer. The Township shall receive thirty (30) days advance written notice from Developer of any proposed assignment of Developer's rights and responsibilities under this Contract for Professional Services.

*IN WITNESS WHEREOF*, and intending to be legally bound, the parties have caused their signatures to be affixed and have affixed their hands and seals the day and year first above written.

UPPER MAKEFIELD TOWNSHIP:  
BOARD OF SUPERVISORS

\_\_\_\_\_  
Name: Thomas F. Cino  
Title: Chairman

Date: \_\_\_\_\_

DEVELOPER: \_\_\_\_\_  
Name

HOMEOWNER: \_\_\_\_\_  
Name:

Date: \_\_\_\_\_



**GRANT OF EASEMENT AND  
STORMWATER MANAGEMENT AGREEMENT**

THIS EASEMENT AGREEMENT, dated as of this \_\_\_\_ day of \_\_\_\_\_, A.D., 20\_\_, by and between \_\_\_\_\_, of \_\_\_\_\_ (hereinafter referred to as "Grantors"), and the TOWNSHIP OF UPPER MAKEFIELD, a Township of the Second Class, with offices situate at 1076 Eagle Road, Newtown, PA 18940, (hereinafter referred to as "Grantee").

WHEREAS, Grantors are the lawful owners of a certain parcel of ground located in Upper Makefield Township, and more particularly identified as Bucks County Tax Map Parcel No. 47-\_\_\_\_\_ (hereinafter referred to as "Parcel"); and

WHEREAS, Grantors have prepared a proposed plan of subdivision or land development, or have requested a building permit to Upper Makefield Township, pursuant to a plan dated \_\_\_\_\_, 20\_\_ prepared by \_\_\_\_\_; and

WHEREAS, Upper Makefield Township has, in order to grant subdivision/land development approval or building permit or other approval requires that Grantors construct stormwater management facilities (hereinafter referred to as "Facilities") in order to gather the water runoff and drainage from the entire Property and provide an access easement to Township to provide access to said facilities and

WHEREAS, the parties desire that this Agreement be binding upon the heirs, successors and assigns entitled to the Property.

NOW, THEREFORE, the parties do hereby agree as follows:

1. Said Grantors, for and in consideration of the sum of One Dollar (\$1.00), paid, do hereby grant, convey, bargain, sell, release and confirm unto the said Grantee, its successors and assigns, an access and inspection easement, to and over the subject parcel, in order to inspect the stormwater facilities as more fully described as follows: [either a legal description of the stormwater facilities or a description of the facilities with reference to the plan]
2. For purposes of this Indenture and Agreement, Upper Makefield Township shall have the full, free, unlimited and unrestricted right, liberty, privilege and easement in common with Grantors, their heirs, successors and assigns, to enter upon and inspect the stormwater management facilities from time-to-time to insure its continued maintenance and operation by Grantors, their heirs, successors and assigns.
3. No barriers, fences, signs, plantings or other obstruction to the free and unhampered use of the easement shall hereafter be permitted, nor shall any motor vehicles, personal property, buildings or other structures be permitted or constructed within a portion of said stormwater facilities without the express written approval of Grantee.

4. In the event that Upper Makefield Township determines at any time that the stormwater management facilities on the Property are not functioning properly in accordance with the above-described subdivision/land development plan, or building permit plan, Grantee shall provide written notice to Grantors of the defect. Within fifteen (15) calendar days of this notice, Grantors shall begin any and all repair and maintenance work necessary to restore the stormwater management facilities and to correct the defect in order to insure the proper functioning of the facilities in accordance with the approved plan. If Grantors either refuse or neglect to perform or complete the required repair or maintenance work on the facilities, Upper Makefield Township shall have the right and privilege to enter upon the Property and to perform the necessary work within their sole discretion and to lien the Property for all costs related to the required work if Grantors refuse payment.

5. Grantors and Grantee acknowledge and agree that Grantee has no obligation to construct, repair and/or maintain the subject stormwater management facilities, and Grantors further covenant and agree to indemnify and hold Grantee harmless from and against any and all claims, actions, causes of action, judgments, costs, expenses and liabilities of any kind or amount incurred in connection with, arising from or as a result of death, accident, injury, loss or damage to any person or any property on or about the subject stormwater management facilities arising out of the performance by Grantors, their heirs, successors and assigns, in constructing, repairing and/or maintaining the stormwater facilities.

6. This easement is for the benefit of Grantee, its successors and assigns, and is appurtenant thereto and shall run with the Property.

7. In the event that Grantee is required to enforce its rights under this easement and agreement in order to either remove an obstruction from the easement area, Grantors shall reimburse Grantee all costs and expenses, including attorneys fees, as a result of Grantee's enforcement action.

IN WITNESS WHEREOF, the Grantors herein, intending to be legally bound, have hereunto set their hands and seals the day and year first above written.

GRANTORS:

\_\_\_\_\_  
Name:

\_\_\_\_\_  
Name:



# The A-MAZE-ING Journey of Stormwater



START

STORM CLOUDS

**1** Storm clouds gather water and produce rain, which is called stormwater once it reaches the ground.

**2** Rain runs off roofs and into gutters, which channel the water to the ground.

**3** Once on the ground, stormwater is either absorbed into the grass to feed plants, or it will run off the sidewalks and driveways and into the street.

**4** Storm drains collect stormwater from the street into underground discharge pipes.

UNDERGROUND DISCHARGE PIPE

**5** These discharge pipes empty into our local creeks and rivers, which lead to the Atlantic Ocean.

**6** Delaware's waterways provide important habitats for fish and wildlife.

FINISH

LOCAL STREAM

LOCAL CREEK OR RIVER

Help me to find my way through an A-MAZE-ING journey that follows the path of stormwater...

So whatever you do... DON'T POLLUTE OUR STORM DRAINS!



ROOF

STORM DRAIN