

**CITY OF ALBANY  
DEPARTMENT OF GENERAL SERVICES  
DIVISION OF ENGINEERING**

INTERIM REGULATIONS FOR ISSUANCE OF BUILDING PERMITS WITHIN THE  
BEAVER CREEK SEWER DISTRICT, KARLSFELD SANITARY SEWER DISTRICT AND  
THE KRUMKILL SANITARY SEWER DISTRICT

**I. INTRODUCTION**

**A. MORATORIUM**

The City of Albany has received a recommendation for the Albany County Department of Health that a moratorium be established on the issuance of building permits within the Beaver Creek Sewer District. The Beaver Creek Sewer District comprises 5.2 square miles extending approximately 3.5 miles westerly from the Hudson River. In addition, two other sewer districts, the Karlsfeld and the Krumkill Sanitary Sewer Districts, discharge sanitary sewage into the combined trunk sewers serving the Beaver Creek Sewer District.

The basis for the moratorium is the danger of a public health hazard when overflow of combined sewers results in accumulation of sewage at various locations within the Beaver Creek Sewer District. The long-term permanent solution of the condition which resulted in the moratorium recommendation include the separation of sanitary sewage from storm water flow within the Beaver Creek Sewer District. The construction of separate sanitary sewers will require significant financial resources and a protracted construction period.

The moratorium has been applied to construction within the Beaver Creek Sewer District and to construction within the Karlsfeld Sewer District. Continued application of a moratorium would result in the inability of property owners to utilize their property or to construct improvements considered important to the development of the City of Albany.

**B. INTENT OF REGULATIONS**

It is the intent of the regulations to establish the method by which the City of Albany will regulate the issuance of building permits within the Beaver Creek Sewer District, the Karlsfeld Sanitary Sewage District, and the Krumkill Sanitary Sewage District. These regulations are intended to supplement existing codes, rules, regulations, ordinances and local laws which currently apply to construction within the City of Albany.

## II. DEFINITIONS

The following definitions shall apply to terms used within this regulation:

Applicant - Any individual, corporation, unincorporated business or other legal entity making an application for a building permit within the area covered by these regulations.

City Engineer - The City Engineer of the City of Albany or his designed representative.

Plans ----- Clear & concise drawings to scale representing water detention solutions. Such drawings shall be at a scale of 1" = 20' for sites of less than 2 acres. Smaller scales may be used for larger sites, but no scale smaller than 1" = 50' may be used. Grades and contours shall be based on actual topographic survey of the site and shall be related to Mean Sea Level Datum (1929 Adjustment).

Site ----- The entire parcel of land on which the proposed improvement is situated. In the event adjoining parcels are owned by applicant or other corporations or entities under the control of applicant, they shall be construed as part of the site under these regulations. In the event that application is made for improvement of a parcel which was part of a larger parcel of land as of January 1, 1983 shall be considered the site.

Ten Year Storm

(10 Year Storm)---The most intense rainfall within a ten year period as determined from rainfall frequency intensity curves.

## III. ACTIONS EXEMPTED FROM STORM WATER DETENTION REGULATIONS

- A. The following actions are exempted from the storm water detention requirements of these regulations:
1. Installation of fences.
  2. Construction of residential buildings containing two or less units where the roof area is less than 3000 square feet. Subdivisions containing 4 or more new residential buildings shall be subject to these regulations.
  3. Paving of existing driveways, parking areas, patios, sidewalks and decks for residential buildings of 6 or less units if such paving encompasses less than 1000 square feet of paved areas.

4. Alteration, remodeling or repair of buildings if such action results in no increase of total roof area of the buildings being altered, remodeled or repaired (or if such increase is less than 400 square feet).
  5. Construction of a garage, storage building, addition or other appurtenance to an existing building (whether such appurtenance is attached or detached) where the total roof area of such appurtenance is less than 400 square feet.
  6. Construction of swimming pools having a total area of pool and deck of less than 2000 square feet unless the deck area exceeds the limit as specified in (3) above.
- B. When a number of permits are required for a particular project, these regulations shall apply if any of the above thresholds are exceeded by the combination of all proposed actions.
- C. Exemption from these regulations shall not constitute an exemption from any other codes, rules, regulations, ordinances or local laws of the City of Albany.
- D. All actions requiring a building permit not listed under Section III (A) above will be subject to these regulations.
- E. All plot plans, drawings or other documents submitted in support of an application for exemption under this section with the exception of a permit to construct a fence or sign shall carry the following statement:

“The increase in the (paved area) (roof area) (pool and deck area) covered by this proposed application is less than (400 square feet) (1400 square feet) (2000 square feet) (3000 square feet).” The applicant shall choose the appropriate designation from the information contained in the parentheses which apply to the application and shall sign immediately below the statement.

