

TOWN OF CHEVY CHASE WATER BOARD

Appellant: Robert J. Lederman
 3916 Underwood Street, Chevy Chase
 Montgomery County, Maryland 20815

Property: 4004 Underwood Street, Chevy Chase
 Montgomery County, Maryland 20815

Case No.: 2008-1

Hearing Date: January 22, 2008

DECISION

**APPEAL OF
ROBERT J. LEDERMAN**

Summary of Case

Robert J. Lederman ("Mr. Lederman") appeals the decision of the Town Engineer to approve the water drainage plan submitted on behalf of Kristen Gerlach (the "Applicant") concerning the property known as 4004 Underwood Street (the "Subject Property"). The appeal is brought pursuant to Chapter 28 of the Town of Chevy Chase Municipal Code (the "Town Code") governing water drainage. A water drainage plan submitted pursuant to Chapter 28 for the proposed construction of a new house at 4004 Underwood Street was approved by the Town Engineer on December 18, 2007. Mr. Lederman contends that the water drainage plan contained factual inaccuracies and, as a result, should not have been approved by the Town Engineer.

Pursuant to the authority provided in Section 28-11 of the Town Code, the Water Board affirms the decision of the Town Engineer.

Applicable Law

Section 28-4(a)(5) of the Town Code requires the Town Engineer to review water drainage plans to determine compliance with the requirements of Chapter 28.

Section 28-4(b) of the Town Code provides that a water drainage plan must meet the requirements of Section 28-5, including that, "(d) The applicants shall provide water drainage measures that retain all stormwater from all new impervious surfaces within the property for twenty-four (24) hours for a three month storm event" and "(e) For a storm event greater than a three month storm event, but not more than a ten year storm event, a water drainage system shall be designed and constructed so as not to allow site runoff to flow to any adjacent or nearby property at a rate greater than the pre-construction rate."

Thus, an applicant is required to provide water drainage measures that retain (i) all storm water from impervious surfaces for twenty-four (24) hours for a 3-Month Storm Event, and (ii) a sufficient quantity of storm water from impervious surfaces for a 10-Year Storm Event so as not to allow site runoff to flow to any adjacent or nearby property at a rate greater than before the applicant's construction project.

The runoff from impervious surfaces is calculated by using the Curve Number Method established by the Soil Conservation Survey (SCS). The Curve Number Method assigns a runoff curve number (CN) to different types of surfaces. The CN is applied to a set of equations that result in a determination of the required volume that must be retained for a storm event. To determine the required volume that must be retained for a 3-Month Storm Event, the post-construction impervious surface area is applied. To determine the required volume that must be retained for a 10-Year Storm Event, the difference between the existing impervious surface area and the post-construction impervious surface area is applied.

Section 28-11(a) of the Town Code provides that any "person aggrieved by a decision of the town manager or town engineer to approve or deny a water drainage plan may appeal the decision to the water board." Section 28-11(b)(5) of the Town Code provides that the Water Board may affirm, reverse or modify the decision of the Town Engineer, or may approve a water drainage plan upon such conditions, terms or restrictions as the Water Board may deem necessary, after considering the following factors:

- a. The evidence presented by the applicant;
- b. The recommendations of the town manager or town engineer and the reasons why the town manager or town engineer took the action from which the appeal was taken;
- c. The evidence in support or opposition presented by town residents or other interested persons; and
- d. The extent to which an alternative plan would more efficiently or effectively fulfill the intent of this chapter.

Procedural History

A water drainage plan was submitted by the Applicant in connection with the proposed construction of a new house at 4004 Underwood Street. On November 16, 2007, the Town sent a notice that the water drainage plan had been filed, along with a summary of the plan, to the owners of all adjacent and confronting properties. The Town Engineer completed a Water Drainage Ordinance Plan Review and approved the Applicant's plan on December 18, 2007. Pursuant to Section 28-11(a) of the Town Code, Mr. Lederman filed an appeal on January 7, 2008, appealing the decision of the Town Engineer to approve the water drainage plan submitted by the Applicant. Notice of the hearing was posted at the Town Hall, at the Subject Property, and on the Town website prior to the hearing and sent to Mr. Lederman, the Applicant, and all abutting and confronting property owners on January 11, 2008. The notice indicated that a public hearing would be held by the Water Board in the Leland Community Center Conference

Room, adjacent to the Town Hall, on January 22, 2008 at 7:00 p.m. to consider the appeal by Mr. Lederman. The notice provided that residents would have an opportunity to express their views regarding the appeal. A hearing was held on Mr. Lederman's appeal on January 22, 2008.

