

APPENDIX C- DESIGN OF STORM WATER DETENTION FACILITIES

Town of Lockport, NY

The following method of determining the size of stormwater detention and retention facilities is presented as a guide for engineers, architects and developers involved with construction projects in the Town of Lockport.

Detention facilities are those facilities that **drown** the flow of stormwater runoff and discharge it at a controlled rate to downstream drainage systems. This type of facility operates by gravity with a large inlet and a small outlet and is frequently referred to as a “dry pond”. Retention facilities **retain** stormwater runoff, creating a permanent pool of water in its design. Typically, the water stored above the normal permanent pool of water is released (by pump or gravity) at a controlled rate to downstream drainage systems. Retention ponds are frequently referred to as “wet ponds”. The NYSDEC requires retention ponds for management of stormwater; however, detention ponds may be allowed under certain circumstances and will require additional review by the NYSDEC.

The Town of Lockport requires that site plans with improvements that create a net increase in impervious surface

the stormwater detention system be designed in accordance with the most recent versions of the following documents:

1. NYS Stormwater Management Design Manual
2. NYS DEC: SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001).
3. NYS DEC: Standards and Specifications for Erosion and Sediment Control

A copy of the Notice of Intent (N.O.I.) and Storm Water Pollution Prevention Plan (SWPPP) as required by the New York State Department of Environmental Conservation SPDES General Permit for Storm Water Discharges from Construction Activity (Permit No. GP-0-20-001) must be filed with the Town prior to issuance of a building permit or approval of PIP applications for construction. Per the NYSDEC regulations, construction cannot begin until the required time period for NYSDEC review has passed:

- For projects conforming to the NYSDEC’s recommended standards, construction cannot begin until:
 - Five (5) business days from the date the NYSDEC receives a copy of the NOI; or
 - The applicant receives an Acknowledgement Letter from the NYSDEC.
- For projects that deviate from the NYSDEC’s recommended standards, construction cannot begin until:
 - Sixty (60) business days from the date the NYSDEC receives a copy of the NOI; or
 - The applicant receives an Acknowledgement Letter from the NYSDEC.

In addition to NYSDEC requirements, all stormwater management facilities must be designed to detain the difference between the 10-year pre-developed 24-hour storm and the 25-year post developed 24-hour storm. Furthermore, projects that propose less than one (1) acre of disturbance that have an increase in impervious area equal or greater than 5000 square feet are also required to detain the difference between the 10-year pre-developed 24-hour storm and the 25-year post developed 24-hour storm.

The design engineer must provide all supporting calculations, maps, drawings, and state all design assumptions necessary for review by the Town of Lockport.