

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.

EXEMPTION CRITERIA Parcel size \leq 1/4 acre		EXEMPTION CRITERIA Parcel size $>$ 1/4 - 1 acre		EXEMPTION CRITERIA Parcel size $>$ 1 acre		Exemption Criteria From: Comprehensive Drainage Plan Only	
FOOTPRINT OF IMPERVIOUS (FT ²)	VOLUME OF INFILTRATION (CF)*	FOOTPRINT OF IMPERVIOUS (FT ²)	VOLUME OF INFILTRATION (CF)*	FOOTPRINT OF IMPERVIOUS (FT ²)	VOLUME OF INFILTRATION (CF)*	FOOTPRINT OF IMPERVIOUS (FT ²)	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.