Summary of Evidence

Town staff transmitted the following to the Water Board as the record pertaining to this matter: (i) a copy of the Applicant's Water Drainage Plan Application; (ii) a copy of the "Water Drainage Computations" report prepared by CAS Engineering on behalf of the Applicant; (iii) a copy of the Town Engineer's Water Drainage Ordinance Plan Review; (iv) a Building Permit Site Plan and Drainage Plan; (v) a letter from the Town Manager to Mr. Lederman dated December 18, 2007; (vi) a copy of the documents provided to Mr. Lederman in response to his public information request dated December 28, 2007; and (vii) a letter dated January 7, 2008 from Mr. Lederman describing the issues he presents in this appeal.

Mr. Lederman's letter reflects that he contends that the water drainage computation prepared by the Applicant's engineer is factually incorrect because it inadequately reports the existing impervious area of the Subject Property. Mr. Lederman's letter contains the following statement:

The principal basis of the appeal is the Owner exaggeration of the existing impervious area, thereby inadequately reporting the proposed increase in impervious area.

The surface area of the existing house and of the existing patio are combined and assigned a value of 2030 square feet. The proposed house and patio are reported separately and assigned a cumulative value of 2339 square feet. Including other surfaces, the Owner asserts a net change in impervious surface area of only 155 square feet.

Indeed the flagstone patio was not in place at the time of the water drainage or building permit review. The area of this surface is not measured or reported, but appears substantial. The impermeability estimate assigned to this surface is exaggerated. Moreover, the existing porch is (sic) exposes substantial pervious earth, and even a casual observer can infer the actual retention of water from this existing surface will significantly exceed water retention by the proposed modified impervious surface.

These data are then used to justify the design of a storm drainage facility design that will be inadequate to retain the excess runoff from a less-than-10-year storm. The proposed drainage plan is inadequate to support the increased runoff generated by the proposed construction.

At the hearing, Mr. Lederman appeared and provided testimony in support of his appeal. He reiterated that he believes the Applicant has underestimated the increase in impervious

surface area. Mr. Lederman stated that, by his estimate, the footprint of the property's improvements will be doubled by the proposed construction and therefore the water drainage will be doubled. Accordingly, he asserts that the Applicant's water drainage computation, that reflects that only a five percent (5%) increase in water drainage would result, is inaccurate. Mr. Lederman reiterated that he believes the area of a flagstone patio was not considered by the Town Engineer in conducting the water drainage plan review and that he believes the Applicant's water drainage plan is not sufficient to address the increased runoff that will result from the Applicant's construction.

The Board asked Mr. Lederman what evidence, if any, he could produce to demonstrate an error in the water drainage computations besides the asserted failure of the Applicant to deduct the area of the flagstone patio from the Applicant's calculation of the existing impervious surface area. Mr. Lederman reiterated the substance of his letter and further stated that he did not feel it was his burden to demonstrate an error in the calculations.

The Town Engineer, William E. Bissell, P.E., explained that although the subject flagstone patio was not present at the time he completed his review, a plat of survey supplied by the Applicant showed that a flagstone patio had been part of the pre-construction site and was still evidenced by the patio's bluestone base existing at the site. He also noted that such bases compact over time and become less permeable.

He further testified that after receiving notice of Mr. Lederman's appeal, Mr. Bissell contacted the Applicant's designer to inquire about the flagstone patio. Mr. Bissell explained that the Applicant's designer estimated the area of the subject flagstone patio to be approximately 495 square feet. With this information, Mr. Bissell recalculated the required storage volume for the Subject Property on the basis of Mr. Lederman's contention that the area of the patio should not be considered as part of the existing impervious area. As more fully explained below, Mr. Bissell concluded that the additional impervious area represented by the flagstone patio did not change the end result of the Water Drainage Ordinance Plan Review.

Mr. Bissell explained the substance of the Water Drainage Ordinance Plan Review he performed in connection with the Applicant's project, noting that a property's 3-Month Storm Event storage volume is calculated based on the property's total impervious surface area that will be present once construction is complete and that the 10-Year Storm Event storage volume is calculated based on the difference between the existing impervious area and the post-construction surface area as stipulated in that Ordinance.

Mr. Bissell further explained that (1) his calculations revealed that the Subject Property's 3-Month Storm Event storage volume would be 285 C.F. and the Property's 10-Year Storm Event storage volume to control the rate would be 30 C.F. based on the information provided by the Applicant, and (2) even if the flagstone patio had not existed as Mr. Lederman asserts, the 10-Year Storm Event storage volume requirement would be increased by approximately 96 C.F. for a total of 126 C.F., which remains substantially below the storage volume required by the 3-Month Storm.

