

Town of Woodstock

Proposed Local Law No.____ of the year 2025

A Local Law amending the Woodstock Code, Chapter 245, Wastewater Districts of the Town of Woodstock, Ulster County, New York, as previously amended, to amend the process for approval and design of new sewer extensions.

Be it enacted by the Town Board of the Town of Woodstock as follows:

Section 1. Statutory authority.

This Local Law is enacted in accordance with New York State Town Law Article 9, which grant the Town Board of the Town of Woodstock authority to enact local laws for the purpose of promoting the health, safety and welfare of the people of the Town; New York State Town Law Article 12, which grant the Town Board of the Town of Woodstock authority to enact local laws regulating improvement districts, Section 10 of the Municipal Home Rule Law, which gives the Town of Woodstock the power to protect and enhance its physical environment; Section 10 of the New York Statute of Local Governments; Article IX of the New York State Constitution; and other legislative authority of the State of New York, as amended from time to time.

Section 2. Findings.

The Town Board hereby makes the following findings, determinations, and declarations relative to the matters set forth in this Local Law. The Boards finds it imperative that the design and approval process for extending the sewer district to serve new areas be laid out so as to maintain and guarantee the optimum functioning of the system and protection of our environment.

Section 3. Purposes.

The purpose of this Local Law is to ensure new sewer extensions are properly approved by the appropriate authorities and designed in a manor to ensure the health, safety and welfare of the community.

Section 4. Amendments to Chapter 245 of the Woodstock Code:

Section 245-20 New Sewer Extensions

A. Proper Design New sanitary sewers and all extensions to sanitary sewers owned and operated by the Town of Woodstock shall be designed, by a professional licensed to practice sewer design in the State, in accordance with the Recommended Standards for Sewage Works, as adopted by the Great Lakes - Upper Mississippi River Board of State

Sanitary Engineers ("Ten State Standards"), and in strict conformance with all requirements of the NYSDEC. Plans and specifications shall be submitted to, and written approval shall be obtained from the Superintendent. For extensions serving 2,500 gallons per day or greater, approval of the NYSDEC must be obtained before initiating any construction. The design shall anticipate and allow for flows from all possible future extensions or developments within the immediate drainage area.

1. If, however, there is inadequate capacity in any sewer which would convey the wastewater or if there is insufficient capacity in the POTW treatment plant to treat the wastewater properly, the application shall be denied. Sewer line and POTW treatment plant current use shall be defined as the present use and the unutilized use which has been committed, by resolution, to other users by the Woodstock Town Board.

B. New Sewers Subject to Approval, Fees, Inspection, Testing, and Reporting When a property owner, builder, or developer proposes to construct sanitary sewers or extensions to sanitary sewers in an area proposed for subdivision, the plans, specifications, and method of installation shall be subject to the approval of the Superintendent, and the Ulster County Health Department, in accordance with Section 501. Said property owner, builder, or developer shall pay for the entire installation, including a proportionate share of the treatment plant, intercepting or trunk sewers, pumping stations, force mains, and all other Town of Woodstock expenses incidental thereto. Each street lateral shall be installed and inspected, and inspection fees shall be paid by the applicant prior to initiating construction. Design and installation of sewers shall be as specified, and in conformance with Paragraphs 3 through 6 of ASTM Specification C-12. The installation of the sewer shall be subject to periodic inspection by the Superintendent, without prior notice. The Superintendent shall determine whether the work is proceeding in accordance with the approved plans and specifications, and whether the completed work will conform with the approved plans and specifications. The sewer, as constructed, must pass the infiltration test (or the exfiltration test, with prior approval), required in Section 505, before any building lateral is connected thereto. The Superintendent shall be notified 30 days in advance of the start of any construction actions so that such inspection frequencies and procedures as may be necessary or required, may be established. No new sanitary sewers will be accepted by the Woodstock

Board until such construction inspections have been made so as to assure the Woodstock Town Board of compliance with this Law and any amendments or additions thereto. The Superintendent has the authority to require such excavation as necessary to inspect any installed facilities if the facilities were covered or otherwise backfilled before they were inspected so as to permit inspection of the construction. The Superintendent shall report all findings of inspections and tests to the Woodstock Town Board.

