

Property: 4009 Thornapple Street, Chevy Chase  
Montgomery County, Maryland 20815  
Parcel Id.: 07-11-00462641  
Title Insurance: None

**TOWN OF CHEVY CHASE WATER BOARD  
DECISION**

**CASE NO.: 2009-1**

**VARIANCE REQUEST OF  
STEPHEN ECKERT AND PATRICIA ECKERT**

**Summary of Case**

Stephen Eckert and Patricia Eckert (the “Applicants”) own the real property known as Lot 15, Block 4 in the “Chevy Chase, Section 4” Subdivision, also known as 4009 Thornapple Street, Chevy Chase, Maryland 20815 (the “Subject Property”) and request a variance from Chapter 28 of the Town of Chevy Chase Municipal Code (the “Town Code”), which requires an applicant to submit a water drainage plan for certain development activity as a prerequisite to issuance of a building permit. The Applicants are requesting the variance in order to construct a new house on the Subject Property.

The Applicants assert that the sloping topography of the Subject Property, the presence of rock, and the existence an abutting retaining wall and detached garage on the adjoining property to the north create an undue engineering hardship which prohibits the Applicants from providing on-site water management. The Applicants propose instead to convey approximately 88% of site’s impervious surface area (approximately 3,667 square feet) to a public storm drain system.

Under the authority delegated in Section 28-9 and Section 28-10, the Water Board’s decision on the requested variance is set forth below.

**Applicable Law**

The Applicants seek a variance from the requirements of Chapter 29 of the Town Code according to Section 28-10(b)(5), which provides that the Water Board may grant a variance from the requirements of Chapter 28 if it finds that:

- a. There are engineering difficulties such that strict adherence to the requirements of this chapter would result in undue hardship to the applicant;
- b. The proposed variance would not be detrimental to any adjoining or nearby property, or any public right of way; and

- c. The proposed variance would, as nearly as practical, accomplish the intent and purpose of the requirements of this chapter.

### **Procedural History**

On July 14, 2009, the Applicants submitted a written request for a variance from the requirements of Chapter 28. The Applicants' request was transmitted to the Water Board within ten (10) days of receipt of the request. Notice of the hearing on the request was posted at the Town Hall prior to the hearing and posted at the property and sent to all abutting and confronting property owners on July 16, 2009. The notice indicated that a public hearing would be held by the Water Board in the Town Hall on July 28, 2009 at 7:30 p.m. to consider the variance request. The notice provided that residents would have an opportunity to express their views regarding the variance request.

Following the hearing, the Water Board determined that an additional hearing was necessary. Notice of the second hearing was posted at the Town Hall prior to the hearing and posted at the property and sent to all abutting and confronting property owners on August 14, 2009. The notice indicated that a public hearing would be held in the Town Hall on August 25, 2009 at 7:30 p.m. to consider the variance request. The notice provided that residents would have an opportunity to express their views regarding the variance request.

### **Summary of Evidence**

Town staff transmitted the following to the Water Board as the record pertaining to this matter: (i) a copy of the Applicants' Water Drainage Plan Application; (ii) a copy of the Applicants' Application for a Variance from the Town of Chevy Chase Water Drainage Ordinance; (iii) a copy of the "Water Drainage Computations" report prepared by CAS Engineering on behalf of the Applicants; (iv) a Report of Limited Geotechnical Services Stormwater Management Facilities prepared by Hillis-Carnes Engineering Associates, Inc.; (v) a copy of the Town Engineer's Water Drainage Ordinance Plan Review; (vi) and a Building Permit Site Plan and Water Drainage Variance Plan. Letters in support of the request were submitted to the Town by Kristin Gerlach and Robert Israel of 4004 Underwood Street and David Shipler of 4005 Thornapple Street. Prior to the second hearing, the Town Arborist submitted a report providing recommendations for tree protection at the site. Additionally, the Applicants submitted a written response to questions posed by the Water Board, a revised site plan reflecting the tree protection areas recommended by the Arborist, and a Geotechnical Related Summary Report prepared by Hillis-Carnes Engineering Associates, Inc. Additional letters in support of the request were received by Town staff from John Bickerman of 4011 Thornapple Street, David K. Shipler of 4005 Thornapple Street, Arthur Schatzkin and Tammy Harris of 4001 Thornapple Street, Melissa Maxwell of 4010 Underwood Street, and Al and Susan Lang of 4008 Underwood Street.

