

Appendix H Water Report

Map, Plan & Engineer's Report

**Town of Brunswick
Proposed Water District No. 14**

***Brunswick Meadows
Residential Condominium Community***

**Town of Brunswick
County of Rensselaer
State of New York**

March 20, 2007

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March 20, 2007

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Exhibits

- Exhibit A - Project Location Map**
- Exhibit B - Site Plan Layout**
- Exhibit C - Floor Plans & Front Elevation**
- Exhibit D - City of Troy Water System**
- Exhibit E - City of Troy 2005 Annual Water Quality Report**
- Exhibit F - City of Troy Letter Approving Water Usage**
- Exhibit G - City of Troy Water Pressure Report**
- Exhibit H - Fire Protection Flows**
- Exhibit I - NYS Comptroller's 2005 Special District Costs**
- Exhibit J - Detailed Water System Specifications**
- Exhibit K - Brunswick / Troy Water Supply Contract**
- Exhibit L - City of Troy 2005 Water Rate Increase Letter**
- Exhibit M – Annual Tax Revenue Projections**
- Exhibit N – Petition to Establish District**

Maps

Map No. 1 Proposed Water District No. 14 - District Boundary Map

Map No. 2 Proposed Water District No. 14 – General Plan

Introduction

The purpose of this Map, Plan and Engineer's Report is to present the infrastructure design data for Brunswick Meadows, a 124-unit residential condominium community to be developed in the Town of Brunswick, Rensselaer County, New York. The proposed site of this residential condominium community is on the south side of New York State Route 142, also known as Grange Road and approximately 500 feet east of the City of Troy and Town of Brunswick municipal boundary line. The proposed site is bordered generally on the north by NYS Route 142 and bordered on the west by lands of Niagara Mohawk Power Corporation. Located to the west of the site is Hialeah Estates, a 25 lot residential single-family home subdivision located in the City of Troy constructed in the early 1970's. A project location map is included as Exhibit A.

Approximately 18.3 acres of land is to be developed for the proposed Brunswick Meadows project. See attached Exhibit B for a proposed site plan of the project. The southern part of the site is presently vacant brush / wooded land with a running stream traversing through the site leading to the old Lansingburgh Water Works Storage Reservoir located to the west of the project site. The middle portion of the site is presently vacant brush / grass land of approximately 11 acres of the site. The northerly portion of the site is a mowed grass lawn.

The northerly portion of the site (400 feet south from NYS Route 142) is currently zoned as a "R-15 Residential" and the remaining part of the site is zoned as "A-40 Agricultural". The predominate land use in the surrounding area is residential in nature with mostly single-family homes. It is proposed that the Brunswick Meadows residential condominium community be established as a Planned Development District (PDD) in accordance with the Town of Brunswick Zoning Ordinance regulations outlined in Article IV Section 10. The PDD zoning designation will allow for a development design to maximize choices in the types of environment, housing, densities, occupancy tenure, lot sizes, community facilities, usable open space and recreational areas within a large parcel of land in which residential uses are proposed. The intent of this PDD zoning district is to foster a creative and efficient use of land resulting in small networks of utilities and streets, the preservation of existing natural resources and a development pattern consistent with community needs and standards.

The infrastructure design presented in this report is expected to provide the required measures necessary to mitigate any unanticipated impacts generated by this project.

Project Description

The Brunswick Meadows residential condominium community that is proposed will consist of 124 units of condominium residences constructed in 31 buildings with four (4) dwelling units in each building. The overall density of the proposed project will

be approximately 6.78 unit per acre. Approximately 63 % of the site will be open green space and walking trails.

These condominium units will be constructed and marketed towards the retirement-aged homeowners and young single couples. Each condominium unit will contain a minimum of two (2) bedrooms, a single car garage, separate entrances and individual driveway. Estimated sale price for the condominium units will be in the \$150,000 to \$180,000 range depending upon the unit's type, size and location. Living areas of the condominiums will be approximately 1,350 square feet for the first floor units and approximately 1,600 square feet for the second floor units. A proposed sample floor plan and front exterior elevation for the condominium unit is included in Exhibit C.

The infrastructure included as part of this project are sanitary collection sewers, stormwater collection sewers, water distribution main, fire hydrants and a private street, all which are to be built to Town of Brunswick specifications. The water system and sanitary sewer system is expected to be conveyed by deed to the Town of Brunswick for future operation and maintenance. The Brunswick Meadows Homeowners Association will maintain the roadways, parking areas and the storm water management systems. Electric, natural gas, cable TV and telephone facilities necessary to service the residential units will be installed underground by the various private utility companies. All costs associated with the development of this project and infrastructure will be borne by the developer.

Water District Formation Procedure

Along with the submission of this Map, Plan & Engineer's Report, the property owners of the proposed Brunswick Meadows development, in accordance with New York State Town Law - Article 12, will petition the Brunswick Town Board to create a new water district, to be known as Water District No. 14 (Brunswick Meadows), to service this residential condominium community. See Exhibit N. Signing of official petitions in accordance with Town Law (Article 12) by property owners representing at least 51% of the total assessed value of property within the proposed district boundaries and by resident property owners representing 51% of the total assessed value owned by resident property owners will initiate the review and action by the Brunswick Town Board.

The following requirements must be met in order for the district to be formed:

- The petition must be signed and acknowledged or proved as required by law, that it complies with the requirements of the Town Law Article 12 as to sufficiency of signers and is otherwise sufficient;
- All the property and property owners within the proposed district are benefited thereby;
- All the property and property owners benefited are included within the limits of the proposed district;

- The cost of the proposed improvements is to be assessed against the benefited area and all real property to be so assessed will be benefited by the proposed improvements and no benefited property has been excluded;
- It is in the public interest to grant the relief sought in the petition and such will not constitute an undue burden on the property that will bear the cost thereof;

Water District Justification

One primary objective of this report is to provide the New York State Department of Environmental Conservation with adequate information related to project justification. The following seven statutory requirements must be met to allow establishment of this water district:

- *The plans proposed by the applicant are justified by public necessity* – The project sponsors have determined that this portion of Rensselaer County and the Town of Brunswick is in need for this type of residential housing due to the aging population of the “baby boomer / empty nesters” generation and also due to the economic development of the high tech industries that are expanding in this area, specifically at the RPI campus. The future residents of the proposed water district will require municipal water. The proposed project would require 37,200 GPD of water in order to service the population of this residential community. The use of private in-ground wells could not provide the required volume for this domestic use. In addition, the type of construction proposed for this project will require a sprinkler system in each building for fire protection.
- *The plans take proper consideration of other sources of water supply that are or may become available* - There are no sources of water other than the City of Troy Tomhannock Reservoir that exist or may become available to serve residents within the proposed water district. The City of Troy water system is the only developed water system in this part of Rensselaer County. There are no developed ground water sources or aquifers in the area that can supply the needs for this project.
- *The plans provide for proper and safe construction of all work connected to this proposed water district* - The plans for the proposed work have been designed by a New York State licensed professional engineer familiar with New York State and local codes regulating construction of a water district improvement. It is the intention of the design engineer that all codes and safety standards will be adhered to during construction. The work will be inspected by the engineer of record as well as by the designated Town Engineer.

- ***The plans provide for the proper sanitary control of the watershed and protection of the supply*** - The proposed water district is not within the same watershed as the source of the supply, the Tomahannock Reservoir. There will be sanitary sewers installed within the proposed water district; consequently no polluting of the watershed will occur as a result of this project.
- ***The plans provide for an adequate water supply*** - The plans provide for an adequate water supply from the City of Troy water system through an existing 12-inch main. The maximum permissible withdrawal from the City of Troy water source is approximately 30 MGD. The present average daily demand is approximately 18 MGD and the peak daily usage was recorded at 23.6 MGD. The City of Troy can easily accommodate the additional 37,200 GPD resulting from this proposed water district.
- ***The plans are just and equitable to other municipal corporations and civil divisions of the state affected thereby and to the inhabitants thereof, particular consideration being given to their present and future necessities for sources of water supply*** - These plans will not affect the water needs of other municipal corporation or other civil divisions nor do these plans affect their water sources of supply.
- ***The plans make fair and equitable provisions for determination and payment of any and all damages to person and property, both direct and indirect, which will result from the acquisition of said lands or execution of said plans*** – There are no land acquisition proposed for this water district project and any damages resulting from the construction shall be covered by the individual insurances for the contractors performing the water improvement construction.

Proposed Legal Boundaries

The property owner of the Tax Map Parcel No. 80.00 -- 2 -- 3.1, TOPATOMA LLC, will petition the Town of Brunswick Town Board to establish proposed Water District No. 14 to service the Brunswick Meadows project, located in the vicinity of NYS Route 142 (Grange Road) in the northwestern part of the Town.

The boundary of the “Proposed Water District No. 14” is shown on Map Number 1 - “Proposed Water District No. 14 - District Boundary Map”.

The written legal description of the proposed Water District No. 14 is as follows:

**Town of Brunswick
Water District No. 14**

Brunswick Meadows

Legal Description

October 17, 2006

All that certain piece or parcel of land, lying and being in the Town of Brunswick, County of Rensselaer, State of New York, more particularly bounded and describe as follows:

Beginning at a point on the west right-of-way line of NYS Route 142 (aka Grange Road),

Said point being located approximately 126.85 feet southerly from an existing New York State highway concrete monument located at a point on the City of Troy / Town of Brunswick municipal boundary line as it intersects with the west right-of-way line of NYS Route 142,

Said New York State highway concrete monument also being approximately 175 feet southerly from the southerly right-of-way line of Hialeah Drive,

Said point of beginning also being the southeasterly corner of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran) and the northeasterly corner of Tax Map Parcel 80.00 – 2 – 3.1 (n/f TOPATOMA LLC),

Thence, South 13 degrees 53 minutes 12 seconds East along said west right-of-way line of NYS Route 142 for a distance of 350.23 feet to a point; said point being the northeasterly corner of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier);

Thence, South 76 degrees 6 minutes 48 seconds West along the north property line of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier) for a distance of 150.00 feet to a point;

Thence, South 13 degrees 53 minutes 12 seconds East along the west property line of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier) for a distance of 99.21 feet to a point;

Thence, South 76 degrees 24 minutes 48 seconds West along the north property line of Tax Map Parcel 80.00 – 2 – 7 (n/f Vallee) for a distance of 39.81 feet to a point;

Thence, South 13 degrees 35 minutes 12 seconds East along the west property line of Tax Map Parcel 80.00 – 2 – (n/f Vallee) for a distance of 208.89 feet to a point;

Thence, South 74 degrees 39 minutes 36 seconds West along the south property line of Tax Map Parcel 80.00 – 2 – 3 (n/f TOPATOMA LLC) for a distance of 1,091.86 feet to a point;

Thence, North 5 degrees 45 minutes 48 seconds East through Tax Map Parcel 80.00 – 2 – 3.1 (n/f TOPATOMA LLC) for a distance of 726.55 feet to a point;

Thence, North 71 degrees 27 minutes 0 seconds East for a distance of 27.13 feet to a point;

Thence, North 18 degrees 33 minutes 0 seconds West for a distance of 155.00 feet to a point;

Thence, North 77 degrees 45 minutes 0 seconds East for a distance of 683.41 feet to a point; said point being the northwest corner of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran);

Thence, along the property line of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran) the following courses and distances:

***South 15 degrees 36 minutes 20 seconds East for a distance of 247.30 feet to a point;
North 74 degrees 3 minutes 40 seconds East for a distance of 154.94 feet to a point;
North 25 degrees 15 minutes 30 seconds East for a distance of 132.00 feet to a point;
North 73 degrees 54 minutes 10 seconds East for a distance of 95.00 feet to the point and place of beginning.***

Said parcel area being approximately 18.3 +/- acres in size; and

All as shown on a map entitled “Proposed Water District No. 14 – District Boundary Map”, dated January 13, 2005 and prepared by Thomas M. Murley, P.E. and;

Being a portion of Tax Map Parcel 80.00 – 2 – 3.1 (n/f TOPATOMA LLC) as shown on a map entitled “Survey & Map of Lands Now or Formerly of Stephen J. Lansing, in the Town of Brunswick, Rensselaer County, NY”, dated November 11, 1965 and prepared by Richard Danskin, Land Surveyor #33,686.

Water Source

City of Troy Department of Public Utilities - The City of Troy’s water distribution system is supplied by the Tomhannock Reservoir. Water from the reservoir is treated at the City of Troy John P. Buckley’s Water Treatment Plant (WTP), which feeds the distribution system consisting of four primary service areas; the Low Service Area, the High Service Area, the Upper High Service Area and the Gurley

Avenue Water Tank Area. A schematic diagram of the City's water system is presented in Exhibit D.

Tomhannock Reservoir - The City of Troy's water distribution system is supplied from the Tomhannock Reservoir, which is located in the Town of Pittstown in northern Rensselaer County approximately 10 1/2 miles northeasterly of the City. This reservoir has a water surface area of about 1,700 acres, a drainage area of 42,000 acres and a total capacity of 12.3 billion gallons. The reservoir can reliably yield up to 32 MGD of water to the City of Troy even during periods of severe drought. From the Tomhannock, raw water flows by gravity through a tunnel and then through parallel 30-inch and 33-inch transmission mains to the Melrose chlorination station. Chlorine is added at this point to meet the disinfection requirements for the approximately 30-40 houses connected to the 30-inch transmission main downstream of this location in the Town of Schaghticoke and to later aid in the water treatment process. A new water district was recently created in the Town of Schaghticoke to provide treated water from Troy to these 30-40 homes plus additional homes in the southern portion of the Town. Water is fed to this new district from a new water line installed along Brickyard Road and NYS Route 40 with pressurization being achieved from Troy's Gurley Avenue storage tank and a new pump station and storage tank recently constructed by the Town of Schaghticoke.

John P. Buckley Water Treatment Plant - From the Melrose chlorination station the water continues through the same two transmission mains before being combined into a 1,800-foot section of 60-inch concrete pipe to the influent side of the City's Water Treatment Plant (WTP) located off of Leversee Road. The Water Treatment Plant, which was constructed in the 1960's, utilizes a conventional flocculation/coagulation /sedimentation / filtration process for treating the raw water and is divided into two, parallel, process sections. The two process sections, the North side and the South side, each contain four separate units, which are identical in size and components. The WTP is designed such that any section or unit can be removed from operation without affecting the operation of the other section or units. Each process section begins with raw water entering a rapid mix basin where aluminum sulfate (alum) is added to promote coagulation. After thorough mixing, the water passes through the flocculation basins where gentle agitation causes the colloidal particles to adhere together and form settleable solids. The water then slowly moves through the sedimentation basins for several hours allowing time for the solids to settle and be removed. The settled water then passes through the dual media gravity filters, which consist of an 18-inch layer of anthracite coal on top of 18 inches of sand. The treated water then flows into the 8.5 million-gallon (MG) finished water reservoir, which feeds the distribution system by gravity. A process flow schematic of the Troy WTP is presented in Figure 1. The Average Daily Flow (ADF) design capacity of the WTP is 30 MGD, with the ability to treat a Maximum Daily Flow (MDF) of 45 MGD without impairing finished water quality. The WTP currently treats an ADF of approximately 17 MGD, with a corresponding MDF as

high as 23 MGD. Therefore, there is adequate treatment capacity available at the WTP to produce the additional volume needed for this water improvement project.

Low Service Area - The Low Service Area consists of the downtown section of Troy and the Lansingburgh area of the City running from the Hudson River east to the base of the hill. This service area is the largest of Troy's three service areas. The Low Service Area is fed by gravity from the finish water reservoir at the WTP. One 60-inch concrete pipe leaves the finish water reservoir and travels down Northern Drive to 8th Avenue where it splits into two 30-inch transmission mains that travel through Lansingburgh on 3rd Avenue and 6th Avenue to Glen Avenue where they connect. From this connection point, a 30-inch transmission main continues on Glen Avenue to supply the Eddy Lane Pump Station. In addition, three other transmission mains continue through the Low Service Area to supply South Troy. These include one 20-inch and two 24-inch mains, which eventually reduce down to one 20-inch main and one 16-inch main at the southern edge of Troy. These transmission mains are connected by a network of 6-inch through 12-inch distribution mains throughout the downtown area of Troy, which connect to the domestic, commercial and industrial users of the Low Service Area. The Low Service Area has an ADF of approximately 6.2 MGD and an MDF of approximately 8.0 MGD.

High Service Area - The High Service Area is bordered by the Low Service Area to the West and extends to the area just beyond Burdett Avenue to the East. Booster pumps at the Eddy Lane Pump Station supply both the High and the Upper High service areas. Two 200 horsepower (HP) pumps feed the High Service Area, each with a design capacity of 3,200 gallons per minute (GPM), operating against total head of 200 feet. The 5-MG storage tank located at Spring Avenue and Pawling Avenue provides storage for the High Service Area. The High Service pumps convey water through a 20-inch transmission main to the storage tank and to a network of 6-inch through 12-inch distribution mains. The High Service Area "floats" by gravity off of the water storage tank. This means that when the level in the tank drops approximately five (5) feet from the maximum water level, the pumps are turned on. The pumps then supply water to the High Service Area until the tank is filled. When the pumps are off, the High Service Area is fed by gravity or floats off of the tank. The High Service Area has an ADF of approximately 2.1 MGD and an MDF of approximately 3.0 MGD.

Upper High Service Area - The Upper High Service Area is bordered by the High Service Area to the West and continues eastward to the City line. The Upper High Service Area is fed by either a 700 HP pump producing 5,600 GPM against 375 feet of total head, or a 500 HP pump producing 3,600 GPM against a total head of 375 feet. The 4 MG elevated tank located off of Tibbits Avenue provides storage for the Upper High Service Area. The Upper High Service pumps convey water through a 20-inch transmission main to the storage tank and to a network of 6-inch through 12-inch distribution mains. Similar to the High Service Area, the Upper High

Service Area floats off of its water tank. The Upper High Service Area has an ADF of approximately 2.0 MGD and an MDF of approximately 3.2 MGD.

Gurley Avenue Water Tank Area – The Gurley Avenue Water Tank Area serves the northeastern part of the City of Troy. The various residential developments located off of Oakwood Avenue and Gurley Avenue are provided water from this system along with the City of Troy Water Treatment Plant. The Speigletown section of the Towns of Schaghticoke and Brunswick are also serviced from the Gurley Avenue Water Tank, an 800,000-gallon steel standpipe located in the "Highpointe at Oakwood" residential development. This Gurley Avenue water storage standpipe tank is fed, through a 12-inch and 16-inch transmission main, from the pump station located at the City of Troy's John P. Buckley Water Treatment Plant on the northwest corner of Northern Drive and Liversee Road, approximately 1/2 mile west of the Brunswick Meadows site. The Gurley Avenue pump station and storage tank were first placed in service on April 1, 1976. A layout of the City of Troy water treatment plant and distribution system is included in Exhibit D.

Outside Users - In addition to the demands of the City's four service areas, Troy currently provides water to the Towns of Brunswick (ADF = 0.800 MGD) and North Greenbush (ADF = 0.448 MGD) from the Upper High Service Area; to the Town of North Greenbush (ADF = 0.010 MGD) from the High Service Area; and to the City of Rensselaer/Town of East Greenbush (ADF = 3.0 MGD) and the Village of Menands (ADF= 0.9 MGD) from the Low Service Area. There are other outside users who are supplied by the City of Troy who will not be discussed herein because their volume requirements are too low to have an impact on this study (Town of Schaghticoke and Village of Waterford).

Improvements to the City of Troy Water System - The City of Troy is currently undertaking a multi-million dollar project to make several improvements to their water system. These improvements include:

- Installing new instrumentation and control systems, replacement of filter media and upgrading process treatment equipment at the WTP,
- Installing a new chlorine dioxide system at the Melrose chlorination station,
- Repairing and repainting all of the City's water storage tanks,
- Replacing pumps, upgrading pump electrical systems and installing a new diesel emergency generator at the Eddy Lane Pump Station.

With these improvements, the City's water system will continue to provide a safe and reliable source of potable water to meet the current and future demands of the City of Troy and its surrounding communities.

Projected Water Usage

The facilities to be constructed, as part of this project, should have sufficient capacity to meet the future domestic demands of the service area and the fire flow

demands of the community. The future projected water usage for proposed Water District No. 14 is estimated as follows:

Total Average Daily Usage: Total average daily water usage for this development is estimated as follows:

$$124 \text{ units} \times 2 \text{ persons / unit} \times 150 \text{ gallons per day / person} = 37,200 \text{ gallons per day}$$

Average Daily Flow Rate: The average daily flow rate for this development is estimated as follows:

$$37,200 \text{ GPD (average daily water usage)} / 1440 \text{ minutes per day} = 26 \text{ GPM}$$

Peak Daily Usage: The peak daily water usage is estimated at two times the average daily water usage for a total of 74,400 GPD during certain times of the year.