C. Plans, Specification, and Pipe Test Results Required Plans, specifications, and methods of installation shall conform to the requirements of this Article. Components and materials of wastewater facilities not covered in this Law, such as pumping stations, lift stations, or force mains shall be designed in accordance with Section 501, and shall be clearly shown and detailed on the plans and specifications submitted for approval. Force main details are covered in Section 506. When requested, the applicant shall submit, to the Superintendent and to the Ulster County Health Department, all design calculations and other pertinent data to supplement review of the plans and specifications. Results of manufacturer's tests on each lot of pipe delivered to the job site shall also be furnished, upon request.

D. Sewer Pipe 1) **Sewer pipe** material shall be:

1. Reinforced Concrete Pipe (Note that non-reinforced concrete pipe shall not be used.)

a. Portland cement shall conform to ASTM C-150 Type II.

b. The pipe and specials shall conform to ASTM Specification C-76.

c. The reinforcing wire cage shall conform to ASTM Specification A 15, A 82, or A 185, as appropriate. Entrained air shall be 5.0% to 9.0% by ASTM C-890.

d. Water absorption and three-edge bearing tests shall conform to ASTM Specification C-497.

e. Gaskets shall conform to Sections 3.3 and 3.4 of AWWA Specification C-302.

2. Cast Iron Pipe - Extra Heavy

a. Pipe, fittings, and specials shall conform to the requirements of ASTM Specification A-74 or ANSI A-21.11.

b. Gaskets shall conform to ASTM Specification C-564.

3. Polyvinyl Chloride (PVC) Pipe - Heavy Wall

a. Pipe shall be made from Class 12454-B materials or better in accordance with

ANSI/ASTM Specification D-1784.

b. Pipe and accessories shall conform to the requirements of the following, with a minimum pipe stiffness of 46.

c. PSI at a maximum deflection of five percent (5%).

d. NSI/ASTM D 3034 (4" - 15")

e. ASTM F 679 Type I (18" - 27")

4. Ductile Iron Pipe

a. Pipe, fittings, and specials shall be manufactured in accordance with ASTM Specification A-746.

b. Pipe shall have a minimum thickness of Class 50.

c. Fittings shall conform to ANSI Specification A-21.11 and have a minimum pressure class rating of 150 PSI.

d. All pipe and fittings shall be cement mortar lined in accordance with ANSI Specification A-21.4 at twice the specified thickness, and have an internal and external bituminous seal coating.

e. Closure pieces shall be jointed by means of a mechanical coupling of the cast sleeve type.

5. Vitrified Clay Pipe - Extra strength (Note that standard strength vitrified clay pipe shall not be used.)

a. Pipe shall conform to the current requirements of NCPI Specification ER 3300-67 and meet the requirements of ASTM Specification C 700.

6. Acrylonitrile-Butadiene-Styrene (ABS) Pipe

a. Pipe and fittings shall conform to the requirements of ASTM Specification D2661.

6. Other pipe materials

a. Other pipe materials require prior written approval of the Superintendent before being installed.

b. the minimum internal pipe diameter shall be eight (8) inches for gravity sewers and three (3) inches for low pressure sewers.

c. Joints for the selected pipe shall be designed and manufactured such that "O" ring gaskets of the "snap-on" type are used.

d. Gaskets shall be continuous, solid, natural or synthetic rubber, and shall provide

a positive compression seal in the assembled joint, such that the requirements of Section 505 are met.

e. Joint preparation and assembly shall be in accordance with the manufacturer's recommendations.

f. Wye branch fittings, as approved by the Superintendent, shall be installed, for connection of street laterals, in accordance with Section 606.

E. Safety and Load Factors

1. Selection of pipe class shall be predicated on the following criteria:

Safety factor - 1.5

Load factor - 1.7

Weight of soil - 120 lbs/cu. ft.

Wheel loading - 16,000 lbs.

Utilizing the foregoing information, design shall be made as outlined in Chapter IX of the Water Pollution Control Federation Manual of Practice No. 9, latest edition, "Design and Construction of Sanitary and Storm Sewers", and the pipe shall have sufficient structural strength to support all loads to be placed on the pipe, with a safety factor as specified above.

