

Bill WDS-1-2024

A local law to amend Chapter 155 (Building Construction) of the Code of the Village of Woodburgh and adopt a new Chapter, to be designated as Chapter 132, entitled Subsurface Investigation, to address construction impacts in relation to the groundwater table.

Section 1. Chapter 55 is hereby amended, to include a new Article III and new sections 55-13 and 55-14, to read as follows:

Article III. Groundwater Separation Requirements.

“§55-13. Groundwater Separation Requirements.

There shall be a minimum one (1) foot vertical separation between the highest groundwater table beneath the proposed location of any structure or building and any footing or foundation for such structure or building. Where a structural engineer certifies to the Building Department that additional support structures are required for structural support, the construction may include piles used below the one (1) foot vertical separation. Helical piles shall be used, except in instances where a structural engineer certifies that site and groundwater considerations prevent the use of helical piles. Where non-helical piles are used, such piles shall be driven to an elevation where there is adequate resistance to support the proposed structure, as certified by the structural engineer. Where the installation of pilings includes any vibratory mechanism, the installation shall be subject to the following requirements:

- A. There shall be established a zone of impact, the outer boundary of which is the line formed upon the surface at a 45 degree angle from the bottom tip depth of the driven sheet pile.
- B. Pile driving shall be performed in a manner that limits vibrations at any structures on adjoining and nearby properties, as well as roadways and public infrastructure, within the zone of impact to a maximum of 0.25 inches per second.
- C. All pile driving work shall be monitored by a monitoring company, which shall provide on-site personnel.
- D. The monitoring company shall provide the Building Department with vibratory monitoring specifications and protocol that includes construction installation progress, recommended property protection measures, a delineation of the location of all proposed monitoring measuring devices, confirmation of the means and methods of

installation, contact information for personnel providing monitoring service on site, and daily logs showing vibratory measurements.

- E. Prior to the commencement of any sheet piling, a conditions survey shall be provided for all structures within the anticipated zone of impact.
- F. Upon the exceedance of vibratory limits and/or based on actual field conditions negatively affecting installation including changing procedures to produce vibratory impacts below threshold amounts, subject to approval by the Building Department, the building permittee shall modify the means and methods of installation.
- G. Any other requirements of the Building Department.

§55-14. Subsurface Investigation.

Prior to the construction of any structure or building subject to the requirements of Chapter 132, an applicant for a building permit shall comply with the provisions of Chapter 132.”

Section 2. A new Chapter 132, entitled “Subsurface Investigation” is hereby adopted, to read as follows:

“Chapter 132. Subsurface Investigation.

§132-1. Legislative Intent.

Climate change is becoming the defining environmental issue of our time, particularly for vulnerable, low-lying coastal areas. This change has taken shape already, in the form of more frequent and intense storms, sea level rise and extreme flooding. Sea level rise causes overland flooding and raises the groundwater table. Many homes in the Village have been experiencing wet basement conditions and increased sump pump usage during non-rain events. The daily impacts from this water table hazard, particularly due to the local geology as a low-lying coastal area with an existing high water table raises red flags about the need to address methods to limit further impacts from groundwater and threats to below grade structures such as basements and structural footings and foundations.

It is imperative that the Village, as stewards of the environment and protectors of their community safety, health and welfare, assure that flood risk mitigation measures are put in place to protect property and infrastructure. There are a number of areas throughout the Village that are known to have poor soils, high groundwater levels, and

existing drainage problems, such as, but not limited to, wet basements and wet backyards. Developers and builders need to confirm the ability of on-site soils within their proposed project site to support the design of an on-site drainage disposal system, relying on groundwater recharge (retention structures). The intent of this chapter is to establish one uniform procedure for soil and groundwater investigations for drainage design for all applicants to the Building Department, the Planning Board, and the Zoning Board of Appeals and to assure that no sites are developed with new impervious areas unless adequate retention structures will be provided.

The first step in the subsurface investigation program is to ascertain the nature of the soils on the site.

§ 132-2. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

BUILDING AREA

As defined in **§150-4** of this Code.

BUILDING INSPECTOR

The Building Inspector of the Village or his designee, which may be, but is not required to be, the overseer, the engineer, or such other person as may be designated from time to time by resolution of the Board of Trustees.

ENGINEER

When designated as the overseer by the Building Inspector or the Board of Trustees, the representative of the consulting engineers engaged by the Village, or, when not so designated, the overseer.

FLOOD-PRONE AREA

"Flood-prone area" is as defined in **§77-4** of this Code.

IMPERVIOUS AREA

The horizontal area of any material or combination of materials that are incapable of being penetrated by water, including, but not limited to, buildings, driveways, walkways, patios, and other surface and subsurface materials and structures. Whether any material or combination of materials is deemed "impervious" shall be subject to the discretion of the Building Inspector.