Peak Hourly Flow Rate: The peak hourly flow rate can be estimated at four times the average daily usage or approximately 148,800 GPD or 6,200 GPH or approximately 103 GPM.

Required Fire Flow Usage: The required fire flow usage can be calculated for the Town of Brunswick, a residential community, in accordance with the Insurance Services Office, Inc “*Fire Suppression Rating Schedule*”, see Exhibit H. For an area population of 1,000 people in a residential district and fire duration of two (2) hours the required fire flow usage at 1,500 GPM is 180,000 gallons.

Required Water Storage Capacity: The minimum storage capacity for one (1) day’s worth of domestic water usage for the Brunswick Meadows project would result in a storage capacity need of 37,200 gallons plus the required fire flow usage of 180,000 gallons equals a total required storage of 220,800 gallons. The Gurley Avenue water storage tank has an 800,000 gallons capacity. This water tank volume is more than the total required storage for proposed Water District No. 14. In addition, the nearby City of Troy’s water source, treatment, distribution and pumping facilities have sufficient capacity with standby power to supplement peak demands of the system to meet the total required water storage.

Proposed Water System Facilities

The proposed Water District No. 14 water improvements are shown on Map Number 2 entitled “*Proposed Water District No. 14 – General Plan*”.

A new 12-inch ductile iron pipe water main, fire hydrants and appurtenances will be installed along NYS Route 142 (Livingston Street and Grange Road) from the existing City of Troy 12-inch transmission water main (located in NYS Route 142 at Hialeah Drive) to the entranceway for Brunswick Meadows. This new 12-inch water main will then continue along Brunswick Meadows Way to the south and loop

around the project site with an 8-inch main. Water for domestic use and fire protection will be provided to each condominium building utilizing this municipal water system. The water system will be constructed in accordance with the AWWA specifications along with the Rensselaer County Health Department, Town of Brunswick and City of Troy regulations.

The existing City of Troy 12-inch transmission water main located along NYS Route 142 (Livingston Street) feeds a 6-inch main that was installed on Hialeah Drive in 1968, which connects through to the Miami Beach Estates. This 6-inch distribution main on Hialeah Drive then connects to an 8-inch main on Biscayne Boulevard, This 8-inch main then connects to a 12-inch transmission water main on Oakwood Avenue that is part of the feed to the 800,000-gallon Gurley Avenue water storage tank located in the "Highpointe at Oakwood" residential development. This Gurley Avenue water storage standpipe tank is fed from the pump station located at the City of Troy's John P. Buckley Water Treatment Plant on the northwest corner of Northern Drive and Laversee Road, approximately 1/2 mile west of the Brunswick Meadows site. The Gurley Avenue pump station and storage tank were first placed in service by the City of Troy on April 1, 1976. A map and description of the City of Troy water system is included in Exhibit D.

Water Quality

The City of Troy finished water currently meets or exceeds all New York State Health Department criteria for water quality. See Exhibit E for a copy of the *City of Troy 2005 Annual Water Quality Report*.

The Department of Public Utilities, which compiled the report, is responsible for the water supply and treatment, from the Tomhannock Reservoir through the water treatment plant and distribution system to the final consumer's homes and businesses.

Proposed Water District No. 14 will not need to re-chlorinate the water due to the closeness of the water treatment plant where the City of Troy disinfects the finished treated water prior to leaving the water treatment plant.

Water Pressure

The City of Troy Department of Public Utilities indicates there is sufficient water supply and water pressure to serve the proposed Water District No. 14 (Brunswick Meadows) from their existing water system. See attached Exhibit F.

The anticipated static water pressure at ground level throughout the Brunswick Meadow site is expected to range from 70 psi to 90 psi. This was calculated as follows:

Water pressure within the City of Troy system was checked on August 10, 2001 at 7:50 AM at the existing fire hydrant in Viewpointe Drive in the "Highpointe at Oakwood" residential development. This existing fire hydrant (approximate USGS elevation is 416 feet) is located approximately 120 feet southeast from the base of the existing 800,000-gallon Gurley Avenue water storage tank that services the area. The approximate USGS elevation at the base of the tank is 422 feet.

Mr. James Rivers, Superintendent of the City of Troy Department of Public Utilities conducted the pressure test and reported the following information:

- Water tank height - 100 feet
- Normal water tank operating levels - 80 feet to 95 feet (502 feet to 517 feet USGS elevation)
- Water level in tank at time of test (August 10, 2001 at 7:50 AM) - 92.8 feet (514.8 feet USGS elevation)
- Pumping system to fill tank - not being used at time of pressure test
- Water pressure at the existing fire hydrant located on Viewpointe Drive (416 feet USGS) was measured at 44 psi.

The USGS elevation of the Brunswick Meadows site ranges from a high elevation of 340 feet near NYS Route 142 to a low elevation of 310 feet at the southerly end of the site. For every 2.31 feet in elevation, the water pressure equals one (1) pound per square inch (psi). With the normal water tank operating level in the Gurley Avenue tank, the static water pressure is calculated to range from 77 psi to 70 psi near the NYS Route 142 entrance to the site. The static water pressure is estimated to range from 90 psi to 83 psi at the southerly end of the site.

Attached, as part of Exhibit G is a breakdown of various water pressures throughout the City of Troy's water system as determined by the ISO Commercial Risk Services, Inc. when it evaluated the City's fire insurance classification.

Fire Protection Flows

The proposed Water District No. 14 will be capable of providing the required minimum available fire flow of approximately 1,500 GPM for duration of two (2) hours throughout the project site. Available fire flow is that amount of water available for fire protection in excess of the peak hourly demand of the system without dropping the system pressure below 20 psi. Maximum system flow is the total amount of water available at the specified location, inclusive of peak hourly demand.

Based upon the Insurance Services Office, Inc. (ISO) standards, see Exhibit H, the needed fire flow (NFF) for one and two-family dwellings not exceeding two stories in height is as follows:

<u>Distance Between Buildings (Feet)</u>	<u>Needed Fire Flow (GPM)</u>
Over 100	500
31 - 100	750
11 - 30	1,000
Less Than 11	1,500

The NFF is the rate of flow considered necessary to control a major fire in a specific building.

Fire protection is an important function of the distribution system's storage. Fighting a major fire can require a large volume of water over a relatively short time, possibly in greater excess than the capacity of the supply facility. By storing this water in the system, it would be closer to the potential fire and would eliminate the need for supplemental sources of water. The volume of water needed to provide fire flows during MDF conditions while maintaining distribution system pressures at 20 psi or greater is the fire storage volume. The maximum required fire storage volume as recommended by American Water Works Association (AWWA) would equal a flow rate of 3,500 GPM for duration of three (3) hours. Based on these criteria, the maximum fire storage volume equals 630,000 gallons. This volume will be available from the 800,000-gallon Gurley Avenue Water Tank.

Water Costs

A master meter chamber will be constructed near the Troy City Line to register water usage. The water usage readings will be used to develop water-billing charges for the proposed Water District No. 14. The Town of Brunswick and the City of Troy water purchase agreement (see Exhibit K) stipulates that the Town of Brunswick will purchase water from the City of Troy at the same rate as the City of Troy residents pay. The new City of Troy residents' rate as of January 1, 2007 is \$ 3.43 per 1,000 gallons of usage (see Exhibit L). Upon completion of construction and acceptance by the project design engineer, the water system will be conveyed to the Town of Brunswick for future operation and maintenance.

Each condominium building will be provided with an individual 2-inch Type K copper water service and curb box shutoff. A separate 2-inch sprinkler line will be installed for each building for added fire protection. Each residential unit will have a sprinkler system installed in accordance with the NYS Building Code.

Water usage to each building will be metered in accordance with Town of Brunswick regulations. Water usage charges will be billed by the Town of Brunswick directly to the Brunswick Meadows Homeowner Association at the Town's Residential Rate per 1,000 gallons of usage. The annual operation and maintenance charge for the water district is included in the actual water rate charged for water usage. These rates are identical to the recently completed Town of Brunswick Water District No. 11 for the Speigletown section of town. The Town of Brunswick customers are billed once in January and once in July.

The Town of Brunswick water costs for existing water districts are as follows:

1. **Debt Service Cost** - this is the cost to pay off the various bonding charges that relate to each district. Generally, these costs are for the initial engineering design and construction of the water lines, fire hydrants and appurtenances together with the associated legal/finance charges for the bonds used to finance the project. The New York State Comptroller's Office has to approve all debt service costs when improvements are made to each district. Debt service charges are billed to the customers annually with their property tax bills that are mailed out in January of each year.
2. **Water Usage Cost** - this is the cost that all customers are charged for the actual amount of water used as measured by the individual building meter. The quantity is measured in increments of 1,000 gallons and the actual water rate is the current Town of Brunswick resident's rate. The Town of Brunswick will purchase water wholesale from the City of Troy in accordance with rates established in the various contract agreements. Generally, the water usage cost is billed to customers twice per year after the individual building meters are read.
3. **Operation and Maintenance Cost** - the Town Board establishes this cost when the Annual Budget is adopted each year. This cost is based upon the Town of Brunswick Water Department's operational budget and covers all costs associated with the operation, maintenance and repairs to the water system for each district. The administrative billing and meter reading costs are part of this operation and maintenance cost that are included in the water rate charged to the Town's customers.

Project Financing

All costs associated with the water facilities improvements for proposed Water District No. 14 will be paid by the developer of the Brunswick Meadows project. There will be no public funding involved in the project.

This proposed water district will not require approval of the New York State Comptroller. The approval of the State Comptroller would be required if the project costs were to be financed by the issuance of public bonds or notes and the estimated total annual cost exceeds the thresholds established by the New York State Comptroller. For the year 2005, this threshold cost is \$575 (See Exhibit I).

The residents of Brunswick Meadows will have the following estimated costs associated with proposed Water District No. 14 improvements:

Debt Service Cost – There will be no debt service costs for this water district. The developer will pay for the entire construction cost of all water system improvements. No public financing will be required by the Town of Brunswick.

Water Usage Cost – The water usage costs for this project will be billed by the Town of Brunswick to the Brunswick Meadows Home Owners Association. The monthly homeowners association fees paid by each residence will include the water usage costs. The current water usage cost is calculated based upon a water rate of \$4.05 per 1,000 gallons of water used.

Operation and Maintenance Cost – The Town of Brunswick will bill the Brunswick Meadows Home Owners Association an annual operation and maintenance fee at the same time as the water usage costs. This operation and maintenance fee is included in the \$4.05 water rate.

Total Annual Cost - The estimated total annual cost per unit for the Brunswick Meadows project is estimated as follows:

Debt Service Cost	\$ 0.00
Water Usage Cost (100,000 gals x \$4.05 / 1000 gals)	\$ 405.00
<u>Operation & Maintenance Cost</u>	<u>\$ 0.00</u>
Total Annual Cost	\$ 405.00

Hook-up Cost – There will be no hook-up costs associated with this project for the property owners. The developer will pay all hook-up costs.

Estimated Project Construction Costs

The estimated project construction cost for proposed Water District No. 14 is broken-down as follows:

1. Engineering Design - \$40,000

- Base Mapping
- Surveying
- Easements
- Soil Borings
- Permitting Process
- Environmental Reviews
- Design Drawings / Plans
- Specifications
- Bidding Process

2. Construction Contract - \$400,000

12" Main (1,750 LF @ \$50/LF)	\$87,500
8" Main (1,150 LF @ \$40/LF)	\$46,000
Fire Hydrant & Valve (9 @ \$3,000)	\$27,000
12" Valves (8 @ \$1,500)	\$12,000
8" Valves (5 @ \$800)	\$ 4,000

Meter Chamber	\$30,000
Domestic Services (34 @ \$2,000)	\$68,000
Sprinkler Services (34 @ \$2,000)	\$68,000
Maintenance of Traffic	\$10,000
Connection To City 12" Main	\$10,000
Contingencies	\$37,500

3. Construction Inspection - \$40,000

4. Legal/Financing Interest Expenses - \$5,000

Total Project Construction Cost \$485,000

Topography

Overall, 85% of the project site drains generally to the west towards the City of Troy boundary line and enters a culvert that leads under Hialeah Drive and into the old Lansingburgh Water Works Storage Reservoir. The remaining 15% of the site drains southerly towards the stream that leads to the old Lansingburgh Water Works Storage Reservoir near Biscayne Boulevard in the City of Troy.

The topography at the north end of the project is gently rolling land with patches of brush and small trees scattered through out the site. The topography at the south end of the project slopes moderately towards the stream located along the proposed southerly property line. This moderate slope is heavily wooded and will remain intact in its present natural state.

It is proposed that this wooded area along the stream be used as public open space along with a nature-walking trail to be connected with Brunswick Meadows Way at several access points. A small picnic table pavilion with barbecue grills will also be constructed in this wooded area to allow residents to gather for community events and sight seeing of the wilderness. Selective thinning of some of the trees and brush along the stream and trails will take place under the direction of the project engineer. Extreme care will be taken to avoid any damage to this wooded overlook area during the clearing and construction operations. The vegetated buffer along the stream corridor protects the ecological values of the stream as well as provides recreational opportunities for walking and hiking. Protecting this stream corridor will be a very important part of the project. This buffer along the stream protects the water quality and hydrology of the area thus ensuring that the wetland will continue to provide its ecological services and provide for important wildlife habitat.

The existing wooded / brush areas along the west property line adjacent to the Niagara Mohawk Power Company right-of-way shall be preserved as much as possible to act as a buffer between the Hialeah Estates development and the proposed Brunswick Meadows site. The wooded / brush area located near the property lines with the existing homes along NYS Route 142 will be preserved and

additional landscaping will be planted to act as a buffer for these single family homes.

Soils & Wetlands

The *Soil Survey of Rensselaer County, New York* published by the United States Department of Agricultural Soil Conservation Service provides the “Building Site Development” properties and engineering characteristics for the soils in the Brunswick Meadows site.

The Brunswick Meadows soils, as found from the north portion of the site to the south end of the site, are classified as follows:

- **BnC – Bernardston – Nassau complex, rolling.**
- **SwA – Shaker very fine sandy loam, sandy substratum, 0 to 4 percent slopes.**
- **EIB – Elmridge very fine sandy loam, 3 to 8 percent slopes.**
- **HuE – Hudson silt loam, steep.**
- **FIA – Fluvaquents – Udifluvents complex, 0 to 3 percent slopes.**

The site is generally will drained, however, some areas of perched groundwater maybe encountered during excavation, however, the quantities and flow rates are expected to be relatively small. It is expected, based upon the excavations in the adjacent Hialeah Estates development, that the installation of the various utilities will be accomplished with the use of a standard hydraulic excavator. Rock is not expected to be encountered anywhere on the site. Acceptable spoil materials may be used as fill for any low-lying areas on the site.

The condominium building structures will be built on shallow spread footings on undisturbed, inorganic soil or on controlled fill that, in turn, rests on these undisturbed soils. No special foundation conditions are expected to be required for any of the structures. Select stone fill shall be used around footing drains where a high water table is encountered during excavation. A qualified licensed professional engineer shall design the building foundations after further soil investigations have been performed.

A wetland delineation survey indicates that there are two areas that are designated as United States Army Corps of Engineers (USACOE) wetlands. One of these USACOE wetlands is located at the south end of the project and consists of the stream and the buffer land adjacent to the stream as it traverses through the site in an east / west direction. The second USACOE wetland is located in the middle of the site adjacent to the City of Troy and Town of Brunswick boundary line. This area drains into the old Lansingburgh Water Works Storage Reservoir. There are no NYSDEC wetlands located within or adjacent to the site.

To protect the surrounding environment during construction, the project will have a Storm Water Pollution Prevention Plan (SWPPP) prepared and approved by the New York State Department of Environmental Conservation (NYSDEC). This

SWPPP will incorporate erosion control methods as required by the "New York Guidelines for Urban Erosion and Sediment Control".

Maintenance Responsibility

The Town of Brunswick Water Department will be responsible for the future operation and maintenance of the proposed facilities within the proposed Water District No. 14.

The master water meter chamber will be operated and maintained by the Town of Brunswick Water Department.

Appropriate easements will be provided to the Town of Brunswick where the water mains and appurtenances are located in the private roadways within the project site.

The Brunswick Meadows Homeowners Association will maintain the individual water services to each building. The water services will be considered privately owned from the curb box shutoff into each building.

The Brunswick Meadows Homeowners Association will make access available for the Town of Brunswick Water Department personnel to read the building water meters each billing period.

Detailed Plans

Detailed construction plans and specifications for this project will be submitted to the Town of Brunswick Water Department, the Rensselaer County Health Department and the New York State Health Department for approval after the establishment of Water District No. 14 by the Town of Brunswick Town Board.

A New York State Licensed Professional Engineer will design the water improvement facilities for proposed Water District No. 14 and prepare the plans and specifications in accordance with the Ten States Standards (GLUMRB).

The details of the master water meter chamber will be reviewed and approved by the City of Troy Department of Public Utilities and the Town of Brunswick Water Department.

The design engineer or his designee will review and approve the shop drawings and material submittals for the water improvement facilities. A copy of these approved submittals shall be filed with the Town of Brunswick Water Department, the Town Engineer and the City of Troy Department of Public Utilities.

The design engineer or his designee will perform the actual construction inspection of the water improvement facilities and shall prepare the as-built drawings as required by the approving agencies and file a copy with each agency.

The design engineer shall certify to the Rensselaer County Health Department that the final construction is in accordance with the approved plans for Water District No. 14.

Construction Specifications

Water mains and appurtenances will be installed within the project area as shown on Map Number 2 - "*Proposed Water District No. 14 – General Plan*". Detailed specifications for the water system are included in Exhibit J. All construction work will be performed meeting the following specifications:

- The system will be constructed of cement-lined ductile iron Class 50 pipe conforming to current AWWA Specifications.
- Fire hydrants will be installed at approximately 500-foot spacing. Locations of hydrants are anticipated to be at intersections for ease of location by emergency service personnel and along property lines to avoid placing a hydrant within a resident's front yard. All hydrants will have a valve opening not less than five inches in size, installed at the end of a 6-inch ductile iron valved branch. Fire hydrants shall be the same model as currently used in the Town of Brunswick.
- Valves will be double gate, resilient wedge or butterfly valves in conformance with current AWWA Specifications. Valves are proposed at locations where water mains intersect and at such other locations required allowing the Town to easily turn off a section of the system for repair or maintenance. Valves will be spaced approximately 1,500 feet apart in long runs of water main with no intersecting mains.
- The water main will, in general, be installed at a depth of not less than five (5) feet from surface to centerline of pipe, and will be pressure tested and disinfected in accordance with latest AWWA Specifications.
- All water main and appurtenances are to be hydrostatically tested and disinfected in accordance with AWWA Specifications. The water main is to be tested at one and one-half times the working pressure in the system or 150 psi, whichever is greater for a period of two hours. The test pressure may not vary more than 5 psi. The water used for disinfection shall be disposed of in an environmentally approved and safe method.

Summary

The establishment and approval of proposed Water District No. 14 by the Town of Brunswick will allow for the extension of needed water service to the northwestern part of the Town and will allow for the development of the Brunswick Meadows project.