Each application for exemption shall be approved by the City Engineer and the Commissioner of Buildings.

#### **IV. STORM WATER DETENTION**

- A. All actions covered by these regulations must provide for the detention of storm water in such a manner that the peak flow discharge of storm water from the improved area is limited to the peak flow discharge from this area in its pre-development state. For additional information on storm water detention, see Appendix A.

B. The following methods of storm water detention or any combination there of may be used to meet the requirements of this section:

1. Ground water recharge. This method shall be deemed acceptable only when in the opinion of the City Engineer the proposed method of ground water recharge makes provisions to protect existing aquifers from pollution by dissolved minerals, organic materials, suspended solids and petroleum products.
2. Detention Basins (Dry Basins) - Design of a detention basin must be acceptable to the City Engineer with respect to:
  - (a) Location and depth of basin to provide for safety of the public and prevent damage from flooding.
  - (b) Type of surface treatment required to provide for easy maintenance of the basin area.
  - (c) Outflow structure to control flow to surface drainage or sewer system.
  - (d) Stability of side slopes.
  - (e) Provision of emergency spillway.
3. Detention Pond or Lake (Wet Basins) - Design of a detention pond must be acceptable to the City Engineer with respect to :
  - (a) The depth of water at both high level storage and low water.
  - (b) Provisions for bank and dam stability.
  - (c) Overflow structure to control flow to storm drainage course.
  - (d) Provision of emergency spillway.
  - (e) Effect of siltation on capacity and maintenance.
  - (f) Provision for draining and dredging.
  - (g) Safety of adjoining and downstream properties during major storms.
  - (h) Control of nutrient levels and aquatic management.
  - (I) Aesthetics.
4. Rooftop Storage - The use of flat or nearly flat roofs for detention storage will be allowed where practical. The design of such storage must be acceptable to the City Engineer with respect to:
  - (a) Depth and volume of storage.
  - (b) Design of outlet structures to surface or subsurface.
  - (c) Emergency overflow provisions.
  - (d) Structural design of roof structure.
  - (e) Provision for cleaning maintenance of overflow devices and outlet structures.

5. Parking Lot Storage - Paved parking lots, roadways, driveways or other paved surfaces may be designed to provide for storm water detention. The design of such storage must be acceptable to the City Engineer with respect to:
  - (a) Depth of storage
  - (b) Pedestrian and vehicular safety
  - (c) Emergency overflow provisions
  - (d) Prevention of damage to parked vehicles
  - (e) Design of outlet structures to surface or subsurface drainage.
  
6. Subsurface Detention - Buried structures or stone filled ditches may be designed to provide for storm water detention systems must be acceptable to the City Engineer with respect to:
  - (a) Capacity
  - (b) Location
  - (c) Design of outlet structures to surface or subsurface drainage
  - (d) Protection from siltration or sedimentation.
  - (e) Provisions for cleaning or replacement.
  - (f) Emergency overflow provisions.

## C. DESIGN BASIS

### 1. Detention Storage

A. Design of detention storage required shall be based on the maximum storage required during a 10-year storm of any duration up to and including a 24-hour duration. The actual storm duration used will be based upon the formula used to calculate runoff from the site, the nature of the tributary area and the rate of overflow to drainage courses, storm sewers or combined sewers.

B. The inflow to the detention system shall be determined using a method acceptable to the City Engineer. Prior to design of the system, the Engineer or Architect designing the system shall verify with the City Engineer the methods to be employed.

C. Allowable Peak Outflow:

1. The allowable peak outflow from any site at full development shall be limited to the peak outflow from that area in its undeveloped state.
  
2. Where any site was previously altered from its undeveloped state, the peak outflow from the site in its undeveloped state shall be determined from available topographic maps.

Soils Data or Surveys

- a. Where no information is available concerning the site in its undeveloped state, all calculations will be based the assumption of uniform gently sloping grades (5%), moderately impervious soils and light forestration.
  