According to the "Water Drainage Computations" report prepared by CAS Engineering, the lot slopes from a high point at the front building line to the right-of-way at about twenty (20) percent and to the northeast corner of the rear yard at about ten (10) percent, and that the lot slopes in excess of forty-five (45) percent along the right-of-way for a distance of approximately

fifteen (15) feet. Geotechnical testing was performed on the Subject Property and the Professional Geotechnical Engineer does not recommend infiltration practices for the Subject Property due to the underlying rock and groundwater encountered in the testing. Instead, the Applicants proposed to install a storm drainage conveyance system that would collect runoff from all proposed roof surfaces as well as the majority of the driveway and proposed patio. According to the report, approximately eighty-eight (88) percent of the site's impervious area (3,667 square feet) would be conveyed to a public storm drain maintained in Underwood Street by Montgomery County.

The "Water Drainage Computations" report submitted on behalf of the Applicants contains the following statements with respect to each criterion:

*"First, engineering difficulties such that strict adherence to the requirements of Chapter 28 would result in undue hardship to the applicant.*

As mentioned above, steep slopes, the presence of rock, the existence of an abutting retaining wall and detached garage created an undue engineering hardship which prohibits the applicant from providing on-site water management. The design and construction of infiltration systems may have long term negative effects on not only the subject home, but also on the adjoining property at 4008 Underwood Street.

*Second, the proposed variance would not be detrimental to any adjoining or nearby property or any public right-of-way.*

Not only would the granting the variance not be detrimental to any adjoining or nearby property, it would be beneficial to potentially many nearby properties. The design of the proposed storm drain system will allow for future connections by upstream property owners. This is extremely beneficial in this area of historic drainage problems. The proposed system will connect to a manhole, located in front of the driveway for 4008 Underwood Street. All necessary approvals from Montgomery County will be obtained by the applicant. The applicant will also acquire the necessary easement from the property owner at 4008 Underwood Street. Furthermore, this project will minimize runoff currently draining to the Thornapple Street Right-of-Way. Under existing conditions, 1,103 square feet of impervious area drains to the Right-of-Way. The proposed design will limit runoff from impervious areas to only 424 square feet.

*Third, the proposed variance would, as nearly as practical, accomplish the intent and purpose of Chapter 28.*

The purpose of Chapter 28 is to protect, maintain, and enhance the public health, safety and general welfare by controlling the adverse impacts associated with water drainage. While simply granting a variance for this property from the requirements of the Water Drainage Ordinance may not accomplish the intent and purpose of Chapter 28, the applicant's proffer to construct a storm drain

conveyance system more than meets the intent and purpose of Chapter 28. The storm drain system would not only safely convey runoff from the subject property, but it would also convey runoff from the property located at 4008 Underwood Street. Furthermore, it would allow for future connections for many upstream property owners. In this area of historic standing water and drainage problems, it would be in the Water Board's interest to approve this variance and require the installation of a storm drain system."

Jeffrey A. Robertson of CAS Engineering appeared and testified on behalf of the Applicants. Mr. Robertson asserted that the Subject Property's unusual conditions present an undue engineering hardship for any on-site water drainage measures. He asserted that the sloping topography of the front yard and the presence of underlying rock make it infeasible to install a water infiltration device in the front yard. Mr. Robertson further asserted that the presence of underlying rock, ground water, and the close proximity of a garage and retaining wall located on the adjoining property to the north, make it infeasible to install a water infiltration device in the rear yard. Mr. Robertson asserted that a water table was encountered in the north east corner of Subject Property at a depth of approximately eight (8) feet which, according to Mr. Robertson, could become higher or lower based upon the season. Mr. Robertson pointed out that the geotechnical report submitted for the record recommends against an infiltration device in the front of the Subject Property. The Applicants propose instead to convey a large portion of the site's impervious surface area to a public storm drain system. According to Mr. Robertson, nearby residents would be able to connect to the pipe that the Applicants propose to install, thereby further addressing the water problems in the area. In response to questions from the Board, Mr. Robertson explained that County approval for the proposed connection has not yet been obtained but asserted that he is confident that approval will be granted because the County's drainage system can accommodate the additional capacity proposed.