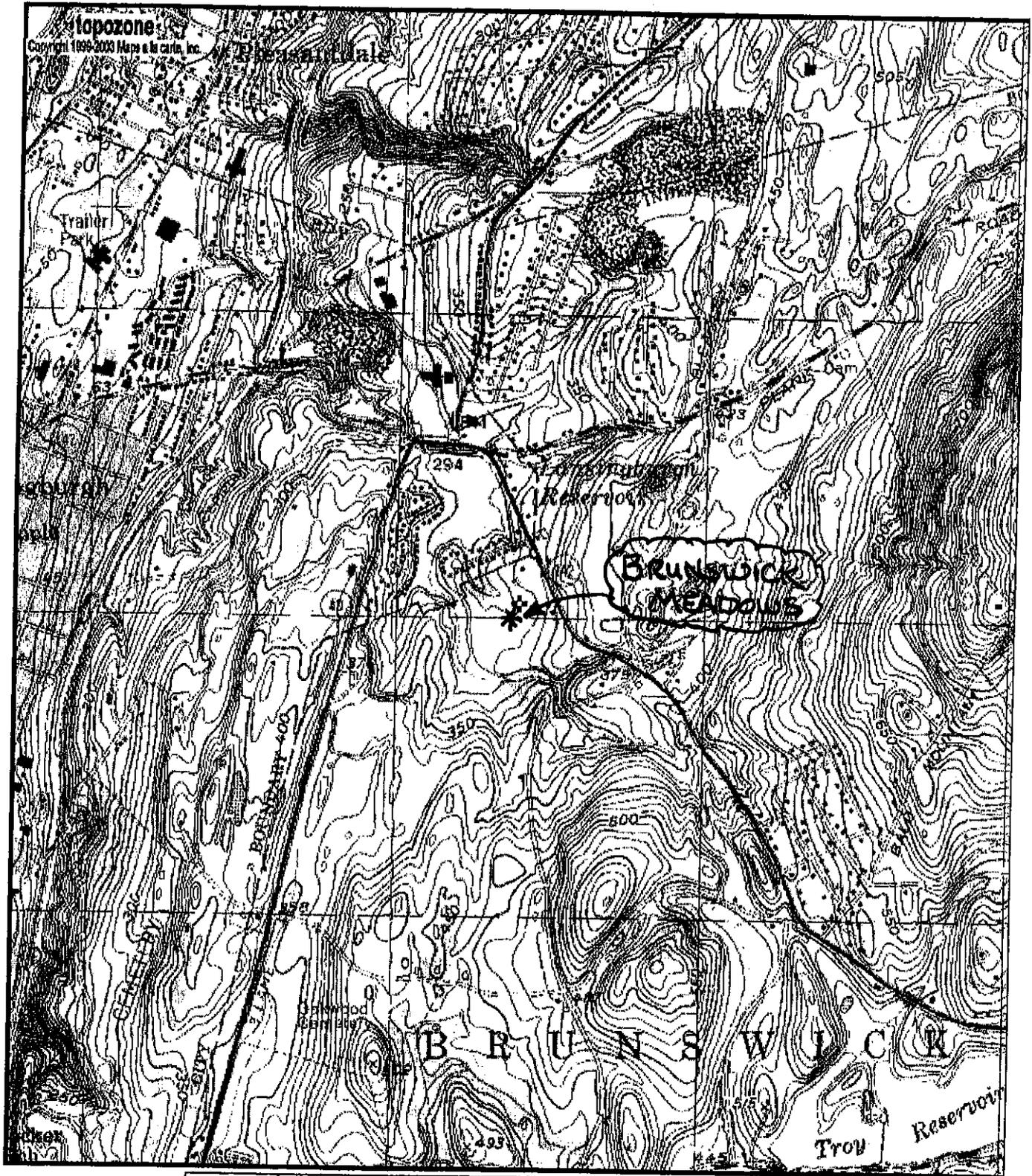
The Brunswick Meadows project has been carefully planned to create an attractive residential community, which would be in harmony and compatibility with the adjacent residential developments. Extensive site analysis has been performed to identify natural site amenities, soils characteristics and development limitations, nature and character of adjacent developments and site vegetation characteristics. These elements were then integrated into the layout and arrangement of buildings, roadway location and parking areas to create a high quality residential community and environment.

The large amount of open green space, a crystal clear flowing stream and attractively landscaped walking trails to be developed for Brunswick Meadows will allow the residents of this residential community to enjoy the peaceful and relaxing atmosphere of country living while still having the amenities of municipal utilities and easy accessibility to their work place and other urban facilities.

The establishment of Water District No. 14 and the development of the Brunswick Meadows project will generate significant tax revenues for the various taxing agencies. See attached Exhibit M for a projection of the tax revenues.

Exhibit A

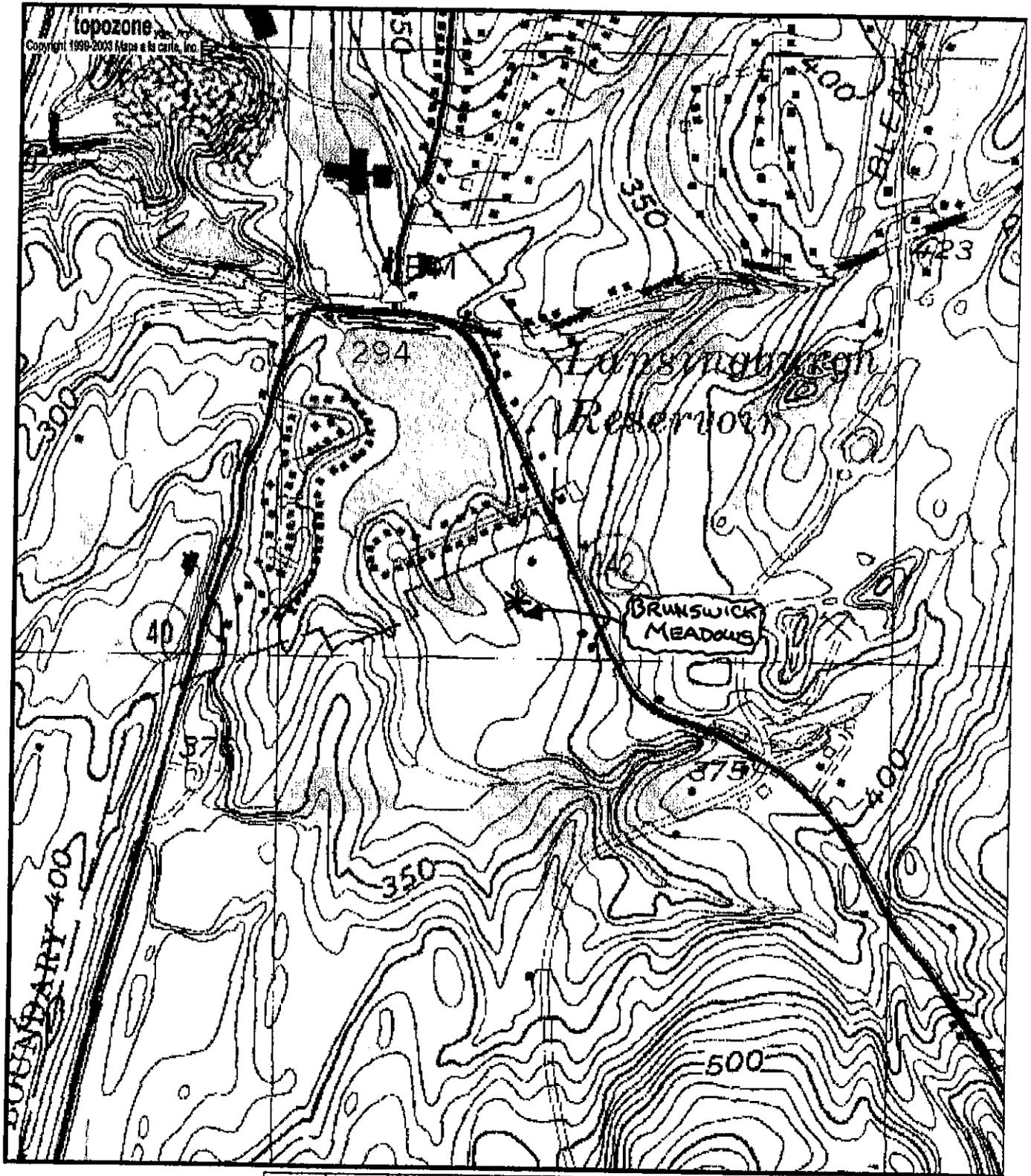
**Brunswick Meadows
Project Location Map**



Map center is UTM 18 610429E 4737273N (WGS84/NAD83)

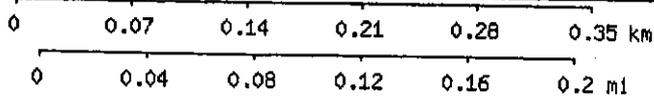
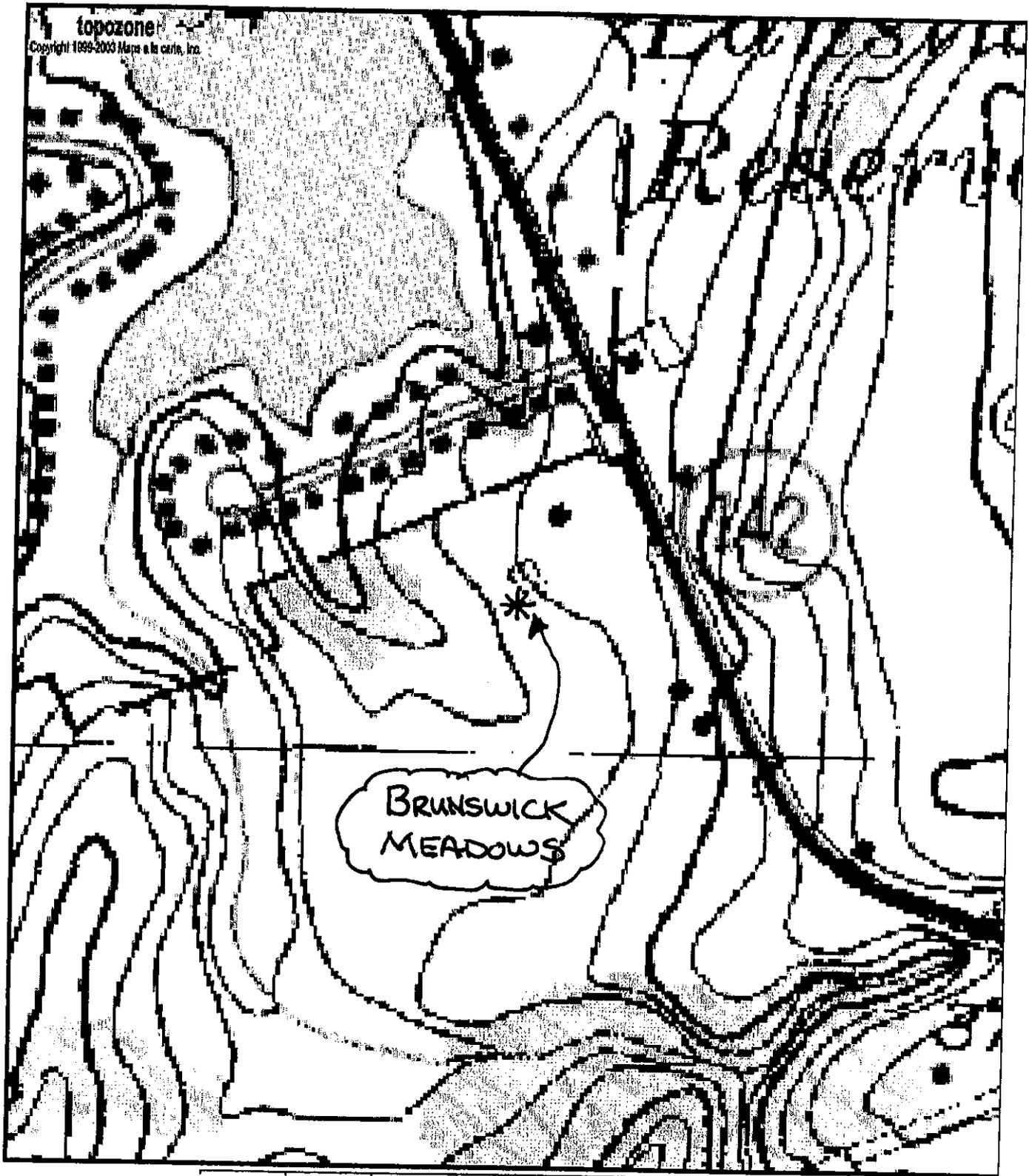
Troy North quadrangle

Projection is UTM Zone 18 NAD83 Datum



0 0.1 0.2 0.3 0.4 0.5 km
0 0.09 0.18 0.27 0.36 0.45 mi
Map center is UTM 18 610420E 4737310N (WGS84/NAD83)
Troy North quadrangle
Projection is UTM Zone 18 NAD83 Datum

M *
G
M=-14.35
G=0.917



Map center is UTM 18 610420E 4737310N (WGS84/NAD83)
Troy North quadrangle
Projection is UTM Zone 18 NAD83 Datum

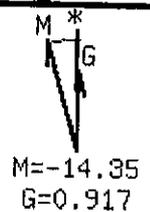
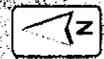


Exhibit B

**Brunswick Meadows
Site Plan Layout**

**BRUNSWICK MEADOWS SUBDIVISION
PROPOSED CONDITIONS**



1:1,700

1 inch equals 141.7 feet

Legend

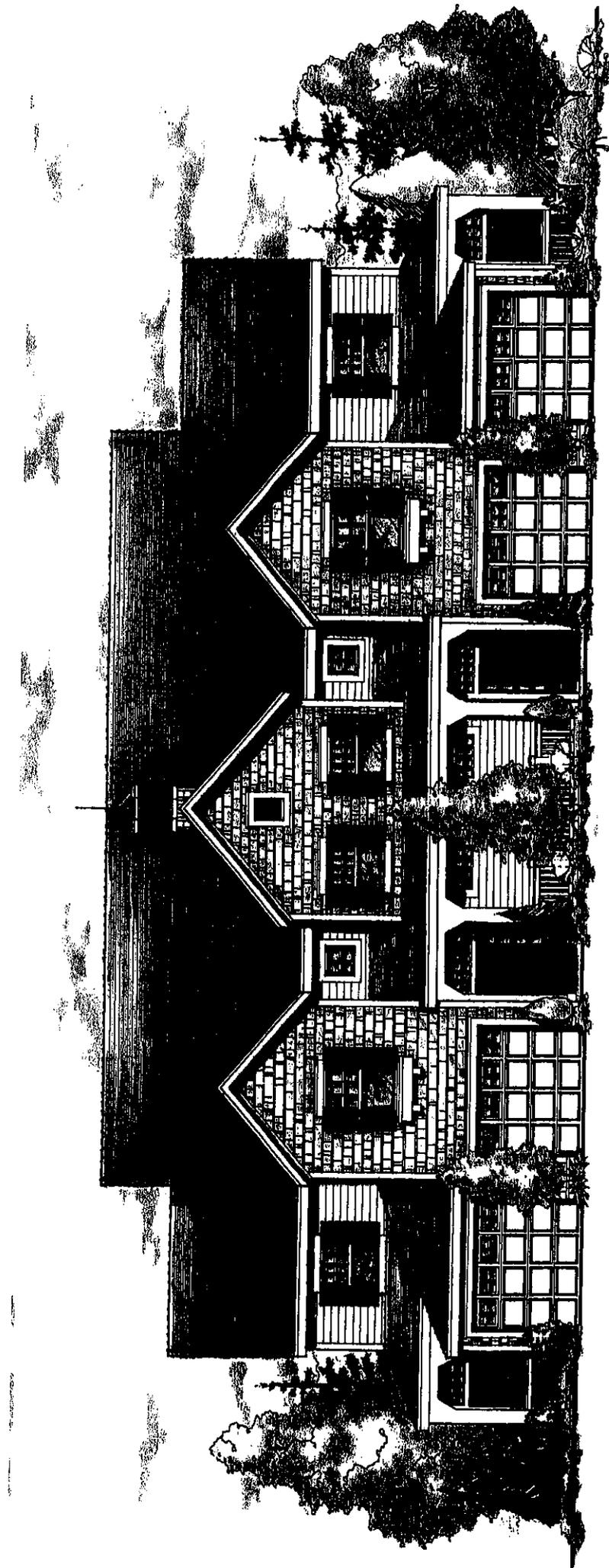


APE

Exhibit C

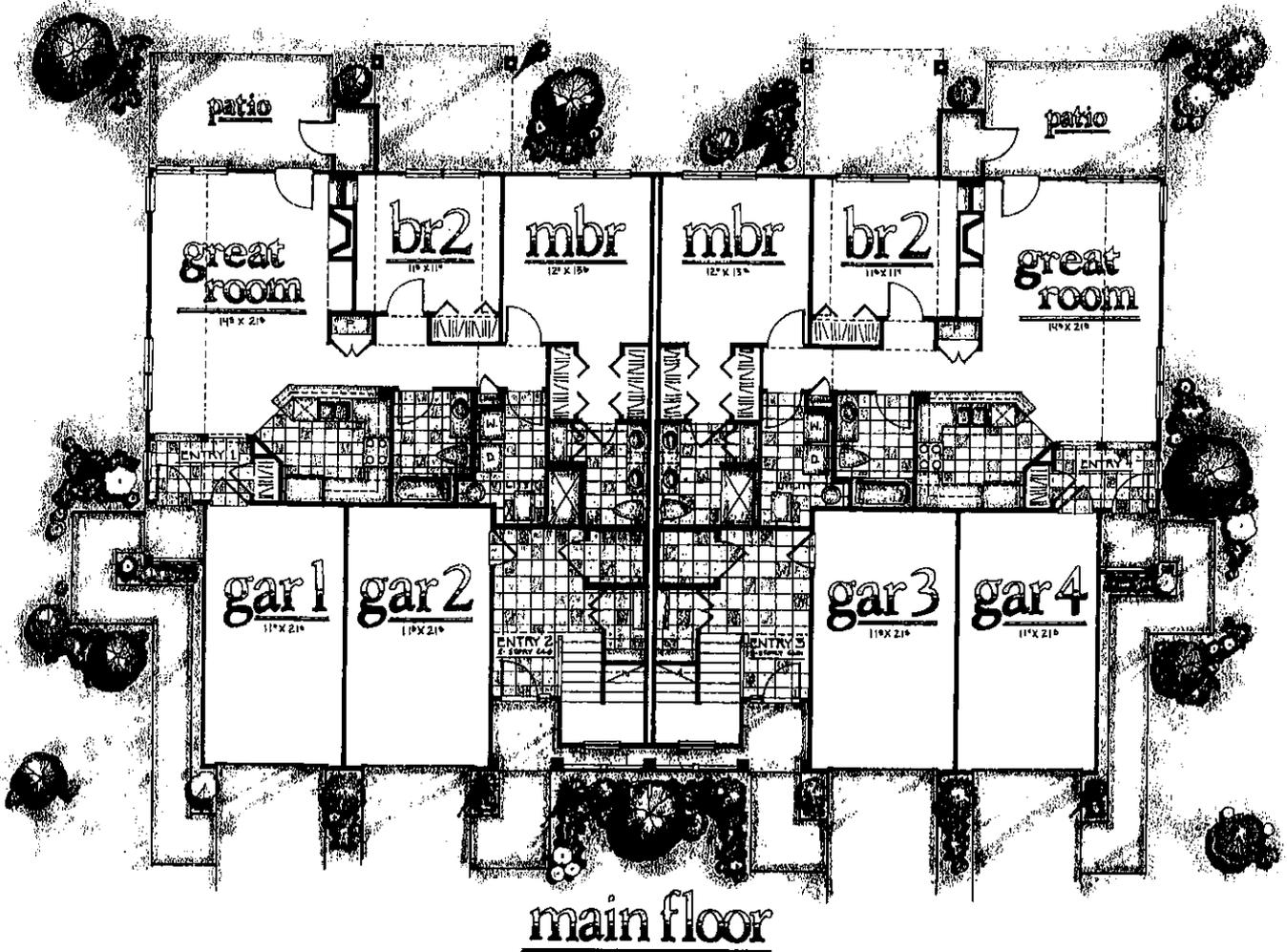
**Brunswick Meadows
Floor Plans & Front Elevation**