2. PVC pipe shall not be encased in concrete due to their different coefficients of linear thermal expansion.

F. Sewer Pipe Installation

1. Local utilities shall be contacted to verify construction plans and to make arrangements to disconnect all utility services, where required to undertake the construction work. The utility services shall later be reconnected. The work shall be scheduled so that there is minimum inconvenience to local residents. Residents shall be provided proper and timely notice regarding disconnection of utilities.

2. The construction right-of-way shall be cleared only to the extent needed for construction. Clearing consists of removal of trees which interfere with construction, removal of underbrush, logs, and stumps, and other organic matter, removal of refuse, garbage, and trash, removal of ice and snow, and removal of telephone and power poles, and posts. Any tree which will not hinder construction shall not be removed, and shall be

protected from damage by any construction equipment. Debris shall not be burned, but hauled for disposal in an approved manner.

- 3.** The public shall be protected from personal and property damage as a result of the construction work.
- 4.** Traffic shall be maintained at all times in accordance with applicable highway permits. Where no highway permits are required, at least 1/2 of a street shall be kept open for traffic flow.
- 5.** Erosion control shall be performed throughout the project to minimize the erosion of soils onto lands or into waters adjacent to or affected by the work. Erosion control can be effected by limiting the amount of clearing and grubbing prior to trenching, proper scheduling of the pipe installation work, minimizing time of open trench, prompt grading and seeding, and filtration of drainage.
- 6.** The trench shall be excavated only wide enough for proper installation of the sewer pipe, manhole, and appurtenances. Allowances may be made for sheeting, de-watering, and other similar actions to complete the work. Roads, sidewalks, and curbs shall be cut, by sawing or by other methods as approved by the Superintendent, before trench excavation is initiated.
- 7.** Under ordinary conditions, excavation shall be by open cut from the ground surface. However, tunneling or boring under structures other than buildings may be permitted. Such structures include crosswalks, curbs, gutters, pavements, trees, driveways, and railroad tracks.
- 8.** Open trenches shall be protected at all hours of the day with barricades, as required.
- 9.** Trenches shall not be open for more than 30 feet in advance of pipe installation nor left unfilled for more than 30 feet in the rear of the installed pipe, when the work is in progress, without permission of the Superintendent. When work is not in progress, including overnight, weekends, and holidays, the trench shall be backfilled to ground surface.
- 10.** The trench shall be excavated approximately six (6) inches deeper than the final pipe grade. When unsuitable soils are encountered, these shall be excavated to a maximum depth of 2-1/2 feet below the final pipe invert grade and replaced with select materials.

- 11.** Ledge rock, boulders, and large stones shall be removed from the trench sides and bottom. The trench shall be over-excavated at least 12 inches for five (5) feet, at the transition from rock bottom to earth bottom, centered on the transition.
- 12.** Maintenance of grade, elevation, and alignment shall be done by some suitable method or combination of methods.
- 13.** No structure shall be undercut unless specifically approved by the Superintendent.
- 14.** Proper devices shall be provided, and maintained operational at all times, to remove all water from the trench as it enters. At no time shall the sewer line be used for removal of water from the trench.
- 15.** To protect workers and to prevent caving, shoring and sheeting shall be used, as needed. Caving shall not be used to backfill the trench. Sheetting shall not be removed but cut off no lower than one foot above the pipe crown nor no higher than one foot below final grade, and left in the trench, during backfill operations.
- 16.** The pipe barrel shall be supported, along its entire length, on a minimum of six (6) inches of crusher run max. 1/2 inch stone free of organic material. This foundation shall be firmly tamped in the excavation.
- 17.** Bell holes shall be hand excavated, as appropriate.
- 18.** Pipe shall be laid from low elevation to high elevation. The pipe bell shall be up-gradient; the pipe spigot shall be down-gradient.
- 19.** Joint preparation and assembly shall be in accordance with the manufacturer's written instructions.
- 20.** The grade and alignment shall be checked and made correct. The pipe shall be in straight alignment. Any negotiation of curves shall be at manholes, except when site conditions require alternative pipe laying procedures. These alternative procedures, including bending the pipe barrel, deflecting the joint, and using special fittings, shall require prior written approval of the plans and also written confirmation approval of need by the Superintendent after examination of the site conditions.
- 21.** When a smaller sewer joins a larger one the invert of the larger sewer shall be lowered sufficiently to maintain the same hydraulic gradient. An approximate method which may be used for securing this result is to place the 0.8 depth of both sewers at the same elevation.