Ronald L. Pyles, P.E. of Hillis-Carnes Engineering Associates, Inc. appeared at the initial hearing in this matter. Mr. Pyles testified that, based on the studies conducted, water in the front-yard currently follows the "strike" of the underlying rock and flows toward Thornapple Street and simultaneously follows the "bedding plains" and flows toward the foundation of the Applicants' house. He asserted that any front-yard infiltration device would cause water to flow onto the slope, sidewalk and/or toward the foundation of the Applicants' house at a greater amount than existing conditions because a larger amount of water would be placed below the surface of the ground if an infiltration device were installed. He further suggested that only twenty (20) percent of surface water runoff would typically migrate towards adjoining properties from such a sloped lot, and that an infiltration device would increase the amount of water that would make its way to adjoining property. He further asserted that there is a "perch trap" water condition in the rear yard as water is currently being trapped on top of the underlying rock bed. Mr. Pyles asserted that an infiltration device in the rear yard would cause water to flow toward the adjoining lot to a greater extent than existing conditions because the additional infiltrated water would follow the rock bed toward the adjoining lot. According to Mr. Pyles, based on his experience and the tests he conducted, he would expect to find the same sub-grade conditions if additional test locations were to be studied.

Mr. Pyles' supplemental Geotechnical Related Summary Report provided during the second hearing on August 25 contains the following statements:

“Test pit excavations were accomplished using a relatively large rubber-tired John Deere 710 backhoe. For the front yard the very dense material commenced at the (anticipated) 6-foot depth level, while hard rock stopped the continuation of the excavation at a depth of 9 feet. Foliation planes in the rock formation were inclined towards the dwelling, while the strike of the rock mass was assessed to be in an east to west direction. Based on the findings it was concluded that the induced water would most likely do two undesirable things: 1.) Flow directly towards the proposed dwelling and 2.) Flow out of the slope in the front yard causing slope problems and icing problems on the sidewalks during the winter.

After conducting the excavation in the front yard it was decided to assess the northeast corner of the lot for potential SWM purposes as this was the only remaining low portion of the site where SWM might be feasible. For this area fill material was present to a depth of 3.5 feet and groundwater was encountered at a depth of 8 feet. While a suitable infiltration rate was obtained at a depth of 5 feet, the area is not desirable for SWM purposes due to the presence of a retaining wall on the neighboring property. Installing a SWM facility in this area would provide additional hydrostatic pressure against the retaining wall which is of unknown age and structural integrity.

Based on the results of the studies, it was concluded that SWM infiltration techniques should not be pursued for the project site.”

Mr. Eckert testified in support of his request. He stated that he and his wife are not trying to avoid having to install on-site water management devices but that based on the intensive studies done, it appears that the best solution for the Subject Property, and for the nearby area, is to convey runoff to the County drain rather than adding the runoff to the already problematic sub-grade. He stated that prior to designing the proposed house, the Applicants had studied the suitability for onsite water retention and were told by their experts that the Subject Property is not suitable for onsite infiltration devices.

Lee Tiedrich of 4007 Thornapple Street, the Applicants' adjoining neighbor to the east, appeared and expressed her support for the Applicants' request. She said she is glad to see a plan to address a common drainage problem in the neighborhood. She stated that the nearby neighbors would like to be connected to the pipe to be installed by the Applicants in order to similarly convey runoff water from their respective properties.

John Bickerman of 4011 Thornapple Street, the Applicants' adjoining neighbor to the west, appeared at the hearings and expressed his support for the variance. He stated that ponding water has been a big issue for the neighborhood and has lead to a mosquito problem. Mr. Bickerman explained that he would not want any excavation work done in the south west corner

of the Applicants' front yard because it could harm the root system of an Oak tree measuring fifty-four (54) inches in diameter. [Note: The Town Arborist's subsequent report, referenced above, delineates the areas where excavation can occur so as to protect the Oak tree and its root structure.]

Al Lang of 4008 Thornapple Street appeared at both hearings and testified in support of the requested variance. Mr. Lang stated that he has been attempting to address the water problem in the area for quite some time. According to Mr. Lang, the sloping topography of the area creates a valley along the rear yards of the properties located on Underwood Street and Thornapple Street, and causes water to flow toward the rear yards and to pond. Mr. Lang asserted that he has observed rainwater gushing out of drainage holes in the retaining wall located in the rear of his property and standing water two (2) to three (3) feet deep after a rain storm. He further asserted that when he purchased his property, he had a parking pad removed and discovered that it was hollow as a result of water damage. Mr. Lang stated that, as the owner of the property adjoining the Subject Property to the north, he is willing to grant an easement under his driveway to the Applicants in order to allow the installation of the proposed drainage pipe that will, in his opinion, greatly address a serious water problem shared throughout the area.

