

Urban Areas

Type of Drainage Area			Runoff Coefficient
Business	Downtown areas		0.70 - 0.95
	Neighborhood areas		0.50 - 0.70
Residential	Single-family areas		0.30 - 0.50
	Multi-units	Detached	0.40 - 0.60
		Attached	0.60 - 0.75
	Suburban		0.25 - 0.40
	Apartment dwelling areas		0.50 - 0.70
Industrial	Light areas		0.50 - 0.80
	Heavy areas		0.60 - 0.90
Parks, cemeteries			0.10 - 0.25
Playgrounds			0.20 - 0.35
Railroad yard areas			0.20 - 0.40
Unimproved areas			0.10 - 0.30
Lawns	Sandy soil	flat, 2%	0.05 - 0.10
		average, 2 - 7%	0.10 - 0.15
		steep, 7%	0.15 - 0.20
	Heavy soil	flat, 2%	0.13 - 0.17
		average, 2 - 7%	0.18 - 0.22
		steep, 7%	0.25 - 0.35
Streets	Asphaltic		0.70 - 0.95
	Concrete		0.80 - 0.95
	Brick		0.70 - 0.85
Drives and walks			0.75 - 0.85
Roofs			0.75 - 0.95

Rural Areas

Soil Type	Watershed Cover		
	Cultivated	Pasture	Woodlands
With above average infiltration rates; usually sandy or gravelly.	0.20	0.15	0.10
With average infiltration rates, no clay pans; loams and similar soils.	0.40	0.35	0.30
With below-average infiltration rates; heavy clay soils or soils with a clay pan near the surface, shallow soils above impervious rock	0.50	0.45	0.40

RUNOFF COEFFICIENTS FOR THE RATIONAL FORMULA

Figure 29-8B