22. Crushed stone shall be placed over the laid pipe to a depth of at least six (6) inches. The embedment of thermoplastic pipe shall be in accordance with ASTM D2321 using class 1A or 1B backfill materials. Care shall be exercised so that stone is packed under the pipe haunches. Care shall be exercised so that the pipe is not moved during placement of the crushed stone.

23. The migration of fines from surrounding backfill or native soils shall be restricted by gradation of embedment materials or by use of suitable filter fabric.

24. The remaining portion of the trench above the pipe embedment shall be backfilled in foot lifts which shall be firmly compacted. Compaction near/under roadways, driveways, sidewalks, and other structures shall be to 95 % of the maximum moisture-density relationship, as determined by ASTM Specification D 698, Method D. Ice, snow, or frozen material shall not be used for backfill.

G. Cleanout Installation

1. Cleanouts for low pressure sewers shall be placed at intervals of approximately 400 to 500 feet, at major changes of direction, where one collection main joins another main and at the upstream end of each main branch.

2. The design of the cleanouts shall be as approved by the Superintendent.

H. Manholes and Manhole Installation

1. Design of all manholes shall be submitted to the Superintendent and shall receive approval prior to placement.

2. Manholes shall be placed where there is a change in slope or alignment, and at intervals not exceeding 400 linear feet except as authorized by the Superintendent.

3. Manhole bases shall be constructed or placed on a minimum of six (6) inches of crusher run max. 1/2 inch stone free of organic materials.

4. Manhole bases shall be constructed of 4,000 psi (28 day) concrete 8 inches thick, or shall be precast bases properly bedded in the excavation. Field constructed bases shall be monolithic, properly reinforced, and extend at least 6 inches beyond the outside walls of lower manhole sections. Precast manhole bases shall extend at least 6 inches beyond the outside walls of lower manhole sections.

5. Manholes shall be constructed using precast minimum 4 foot diameter concrete manhole barrel sections, and an eccentric top section, conforming to ASTM Specification C-478, with the following exceptions on wall thickness:

Manhole Diameter (Feet) Wall Thickness (Inches)

4	5
5	6
6	7
6 1/2	7 1/2
7	8
8	9

All sections shall be cast solid, without lifting holes. Flat top slabs shall be a minimum of 8 inches thick and shall be capable of supporting a H-20 loading.

6. All joints between sections shall be sealed with an "O" ring rubber gasket, meeting the same specifications as pipe joint gaskets, or butyl joint sealant completely filling the joint.

7. All joints shall be sealed against infiltration. All metal parts shall be thickly coated with bitumastic or elastomeric compound to prevent corrosion.

8. No steps or ladder rungs shall be installed in the inside or outside manhole walls at any time.

9. No holes shall be cut into the manhole sections closer than 6 inches from joint surfaces.

10. Manholes which extend above grade shall not have an eccentric top section. The top plate shall be large enough to accommodate the cover lifting device and the cover.

11. The elevation of the top section shall be such that the cover frame top elevation is 0.5 foot above the 100-year flood elevation (in a field), 0.5 foot above a lawn elevation, or at finished road or sidewalk grade.

12. When located in a travelled area (road or sidewalk), the manhole frame and cover shall be heavy duty cast iron. When located in a lawn or in a field, the manhole frame and cover may be light duty cast iron. The cover shall be 36 inches, minimum, in diameter. The minimum combined weight of the heavy duty frame and 36 inch cover shall be 735 +/- 5% lbs. The minimum combined weight of the light duty frame and 36 inch cover

shall be 420 +/- 5% lbs. The mating surfaces shall be machined, and painted with tar pitch varnish. The cover shall not rock in the frame. Infiltration between the cover and frame shall be prevented by proper design and painting. Covers shall have "Sanitary Sewer" cast into them. Covers shall have lifting holes suitable for any lifting/jacking device. The lifting holes shall be designed so that infiltration is prevented.

13. A drop of at least 0.1 foot shall be provided between incoming and outgoing sewers on all junction manholes and on manholes with bends greater than 45 degrees.