- b. The rainfall intensity for the design storm using intensity duration-frequency curves for the Albany area or other sources consistent with the design method employed.

**V. WATER CONSERVANT FIXTURES**

- A. All buildings within these areas covered by these regulations shall employ water conservant fixtures even if the building falls within an exempted category for the purpose of storm water detention as defined by section II (A).
  
- B. Fixtures to be considered shall include all faucets, toilets, urinals, shower heads, materials washing facilities and individual processes.
  
- C. A fixture shall be deemed to water conversant when the rate of flow for a given time period or per use of the fixture is at least 30% less than the standard flow rate or quantity per use.
  
- D. Plans must provide details of manufacture, model, flow rate or per usage quantity for each fixture.

**VI. Submission Required**

- A. In addition to plans and details normally required for the issuance of a building permit, all applications for permits in areas must be accompanied by three copies of plans for storm water detention facilities and three copies of a technical report indicating compliance with these regulations.

- B. All plans of storm water detention systems and all reports with respect to such systems must be prepared by all licensed professional engineer, registered architect, or registered landscape architect. Seal and signature of the design professional is required on all plans.
- C. No submission other than those normally required for the permit process will be required where the proposed action is exempt from storm water detention requirements under Section II (A) and no new plumbing facilities are proposed.

## **VII. REVIEW AND APPROVAL PROCESS**

- A. All information and submissions required under these regulations must be submitted to the Planning Department together with the building permit application.
- B. The Planning Department will submit those projects requiring storm water detention facilities to the City Engineer for review.
- C. Within 20 days of receipt of a completed building permit application, the applicant will receive from the City Engineer a review letter which will contain one of the following:
  - 1. An approval of plan and report as submitted. Such approval will allow the Building Department to issue the requested permit.
  - 2. An approval of plan and report with revisions as noted. Such approval will allow the Building Department to issue the requested permit upon the receipt by the Building Department of plans and details revised as per the City Engineer's Recommendation.
  - 3. A rejection of plan and report. This rejection will indicate the manner in which the submission fails to comply with these regulations. No permit will be issued by the Building Department until and unless anew submission is made and approved.

## **VIII. APPEAL PROCEDURES**

- A. In the event that application of these regulations shall constitute an unusual hardship or where an applicant believes that the application of these regulations is improper with respect to the proposed action, the applicant may appeal to the City of Albany Zoning Appeals for a variance from these regulations.

- B. All requirements of the Board of Zoning Appeals with respect to hearings, legal advertising and other matters shall apply to appeals under this section.

## **IX. Review Fee**

- A. There will be a fee for review of plans, details and reports under these regulations. The fee for review shall be as follows:

<u>Site Area</u>	<u>Fee</u>
Less than 3 acres	\$25
3 to 5 acres	\$100
5 to 20 acres	\$100 + \$10 per acre In excess of 5 acres
Over 20 acres	\$250 + \$5 per acre In excess of 20 acres.

- B. The required review fee must accompany the submission of all plans, or reports required under these regulations.
- C. Any fee paid will be non-refundable.

## **X. Separability**

If any clause, sentence, paragraph, section or part of these regulations shall be adjudged by any court or competent jurisdiction to be invalid, such judgement shall not affect, impair or invalidate the remainder of these regulations, but shall be confined to the clause, sentence, paragraph, section or part thereof directly involved in the controversy on which such judgement shall have been rendered.

## **XI. Regulations In Force**

These regulations are interim in nature and shall be enforced until such time as permanent regulations with respect to storm water detention, water coservant fixtures and related matters are adopted through local law or ordinances.

## APPENDIX

This appendix is prepared to assist applicants in understanding the theory and methods of storm water detention. It is not meant to provide a complete technical discussion of the subject. A bibliography is the conclusion of this appendix to assist the applicant in obtaining additional information.