NEW IMPERVIOUS AREA

An impervious area created on or after June 1, 2024. For purposes of calculating the new impervious area on any parcel of land, all of the impervious areas on a contiguous parcel of property held in single and separate ownership that are created on or after June 1, 2024, shall be cumulatively considered "new impervious area," the intent being that if 150 square feet of new impervious area is created on a parcel in August 2024, and another 175 square feet of impervious area is sought to be created in May 2025, for the purposes of this chapter, the new impervious area for calculation purposes in May 2025 will be 325 square feet.

OVERSEER

The Building Inspector or the Building Inspector's designee or such other person as may be designated from time to time by resolution of the Board of Trustees.

PROFESSIONAL

An architect, professional engineer, or land surveyor, licensed to practice in the State of New York.

REQUIRED WATER RETENTION

Required water retention for all new impervious areas shall be as specified in this Code, as amended from time to time by the Board of Trustees or as determined by the Building Inspector, where such determination is authorized by the Board of Trustees.

SUBSURFACE STRUCTURE

Any structure or object to be placed underground as part of or in support of a structure, excluding: trees and shrubs and other live landscaping; fence posts; wires; pipes not in excess of 18 inches in diameter; walls not in excess of six feet in total height of which not more than four feet in height shall be above grade and not more than three feet in depth shall be below grade; poles not exceeding 18 inches in diameter; and similar objects as may be determined by the Building Inspector..

TEST BORING FIRM

A firm which has not less than five years' satisfactory experience providing test boring services on Long Island or in a similar area. Such firm shall provide such references and a list of jobs to the Building Inspector as the Building Inspector may deem appropriate, in order to provide satisfactory evidence of the firm's competence to provide the test boring work required by this chapter. In the discretion of the Building Inspector, the experience of the principals of the firm may be taken into account if the firm has less than five years' experience.

VILLAGE

The Village of Woodsburgh.

§ 132-3. Surface water retention; investigation and certification of compliance.

A. No new impervious area in excess of 200 square feet shall be permitted unless the applicant has demonstrated to the overseer, by, among other things, the taking of soil borings, that the site upon which the proposed project is to take place can provide the required water retention.

B. No final subdivision shall be permitted unless the applicant has demonstrated to the overseer, by, among other things, the taking of soil borings, that the proposed parcels can each, independently, provide the required water retention.

C. No building permit shall be issued by the Building Department for the creation of any new impervious area in excess of 200 square feet until the overseer has certified compliance with this chapter.

D. No site plan approval that will result in the creation of any new impervious area in excess of 200 square feet shall be given by the Planning Board, or such other board authorized to provide such approval, until the overseer has certified compliance with this chapter.

E. No approval that will result in the creation of any new impervious area shall be given by the Zoning Board of Appeals until the overseer has certified compliance with this chapter. Notwithstanding the foregoing, if the applicant also will have to appear before the Planning Board before final action may be taken on the creation of the new impervious area that is the subject of the Board of Appeals application, the Board of Appeals may grant its approval conditioned upon no building permit being issued pursuant to said approval until the Planning Board has received from the overseer a certification of compliance with this chapter.

F. Notwithstanding any provision in this chapter to the contrary, the overseer may waive or modify the requirements in this chapter for soil borings if, in the discretion of the overseer, based upon the history of the area where the new impervious area is to be created, its proximity to flood-prone areas, the overseer's visual inspection of the soil in the excavated area wherein the proposed stormwater drainage is to be provided, and/or other relevant information of which the overseer is aware satisfies the overseer that such requirements are not reasonable or necessary to assure that sufficient stormwater drainage can be provided if the new impervious areas are created. Such waiver shall include the authority to waive the deposit of an escrow when the overseer will not be observing the test borings.

§132-4. Site plan procedure and approval; fee; escrow deposit; soil borings.

A. Whenever soil borings are required pursuant to this chapter, the applicant shall file a site plan, prepared and sealed by a professional, which shall indicate the following

information, together with such other information as the applicant or the overseer may deem appropriate:

- (1)** The location and design details of the proposed drainage system.
- (2)** The footprint of all proposed structures and other impervious areas.
- (3)** The location and depth of all of the proposed retention structures.
- (4)** The existing topography to a distance five feet beyond the property lines of the site in all directions, at a two-foot contour interval, unless otherwise directed by the overseer due to unusually flat or steep terrain.
- (5)** The proposed topography of the site at a two-foot contour interval, unless otherwise directed by the overseer due to unusually flat or steep terrain.
- (6)** The location of the proposed soil borings. The borings shall be in the location of each isolated retention structure or as approved by the overseer.

B. Every applicant for a permit shall pay to the Village a fee in such amount as shall be prescribed from time to time by the Board of Trustees.