Brunswick Meadows

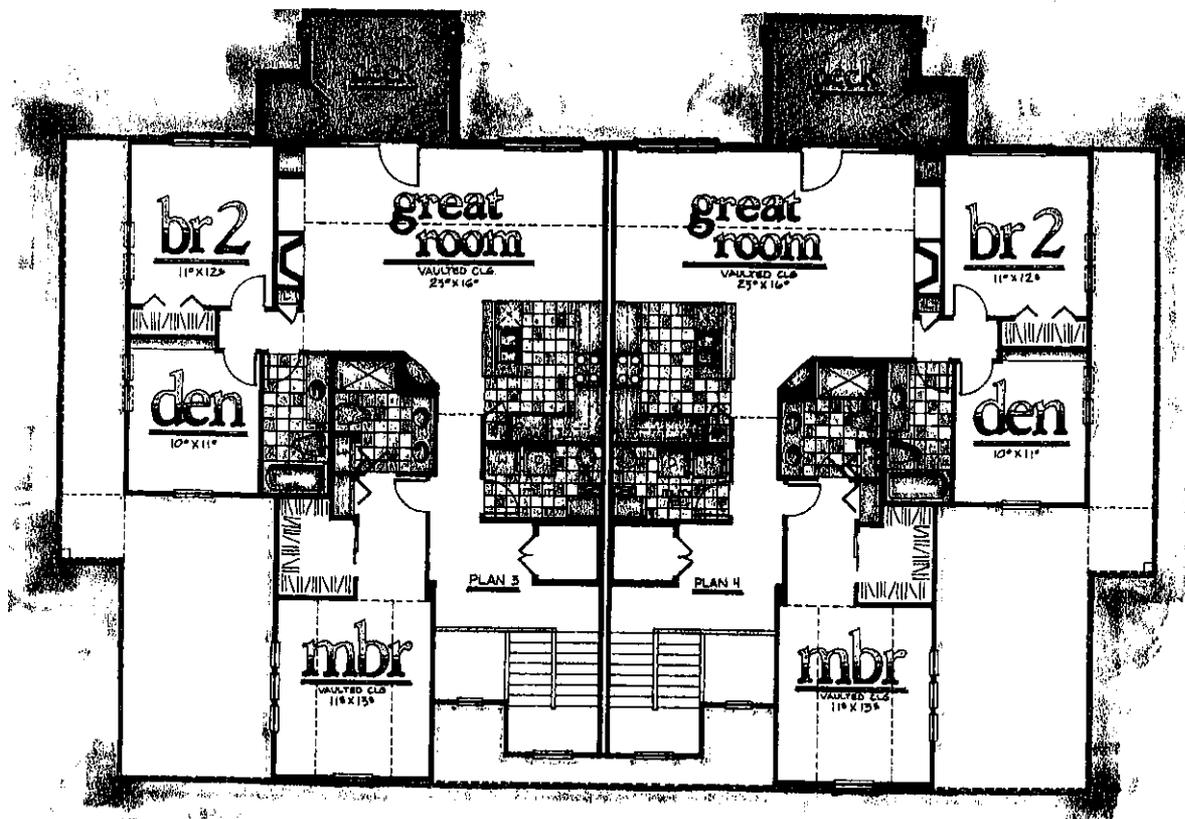


Front Elevation

Typical (4) Unit Condominium



main floor

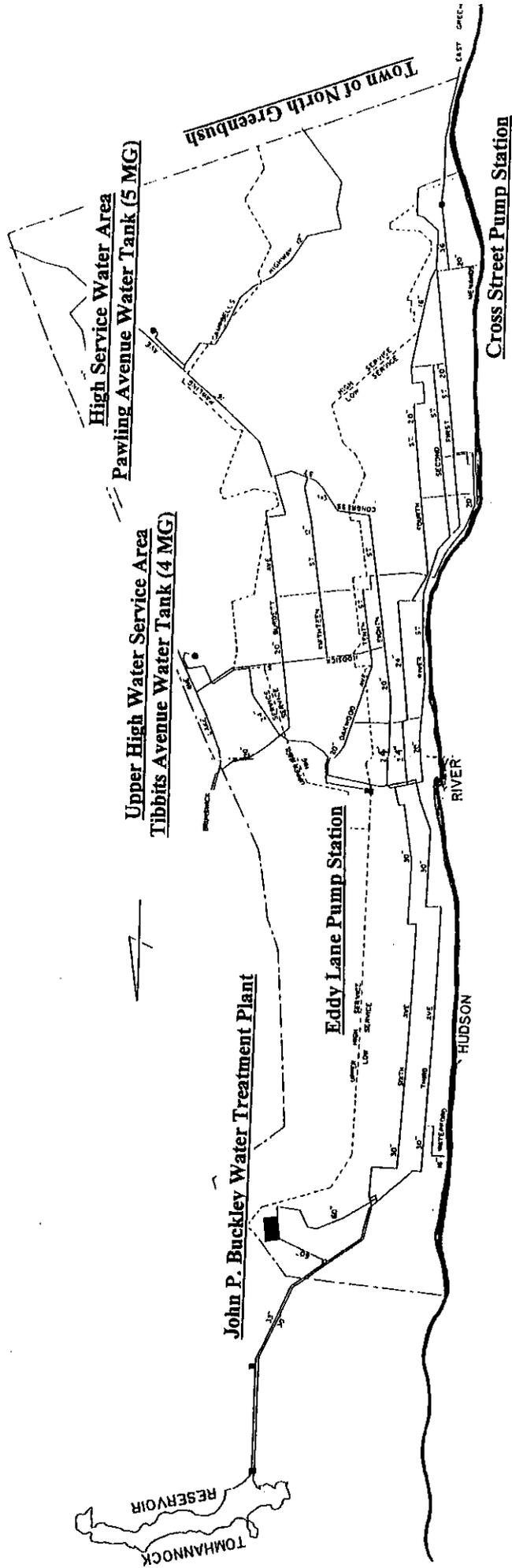


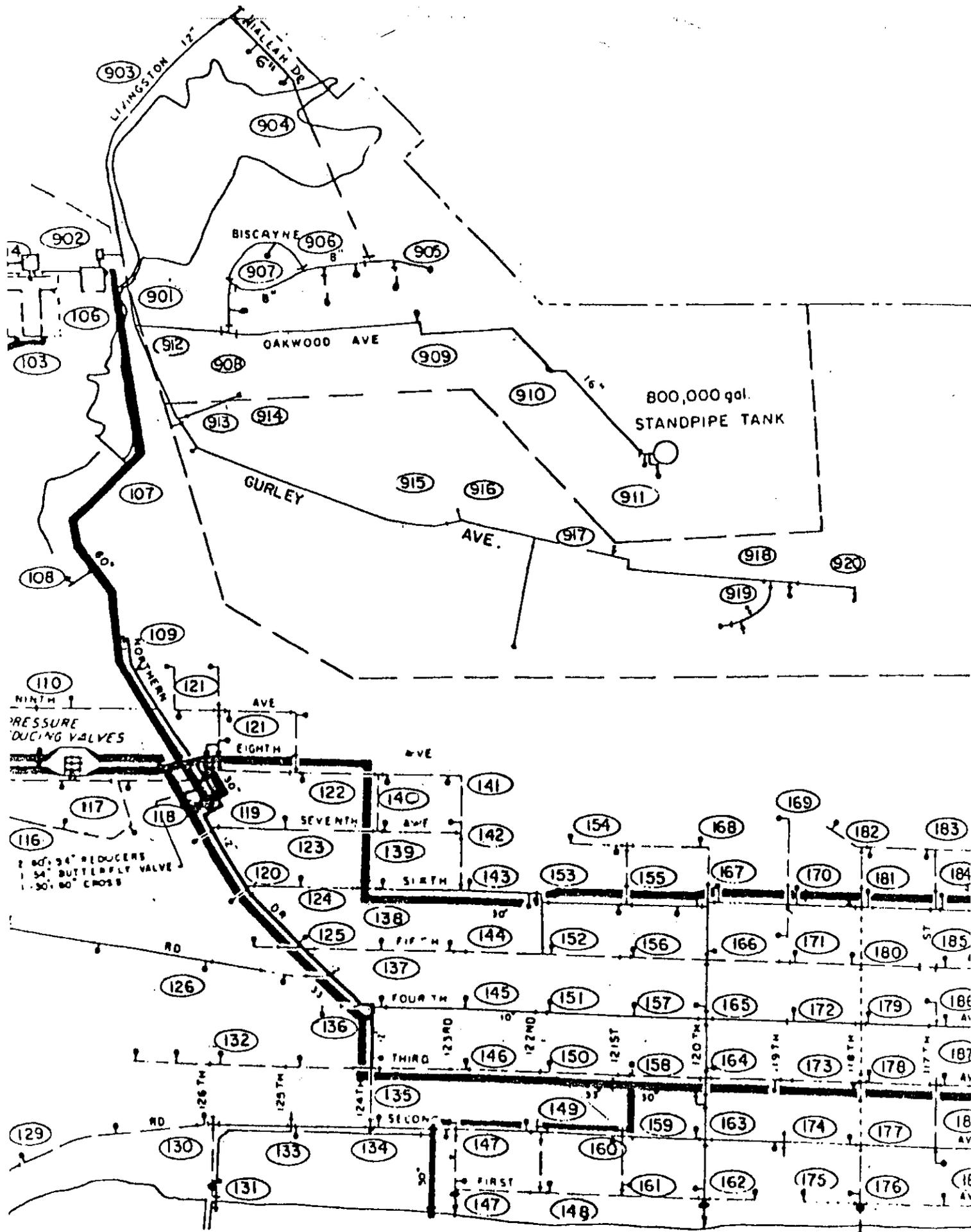
upper floor

Exhibit D

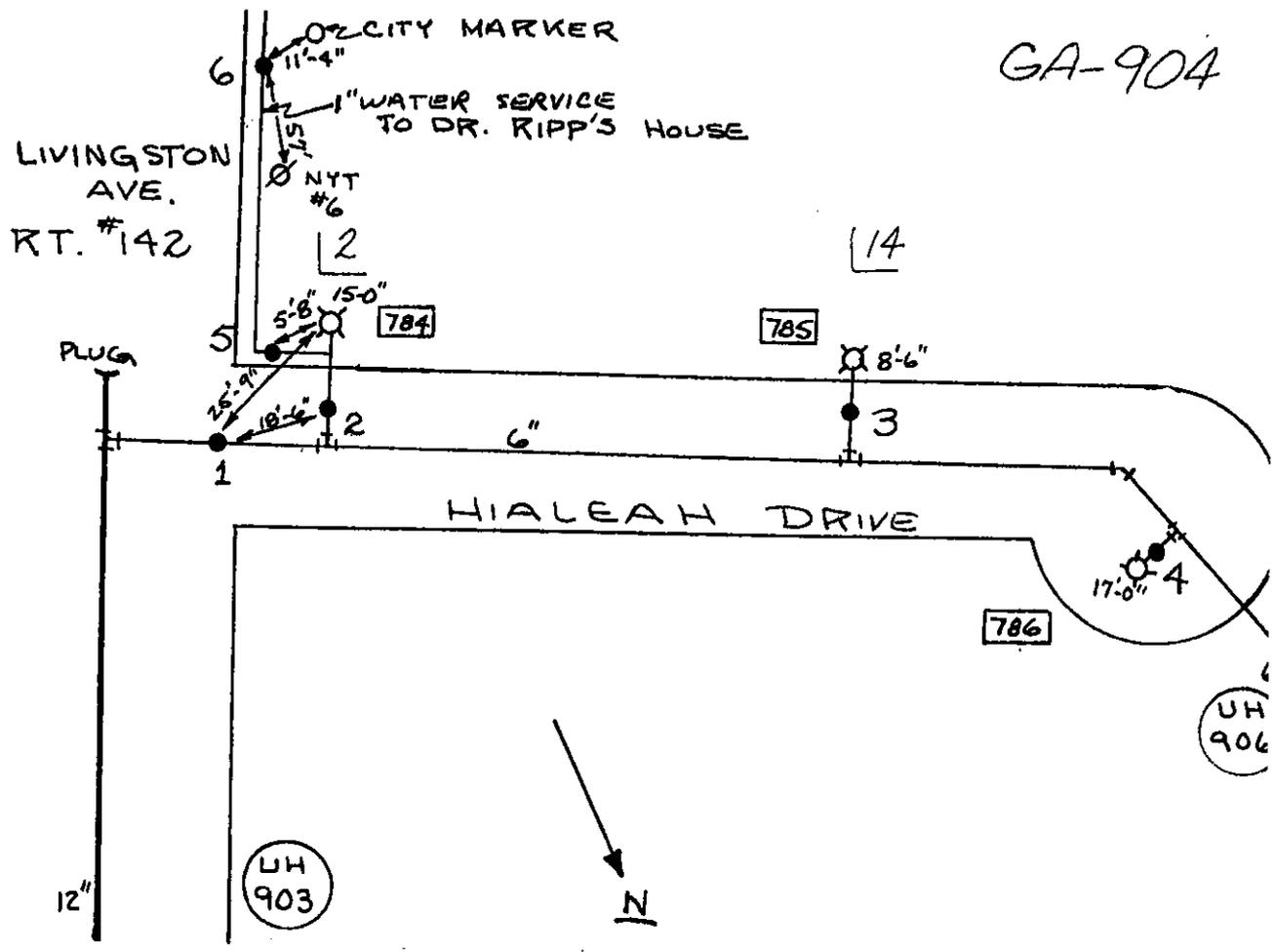
**City of Troy
Water System**

City of Troy Water System





GA-904

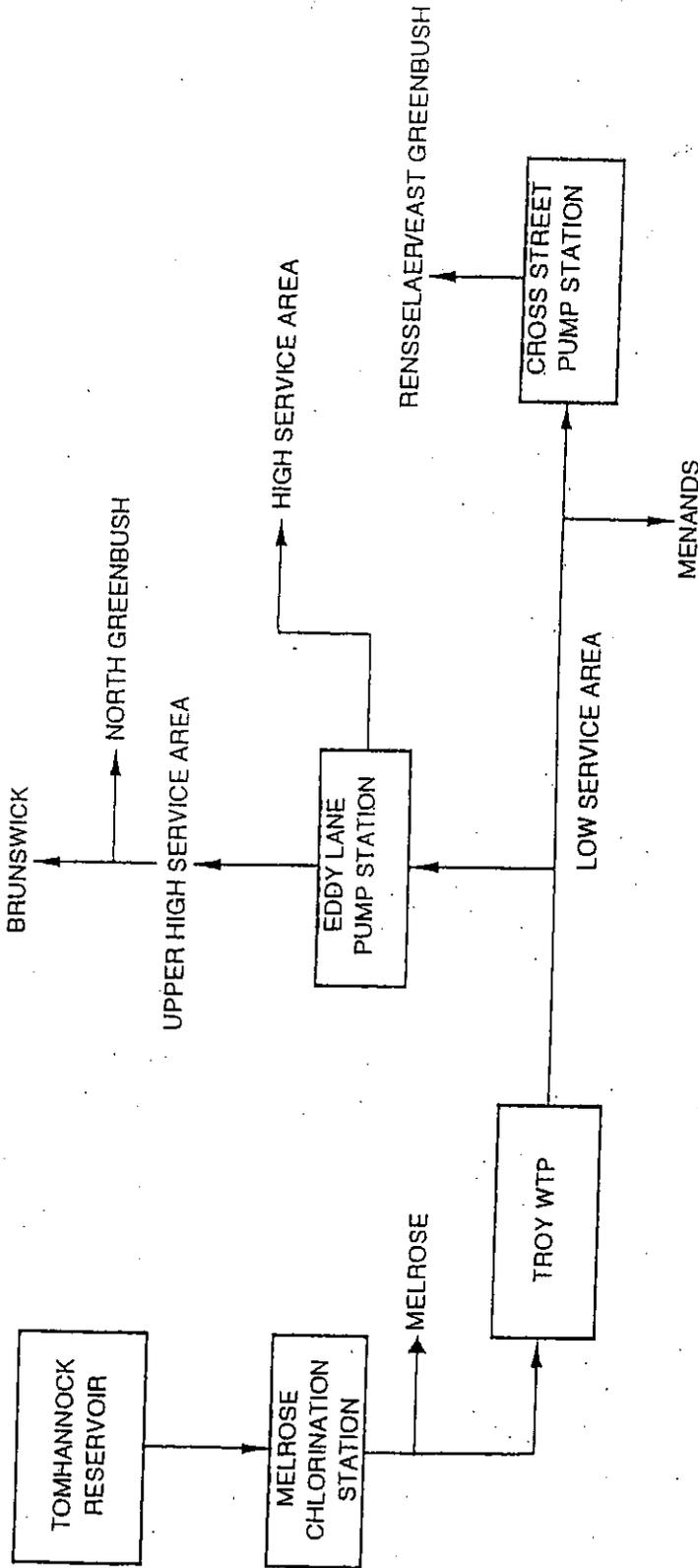


CARD NO. GA-904

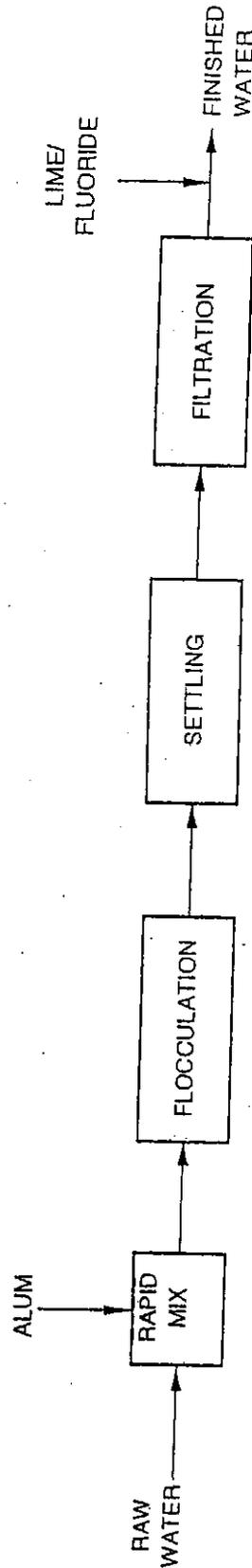
NEW VALVE NUMBER	SIZE	TURNS	OPEN OR CLOSED	DATE INSTALLED	OLD VALVE NUMBER	REMARKS
GA-904-1	6"		OPEN	1968	2121	MV
904-2	6"		OPEN	1968	-	HV
904-3	6"		OPEN	1968	-	HV
904-4	6"		OPEN	1968	-	HV
904-5	1"		OPEN	3-5-90	-	1" CURB STOP
904-6	1"		OPEN	3-5-90	-	1" CURB STOP

REFERENCES:

CITY OF TROY WATER DISTRIBUTION SYSTEM SCHEMATIC



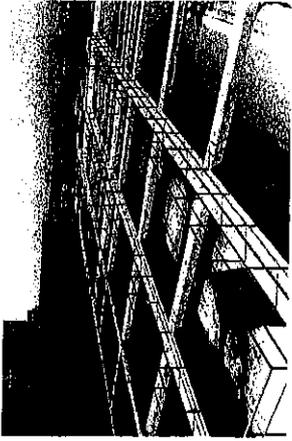
CITY OF TROY WATER TREATMENT PLANT SCHEMATIC



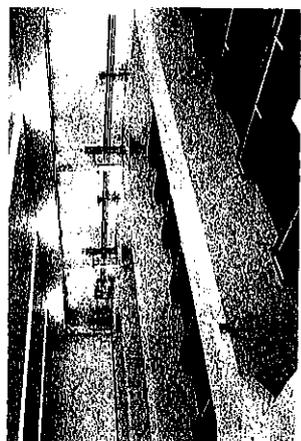
CITY OF TROY DISTRIBUTION SYSTEM/WTP SCHEMATICS



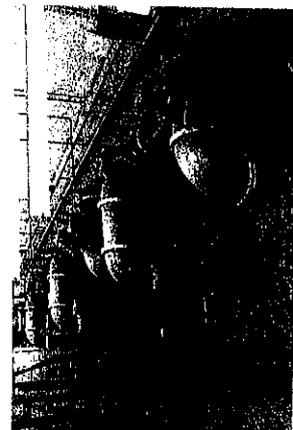
FLOCCULATOR GALLERY



PRETREATMENT UNITS

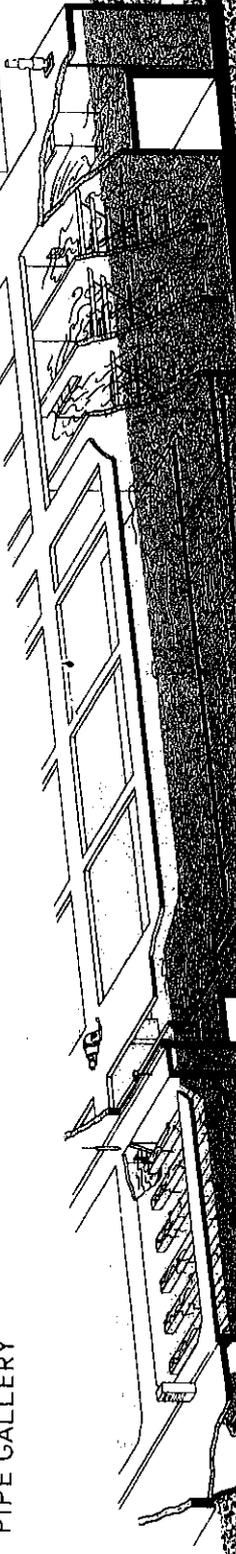


FILTERS



PIPE GALLERY

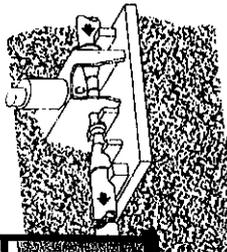
RAPID MIX



FILTRATION

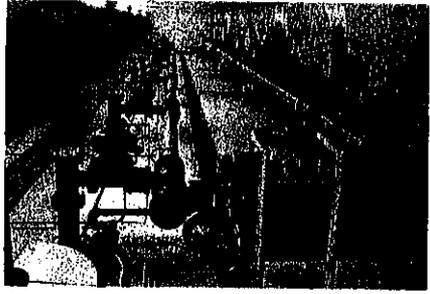
SETTLING

FLOCCULATORS



WATER TREATMENT PLANT

Design capacity of the Water Treatment Plant is 30 million gallons daily operating at a filter rate of 3 gallons per minute per square foot. Actually the plant can operate up to 45 million gallons daily at a filter rate of 4.5 gallons per minute per square foot without impairing the quality of the finished product. Provisions have been made to expand the plant to 3 times the design capacity. The pretreatment works and filters are divided into two separate sections of four units each. Any section or individual unit may be removed from operation without affecting the operation of other sections or units. The flow of the raw water entering the plant is regulated by rate controllers. The coagulating chemicals are added in the rapid-mix basin from which the chemically treated water flows through an influent flume to the flocculation basins, where slowly revolving paddles cause the finely divided and colloidal particles to adhere together — to floc — so they will easily settle out in the sedimentation chambers. The water remains in the sedimentation chambers for several hours to allow the floc time to settle. The settled particles are scraped into a hopper and removed on a predetermined time schedule. The settled water then passes onto the filter beds which consist of an 18 inch layer of anthracite coal on top of 24 inches of sand. The filtered water is discharged into a receiving well, which carries it to an 8.5 million gallon clearwell and then to the distribution system. This clearwell provides for the storage requirements for that portion of the system served by gravity from the Treatment Plant.