14. Inverts and shelves/benches shall be placed after testing the manholes and sewers.

15. Benches shall be level and slope to the flow channel at about 1 inch per foot.

16. The minimum depth of the flow channel shall be the nominal diameter of the smaller pipe. The channel shall have a steel trowel finish. The flow channel shall have a smooth curvature from inlet to outlet.

17. Manhole frames, installed at grade, shall be set in a full bed of mortar with no less than two nor more than four courses of brick underneath to allow for later elevation adjustment. In lieu of brick, grade rings may be used for elevation adjustment. Grade rings shall not exceed 6 inches in depth. The total number of grade rings shall not exceed 12 inches in height, however, in no event shall more than 3 grade rings be used.

18. Manholes which extend above grade, shall have the frames cast into the manhole top plate. The top plate shall be securely anchored to the manhole barrel, by a minimum of six 1/2 inch corrosion resistant anchor bolts, to prevent overturning when the cover is removed. The anchor bolts shall be electrically isolated from the manhole frame and cover.

19. Internal drop pipes and fittings shall be PVC plastic sewer pipe in compliance with ASTM D2241. Corrosion resistant anchors shall be used to attach the drop pipe to the inside surface of the manhole barrel.

I. Infiltration/Exfiltration Testing

All sanitary sewers or extensions to sanitary sewers, including manholes, shall satisfy requirements of a final infiltration test before they will be approved and wastewater flow permitted by the (-CVT-). The infiltration rate shall not exceed 25 gallons per 24 hours per mile per nominal diameter in inches. An exfiltration test may be substituted for the infiltration test; the same rate shall not be exceeded. The exfiltration test shall be

performed by the applicant, under the supervision of the Superintendent, who shall have the responsibility for making proper and accurate measurements required. The exfiltration test consists of filling the pipe with water to provide a head of at least 5 feet above the top of the pipe or 5 feet above groundwater, whichever is higher, at the highest point under test, and then measuring the loss of water, from the pipe section under test, by the amount of water which must be added to maintain the original level. However, under no circumstances shall the head at the downstream manhole exceed ten (10) feet or fill to within six (6) inches of the top of the downstream manhole. Should this condition prevail, the testing methods in Sections 504 F and/or 504 G shall be utilized. In this test, the test section must remain filled with water for at least 24 hours prior to taking any measurements. Exfiltration shall be measured by the drop of water level in a standpipe with a closed bottom end, or in one of the sewer manholes serving the test section. When a standpipe and plug arrangement is used in the upper manhole in the test section, there shall be some positive method for releasing entrapped air prior to taking any measurements.

J. Test Section

The test section shall be as ordered or as approved, but in no event longer than 1,000 feet. In the case of sewers laid on steep grades, the test length may be limited by the maximum allowable internal pressure on the pipe and joints at the lower end of the test section. For purposes of determining the leakage rate of the test section, manholes shall be considered as sections of 48-inch diameter pipe, 5 feet long. The maximum allowable leakage rate for such a section is 1.1 gallons per 24 hours. If leakage exceeds the allowable rate, then necessary repairs or replacements shall be made, and the section retested.

1. Test Period

The test period, during which the test measurements are taken, shall not be less than two (2) hours.

2. Pipe Lamping

Prior to testing, the section shall be lamped. Any length of pipe out of straight alignment shall be realigned.

3. Deflection Testing

Also prior to testing, all plastic pipe, in the test section, shall be tested for deflection. Deflection testing shall involve the pulling of a rigid ball or mandrel, whose diameter is 95 percent of the pipe inside diameter, through the pipe. Any length of pipe with a deflection greater than 5 percent shall be replaced. The test section shall be flushed just prior to deflection testing. The test shall not be performed with a mechanical pulling device.

4. Low Pressure Air Testing Alternative

In lieu of hydrostatic testing (exfiltration or infiltration), low pressure air testing may be employed. Low pressure air tests shall conform to ASTM Specification C 828. All sections to be tested shall be cleaned and flushed, and shall have been backfilled, prior to testing. Air shall be added until the internal pressure of the test section is raised to approximately 4.0 PSIG. The air pressure test shall be based on the time, measured in seconds, for the air pressure to drop from 3.5 PSIG to 2.5 PSIG. Acceptance is based on limits tabulated in the "Specification Time Required for a 1.0 PSIG Pressure Drop" in the Uni-Bell PVC Pipe Association "Recommended Practice For Low-Pressure Air Testing of Installed Sewer Pipe". Before pressure is applied to the line all connections shall be firmly plugged. Before the test period starts, the air shall be given sufficient time to cool to ambient temperature in the test section. If the test section is below groundwater, the test pressure shall be increased by an amount sufficient to compensate for groundwater hydrostatic pressure, however, the test pressure shall not exceed 10 PSI, or a lower pressure as required by the Superintendent. The pressure test gauge shall have been recently calibrated, and a copy of the calibration results shall be made available to the Superintendent prior to testing.