David Shipler of 4005 Thornapple Street appeared at the hearing and expressed his concerns. He stated he does not oppose the grant of a building permit to the Applicant but wanted to suggest some improvements to the water drainage plan. Mr. Shipler explained that water tends to pool around a common drain located between his property, the Subject Property, and two other properties, and that this drainage location represents a "problem area." He suggested that the infiltration device located in the rear yard be moved slightly away from the property line, and that a berm be installed along the rear boundary and extended to the existing garage so that if there is an overflow, water would not run into the problem area. Mr. Shipler stated that as a result of the problems with water drainage, he has received a reduction in the property's tax assessment.

Melissa Maxwell of 4010 Underwood Street testified that she believes the water drainage study, prepared by Daniel Consultants, Inc. and McCormick Taylor Engineers & Planners on November 17, 2006 and revised on May 2, 2007 for the State Highway Administration, concerning 4006 Underwood Street, reflects that there is too much water draining now for the properties in the area to handle. Ms. Maxwell provided a copy of the report for inclusion in the record and brought photographs 15, 16, and 24, included in the report, to the attention of the Water Board.

Peter Mora of 4006 Underwood Street testified that after a strong rain, there is a lot of water that drains to the back of his property. He explained that one-third of his property cannot be built on because of the amount of water. Mr. Mora stated that water drains from Connecticut Avenue and ends up on the lower portion of his property and the adjoining three properties, including the Subject Property. Mr. Mora stated that he measured the area where the flagstone patio used to be and submitted a drawing reflecting his findings.

Marcie Meditch of 4002 Underwood Street testified that she did not think stone dust should have been included in the calculation of the impervious surface for the Subject Property. In response, Mr. Bissell explained that he applies Natural Resources Conservation Service Technical Release 55 to interpret what surfaces are impervious. He explained that stone dust is generally considered impervious because it is known to form a bond similar to clay and therefore has a high impervious surface curve rating.

The Applicant's design engineer, Geoff Robertson, testified that the water drainage plan and design conforms to Chapter 28 and the interpretive guidelines issued by the Town.

Findings of Fact

Based upon the testimony and evidence of record, the Water Board makes the following findings in connection with these matters.

1. The Town Engineer performed a Water Drainage Ordinance Plan Review as specified in Chapter 28 of the Town Code and, further, addressed the specific matters raised by Mr. Lederman;

2. The Water Drainage Ordinance Plan Review revealed that, based on the total proposed total impervious surface area, the Subject Property's 3-Month Storm Event storage volume requirement would be 285 C.F.;

3. The Water Drainage Ordinance Plan Review revealed that, based on the difference between the existing impervious area and the proposed impervious area, the Subject Property's 10-Year Storm Event storage volume requirement would be 30 C.F.;

4. Even if the existing impervious area had been exaggerated as Mr. Lederman contends, which was not clear based on evidence presented by the Town Engineer to the contrary, the Subject Property's 10-Year Storm Event storage volume requirement would still be far less than the storage volume requirement for a 3-Month Storm Event and, thus, would be fulfilled by the storage volume requirement for a 3-Month Storm Event; and

5. Neighbors provided testimony indicating that areas at the rear of the Subject Property and adjoining properties experience significant water problems.

Conclusion

Based upon the foregoing findings, the Water Board makes the following conclusions:

1. The Appellant has failed to meet his burden of proving that the decision of the Town Engineer should be reversed or modified to increase the storage volume requirement;

2. The decision of the Town Engineer to approve the Applicant's water drainage plan was appropriate and in compliance with the provisions of Chapter 28 of the Town Code;

3. No alternative plan was offered that would be consistent with Chapter 28 of the Town Code and more efficiently or effectively fulfill the intent of that Chapter; and

4. The testimony provided by neighbors, indicating that areas at the rear of the Subject Property and adjoining properties experience significant water problems, raise issues that are beyond the issues presented in this appeal by the appellant, Mr. Lederman, and beyond the authority of the Water Board to address in the context of this appeal based on the requirements of Chapter 28 of the Town Code. However, as a result of these issues being raised by residents, the Water Board has written a letter to the Town Council to bring these issues to its attention.

Accordingly, the decision of the Town Engineer is hereby AFFIRMED.

The foregoing Decision was adopted by the Water Board of the Town of Chevy Chase with the following members voting in favor: Michael Guhin, Douglas Lohmeyer, and Donald MacGlashan.

Town of Chevy Chase:

**WATER BOARD OF THE TOWN OF
CHEVY CHASE**

By: 

Michael Guhin, Chairman

Date: 02/19/2008

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