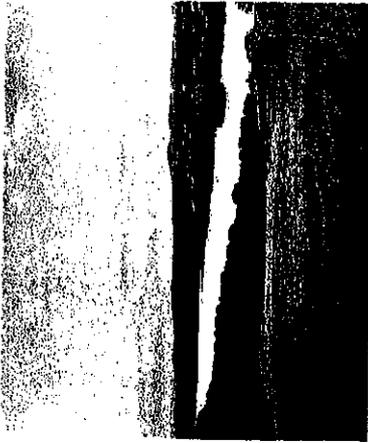
SLUDGE GALLERY



FILTERED WATER RESERVOIR

TOMHANNOCK RESERVOIR

The source of water for the Troy system is the Tomhannock Reservoir. It has a water surface of 2.8 square miles, a drainage area of 66.6 square miles and a total capacity of 12 billion gallons. A continuous supply of 46 million gallons daily can be supplied by gravity even during severe drought.



PIPE LINES

Bureau of Water employees install all waterlines in the City. These range in size from 4 inch to 60 inch. More than 7 miles of pipe have been installed during the past five years to reinforce the distribution system and to connect the pumping station to the new storage reservoirs.



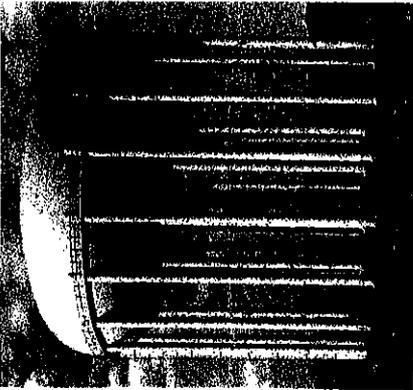
EDDY LANE PUMPING STATION

Originally Troy's three service areas were all fed by gravity from three separate sources of supply. When the City abandoned the two sources which formerly supplied the high service areas as having inadequate quantities and poor quality, it was necessary to replace them with a booster pumping station and two storage reservoirs. The High Service Area is fed by two 3,200 gallon per minute pumps, operating against a 200 foot head and driven by 200 horsepower motors. The Upper High Service Area is fed by one 3,500 gallon per minute pump, driven by a 500 horsepower motor and one 5,600 gallon per minute pump driven by a 700 horsepower motor against a 375 foot head. Provision is made for two additional future pumps, one for each service area. All four pumps can operate simultaneously and are automatically controlled by the levels in the two storage reservoirs.



STORAGE FOR HIGH SERVICE AREA

A new ground storage steel reservoir having a capacity of 5 million gallons was constructed to serve the High Service Area. This tank provides water for peak flows in the system, for fire protection, and for emergency use. The dome-roof tank measures 135 feet in diameter and is 74 feet high.

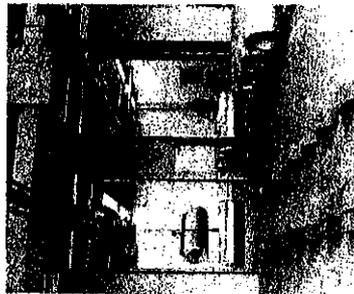


STORAGE FOR UPPER HIGH SERVICE AREA

The 4 million gallon elevated steel tank providing storage for the Upper High Service Area is the world's largest elevated tank. The water level within this tank provides adequate pressures for the highest area of the Troy system. It measures 135 feet to the overflow, has a 40 foot head range and is 137 feet in diameter. Water enters and leaves the tank thru the center riser and the tank is supported by 27 columns.

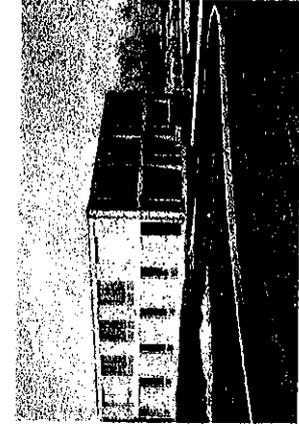
CONTROL ROOM

All plant functions, such as chemical dosing and filter backwashing, are checked and operated from the water system nerve center in the Central Control Room. The plant operators can also monitor and control the functioning of the entire system from the Central Control Room, including the Eddy Lane Pumping Station, the levels in the two storage reservoirs, the Melrose chlorination station, and the facilities of the other communities served by Troy.



LABORATORY

A modern laboratory is fully equipped to run all types of water analyses. Water samples from several different locations throughout the treatment plant are pumped directly to the laboratory. The samples are analyzed and the results determine the various chemical feed dosages to be used. Daily water samples are also taken from throughout the distribution system.

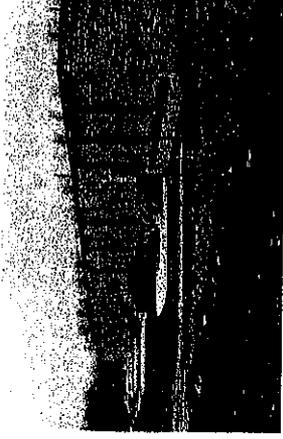


ADMINISTRATION BUILDING

The Administration Building houses the offices, billing, engineering and laboratory facilities of the Bureau of Water. This building is directly connected to the Water Treatment Plant by a breezeway.

MAINTENANCE SERVICE AREA

The Maintenance Shop and Garage are located several hundred feet from the treatment plant and administration building. The plant contains office space, machine shop, carpenter shop, supply storage areas and a vehicle repair shop. The vehicle storage building has space for 16 large vehicles.



BASIC DESIGN DATA

RATED CAPACITY — MGD	30	45
RAPID MIXERS — 2		
Detention time — seconds	90	60
FLOCCULATORS — 8		
Detention time — minutes	45	30
SEDIMENTATION BASINS — 8		
Detention time — hours	2.4	1.6
Horizontal Velocity — feet per minute	2.2	3.3
Overflow Rate — gpd per square foot	628	941
FILTERS — 8		
Area — square feet	882	882
Filter Rate — gpm per square foot	2.95	4.42
FILTERED WATER RESERVOIR		
Capacity — million gallons	8.4	8.4

CHLORINE SCALE ROOM

One-ton chlorine containers are unloaded directly from trucks by use of the overhead crane and stored outside until required. They are then moved inside and placed on the two scales ready for use.



Exhibit E

**City of Troy
Annual Water Quality Report
For 2003**



OFFICE OF THE MAYOR
Hon. Harry J. Tutunjian
mayorsoffice@troyny.gov

518.270.4401
fax 518.270.4609
www.troyny.gov

May 15, 2006

Dear Residents:

Enclosed please find the City of Troy's Annual Water Quality Report for the year 2005. The Department of Public Utilities is responsible for supplying water from the Tomhannock Reservoir to your home or business, as well as collecting wastewater. Though we are required by drinking water regulations to send you a copy of this report, we see it as an opportunity for us to confirm that the water arriving at your home exceeds the demanding national and state standards.

In fact, in 2005, the John P. Buckley Water Treatment Plant was issued the "Directors Award of Recognition" by the AWWA/EPA for the fourth consecutive year, for its continued efforts of achieving and maintaining excellence in water quality. This award status is only achieved by **one percent** of the water treatment plants nationwide. The City of Troy will continue to strive for achievement by constantly optimizing the water treatment processes to provide the highest quality water to our customers.

Also in 2005, the Water & Sewer Billing Office was moved from the water treatment plant to City Hall. This change was made in part to allow "one-stop" trips to City Hall. As a result of the continued consolidation of financial services at City Hall, there are two new telephone numbers for the Water & Sewer Billing office. Please post them in a noticeable place so that you may refer to each should a situation arise.

270-4531

270-4537

In other water department news, the City of Troy continues to be active in seeking funding sources for upcoming projects. We have reapplied for a \$2,000,000 United States Environmental Protection Agency (USEPA) State and Tribal Assistance Grant to help offset the costs of a New York State Department of Environmental Conservation (NYSDEC) required sludge dewatering facility at the Water Treatment Plant. This facility is scheduled to be built this summer and will dewater the sludge, allowing it to be mixed with loamy soil to form a productive topsoil for road projects.

The City has been participating with the Cities of Albany, Rensselaer, Watervliet, Cohoes and the Village of Green Island in a joint venture to develop a USEPA and NYSDEC required Combined Sewer Overflows (CSO) Long Term Control Plan. The six communities, which are referred to by the NYSDEC as the Albany Pool, have received a

\$2 million grant to develop the plan. Four engineering firms have been designated by the group to work on the project and see that is completed by the fall of 2009.

I have said in the past that we often overlook the fine natural resource we own in the Tomhannock Reservoir. This year is the 100th Anniversary of the Tomhannock; a milestone the people of the City of Troy should celebrate by helping to protect this magnificent water supply treasure. In return, I pledge to keep Troy water where it now sits, among the best supplies in the United States.

Should you have any questions, comments, concerns or complaints, please do not hesitate to contact me by calling 270-4401, or e-mailing us at mayorsoffice@troyny.gov.

Sincerely,

Harry J. Tutunjian
Mayor of Troy

City of Troy
Annual Drinking Water Quality Report for 2005

Public Water Supply ID# 410050

TROY



Harry J. Tutunjian
Mayor

City of Troy
Department of Public Utilities
25 Water Plant Road
Troy, New York 12182
Phone: (518) 237-0319
Fax: (518) 233-7038
www.troyny.gov

INTRODUCTION

To comply with State and Federal regulations, 10 NYCRR, Subpart 5-1.72 and 40CFR Part 141, Subpart O, respectively, the City of Troy, Department of Public Utilities is issuing this annual report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and increase your awareness of the need to protect our drinking water sources. This report provides an overview of last year's water quality. We are proud to report that last year, with one minor exception, your tap water met all State drinking water health standards. Included in the report are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact the City of Troy, Department of Public Utilities at 237-0319. If you want to learn more, please attend any of the regularly scheduled City Council meetings. The meetings are held the first Thursday of each month in the Council Chambers of the Troy City Hall at One Monument Square.

WHERE DOES OUR WATER COME FROM?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The water source for the City of Troy is the Tomhannock Reservoir, a man made reservoir 6 ½ miles northeast of the City. The reservoir is 5 ½ miles long and holds 12.3 billion gallons when full. The quality of the water from the Tomhannock Reservoir is good to excellent. During 2005, the City did not experience any restriction of our water source. Water flows from the reservoir by gravity, first to the Melrose Chlorination Station, where the water is pre-disinfected with chlorine dioxide, and then on to the John P. Buckley Water Treatment Plant (WTP). The plant is a conventional water treatment plant utilizing coagulation, flocculation, sedimentation, filtration, chlorination and fluoridation processes.

The New York State Health Department completed a Source Water Assessment for the Tomhannock Reservoir. It includes a susceptibility rating based on the risk posed by each potential source of contamination and how likely contaminants could enter the reservoir and is only an estimate of the potential for contamination. It does not mean that the water delivered to your home is or will become unsafe to drink. The assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in elevated potential for protozoa and pesticides contamination. However, there is reason to believe that land cover data may over estimate the percentage of row crops in the assessment area. While there are some facilities present, permitted discharges do not likely represent an important threat to source water quality, based on their density in the assessment area. In addition, it appears that the total amount of wastewater discharged to surface water in this assessment area is not high enough to further raise the potential for contamination (particularly for protozoa). There is also noteworthy contamination susceptibility associated with other discrete contaminant sources, and these facility types include: mines and closed landfills. Finally, it should be noted that hydrologic characteristics (e.g. basin shape and flushing rates) generally make reservoirs highly sensitive to existing and new sources of phosphorus and microbial contamination.

FACTS AND FIGURES

The City of Troy, Department of Public Utilities serves water to approximately 50,000 residents of Troy, as well as the industrial and commercial customers within the City, through over 13,000 service connections. In addition, the City wholesales water to the City of Rensselaer, The Village of Menands, and portions of the Towns of East Greenbush, North Greenbush, Brunswick, and Schaghticoke. The Village of Waterford has an emergency connection to the City water system, which is used on an as needed basis. The daily average of water produced is 18 million gallons per day. The total finished water produced at the water treatment plant in 2005 was 5,586.64 million gallons. Of this, 1,454.9 million gallons were accounted for through metered sales within the City, with the remainder being used for the wholesale customers and the unaccounted for water. The unaccounted for water, which is used to flush the distribution system, fight fires, and occasional leakage, is estimated to be about 33.2%. In 2005, water customers within the City of Troy were charged \$ 3.03 per 1,000 gallons of water.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

Water quality testing is required of all public water systems by Part 5 of the New York State Sanitary Code. According to these requirements, the Department routinely tests your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, and synthetic organic compounds. The tables on the reverse side indicate which contaminants were detected and which were not.

It should be noted that all drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426- 4791) or the Rensselaer County Health Department at 270-2664.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had one violation. Antimony, one of the Inorganic Contaminants was found at a slightly elevated level during sampling in 2005. Sources for antimony in drinking water are solder, electronics, discharge from petroleum refineries, ceramics and fire retardants. It should be noted that some people who drink water-containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar. We have also learned through our testing that some other contaminants have been detected; however, most of these contaminants were detected below New York State requirements. They are indicated in the table on the reverse side.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2005, our system was in compliance with all applicable State drinking water operating, monitoring and reporting requirements.

INFORMATION ON CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. As part of the Long Term 2 Enhanced Surface Water Treatment Rule, sampling for Cryptosporidium started in September 2005. Of the four raw water samples taken prior to treatment in 2005, one sample produced one Cryptosporidium cyst. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care

provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life;
- Saving water reduces the cost of energy required to pump water and the need to construct costly new sources, pumping systems and water towers; and
- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. Run it only when you have loaded it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes, if it moved, you have a leak.

SYSTEM IMPROVEMENTS

Several improvement projects or studies for the water treatment plant were completed in 2005. Included was a pilot study for the WTP sludge dewatering facility. Future improvements include the mapping of the distribution system and the design and construction of the sludge dewatering facility at the water treatment plant.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our local water sources, which are the heart of our community and our way of life. The Rensselaer-Taconic Land Conservancy is interested in helping us protect the Tomhannock Watershed. For more information visit their website at www.rtlc.org or write to RTLCL, PO Box 40, Lansingburgh Station, Troy, NY 12182.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Violation Yes/No	Date or Frequency of Sample	Level Detected			Unit Measurement	MCLG MRDLG	Regulatory Limit (MCL, TT, MRDL, AL)	Likely Source of Contamination
			Value or Average	Low	High				
Physical and Chemical Analytes									
pH	No	Daily	8.69	6.68	9.04	-	-	NDL	Adjusted at WTP
Temperature	No	Daily	12.5	3.8	22.4	° C	n/a	NDL	-
Color	No	Daily	4	0	29	color units	n/a	15	Naturally occurring
Turbidity	No	Daily	0.30	0.10	0.76	NTU	n/a	5	Soil runoff
Chlorine	No	Daily	0.87	0.08	1.38	mg/l	4	4.0	Added disinfectant
Chlorine Dioxide	No	Daily	0.01	0.00	0.16	mg/l	0.8	0.8	Added disinfectant
Fluoride	No	Daily	1.00	0.10	1.21	mg/l	n/a	2.2	Adjusted at WTP
Alkalinity, as CaCO ₃	No	Daily	41.2	31.5	52.2	mg/l	n/a	NDL	Naturally occurring
Hardness, as CaCO ₃	No	Weekly	57	44	70	mg/l	n/a	NDL	Naturally occurring
Iron	No	Weekdays	0.03	0.00	0.20	mg/l	n/a	0.3	Naturally occurring
Manganese	No	Weekdays	0.01	0.00	0.19	mg/l	n/a	0.3	Naturally occurring
Disinfection By-Products									
Total Trihalomethanes	No	Quarterly	29.0	17.7	44.8	ug/l	n/a	80	Formed by reaction of chlorine and chlorine dioxide with naturally occurring organics.
Total Haloacetic acids	No	Quarterly	22.2	0.0	43.0	ug/l	n/a	60	
Chlorite	No	Daily	0.47	0.22	0.81	ug/l	n/a	1.00	
Lead and Copper									
Lead *	No	Annually	0.002	0.000	0.017	mg/l	0	(AL) 0.015	Household plumbing corrosion, erosion of natural deposits.
Copper	No	Annually	0.012	0.000	0.053	mg/l	1.30	(AL) 1.30	
Inorganic Chemicals									
Antimony (Graphite)	Yes	2/9/2005	0.015	-	-	mg/l	0.006	0.006	Discharge from Petroleum refineries, fire retardants, ceramics, electronics, solder
Chloride	No	2/9/2005	21.0	-	-	mg/l	n/a	250.0	Naturally occurring or road salt
Nitrate-as N	No	4/6/2005	0.6	-	-	mg/l	10.0	10.0	Runoff from fertilizer
Sodium **	No	2/9/2005	9.3	-	-	mg/l	n/a	**	Naturally occurring
Sulfate	No	2/9/2005	15.0	-	-	mg/l	n/a	250.0	Naturally occurring
Radiological									
Combined Radium 226/228	No	3/4/2003	1.16	4 quarterly samples taken every 6 years		pCi/l	0	5.0	Naturally occurring
Gross Alpha Particles	No	9/30/2003	0.366			pCi/l	0	15.0	Naturally occurring
Gross Beta Particles	No	9/30/2003	1.73			pCi/l	0	4 mrem/yr.	Naturally occurring

TABLE OF NON-DETECTED CONTAMINANTS

Contaminant	Violation Yes/No	Date or Frequency of Sample	Level Detected		Unit Measurement	MCLG	Regulatory Limit (MCL, TT, or AL)	Likely Source of Contamination
			Value or Average	Range Low High				
Inorganic Chemicals								
Asbestos	No	3/24/2003	ND	1 sample/9 years	MFL	0	7.0	-
Arsenic	No	2/9/2005	ND	- -	mg/l	n/a	0.05	-
Barium	No	2/9/2005	ND	- -	mg/l	2.0	2.0	-
Beryllium	No	2/9/2005	ND	- -	mg/l	0.004	0.004	-
Cadmium	No	2/9/2005	ND	- -	mg/l	0.005	0.005	-
Chromium	No	2/9/2005	ND	- -	mg/l	0.1	0.10	-
Cyanide	No	2/9/2005	ND	- -	mg/l	0.20	0.20	-
Mercury	No	2/9/2005	ND	- -	mg/l	0.002	0.002	-
Nickel	No	2/9/2005	ND	- -	mg/l	n/a	NDL	-
Nitrite-as N	No	4/6/2005	ND	- -	mg/l	1.0	1.0	-
Selenium	No	2/9/2005	ND	- -	mg/l	0.05	0.05	-
Silver	No	2/9/2005	ND	- -	mg/l	n/a	0.1	-
Thallium	No	2/9/2005	ND	- -	mg/l	0.005	0.002	-
Zinc	No	2/9/2005	ND	- -	mg/l	n/a	5.0	-
Organic Chemicals								
1,2-Dibromo-3-Chloropropane	No	12/6/2005	ND	- -	mg/l	0	0.0002	-
2,4,5-TP (Silvex)	No	12/6/2005	ND	- -	mg/l	n/a	0.01	-
2,4-D	No	12/6/2005	ND	- -	mg/l	n/a	0.05	-
Alachlor	No	12/6/2005	ND	- -	mg/l	0	0.002	-
Aldicarb	No	12/6/2005	ND	- -	mg/l	0.001	0.003	-
Aldicarb Sulfone	No	12/6/2005	ND	- -	mg/l	0.001	0.002	-
Aldicarb Sulfoxide	No	12/6/2005	ND	- -	mg/l	0.001	0.004	-
Atrazine	No	12/6/2005	ND	- -	mg/l	0.003	0.003	-
Carbofuran	No	12/6/2005	ND	- -	mg/l	0.04	0.04	-
Chlordane	No	12/6/2005	ND	- -	mg/l	n/a	0.002	-
Endrin	No	12/6/2005	ND	- -	mg/l	0.002	0.002	-
Heptachlor	No	12/6/2005	ND	- -	mg/l	0	0.0004	-
Heptachlor Epoxide	No	12/6/2005	ND	- -	mg/l	0	0.0002	-
Lindane	No	12/6/2005	ND	- -	mg/l	0.0002	0.0002	-
Methoxychlor	No	12/6/2005	ND	- -	mg/l	0.04	0.04	-
PCBs	No	12/6/2005	ND	- -	mg/l	0	0.0005	-
Pentachlorophenol	No	12/6/2005	ND	- -	mg/l	0	0.001	-
Toxaphene	No	12/6/2005	ND	- -	mg/l	0	0.003	-
Vinyl Chloride	No	10/18/2005	ND	- -	mg/l	0	0.002	-

MICROBIOLOGICAL TABLE

Coliform	No	Weekdays	0.05%	-	-	%	0	5%	Naturally occurring
E.Coli ***	No	Weekdays	0	-	-	-	0	***	Human/animal fecal waste

* Lead and Copper are reported at 90th percentile, where 90% of samples collected are less than the average value. Two of the thirty lead samples collected were above the Action Level (AL) of 0.015 mg/l.