5. Vacuum Testing Alternative

In lieu of hydrostatic testing (exfiltration or infiltration), vacuum testing may be employed for testing of sewer lines and manholes. Sewer lines and manholes shall be tested separately. All sewer lines to be tested shall be cleaned and flushed, and shall have been backfilled, prior to testing. The vacuum test shall be based on the time, measured in seconds, for the vacuum to decrease from 10 inches of mercury to 9 inches of mercury for manholes, and from 7 inches of mercury to 6 inches of mercury for sewers.

Acceptance of manholes is based on the following:

Manhole Depth	Manhole Diameter	Time to Drop 1 inch Hg (10 ³ to 9 ³)
10 ft or less	4 ft	120 seconds
10 ft to 15 ft	4 ft	150 seconds
15 ft to 25 ft	4 ft	180 seconds

For 5 ft diameter manholes, add 30 seconds to the times above.

For 6 ft diameter manholes, add 60 seconds to the times above.

If the test on the manhole fails (the time is less than that tabulated above), necessary repairs shall be made and the vacuum test repeated, until the manhole passes the test.

Acceptance of sewers (7" Hg to 6" Hg) is based on the time tabulated in the "Specification Time Required for a 0.5 PSIG Pressure Drop" in the Uni-Bell PVC Pipe Association "Recommended Practice for Low-Pressure Air Testing of Installed Sewer Pipe". The vacuum test gauge shall have been recently calibrated, and a copy of the calibration results shall be made available to the Superintendent prior to testing.

6. Force Mains

Force mains serving sewage lifting devices, such as grinder pumps and pump stations, shall be designed in accordance with Section 501. Additional design requirements are:

a. Force main pipe material shall be:

1) Ductile Iron Pipe

Pipe shall conform to ANSI A21.51. The minimum wall thickness shall be Class 52 (ANSI A21.50).

The pipe shall be clearly marked with either "D" or "DUCTILE". Fittings shall conform to ANSI A21.10.

Pipe and fittings shall be furnished with push-on joints conforming to ANSI A21.11.

Pipe and fittings shall be cement mortar lined and have an internal and external bituminous seal coating.

2) Polyvinyl Chloride (PVC) Plastic Pipe

Pipe shall conform to ASTM D2241. Materials used in the manufacture of PVC pipe shall meet ASTM C1784. The minimum wall thickness shall be SDR-21. Fittings shall conform to ASTM D2241. Joints and gaskets shall conform to ASTM D2241, D1869, and F477.

3) Other pipe materials

Other pipe materials require prior written approval of the Superintendent before being installed.

- b.** Trenching, bedding, and backfilling shall be in accordance with Section 503 C.
- c.** Joint preparation and assembly shall be in accordance with the manufacturer's written instructions.
- d.** Anchorages, concrete blocking, and/or mechanical restraint shall be provided when there is a change of direction of 7-1/2 degrees or greater.
- e.** Drain valves shall be placed at low points.
- f.** Automatic air relief valves shall be placed at high points and at 400 ft intervals, on level force main runs.
- g.** Air relief and drain valves shall be suitably protected from freezing.
- h.** When the daily average design detention time, in the force main, exceeds 20 minutes, the manhole and sewer line receiving the force main discharge or the sewage shall be treated so that corrosion of the manhole and the exiting line are prevented. The corrosion is caused by sulfuric acid biochemically produced from hydrogen sulfide anaerobically produced in the force main.
- j.** The force main shall terminate, in the receiving manhole, at a PVC plastic sewer pipe "T". The vertical arms of the "T" shall be twice the diameter of the force main. The upper arm shall be at least 4 feet long; the lower arm shall terminate in a PVC plastic sewer pipe 90 degree elbow in a flow channel directed to the manhole exit pipe. The "T" and its arms shall be securely fastened to the inside surface of the manhole wall using corrosion resistant anchors.