The Town Engineer, William E. Bissell, P.E., testified that, in his opinion, the Applicants diligently studied the conditions of the Subject Property and there is no feasible location on the site to install an infiltration device due to the sloping topography of the front yard, the close proximity of a specimen tree, the wall on the adjoining lot to the north, and the presence of underlying rock throughout the site.

### **Findings of Fact**

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

1. The Subject Property's sub-grade is rocky, which could cause water in the front yard to flow towards both the sidewalk and the foundation of the Applicants' house, and would cause water in the rear yard to flow toward the adjoining property's retaining wall and garage to the north;

2. The current water flow toward the sidewalk, the foundation of the Applicants' house, and the wall and garage in the rear yard of the adjoining property to the north, could be worsened by the installation of an on-site infiltration device because additional infiltrated water could flow along the underlying rocky subgrade;

3. Although there are portions of the Subject Property that were not specifically studied through boring or test pits, the evidence of record supports a finding that the studies conducted are representative of the Subject Property as a whole;

4. One of the purposes of the Water Drainage Ordinance is to properly manage water drainage to minimize damage to public and private property and reduce local flooding. The proposed water drainage conveyance system would allow the Applicants a means to minimize

water flow toward the Town's public right-of-way, the Applicants' house, and to the wall and garage located on the adjoining property to the north. The proposed water drainage conveyance system would further provide an opportunity for neighbors to address local flooding that has been an issue for homes in the vicinity of the Subject Property;

5. Another purpose of the Water Drainage Ordinance is to properly manage water drainage to maintain after development, as nearly as possible, the pre-development runoff characteristics. The evidence of record supports a finding that the pre-development runoff characteristics would be maintained or improved; and

6. Several nearby residents, including the Applicants' adjoining neighbors to the west, east, and north, some of whom would be the most directly effected by the variance, supported the request and none objected.

### **Conclusions**

Based upon the foregoing findings, the Water Board by a vote of 2-1 makes the following conclusions:

1. An unusual combination of circumstances on the Subject Property, including the presence of underlying rock and sloping topography, present engineering difficulties such that strict adherence to the requirements of Chapter 28 of the Town Code would result in undue hardship to the Applicants;

2. The proposed variance would not be detrimental to any adjoining or nearby property, or any public right-of-way; and

3. The proposed variance would, as nearly as practical, accomplish the intent and purpose of the requirements of Chapter 28 of the Town Code.

### **Decision**

Accordingly, the requested variance from the requirements of Chapter 28 of the Town Code is GRANTED, subject to the following conditions:

1. Applicants shall not obtain any building permit for the proposed house or other development activity on the Subject Property from the Town of Chevy Chase until Applicants have fulfilled all of the following, or the variance shall be void:

a) Obtained written approval and permission from appropriate Montgomery County authorities for the proposed connection to the County drainage pipe in accordance with the plans submitted for the record;

b) Obtained a valid easement from the adjoining neighbor to the north and such easement shall have been recorded among the land records of Montgomery County, Maryland; and

c) Executed an appropriate inspection and maintenance agreement, the terms and conditions of which shall run with the land and be binding upon the Applicants, their successors and assigns, and said agreement shall have been recorded among the Land Records of Montgomery County, Maryland;

2. The drainage conveyance system described above shall be constructed and maintained by Applicants, their successors and assigns (a) in accordance with the plans and specifications submitted for the record in this matter and (b) at no cost to the Town of Chevy Chase;

3. Upon fulfillment of the conditions set forth in paragraph 1 above and the issuance by the Town Manager of a building permit for the proposed house, this Decision shall be recorded among the Land Records of Montgomery County, Maryland and the terms and conditions of this Decision shall run with the land and be binding upon the Applicant, their successors and assigns; and

4. If the Town is required to enforce this Decision, then the Applicants, their successors and assigns shall reimburse the Town for all costs of enforcement, including attorneys' fees.

The foregoing Decision was adopted by the Water Board of the Town of Chevy Chase with the following members voting in favor: Douglas Lohmeyer and Donald MacGlashan. Michael Guhin voted against the variance request and believes it should have been denied on the basis of the evidence presented.

**Town of Chevy Chase:**

WATER BOARD OF THE TOWN OF  
CHEVY CHASE

By: \_\_\_\_\_  
Michael Guhin, Chairman

Date: \_\_\_\_\_