C. The site plan shall be submitted to the overseer, in accordance with this section, for review and comments and for either approving, approving with conditions, or disapproving the site plan. If the application is disapproved or the applicant does not want to meet the conditions for the approval, the applicant shall file a new site plan, until either such site plan is approved, or the applicant is willing to meet the conditions for such approval, or the applicant withdraws the application.

D. After the site plan has been approved or the conditions for such approval have been met, the overseer shall determine the escrow to be deposited by the applicant with the Village, sufficient to provide to the Village the sum necessary to compensate the Village for monitoring the subsurface investigation. In the event that, at any time, the overseer shall determine that such deposit is not sufficient to provide such sum, the overseer shall notify the applicant and, if the overseer is not the Building Inspector, shall notify the Building Inspector. No action shall be taken or continued on such application until the required escrow, as such sum may be increased from time to time, has been deposited with the Village.

E. If the overseer will be observing the test borings, after the escrow has been deposited with the Village, the applicant shall contact the overseer to schedule a mutually convenient date to conduct the borings. Such date shall not be scheduled less than two working days in advance, in order for the overseer to schedule the necessary personnel to observe the borings. In the discretion of the overseer, the overseer is authorized to waive his or her personnel's observation of the borings and rely upon the results of the borings as certified by a professional engineer engaged by the test boring firm, and the overseer shall be released from any liability based upon such reliance.

F. If, in the opinion of the overseer, the site is in an area where poor soils or high groundwater conditions have previously been experienced or are otherwise reasonably expected, provision shall be made to install one or more groundwater monitoring wells, in accordance with a plan approved by the overseer, and/or to conduct a percolation test.

§132-5. Soil boring specifications.

All soil borings shall be performed as follows:

A. The applicant shall engage a test boring firm.

B. The drilling rig for the borings shall have sufficient capacity and power to accomplish the specified work and shall be equipped with a water tank, hoses, lines, driving hammers, pipe extractors, and all other equipment and features necessary for making the requisite test borings.

C. The augers shall include a hollow stem with an inside diameter between 2.2 inches and 6.5 inches, or as approved by the Building Inspector.

D. The soil sampler device shall be a split barrel of two-inch outside diameter and one-and-one-half-inch inside diameter with an effective sampling length of 18 inches, or as approved by the Building Inspector.

E. The hammer for driving the sampler shall weigh 140 pounds, or such weight as is approved by the Building Inspector.

F. The soil sample containers shall be one-pint, waterproof plastic containers and shall be provided with tight-fitting covers and self-adhering labels, or as approved by the Building Inspector.

G. The test boring firm shall perform all the work of making the test borings in the presence of the Building Inspector.

H. The precise boring locations and ground elevations (Nassau County datum) are to be established by the applicant.

I. Each soil boring shall be advanced to a minimum depth of 35 feet, or as approved by the Building Inspector.

J. At least two (2) borings shall be completed on each site, except where the Building Department determines that a different number of borings would be sufficient for a particular site. Deeper borings may be required by the Building Inspector if, in the opinion of the Building Inspector, unsuitable materials are encountered. The boring may terminate when six (6) feet of permeable material is encountered, unless, based upon unusual conditions, it is reasonably determined by the Building Inspector that the boring shall be

continued to a deeper level. The applicant or its authorized representative shall be available either in person or by telephone to authorize the additional boring depth, if necessary.

K. A soil sample shall be taken at the surface of the boring and, thereafter, at every five-foot interval below the surface and at each change of material.

L. The test boring firm shall make and record (contemporaneously in the field) a visual identification of each soil sample in the presence of the Building Inspector.

M. The split-barrel sampler shall be driven 2.0 feet below the bottom of the auger with a one-hundred-forty-pound hammer falling 2.5 feet, or as otherwise directed by the Building Inspector.

N. The test boring firm shall record the number of blows from the one-hundred-forty-pound hammer required to advance the split-barrel sample every six-inch increment.

O. At the completion of each test boring, the casing shall be extracted and the hole filled in or sufficiently collapsed so as not to be a danger, unless a ground monitoring well is to be installed.

P. The test boring firm shall obtain all data including groundwater elevation.

Q. The soil samples shall be analyzed by the test boring firm in the laboratory and final boring logs prepared. Any notable differences from the field identification shall be highlighted and explained.

R. If an obstruction or other reasonable cause prevents completion of a test boring, the boring shall be abandoned and a substitute boring conducted.

S. All of the material and equipment furnished by the test boring firm shall be removed from the site promptly upon completion of the work.

T. The test boring firm shall store the soil samples for a period of 30 days after the issuance of the final boring log and, if directed by the Building Inspector, shall deliver the soil samples to the office of the Building Inspector.

§132-6. Groundwater monitoring wells.