K. Force Main Testing

All force mains shall be subjected to hydrostatic pressure of 150 percent of the normal operating pressure. The duration of the test, at pressure, shall be at least 2 hours. Before conducting the test, the pipe shall be filled with water and all air shall be expelled. During the test, water shall be added, as needed, to maintain the test pressure. The amount of water added shall be recorded so as to calculate leakage. Leakage shall not exceed 25 gallons per day per mile per inch nominal pipe diameter. During the test, the owner and the Superintendent shall walk the route of the force main and examine the exposed pipe and the ground covering any backfilled pipe to discover leaks. Leakage in excess of that

specified above shall be corrected with new material at the owner's expense and the test repeated. Any observed leaks shall be repaired at the owner's expense. Each test section length shall be as approved by the Superintendent, but in no event longer than one thousand (1,000) feet.

L. Final Acceptance and Warranty/Surety

All sanitary sewers and extensions to sanitary sewers constructed at the applicant's expense, after final approval and acceptance by the Superintendent, and concurrence by the Woodstock Board, shall become the property of the Town of Woodstock, and shall thereafter be operated and maintained by the Town of Woodstock. No sanitary sewer shall be accepted by the Town of Woodstock until four (4) copies of as-built drawings have been so filed with the Superintendent and the Superintendent has approved the submitted drawings. Said sewers, after their acceptance by the Town of Woodstock, shall be guaranteed against defects in materials or workmanship for one (1) year, by the applicant. The guarantee shall be in such form and contain such provision as deemed necessary by the Woodstock Board, secured by a surety bond or such other security as the Woodstock Town Board may approve.

M. Liability Insurance Coverage During Construction Period

1. All contractors engaged in connecting house laterals with sanitary sewers, who perform any work within the Right of Way of any highway, shall file a bond in the amount of Five Thousand Dollars (\$5,000.00) with the Woodstock Town Clerk to indemnify the Town of Woodstock against loss, cost, damage or expense sustained or recovered on account of any negligence, omission or act of the applicant for such a permit, or any of his, or their agents arising or resulting directly or indirectly by reason of such permit or consent, or of any act, construction or excavation done, made or permitted under authority of such permit or consent. All bonds shall contain a clause that permits given by the Town of Woodstock may be revoked at any time for just cause.
2. Before commencing work, the above contractor shall file insurance certificates with the Woodstock Town Clerk for the following:

a. Workman's Compensation and Employer's Liability Insurance as required by the laws of the State covering the contractor;

b. Personal Injury Liability having limits of not less than \$500,000 each occurrence and \$500,000 aggregate (completed operations/products, personal injury);

c. Property Damage Liability having limits of not less than \$500,000 for all damages arising during the life of the contract; and shall include, but not be limited to, the following designated hazards:

i - Premises and Operations;

ii - Independent Contractors;

iii - Completed operations and products;

iv - Property Damage; and

v - Explosions, collapse and underground;

d. Comprehensive automobile liability (including non-owned and hired automobiles) having limits of not less than:

i - Bodily injury - each person, \$300,000 each occurrence, \$500,000

ii - Property damage - each occurrence, \$500,000

e. Business Excess Liability Insurance in the amount of \$2,000,000.

f. All insurance policies must provide for five (5) business days notice to the Town of Woodstock before cancellation and must cover all liabilities of the Town of Woodstock and be in a form approved by the Woodstock Town Board.

g. The minimum insurance limits stated above shall be subject to periodic review by the Woodstock Town Board and adjustments made, by resolution, as appropriate.

3. Where it is necessary to enter upon or excavate any highway or cut any pavement, sidewalk or curbing, permission must be obtained from the Superintendent of Highways if a Town of Woodstock Highway is involved, from the Ulster County Department of Public Works if a County Highway is involved, and/or the New York State Department of Transportation if a State Highway is involved.

4. The minimum insurance limits above shall be as established by the Woodstock Town Board and shall be subject to periodic review and adjustment, as appropriate, by the Woodstock Town Board.

Section 5. Severability.

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

Section 6. Effective Date.

This Local Law shall take effect upon being filed in the office of the New York Secretary of State.