** Water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.

*** A violation occurs when a total coliform positive sample is positive for E. coli or when a total coliform positive sample is negative for E. coli but a repeat total coliform sample is positive and the sample is also positive for E. coli.

Definitions:

The definitions for MCL, MCLG, MRDL and MRDLG are required in all Annual Water Quality Reports. The other definitions are provided for your use in understanding the table.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements that a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

No Designated Limit (NDL): No limit has been designated for this contaminant.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Picocuries per liter (pCi/l): Corresponds to 0.037 disintegrations per second per liter. The average activity within the human body from Potassium-40 is 0.1 micro curies.

Exhibit F

**City of Troy
Letter Approving Water Usage**



Daniel P. Crawley
Deputy Mayor

Office of the Deputy Mayor

Harry Tutunjian
Mayor

January 13, 2005

Mr. Thomas M. Murley, P.E.
Operating Manager
TOPATOMA LLC
32 Hialeah Drive
Troy, New York 12182

Re: Water and Sanitary Sewer Service for Property in the Town of Brunswick
- Brunswick Meadows PDD

Dear Mr. Murley,

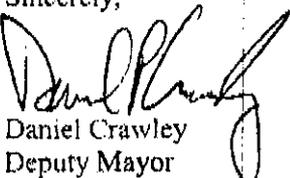
Please accept this letter as conceptual confirmation of the City of Troy's willingness to provide water and sanitary sewage service for the above referenced project as discussed in your letter of December 22, 2005 to Mayor Harry J. Tutunjian.

The City of Troy has the estimated 40,800 gallons per day of water available for this project. The expected delivery would be at the 12-inch water main connection point near Hialeah Drive and Livingston Avenue (NYS Route 142), however some issues will need to be resolved within the Gurley Avenue Service zone for this delivery. The current water sales agreement with the Town of Brunswick will pertain as to price.

The City of Troy has an 8-inch sanitary sewer main that exists in Hialeah Drive that would be expected to handle the estimated 27,200 gallons per day of sanitary sewage to be generated from the Brunswick Meadows PDD project. Some flow monitoring and engineering analyses will need to be performed to verify capacity. The current agreement between the City of Troy and the Rensselaer County Sewer District No.1 for the rental of the City's sewers for transporting the sewage from the Town of Brunswick to the Rensselaer County Sewer District No.1 interceptor lines will pertain as to price. Schedule A of the agreement will need to be amended to allow acceptance of this sanitary flow.

Should you need any additional information, please contact me at (518) 270-4644.

Sincerely,


Daniel P. Crawley
Deputy Mayor

cc: Hon. Harry J. Tutunjian, Mayor
Neil Bonesteel, Dept of Public Utilities

David.Mitchell

From: Neil.Bonesteel
Sent: Wednesday, February 08, 2006 9:29 AM
To: Harry.Tutunjian; Dan.Crawley; Deb.Witkowski; David.Mitchell
Subject: Brunswick Meadows

Within the last year there has been much discussion about selling water to Brunswick Meadows, a new Subdivision on Rt. 142 just over the City line. It was agreed that the City would sell the water and receive the sewage for a buy in of \$125,000 to be used to buy new water pumps for the Gurley Ave. Pump Station.

Enclosed please find proposed legislation that Joe Zappone, the attorney for the project drafted for our use. It allows the City to receipt the money.

Please review the proposed legislation it and see if it should be included on an upcoming Council Meeting agenda.

Thanks.

Neil

-----Original Message-----

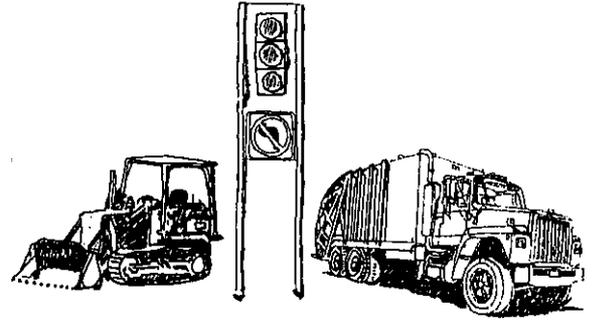
From: Joe Zappone [mailto:zapponej@choiceonemail.com]
Sent: Friday, January 20, 2006 12:07 PM
To: Neil.Bonesteel
Subject:

Attached please find the revised Water Agreement.

2/9/2006

THOMAS M. MURLEY, P.E.

32 HIALEAH DRIVE
TROY, NEW YORK 12182
(518) 235-8920



MUNICIPAL • CIVIL • TRAFFIC ENGINEERING

December 22, 2004

Honorable Harry J. Tutunjian, Mayor
City of Troy
City Hall
Monument Square
Troy, NY 12180

**Re: Water and sanitary sewer service for
property in the Town of Brunswick**

Dear Mayor Tutunjian:

The TOPATOMA LLC is in the initial planning stages of developing a new residential project for property that they own in the Town of Brunswick adjacent to the Troy City Line in the vicinity of Hialeah Drive and NYS Route 142.

This proposed 16.6 acres residential project would need to utilize City of Troy facilities as the source of water and for sanitary sewer service for the site. Presently, the City of Troy has an existing 12-inch water line and an 8-inch sanitary sewer line located at the intersection of Hialeah Drive and NYS Route 142 near the City of Troy and Town of Brunswick Boundary Line and approximately 600 feet from the proposed project site.

The TOPATOMA LLC would need to petition the Town of Brunswick's Town Board to establish a new water district and sanitary sewer district to service this proposed project. However, prior to petitioning the Town of Brunswick we would like to request approval from the City of Troy to provide the necessary water and sanitary sewer service for the proposed water district and the proposed sanitary sewer district.

Initial analysis, based upon my detailed knowledge, of the City of Troy water and sanitary sewer systems indicate that there is more than sufficient capacity to service this proposed project.

THOMAS M. MURLEY, P.E.

December 22, 2004
Honorable Harry J. Tutunjian, Mayor

Page 2 of 3

The total average daily water usage expected for this development is estimated as follows:

$$136 \text{ units} \times 2 \text{ persons / unit} \times 150 \text{ gallons per day / person} = 40,800 \text{ gallons per day (GPD)}$$

The average daily flow rate (average daily water usage /1440) = 28 GPM. The peak daily water usage would be estimated at two times the average daily water usage for a total of 81,600 GPD. The peak hourly flow rate can be estimated at four times the average daily usage or approximately 163,200 GPD or 6,800 GPH or approximately 113 GPM.

The anticipated water pressure at ground level throughout the project site is expected to range from 70 psi to 90 psi. This was calculated as follows:

Water pressure within the City of Troy system was checked previously on August 10, 2001 at 7:50 AM at the existing fire hydrant in Viewpointe Drive in the "Highpointe at Oakwood" residential development. This existing fire hydrant (approximate USGS elevation is 416 feet) is located approximately 120 feet southeast from the base of the existing 800,000-gallon Gurley Avenue water storage tank that services the area. The approximate USGS elevation at the base of the tank is 422 feet.

Mr. James Rivers, Superintendent of the City of Troy Department of Public Utilities conducted the pressure test and reported the following information:

- Water tank height - 100 feet
- Normal water tank operating levels - 80 feet to 95 feet (502 feet to 517 feet USGS elevation)
- Water level in tank at time of test (August 10, 2001 at 7:50 AM) - 92.8 feet (514.8 feet USGS elevation)
- Pumping system to fill tank - not being used at time of pressure test
- Water pressure at the existing fire hydrant located on Viewpointe Drive (416 feet USGS) was measured at 44 psi.

The USGS elevation of the site ranges from a high elevation of 340 feet near NYS Route 142 to a low elevation of 310 feet at the southerly end of the site. For every 2.31 feet in elevation the water pressure equals one (1) pound per square inch (psi). With the normal water tank operating level in the Gurley Avenue tank, the water pressure is calculated to range from 77 psi to 70 psi near the NYS Route 142 end of the site. The water pressure is estimated to range from 90 psi to 83 psi at the southerly end of the site.

THOMAS M. MURLEY, P.E.

December 22, 2004
Honorable Harry J. Tutunjian, Mayor

Page 3 of 3

A master water meter chamber would be constructed near the Troy City Line to register water usage. The water usage readings would then be used to develop water-billing charges for the proposed water district. Upon completion of construction and acceptance by the project engineer, the water system would be conveyed to the Town of Brunswick for future operation and maintenance.

A proposed new 8-inch diameter gravity sanitary sewer main, located along the south side of NYS Route 142, would transport the sanitary sewage from the site, approximately 600 feet westerly, to Hialeah Drive where it will discharge into the existing City of Troy 8-inch sanitary sewer. This existing City of Troy municipal sanitary sewerage system then continues, via gravity, westerly and northerly down Northern Drive. Eventually this City of Troy municipal sanitary sewerage system discharges into the Rensselaer County Sewer District No. 1 interceptor line near the Hudson River. This interceptor line then flows southerly through the City of Troy to the Rensselaer County Sewage Treatment Plant located near the Hudson River in North Greenbush for final treatment.

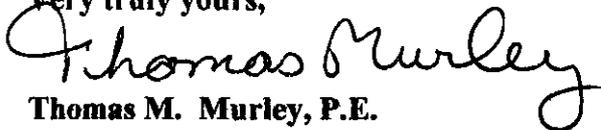
Anticipated average daily sanitary sewage flow from the proposed site is estimated as follows:

$136 \text{ units} \times 2 \text{ persons / unit} \times 100 \text{ gallons per day / person} = 27,200 \text{ gallons per day (GPD)}$
--

The existing contractual agreements between the City of Troy and the Town of Brunswick for water and sanitary sewerage service would be the mechanism to allow for this project to be developed utilizing the City of Troy facilities.

Your cooperation in this matter is greatly appreciated and should you have any questions or concerns, please call me at (518) 235-8920 Office / Fax or (518) 469-8589 Cell.

Very truly yours,



Thomas M. Murley, P.E.
Operating Manager
TOPATOMA LLC
32 Hialeah Drive
Troy, New York 12182

Exhibit G

**City of Troy
Water Pressure Report**

ISO COMMERCIAL RISK SERVICES, INC.

400 WEST DIVISION STREET P.O. BOX 4990 SYRACUSE, N.Y. 13221 (315) 472-4501 FAX (315) 471-2572

PERES McCARTHY, CIC
REGIONAL DIRECTOR

December 29, 1992

TROY ISO INFO

Stephen G. Dworsky, Manager
City Hall
Monument Square
Troy, NY 12180

Dear Manager Dworsky:

I wish to thank you, Richard Casey, Edward Schultz, and others for your cooperation during my recent survey. I have completed my evaluation of the fire insurance classification for your city and advise that the protection class has improved to 3.

Formerly Class 4 applied; the new classification will result in a decrease in the fire insurance rates for many insured commercial properties within the city. The new rates will be effective January 1, 1993.

The purpose of my visit was to gather information needed to determine a fire insurance classification which may be used to develop fire insurance rates. This survey was not conducted for property loss prevention or life safety purposes and no life safety or property loss prevention recommendations will be made.

The change from 4 to 3 may not affect rates for sprinklered properties or residential occupancies insured under Homeowners type policies and some other special schedule rated property. The change will affect typical mercantile properties to degree depending upon the type of building construction, the hazard of occupancy and other rating factors. The overall effect is usually about - 8% for wood frame buildings., - 10% for masonry buildings and - 15% for fire resistive buildings. However, variations in construction, occupancy and private protection can result in increases or decreases from this average.

The above estimates apply only for insurance companies using ISO rates. However, numerous insurance companies use other than ISO rates so that the effect of the change in class may be different for their policy holders.

The city classification applies to properties with a needed fire flow of 3500 gpm or less. The private and public protection at properties with larger needed fire flows are individually evaluated, and may vary from the city classification.

I am attaching a copy of the Grading Sheet and the results of the hydrant flow tests witnessed during my survey. Extra copies of this letter and attachments are also enclosed so that you may distribute them to other interested parties, if you desire to do so.

If you have any questions concerning the new classification, or the resulting change in fire insurance rates, please let me know.

Sincerely,

George A Kern
George A. Kern
Field Representative Sr.

gak:mf

encl.

ISO COMMERCIAL RISK SERVICES, INC.

400 WEST DIVISION STREET P.O. BOX 4990 SYRACUSE, N.Y. 13221 (315) 472-4301 FAX: (315) 471-2572

PERES MCCARTHY, CIC
REGIONAL DIRECTOR

GRADING SHEET FOR TROY, NEW YORK

Public Protection Class: 3

Surveyed: 07/92

<u>Feature</u>	<u>Credit Assigned</u>	<u>Maximum Credit</u>	
Receiving and Handling Fire Alarms.....	6.85	10.00%	68.5%
Fire Department.....	34.69	50.00%	69.3%
Water Supply.....	33.59	40.00%	84%
*Divergence.....	-2.92		
Total Credit	72.21	100.00%	

The Public Protection Class is based on the total percentage credit as follows:

<u>Class</u>	<u>%</u>
1	90.00 or more
2	80.00 to 89.99
3	70.00 to 79.99
4	60.00 to 69.99
5	50.00 to 59.99
6	40.00 to 49.99
7	30.00 to 39.99
8	20.00 to 29.99
9	10.00 to 19.99
10	0 to 9.99

*Divergence is a reduction in credit to reflect a difference in the relative credits for Fire Department and Water Supply.

The above classification has been developed for fire insurance rating purposes only.

ISO COMMERCIAL RISK SERVICES, INC.

HYDRANT FLOW DATA SUMMARY

City Troy State NY Zip 12180 Witnessed by G.A. Kern Date July 28 & 29, 1992

TEST NO.	TYPE DIST.	TEST LOCATION	SERVICE	FLOW-GPM		PRESSURE PSI		FLOW AT 20 PSI		REMARKS
				INDIVIDUAL HYDRANTS	TOTAL	STATIC	RESID.	NEEDED	AVAIL.	
16	Comm.	9th Street @ Hutton Street	LS	671	671	68	60	3500	1800	
17	Comm.	Hoosick Street @ 15th Street	IIS	1150	1150	90	86	1250	5400	
18	Comm.	Hoosick Street @ Reid Street	UIIS	1353	1353	85	83	1500	8900	
19	Comm.	Oakwood Avenue @ Sausse	IIS	964	964	124	116	3000	3900	
20	Comm.	River Street @ Middleburgh	LS	919	919	108	104	2000	4900	
21	Comm.	2nd Avenue @ 102nd Street	LS	712	712	105	98	2000	2700	
22	Comm.	5th Avenue @ 108th Street	LS	805	805	106	102	2250	4200	
23	Comm.	108th Street @ 7th Avenue	LS	805	805	103	88	3000	2000	
24	Comm.	5th Avenue @ 115th Street	LS	475	475	104	60	2000	650	
25	Comm.	1st Avenue @ 116th Street	LS	919	919	110	100	2250	3000	
26	Comm.	6th Avenue @ 116th Street	LS	750	750	103	90	3000	2000	
27	Comm.	New Turnpike Road @ School	LS	822	822	94	51	3000	1100	
28	Comm.	Leverbee Road @ Hilleh Drive	GA	934	934	80	76	2250	4000	

THE ABOVE LISTED FIRE FLOWS ARE FOR PROPERTY INSURANCE PREMIUM CALCULATIONS ONLY AND ARE NOT INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION. THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.

* Comm = Commercial, Res = Residential
 ** Needed is the rate of flow for a specific hydrant for a full credit condition. Needed for flows greater than 3,500 gpm are not requested as determined by the City Engineer.



ISO COMMERCIAL RISK SERVICES, INC.

HYDRANT FLOW DATA SUMMARY

City Troy State NY Zip 12180 Witnessed by G.A. Kern Date July 28 & 29, 1992

TEST NO.	TYPE DIST.	TEST LOCATION	SERVICE	FLOW-GPM		PRESSURE PSI		FLOW AT 20 PSI		REMARKS
				INDIVIDUAL HYDRANTS	TOTAL	STATIC	RESID.	NEEDED	AVAIL.	
1	Comm.	Route 4 @ Hudson Valley Col.	IIS	888	888	64	48	3500	1500	
2	Comm.	Marvin St. @ John Street	IIS	769	769	80	52	2250	1200	
3	Comm.	Main Street @ Durden Avenue	LS	1129	1129	104	98	3500	4700	
4	Comm.	Tyler Street @ 1st Street	LS	904	904	112	104	3500	3400	
5	Comm.	Madison Street @ 1st Street	LS	839	839	100	98	2500	6200	
6	Comm.	River Street @ Washington	LS	690	690	100	94	3000	2800	
7	Comm.	Congress Street @ 5th Avenue	LS	872	872	100	94	3500	3500	
8	Comm.	Pawling Avenue @ Elmgrove	UHS	949	949	100	88	2000	2600	
9	Comm.	Pawling Avenue @ Winter Street	UHS	978	978	120	110	2000	3400	
10	Comm.	Industrial Park Road @ Ballina Street	UHS	1363	1363	115	92	3000	2900	
11	Comm.	Broadway @ 3rd Street	LS	993	993	105	104	3500	11000	
12	Comm.	River Street @ 2nd Street	LS	872	872	105	102	3500	5300	
13	Comm.	15th Street @ Sage Avenue	IIS	671	671	80	74	3000	2300	
14	Comm.	Burdette Avenue @ Sage	IIS	904	904	70	64	1500	2800	
15	Comm.	River Street @ Jacob Street	LS	1300	1300	111	104	2250	5200	

THE ABOVE LISTED NEEDED FIRE FLOWS ARE FOR PROPERTY INSURANCE PREMIUM CALCULATIONS ONLY AND ARE NOT INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION. THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.

* Comm. Commercial Dist. Residential
 ** Located on the left of flow for a specific flow rate for a full rated fire flow hydrant

Exhibit H

Fire Protection Flows

FIRE SUPPRESSION RATING SCHEDULE



I N S U R A N C E S E R V I C E S O F F I C E , I N C .