When a high groundwater elevation is anticipated or encountered, in the discretion of the overseer, the applicant shall have at least two monitoring wells installed as follows:

A. The casings of all wells shall have a nominal diameter of two inches. PVC well casing may be used.

B. Boring logs shall be recorded for each boring.

C. Samples shall be taken at five-foot intervals as well as from each soil layer encountered in order to obtain a general description of the underlying soils.

D. Wells shall be installed plumb and straight.

E. Flush-threaded joints shall be used to avoid contamination of well by glued joints.

F. Well screens shall be machine slotted and of sufficient length and placement to accommodate seasonal variations in the water table. (Length will generally be 10 feet to 15 feet with the mean water table in the middle of the screen.)

G. The filter pack shall be compatible with the soil around the screened portion of the well and with the screen opening. It shall extend approximately one foot below the screen and three feet to five feet above the screen.

H. The applicant shall provide a survey of the well elevations to a known datum point (Nassau County datum).

I. The tops of the wells shall be enclosed by a protective metal casing and locked.

J. All wells shall be marked clearly as monitoring wells.

K. The applicant shall cause the ground water depth to be measured and recorded at approximately the same time every other day for a two-week period. Unusual conditions (i.e., high-intensity precipitation) shall be noted on the groundwater-monitoring log.

L. The applicant shall obtain long-term (a minimum of one year, unless, based upon unusual circumstances, the Building Inspector reasonably believes a longer period to be warranted) groundwater elevations from an existing monitoring well in the general vicinity of the project. The United States Geological Survey or Nassau County Health Department wells shall be satisfactory. The long-term data shall be compared with the results obtained in the monitoring wells, to verify whether the results need to be seasonally adjusted.

§132-7. Percolation tests.

When, in the opinion of the Building Inspector, either the poor soils encountered or the high groundwater table, or a combination of both, would impede the efficient functioning of a retention structure system, the applicant may be directed to establish a percolation rate for the soil to justify the design of its proposed retention structure system. In such event, the percolation test shall be conducted as follows:

A. The applicant shall have the test boring firm conduct a percolation test to determine the rate that water will recharge into the ground.

B. Water for the percolation test shall be clean potable water.

C. The percolation test shall be completed in the monitoring well casing.

D. The monitoring well shall be filled with water for a period of four hours.

E. The drop in water level shall be recorded at 30 seconds, one minute, and five minutes, and then at subsequent five-minute intervals until the rate of drop over a five-minute interval stabilizes. The stabilized drop shall be the percolation rate utilized in the design of the retention structure system.

§132-8. Subsurface investigation reports.

Upon completion of the soils investigation, groundwater monitoring (if required), and percolation tests (if required), the applicant shall file with the Building Department two copies of a subsurface investigation report summarizing the methodologies utilized, the data obtained, results, conclusions, and recommendations, including the basis of design for the proposed groundwater recharge drainage system. One of said copies may then be forwarded by the Building Department to the engineer for its comments, approval, approval with conditions, or disapproval.

§132-9. Exemptions.

A. The provisions of this chapter shall not apply to the following:

(1) Additions to existing single-family detached dwellings completed or for which building permit applications were filed prior to April 11, 2024, so long as the addition does not increase the building area of the dwelling by more than 200 square feet of the building area of the dwelling as it existed on May 15, 2024.

(2) Additions to existing single-family detached dwellings for which building permit applications were filed after April 11, 2024, so long as the addition does not increase the building area of the dwelling by more than 200 square feet of the building area of the dwelling as it was originally built and for which it received its original certificate of occupancy.

B. In order for an applicant to claim an exemption pursuant to this section, it shall be the burden of the applicant to prove to the Building Inspector its entitlement to the exemption.

§132-10. Penalties for offenses.

Any person, firm, or corporation who shall violate any of the provisions of this chapter or any rule or regulation made pursuant thereto shall be guilty of a violation and, upon conviction thereof, may be punished by a fine of not more than \$1,000 and each day on which such violation continues shall constitute a separate offense.

Section 3. Any local law or provision of the Code of the Village of Woodsburch in conflict with this local law is hereby repealed to the extent of such conflict, except that such repeal shall not affect or prevent the prosecution or punishment of any person for any act done or committed in violation of such local law, ordinance or resolution prior to the effective date of this local law.

Section 4. If any clause, sentence, paragraph, section, article, or part of this local law shall be adjudged to be invalid by any court of competent jurisdiction, such judgment shall not affect, impair or invalidate any other part of this local law, or the remainder thereof, but shall be confined in its operation to the clause, sentence, paragraph, section, article, or part thereof directly involved in the controversy in which such judgment shall have been rendered.

Section 5. This local law shall take effect immediately upon adoption and filing pursuant to the Municipal Home Rule Law.