

ORDINANCE NO. 946

AN ORDINANCE AMENDING THE VILLAGE OF MACKINAW MUNICIPAL CODE SAID MUNICIPAL CODE BEING ORDINANCE NO. 513 OF THE VILLAGE OF MACKINAW TO PROVIDE AMENDMENTS RELATING TO STORM WATER RETENTION REQUIRMENTS

BE IT ORDAINED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF MACKINAW, ILLINOIS:

SECTION 1: Chapter 156 of the Village Code of the Village of Mackinaw is hereby amended by deleting the existing section 156.09 and inserting a section 156.09 which shall be as follows.

**§156.09 RATIONAL METHOD.**

The following sets forth the Rational Method of Computing Storm Water Retention:

Rational Method:

$$Q = C.I.A$$

Q = Resultant runoff rate in cubic feet per second (c.f.s)

C = Coefficient of runoff: before development (agriculture) = 0.25

Grass = .30

Rooftops and paved areas = .95

r-1 residential = 0.50

I = Intensity of rainfall = 4"/hr. for 15-min. duration for design storm

A = Area in acres

1. Determine area of entire site (in acres), A
2. Determine area of paved ground and rooftops (in acres), A1
3. Determine area of grass (in acres), A2
4. Determine allowable runoff rate, Qa, as follows:

$$Qa = 0.25 \times 4 \times A \text{ (c.f.s.)}$$

5. To find if retention is needed, compute the following:
  - a.  $Q1 = .95 \times 4 \times A1$
  - b.  $Q2 = .30 \times 4 \times A2$

c.  $Q_p = Q_1 + Q_2$  (Runoff rate after development) c.f.s.

If  $Q_p$  is greater than  $Q_a$ , retention is required.

6. Determine required retention: volume,  $V$ , as follows:

$$V = (Q_p - Q_a) \times 15 \text{ minutes} \times 60 \text{ seconds/minute (cubic feet)}$$

SECTION 2: If any section or part of this Ordinance is held invalid, it shall not affect the validity of the remainder of this Ordinance.

SECTION 3: This Ordinance shall take effect 10 days after publication thereof as provided by law.

SECTION 4: Ordinance No. 513 of the Village of Mackinaw, as amended by this Ordinance, shall remain in full force and effect and all previous amendments to Ordinance No. 513 shall remain in force and effect except as modified by this Ordinance

PASSED AND ADOPTED this 11<sup>th</sup> day of September, 2017, by the following vote.

APPROVED:

  
\_\_\_\_\_  
President of the Board of Trustees of  
The Village of Mackinaw

ATTEST:

  
\_\_\_\_\_  
Village Clerk

AYES:

6

NAYS:

0

ABSENT:

0