NEEDED FIRE FLOW

300. GENERAL:

This item develops Needed Fire Flows for selected locations throughout the city, which are used in the review of subsequent items of this Schedule. The calculation of a Needed Fire Flow (NFF_i) for a subject building in gallons per minute (gpm) considers the Construction (C_i), Occupancy (O_i), Exposure (X_i) and Communication (P_i) of each selected building, or fire division, as outlined below.

310. CONSTRUCTION FACTOR (C_i):

That portion of the Needed Fire Flow attributed to the construction and area of the selected building is determined by the following formula:

$$C_i = 18F (A_i)^{0.5}$$

F = Coefficient related to the class of construction:

- F = 1.5 for Construction Class 1* (Frame)
- = 1.0 for Construction Class 2* (Joisted Masonry)
- = 0.8 for Construction Class 3* (Non-Combustible) and Construction Class 4* (Masonry Non-Combustible)
- = 0.6 for Construction Class 5* (Modified Fire Resistive) and Construction Class 6* (Fire Resistive)

A_i = Effective* area

In buildings with mixed construction a value, C_{im}, shall be calculated for each class of construction using the effective area of the building. These C_{im} values are multiplied by their individual percentage of the total area. The C_i applicable to the entire building is the sum of these values. However, the value of the C_i shall not be less than the value for any part of the building based upon its own construction and area.

The maximum value of C_i is limited by the following:

- 8,000 gpm for Construction Classes 1 and 2
- 6,000 gpm for Construction Classes 3, 4, 5 and 6
- 6,000 gpm for a 1-story building of any class of construction.

The minimum value of C_i is 500 gpm. The calculated value of C_i shall be rounded to the nearest 250 gpm.

320. OCCUPANCY FACTOR (O_i):

The factors below reflect the influence of the occupancy in the selected building on the Needed Fire Flow:

OCCUPANCY COMBUSTIBILITY CLASS*	OCCUPANCY FACTOR (O _i)
C-1* (Non-Combustible)	0.75
C-2* (Limited Combustible)	0.85
C-3* (Combustible)	1.00
C-4* (Free Burning)	1.15
C-5* (Rapid Burning)	1.25

330. EXPOSURES (X_i) AND COMMUNICATION (P_i) FACTORS:

The factors developed in this item reflect the influence of exposed and communicating buildings on the Needed Fire Flow. A value for (X_i + P_i) shall be developed for each side of the subject building:

$$(X + P)_i = 1.0 + \sum_{i=1}^n (X_i + P_i), \text{ maximum } 1.75, \text{ where } n = \text{number of sides of subject building.}$$

A. Factor for Exposure (X_i):

The factor for X_i depends upon the construction and length-height value* (length of wall in feet, times height in stories) of the exposed building and the distance between facing walls of the subject building and the exposed building, and shall be selected from Table 330.A.

*When an asterisk is shown next to a term in this item, the term is defined in greater detail in the Specific Commercial Property Evaluation Schedule.

TABLE 330.A FACTOR FOR EXPOSURE (X_i)

Construction of Facing Wall of Subject Building	Distance Feet to the Exposed Building	Length-Height of Facing Wall of Exposed Building	Construction of Facing Wall of Exposed Building Classes			
			1, 3	2, 4, 5, & 6		
				Unprotected Openings	Semi-Protected Openings (wired glass or outside open sprinklers)	Blank Wall
Frame, Metal or Masonry with Openings	0-10	1-00	0.22	0.21	0.16	0
		101-200	0.23	0.22	0.17	0
		201-300	0.24	0.23	0.18	0
		301-400	0.25	0.24	0.19	0
		Over 400	0.25	0.25	0.20	0
	11-30	1-00	0.17	0.15	0.11	0
		101-200	0.18	0.16	0.12	0
		201-300	0.19	0.18	0.14	0
		301-400	0.20	0.19	0.15	0
		Over 400	0.20	0.19	0.15	0
	31-60	1-00	0.12	0.10	0.07	0
		101-200	0.13	0.11	0.08	0
		201-300	0.14	0.13	0.10	0
		301-400	0.15	0.14	0.11	0
		Over 400	0.15	0.15	0.12	0
	61-100	1-00	0.08	0.06	0.04	0
		101-200	0.08	0.07	0.05	0
		201-300	0.09	0.08	0.06	0
		301-400	0.10	0.09	0.07	0
		Over 400	0.10	0.10	0.08	0
Blank Masonry Wall	Facing Wall of the Exposed Building Is Higher Than Subject Building: Use the above table EXCEPT use only the Length-Height of Facing Wall of the Exposed Building ABOVE the Height of the Facing Wall of the Subject Building. Buildings five stories or over in Height, consider as five stories.					
	When the Height of the Facing Wall of the Exposed Building is the Same or Lower than the Height of the Facing Wall of the Subject Building, $X_i = 0$.					

330. EXPOSURE (X_i) AND COMMUNICATION (P_i) FACTORS: (Continued)

B. Factor for Communications (P_i):

The factor for P_i depends upon the protection for communicating party wall* openings and the length and construction of communications between fire divisions* and shall be selected from Table 330.B. When more than one communication type exists in any one side wall, apply only the largest factor P_i for that side. When there is no communication on a side, $P_i = 0$.

*When an asterisk is shown next to a term in this item, the term is defined in greater detail in the Commercial Fire Rating Schedule.

TABLE 330.B FACTOR FOR COMMUNICATIONS (P_i)

Description of Protection of Passageway Openings	Fire Resistive, Non-Combustible or Slow-Burning Communications				Communications with Combustible Construction					
	Open		Enclosed		Open			Enclosed		
	Any Length	10 Ft. or Less	11 Ft. to 20 Ft.	21 Ft. to 50 Ft. +	10 Ft. or Less	11 Ft. to 20 Ft.	21 Ft. to 50 Ft. +	10 Ft. or Less	11 Ft. to 20 Ft.	21 Ft. to 50 Ft. +
Unprotected	0	+ +	0.30	0.20	0.30	0.20	0.10	+ +	+ +	0.30
Single Class A Fire Door at One End of Passageway	0	0.20	0.10	0	0.20	0.15	0	0.30	0.20	0.10
Single Class B Fire Door at One End of Passageway	0	0.30	0.20	0.10	0.25	0.20	0.10	* 0.35	0.25	0.15
Single Class A Fire Door at Each End or Double Class A Fire Doors at One End of Passageway	0	0	0	0	0	0	0	0	0	0
Single Class B Fire Door at Each End or Double Class B Fire Doors at One End of Passageway	0	0.10	0.05	0	0	0	0	0.15	0.10	0

+ For over 50 feet, $P_i = 0$.

+ + For unprotected passageways of this length, consider the 2 buildings as a single Fire Division.

Note: When a party wall has communicating openings protected by a single automatic or self-closing Class B fire door, it qualifies as a division wall* for reduction of area.

Note: Where communications are protected by a recognized water curtain, the value of P_i is 0.

*When an asterisk is shown next to a term in this item, the term is defined in greater detail in the Commercial Fire Rating Schedule.

340. CALCULATION OF NEEDED FIRE FLOW (NFF_i):

$$NFF_i = (C_i)(O_i)(X + P)_i$$

When a wood shingle roof covering on the building being considered, or on exposed buildings, can contribute to spreading fires, add 500 gpm to the Needed Fire Flow.

The Needed Fire Flow shall not exceed 12,000 gpm nor be less than 500 gpm.

The Needed Fire Flow shall be rounded off to the nearest 250 gpm if less than 2,500 gpm and to the nearest 500 gpm if greater than 2,500 gpm.

Note 1: For 1- and 2-family dwellings not exceeding 2 stories in height, the following Needed Fire Flows shall be used:

DISTANCE BETWEEN BUILDINGS	NEEDED FIRE FLOW
Over 100'	500 gpm
31-100'	750
11-30'	1,000
10' or less	1,500

Note 2: Other habitational buildings, up to 3,500 gpm maximum.

Required Fire Flows, Average City and Residential Districts*

Population	Required Fire Flows for Average City			Required Fire Flows for Residential Districts						
	Flow Rate gpm	Flow Rate mgd	Duration hours	Fire Flow gal.	Municipal Flow gal. (b)	Total Flow gal. (c)	Duration hours	Fire Flow gal.	Municipal Flow gal. (b)	Total Flow gal. (c)
100	250(a)	0.36	4	60,000	3,750	63,750	2(a)	30,000	1,250	31,250
250	500	0.72	4	120,000	9,375	129,375	2(a)	60,000	3,125	63,125
500	750	1.08	4	180,000	18,750	198,750	2(a)	90,000	6,250	96,250
1,000	1,000	1.44	4	240,000	37,500	277,500	2(a)	120,000	12,500	132,500
1,500	1,250	1.80	5	375,000	70,200	445,200	2½(a)	187,500	23,400	210,900
2,000	1,500	2.16	6	540,000	112,500	652,500	3(a)	270,000	37,500	307,500
3,000	1,750	2.52	7	735,000	196,875	931,875	3½(a)	367,500	65,500	333,000
4,000	2,000	2.88	8	960,000	300,000	1,260,000	4	480,000	100,000	580,000
5,000	2,250	3.24	9	1,215,000	422,500	1,637,500	4½	607,500	141,000	748,500
6,000	2,500	3.60	10	1,500,000	562,500	2,062,500	5	750,000	187,500	937,500
10,000	3,000	4.32	10	1,800,000	937,500	2,737,500	5	900,000	312,000	1,212,000

Adapted from *Standard Schedule for Grading Cities and Towns of the United States with reference To Their Fire Defenses and Physical Conditions*, National Board of Fire Underwriters, New York, 1956.

*For residential districts, the required fire flow shall be determined on the basis of structural conditions and congestion of buildings. In districts with about 1/3 the lots in a block built upon having buildings of small area and of low height, at least 500 gpm is required; if the buildings are of larger area or higher, up to 1,000 gpm is required; where districts are more closely built or the buildings consist of high value residences, apartments, tenements, dormitories, or similar structures, 1,500 to 3,000 gpm is required, and in densely built districts with 3-story and higher buildings, up to 6,000 gpm is required.

(a) In certain states a minimum flow of 500 gpm at 20 psi for at least 4 hours duration is required.

(b) Water usage for fire flow purposes is the maximum day flow (1.5 times the average daily consumption). In this example it is assumed that flow for the average city to be at the rate of 225 gpcd and flow for residential districts to be at the rate of 130 gpcd, both for the hours duration of the fire flow.

(c) The total flow may be provided by storage alone or by system capacity plus storage.

Exhibit I

**New York State
Office of State Comptroller
Special Improvement District Costs
For the Year 2005**

**AVERAGE ESTIMATED COSTS FOR COUNTY AND TOWN SPECIAL
IMPROVEMENT DISTRICTS
(EFFECTIVE FOR PROCEEDINGS FOR WHICH A NOTICE OF HEARING IS PUBLISHED
FROM JANUARY 1, 2005 THROUGH DECEMBER 31, 2005)**

The Comptroller's approval is not required if the "cost of the district or extension" to the "typical property" or, if different, the "typical one or two family home" as stated in the notice of hearing, is not above the average estimated cost thresholds listed below.

Costs include debt service, operation and maintenance and other charges related to the improvement in the first year following formation of the district or extension, or the increase and improvement of facilities (or, if greater, the first year in which both principal and interest and operation and maintenance will be paid). To ensure accurate calculations of estimated costs, towns and counties should not assume the receipt of federal or State aid in the absence of firm commitments from the appropriate agency. In addition, estimated borrowing costs should be based on the proposed maturity of the obligations and interest rate assumptions derived from market surveys or a letter of commitment. Charges imposed by other governmental entities, such as public authorities or other municipalities, should be included in the computation.

TOWN DISTRICTS

The following average estimated costs apply to town special district establishments, extensions, or increases in the maximum amount to be expended¹. Towns must use the total cost to the typical property or, if different, the typical one or two family home, exclusive of hook-up fees.

Sewer	\$ 573
Water	\$ 575

COUNTY DISTRICTS

The following average estimated cost applies to county special district establishments, extensions or increases in the maximum amount to be expended. Counties must use the total cost to the typical property or, if different, the typical one or two family home, exclusive of hook-up fees.

Sewer	\$280
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The following average estimated cost applies to county special district increases and improvements of facilities. Please note that this figure represents only the increased cost to the typical property as a result of the increase and improvement.

Sewer	\$ 9
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For all other types of district proceedings, there was insufficient data to calculate meaningful average estimated costs. Therefore, any proceedings not listed above will be subject to applicable requirements for obtaining the Comptroller's approval, irrespective of the cost to the typical property or home.

¹ Note that chapter 456 of the Laws of 2004 amended Town Law §§202-d and 209-h, with respect to proceedings pursuant to articles 12 and 12-A of the Town Law that authorize an increase in the maximum amount to be expended for the improvement in a district. Under the amendment, the Comptroller's approval, if required, may be given only after public hearing and, in case of article 12-A districts, permissive referendum requirements are met. Prior to the amendment, the public hearing and permissive procedures were undertaken after the Comptroller's approval.

This listing of the average estimated cost thresholds for Towns and Counties to use in determining whether approval of the State Comptroller is necessary for certain special district actions in the year 2005.

Certain "low cost" special districts, i.e., those which are at or below average estimated cost thresholds contained in the enclosure, do NOT require approval of the State Comptroller. However, unless no debt is being issued, a certified copy of the notice of hearing for the "low cost" district must be sent to our office. This copy must be sent, on or about the date of publication to the NYS Office of the State Comptroller, Division of Legal Services, 110 State Street, 14th Floor, Albany, NY 12236. It should be sent no later than 14 calendar days after publication. This notice enables us to accurately calculate future average estimated cost thresholds.

In addition, certified copies of resolutions or orders which finally establish or extend a district, and in the case of counties, which authorize an increase and improvement of facilities, are required to be filed with this Office regardless of whether the Comptroller's approval is required. Resolutions or orders that are subject to permissive referendum should not be filed until the period for filing a petition has passed, or if a petition is filed, a referendum has been held.

Our office stands ready to provide advisory services and assist you in identifying and resolving issues in connection with special district actions, even if the proceedings are not subject to our approval. You can obtain additional information and guidelines on submitting applications by contacting our office.

If you have questions or need more information, contact our Legal Division at (518) 474-3517 or our Division of Local Government Services at (518) 486-3149.

Exhibit J

**Proposed Water District No. 13
Detailed Water System Specifications**

Water System Specifications

1. All water mains and fittings shall be Class 50 ductile iron pipe, cement lined, paint seal coated with o-ring rubber gasket push-on tyton joints, conforming to AWWA Specification C151-B with a rated working pressure of 350 psi, as manufactured by US Pipe Company or approved equal. All pipes shall be supplied and installed in accordance with the latest AWWA specifications.
2. All residential water services shall be 2-inch type K copper. No joints will be allowed between the corporation stop and the curb stop.
3. Water mains and building services under permanent and semi-permanent pavements shall be installed at a minimum depth of 5 feet below finished grade. When pipeline is installed with deflection, the design engineer or his representative shall approve the degree of deflection. Bends are to be used when deflection exceeds manufacturer's recommendations. In rock excavation, the trench excavation shall be to a depth of 12 inches below the bottom of the pipe. Pipe to be bedded in select sand material,
4. There shall be a minimum horizontal separation of ten (10) feet between any water main and any sanitary / storm sewer line. Any deviations are to be approved by the design engineer or his representative.
5. There shall be a minimum 18-inch vertical separation between any water line and any sanitary / storm sewer line. Where 18 inches of vertical separation cannot be met, the sanitary / storm sewer shall be pressure rated SDR 26 PVC pipe (meeting ASTM designation D - 3034 latest revision) with joints of a full length of pipe equidistant from the crossing point.
6. All ductile iron fittings shall be mechanical or restrained joints, cement lined, paint seal coated and Class 250 as approved by the Town of Brunswick.
7. Corporation stop shall be as approved by the Town of Brunswick.
8. Curb stop shall be as approved by the Town of Brunswick.
9. Curb box shall be as approved by the Town of Brunswick and shall be installed flush with final grade.
10. Fire hydrants shall be as currently used by the Town of Brunswick. Hydrants shall be of the break flange type with a valve opening not less than five inches. Hydrant shall be installed with retainer glands and shall open as per Town of Brunswick requirements. A six-inch valve shall be installed between the main and the fire hydrant.
11. Water valves shall be as currently used by the Town of Brunswick.
12. Retainer glands shall be as approved by the Town of Brunswick.
13. Thrust block concrete shall be 3000 psi (28-day strength) or an approved equal thrust mechanism.
14. The contractor shall ensure that the existing public water supply remains uncontaminated during the construction activities.
15. Chlorination procedure - upon completion of the work and before final acceptance, the waterlines constructed under this project shall be chlorinated and disinfected in accordance with AWWA Standard C601. Prior to chlorination, all dirt and foreign material shall be removed by a thorough flushing through the fire hydrants, or by other approved means. Each valved section of water main shall be flushed independently. The method of disinfection shall consist of introducing a solution of hypochlorite or chlorine gas and water in controlled quantities into the piping system in such proportion that the chlorine water mixture entering the piping shall contain sufficient chlorine solution so that after the solution has been in the pipeline for a period of 24 hours, there shall be a chlorine residual throughout the entire system of not less than 50 ppm. If the residual at any point in the system is less than 50 ppm after the 24-hour period, the disinfection procedure shall be repeated until such a residual is obtained at the extremities.
16. Following chlorination, all treated water shall be thoroughly flushed from the newly installed water mains at their extremities until the replacement water throughout its length shall, upon bacterial testing, be satisfactory to the design engineer or his representative.
17. Chlorination, pressure and leakage tests of water lines shall be in conformance AWWA Standards and Town of Brunswick regulations. All tests shall be performed under the supervision of the design engineer or his representative and shall be observed by representatives of the Town of Brunswick. After disinfection, water samples shall be taken and examined for

- bacteria at a NYSDOH approved laboratory. Approved sample results, to verify sanitary quality, shall be obtained and submitted to the Rensselaer County Health Department and the Town of Brunswick prior to turning the water main over to the Town of Brunswick for use.
18. Water used for disinfecting the water mains, if discharged to any stream or body of water, must have a chlorine residual not exceeding 0.05 mg/l at the point of discharge.
 19. The City of Troy Department of Public Utilities personnel shall make all necessary connections to the existing water system near Hialeah Drive after issuance of the required permits. The contractor shall provide an approved 12-inch valve for the City of Troy Department of Public Utilities crews to install on the 12-inch main at Hialeah Drive and NYS Route 142. The contractor shall reimburse the City of Troy Department of Public Utilities for the cost of performing the connection. Contractor shall not operate any existing water valves or fire hydrants without prior authorization from the City of Troy Department of Public Utilities.
 20. Each residential building shall have an individual water meter and outside register as approved by the Town of Brunswick on the domestic water service. The 2-inch fire sprinkler service shall not be metered unless directed by the Town of Brunswick.

Utility Notes

1. The contractor shall notify UFPO (1-800-962-7962) at least 48 hours prior to the start of construction for location and verification of all existing utilities shown or not shown on the plans. All existing utilities shown are approximate in size and location. The contractor shall be aware that other utilities may exist and may not be shown on the plans. Existing utility information shown on the plans has been compiled from various record sources and is subject to verification by the contractor before construction begins.
2. Potable water and sanitary sewer utilities shown hereon shall not be placed in operation until a "Permit To Operate" has been issued by the Rensselaer County Health Department (RCHD).
3. There shall be no changes on these plans in advance of, or during construction, without prior approval of the design engineer or his representative, the Rensselaer County Health Department and the Town of Brunswick.
4. Design, construction, installation, material standards, minimum separation distances and inspection requirements shall comply with the latest editions of:
 - New York State Department of Health (NYSDOH) publication - Recommended Standards of Water Works
 - New York State Department of Environmental Conservation (NYSDEC) publication - Design Standards for Waste Treatment Works
 - G.L.U.M.R.B. publication - Recommended Standards for Sewage Works
 - Rensselaer County Health Department Standards
 - Town of Brunswick - Rules and Regulations
 - Manufacturer's recommended standards and instructions for installation
5. Also see approved engineering reports, material specifications, construction details and special notes.
6. A New York State licensed professional engineer shall supervise and inspect the construction in accordance with the approved plans and supplemental data. He shall then certify in writing that the construction is in conformance with the approved plans. He shall prepare as-built plans / sketches with tie distances for all valves, bends, curb boxes, manhole structures and sanitary sewer lateral wyes. A copy shall be provided to the RCHD, the Town of Brunswick and the City of Troy. The contractor shall apply to the RCHD for a "Permit to Operate".
7. No water developed from roof downspouts, footing drains, sump pumps, cooling water, backwash drains, and etc. shall be connected to the sanitary sewer system. All such water shall be discharged to a positive drainage path or to a storm sewer.
8. The contractor shall take all necessary precautions to protect and preserve existing utilities. All utilities damaged or disturbed shall be replaced in kind by the contractor.
9. All new manholes constructed within paved areas shall have the top castings set flush with the existing pavement grade. In landscaped areas, the top of all valve boxes shall be set approximately 2 inches above grade.
10. The contractor shall install a temporary plug and mark the location of all sanitary sewer laterals and water line curb boxes, with a 2" x 4" pressure treated wood stake, for future connection. Sanitary sewer laterals wood stakes shall be marked with green paint and the water line curb boxes wood stakes with blue paint.
11. The contractor shall backfill all excavations to existing grade at the end of each workday unless authorized differently by the design engineer or his representative, in which case a security barrier shall be installed to protect the excavation from being entered.
12. The contractor shall coordinate with all utility owners to provide temporary support to utility poles as required.
13. Service lateral locations for the various utilities that are shown on the plans are approximate and are to be used for estimating purposes only. Contractor shall coordinate the exact locations with the design engineer or his representative prior to installation.
14. Existing roadways are not to be open cut for the installation of utilities unless prior authorization from the agency having jurisdiction has been given.