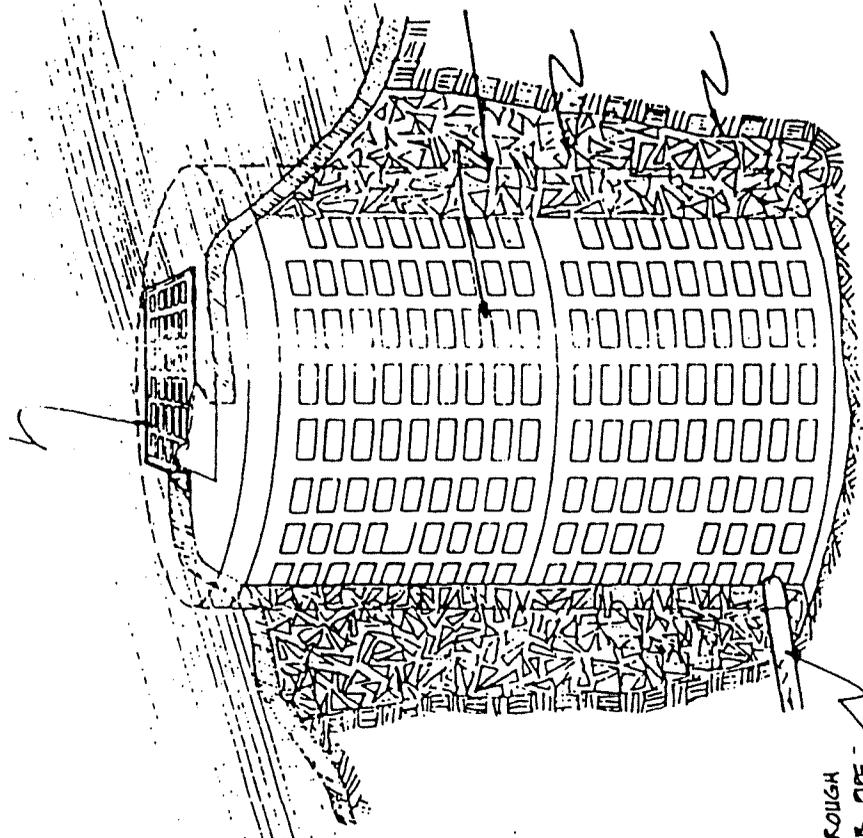
The purpose of storm water detention is to prevent the overloading of sewer systems (whether storm sewers or combined sewers which carry both storm water and sewage), natural drainage courses or streams. Where areas are left in their natural state, part of the rain that falls on the ground is absorbed into the ground or retained in natural low points as ponds and puddles. The rest of the rain runs off through the lowest point in ditches, culverts or streams. The amount of water which is absorbed into the ground depends upon the type of soil, the type of plants or grasses and the grade of the site. Over long periods of time, natural action on the soils and the holding capacities of points with the water carrying capacities of streams or ravines.

Development of an area leads to grading, paving and construction. This changes the amount of water which runs off any site. Pavements and building roofs cover up soil and absorb no water. Grading of irregular meadows or farmland to make lawns or play areas also increase the amount of run off from the site. This increase can lead to flooding of downstream property and sewer backups.

The purpose of man-made storm water detention systems is to reduce the amount of run-off from a developed site to the same amount or less than existed before development. This can be done in a variety of different ways. The most direct and least expensive way is to put the additional water back into the ground. This is known as ground water recharge. Figure 1 shows a method of ground water recharge where the water is collected in a concrete dry-well structure surrounded with broken stone. Using this method, the water accumulates in the concrete structure and runs out through the stone to be absorbed into the ground depends on the type of soil. The size of the concrete structure and stone areas is determined by the amount of run-off and the rate of absorption of the soil.

A different method of ground water recharge is shown in figure 2. This includes perforated pipe to hold and spread part of the run-off to a layer of stone. The water is then absorbed into the ground as described above. Unfortunately, large portions of the City of Albany have dense clay soils which absorb water in only small quantities over long periods of time. To use the ground water recharge methods, good information about the type of soils must first be obtained by digging test pits or making soil borings. Consideration must also be given to the movement of the ground water through the water bearing soils (called aquifers).

CATCH BASIN UNIT



PRECAST CONCRETE  
RETENTION BASIN

STONE FILL TO INCREASE  
VOLUME OF WATER RETAINED

IMPERVIOUS MATERIAL OR  
FILTER CLOTH AS REQUIRED

DISCHARGE THROUGH  
SMALL DIAMETER PIPE  
TO E/ST. SEWER, STREAM  
OR NATURAL DRAINAGE COURSE  
(DESIGN SIZE TO LIMIT FLOW  
TO ACCEPTABLE LEVELS)

TYPICAL RETENTION SYSTEM  
AT CATCH BASIN

FIG. 4