General Construction Notes

1. The Engineer's Report for the Brunswick Meadows project dated January 13, 2005 and prepared by Thomas M. Murley, P.E. shall be incorporated as part of these specifications and shall be referenced to during the construction of this project.
2. All permits required for the work on-site shall be obtained prior to commencing construction.
3. All elevations and contours shown are on the USGS elevation base. First floor elevations shown for the residential units are suggested finished floor elevations. The design engineer or his representative must approve of all alterations to these elevations.
4. The contractor shall comply with all construction inspection requirements of all agencies. The contractor shall notify the appropriate agency, at least 48 hours prior to all required inspections.
5. The contractor shall verify all dimensions, utility inverts and contours and report any discrepancies to the design engineer or his representative prior to start of construction. The contractor's work shall not vary from the plans without the expressed approval of the design engineer or his representative.
6. The contractor shall be responsible for providing all field layouts. The contractor shall take ties to all utility connections and provide marked-up as-built plans for all utilities. Contractor shall provide the invert elevations and horizontal ties of all capped laterals at their termination point.
7. The contractor shall cooperate with any and all contractors / agencies performing work on the project site during the performance of this work.
8. All proposed areas of construction within the clearing limits shall be stripped of all organic soils and vegetation. All topsoil in grading areas shall be stripped and stockpiled for future use on the site. The contractor shall exercise extreme care during clearing and construction operations to avoid performing any work outside of the property lines and / or easement areas. The pruning and trimming of existing trees outside of the clearing limits shall only take place at the direction of the design engineer or his representative. The intent is to remove dead and / or broken branches and to clear limbs to a proper height where necessary. The contractor shall install appropriate barriers to prevent damage to any trees within the clearing limits that are marked to remain intact by the design engineer or his representative.
9. All subgrade areas shall be compacted with a minimum 10 static weight vibratory roller or equal. All soft areas shall be removed and replaced with controlled fill as approved by the design engineer or his representative. The design engineer or his representative shall evaluate its effectiveness and make recommendations for stabilization. The design engineer or his representative shall witness all compaction of fill.
10. Prior to the placing of the subbase material the design engineer or his representative shall inspect the compacted subgrade for approval. Contractor shall then place and compact the gravel subbase, in 6-inch lifts, to the grades as shown on the plans. All depressions and low areas shall be filled with gravel and re-compacted as needed.
11. Asphalt concrete base course shall not be placed until all utilities are installed, and proof of proper installation is forwarded to the design engineer or his representative.
12. Asphalt concrete base and wearing courses shall be placed and rolled in accordance with NYSDOT Standard Specifications.
13. Construction entrance roadbed shall be cleared of all vegetation, roots and other objectionable material. Contractor shall place 12" of course crushed stone or asphalt pavement evenly over the full width of the construction entrance for approximately 50 feet deep into the property. Seed all adjoining disturbed areas.
14. The contractor shall be responsible for keeping existing public highways / streets and adjacent lands free of dust, debris, soil and other material which may accumulate due to construction related to the site. The contractor shall be responsible for dust control as required or as directed by the design engineer or his representative. The contractor shall restore lawns, driveways, culverts, signs and other public or private property damaged or removed to at least as good a condition as before being disturbed, as determined by the design engineer or his representative. Any damaged trees, shrubs and / or hedges shall be replaced at the contractor's expense.
15. The contractor shall comply with the New York State Manual of Uniform Traffic Control Devices, latest edition, for all work performed in existing right-of-ways. When traffic is to be

maintained on an unpaved surface, a minimum of 6 inches of subbase material shall first be placed and compacted, prior to traffic. Excavation within the existing travel lanes shall be covered with steel plates, at the end of the workday, if work operation is not completed.

- 16. The contractor shall not store any material, equipment or vehicles on existing right-of-ways during hours that the contractor is not working. The contractor shall not create any hazardous conditions for the existing right-of-ways.**
- 17. The contractor shall protect existing property line and right-of-way monumentation. Any monumentation disturbed or destroyed, as determined by the design engineer or his representative, shall be replaced at the contractor's expense under the supervision of a New York State licensed land surveyor.**
- 18. The contractor shall be responsible to conduct exploratory test pits as may be required to determine underground conditions and / or utilities.**
- 19. All trench excavation and any required sheeting and shoring shall be done in accordance with the latest revisions of New York State Industrial Code Rules 23 and OSHA regulations for construction. Sheet piling plans / procedures shall be designed and sealed by a New York State licensed professional engineer.**
- 20. Contractor shall be responsible for dewatering and maintenance of surface drainage during the course of the work. Flow shall be maintained for all existing utilities, culverts and ditches.**
- 21. The contractor shall exercise caution when operating construction equipment over new utility trenches. The contractor shall be responsible for maintaining a minimum of 2 feet of cover or more, if required, over any utility line subject to construction traffic.**
- 22. New York State Education Law: Section 7209, Subdivision 2 states "To all specifications, plans, plats and reports to which the seal of a professional engineer or land surveyor has been applied, there shall be applied a stamp with appropriate warning that it is a violation of this law for any person, unless he is acting under the direction of a licensed professional engineer or land surveyor, to alter any item in any way." Unauthorized alterations or additions to these plans is a violation of section 7209, subdivision 2, of the New York State Education Law. Copies of these plans not bearing an original ink or embossed seal, registration number 53,341, shall not be considered a true and valid copy.**

Exhibit K

**City of Troy and Town of Brunswick
Water Supply Contract**

WATER SUPPLY CONTRACT
CITY OF TROY
AND
TOWN OF BRUNSWICK

AGREEMENT made this 27th day of November, 1967, by and between the CITY OF TROY, a municipal corporation in the County of Rensselaer, Post Office Address, City Hall, Troy, New York, (hereinafter designated "TROY") and the TOWN OF BRUNSWICK, a municipal corporation in the County of Rensselaer, Post Office Address, Town Office, Center Brunswick, R. D. 3, Troy, New York, (hereinafter designated "BRUNSWICK").

WHEREAS, there has been formed and there is presently existing in the Town of Brunswick water districts numbered 1, 2, 3, 4, 5, 6, and 8; and

WHEREAS, in the future new or additional water districts may be formed; and

WHEREAS, it is intended that TROY will sell and supply to BRUNSWICK water for consumption by the residents of its water districts presently existing and hereafter to be formed under the following terms and conditions; now

WITNESSETH:

Under the authority of the Constitution of the State of New York and Article 5C of the General Municipal Law (Chapter 24 of the Consolidated Laws as added, as Article 5A by Chapter 870 of the Laws of 1953 and renumbered as above by Chapter 177 of the Laws of 1954), and in consideration of the services to be performed and the water to be supplied by TROY and the payments to be made by BRUNSWICK.

IT IS AGREED, subject to the approval of Water Resources Commission and any other duly constituted agency of government having jurisdiction thereof as follows:

1. TROY shall at all times during the period of this agreement furnish all of the water required by the customers of the Water Districts now or hereafter formed within the Town of Brunswick, to BRUNSWICK at the existing pressure in the distribution mains in an amount not to exceed

11/27/67
40 years
Samuel J. [unclear]

2 x year
6/1 due
12/1 due 2/1

an average daily consumption based on the following schedule of use:

1968	0.6 million gallons per day
1980	1.3 million gallons per day
2000	4.0 million gallons per day
2010	6.0 million gallons per day <i>Nfo Contract Expires 2006</i>

Such water in the said amount and at said pressure is to be delivered at TROY'S side of various meters which meters are to be installed on the boundary line of TROY and BRUNSWICK at points to be determined and agreed upon by and between the Town Engineer of BRUNSWICK and the Superintendent of the Bureau of Water and Sewers of TROY and BRUNSWICK shall accept such water as it is chlorinated, treated and purified by TROY. Such water shall meet the requirements of the drinking water standards of the New York State Health Department and Rensselaer County Health Department.

2. TROY shall undertake to deliver water to BRUNSWICK in such quantities as are required under the conditions and for the consideration stated herein. However, TROY does not bind itself during periods of water shortage resulting from an emergency or any unforeseeable occurrence beyond the control of TROY to deliver water to BRUNSWICK except in such quantities as are available. It is expressly agreed that the within contract is non-assignable by either party hereto except that BRUNSWICK may assign all of its right, title or interest herein to a Water District or Districts to be created within BRUNSWICK. BRUNSWICK hereby covenants that it will sell the water supplied hereunder only to users within the territorial limits of BRUNSWICK and no water will be furnished or sold by BRUNSWICK to any user outside the territorial limits of BRUNSWICK.

3. In the event the demand of BRUNSWICK for water shall increase and daily consumption shall exceed the maximum gallons per day set forth in paragraph 1 hereof TROY shall be notified in writing of the anticipated increase in demand.

4. BRUNSWICK will install and maintain the meters described in paragraph 1 hereof of a size and type to be approved by TROY to register

the flow of water supplied by TROY to BRUNSWICK in units of 1000 gallons. In the meter chambers or houses provided for such meters in the vicinity thereof, there shall be maintained a bypass to be used only in the event of meter failure. In the event such water is supplied by TROY to BRUNSWICK through such bypass and during the period or periods when the flow is not being metered then BRUNSWICK agrees to pay TROY at the rates hereinafter provided during the period when such meter is not registering, a proportionate charge based upon the meter reading for the total of the same six months period preceding the time when the disability occurred. BRUNSWICK agrees to install said master meters as described in paragraph 1 hereof not later than the 1st day of May, 1968. BRUNSWICK shall notify TROY of new water customers, changes in water districts and installation of fire hydrants until the aforesaid master meters are in operation.

5. BRUNSWICK will pay TROY for water delivered to BRUNSWICK as registered by the meters hereinbefore described at the rate of \$0.21 cents per thousand gallons which is the present meter rate being paid by the inhabitants of TROY. The meters shall be read by representative of TROY and BRUNSWICK and payment for the periods shall be made all as is set forth in Exhibit A attached hereto and incorporated herein. TROY agrees to notify BRUNSWICK within 10 days after the expiration of each semi-annual period of the amount of water consumed and the total charge to BRUNSWICK therefor. If any questions arise as to the accuracy of the computation of the sums due from BRUNSWICK, such questions shall be submitted to arbitration as provided in paragraph 10 hereof.

6. This agreement shall continue for a period of 40 years from the date hereof. It is the intent of the parties to this agreement that BRUNSWICK will pay the same annual metered rate for water delivered as the inhabitants of TROY pay for metered water. It is further agreed that BRUNSWICK will pay TROY for water delivered on an estimated use basis until the master meters referred to herein are installed. TROY

shall immediately supply BRUNSWICK Tomhannock filtered water on the signing and delivery of this agreement as soon as facilities will permit.

7. TROY will constantly inspect its water supply system and will promptly make all repairs and replacements necessary to insure an uninterrupted flow of water to supply BRUNSWICK with water as provided in this agreement.

8. Any plans for construction or replacement of any facility that BRUNSWICK contemplates and which might require coordinated construction by TROY shall first be submitted to TROY for discussion and approval. In the event the parties are unable to agree in relation thereof, the question or questions shall be submitted for arbitration as provided by paragraph 10 hereof.

9. BRUNSWICK shall furnish its own temporary pumping facilities to serve areas of high elevation until its permanent facilities can be constructed at Vanderheyden Reservoir. Such temporary pumping facilities shall be subject to the approval of TROY.

10. In case any disagreement or difference shall arise in respect of items herein designated to be submitted for arbitration, such disagreement or difference shall be submitted to arbitration as provided for by Article 75 of the Civil Practice Law and Rules.

11. TROY shall, upon the formation of new water districts totally located within the Town of Brunswick by BRUNSWICK, sell water to said districts under the same terms and conditions as are herein contained and this agreement shall constitute on the part of TROY a continuing option, during the term hereof which shall be irrevocable, to furnish such water to such new districts, but subject to the conditions and limitations contained herein.

12. This Agreement and the following Agreements, namely:

- (a) The settlement of disputed claims for installation, maintenance and repair by the City of Troy dated November 1967.
- (b) The contract of purchase and sale of Vanderheyden Reservoir dated November 1967.
- (c) The settlement of dispute of the Sycaway storm sewer dated November 1967.
- (d) The contract of sale of pipe lines in the Town of Brunswick dated November 1967.

shall constitute a single, comprehensive settlement of all problems presently in litigation or intended to be in litigation as herein described between BRUNSWICK and TROY and are intended to constitute the settlement and compromise of such litigation upon the terms and conditions therein set forth upon the signing and entry of an Order approving said settlement thereof. Such Agreements, however, shall not merge in and become part of such Order or Judgment, but shall remain separate, apart and remain in all respects, duly enforceable contracts.

13. An Order may be entered by either party hereto based on these Agreements which constitute as above set forth a stipulation discontinuing said action, approving said agreement and all the terms thereof and thereby discontinuing said actions without costs to either party.

IN WITNESS WHEREOF, TROY has caused this Instrument to be executed in its name in quadruplicate by its City Manager and its seal affixed and attested by its City Clerk and BRUNSWICK has caused this Instrument to be executed in its name in quadruplicate by its Supervisor and its seal affixed and attested by its Town Clerk as of the day and year first above written.

ATTEST:

Thomas H. Davenport
City Clerk

ATTEST:

Marquette D. Wilson
Town Clerk

CITY OF TROY

BY

Richard W. Smith
City Manager

TOWN OF BRUNSWICK

BY

Richard W. Smith
Supervisor

Payment for the calendar year 1967 shall be made in full on February 1, 1968 on the same basis as prior hereto.

Payment thereafter and meter readings shall be as follows:

a. Period 1/1/68 to 9/1/68. Troy shall read the Brunswick meters on 9/1/68. Brunswick shall pay for the water furnished from 1/1/68 to 9/1/68 at the metered rate for such period during which water was metered and at the prior rate, proportionately for the period of time that ^{water} was not metered. This payment shall be made on November 1, 1968.

b. Period 9/1/68 to 12/1/68. Troy will read on December 1, 1968 and Brunswick will pay for this period at the metered rate on 2/1/69.

c. Period 12/1/68 to 6/1/69. Troy will read on 6/1/69 and Brunswick will pay on 10/1/69. Troy will read on 12/1/69 and Brunswick will pay the balance on 2/1/70.

d. For the remaining period of the contract, Troy will read the meters and Brunswick shall pay for the water used by Brunswick as follows:

a. Troy shall read on June 1st of each year, and Brunswick shall pay on the basis of such reading on October 1st thereafter.

b. Troy shall again read on December 1st of each year, and Brunswick shall pay on the basis of such reading on February 1st of the year following such reading.

EXHIBIT A

Exhibit L

**City of Troy
2005 Water Rate Increase Letter**



CITY OF TROY
Department of Public Utilities

25 Water Plant Road
Troy, New York 12182
(518) 237-0319
FAX (518) 233-7038

December 21, 2004

Mr. Philip Herrington, Supervisor
Town of Brunswick
9 Town Office Road
Troy, NY 12180

Dear Mr. Herrington:

Please be advised that the City of Troy City Council enacted a water rate increase effective January 1, 2005. The new rate for Troy Resident's is \$3.03/1000 gallons.

In accordance with your community's contract agreement with the City of Troy, the new water rate that will be applied and pro-rated to your next semi-annual water bill will be \$3.03/1000 gallons.

If you require additional information, have any questions relative to this matter or if I can be of further assistance, please contact my office at 237-0319.

Sincerely,

Neil R. Bonesteel
Chief Water Plant Operator

NRB:mw

Cc: H. Tutunjian, Mayor
D. Crawley, Deputy Mayor
D. Witkowski, Comptroller
D. Mitchell, Corporation Counsel
C. Clickner, Town of Brunswick
L. Fredette, Billing Office

Exhibit M

Annual Tax Revenue Projections

Brunswick Meadows

Annual Tax Revenue Projections

Full Market Value: 136 units x \$150,000 / unit = \$20,400,000

2005 Equalization Rate: 34.60% (Year 2005)

Total Assessed Valuation: \$20,400,000 x 34.60% = \$7,058,400

Projected Tax Revenues

Using Tax Rates For Year 2005 and 2004-05 School

Town of Brunswick:

General Fund \$ 3.018489 / \$1000 x \$7,058,400= \$ 21,305.70

Highway Fund \$ 4.541630 / \$1000 x \$7,058,400= \$ 32,056.64

Speigletown Fire Dept: \$ 5.682177 / \$1000 x \$7,058,400= \$ 40,107.08

Rensselaer County: \$19.171418 / \$1000 x \$7,058,400= \$ 135,319.54

Lansingburgh School: \$66.604310 / \$1000 x \$7,058,400= \$ 470,119.86

Total Tax Rate = \$ 99.018024 / \$1000

Total Annual Tax Revenue: \$698,908.82

Exhibit N

Petition to Establish District

**PETITION FOR ESTABLISHMENT
TOWN OF BRUNSWICK WATER DISTRICT NO. 13
IN THE TOWN OF BRUNSWICK
RENSSELAER COUNTY, NEW YORK**

TO THE TOWN BOARD OF THE TOWN OF BRUNSWICK:

We, the undersigned, being the **owners of all of the taxable real property** situate in the proposed Town of Brunswick Water District No. 13, hereinafter more fully described, according to the latest completed assessment roll, do hereby petition your Honorable Board, to establish Town of Brunswick Water District No. 13 in the territory hereinafter described, which is located in your Town of Brunswick, Rensselaer County, New York, outside of any incorporated village and wholly within the said Town of Brunswick, and to provide for the construction thereof a water system in accordance with the "*Map, Plan and Engineer's Report*" hereto annexed. Thomas M. Murley, a Licensed Professional Engineer in the State of New York, has prepared the said "*Map, Plan and Engineer's Report*".

Your petitioners request the establishment of such water district to include the area described in **Exhibit "A" – Legal Description** attached hereto and made a part thereof.

Attached hereto is **Map No. 1 – Boundary Map** showing the boundaries of the proposed water district and **Map No. 2 – General Plan** showing the improvements to be constructed for this proposed water district.

Thomas M. Murley, a Licensed Professional Engineer in the State of New York, has prepared the said **Map No. 1 – Boundary Map** and **Map No. 2 – General Plan**.

The cost of the construction for the proposed Town of Brunswick Water District No. 13 to the Town of Brunswick shall be zero dollars.

The cost of the construction of the said proposed Town of Brunswick Water District No. 13 will be paid entirely by the petitioners, TOPATOMA LLC or their assigns.

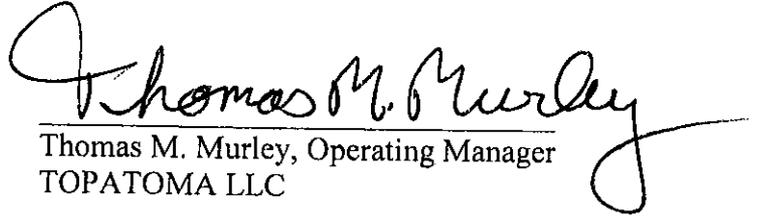
Said petitioners further agree to reimburse the Town of Brunswick for all expenses incurred by the Town of Brunswick in the proceedings to establish the Town of Brunswick Water District No. 13. Such expenses shall include, among other things, legal fees, engineering fees, and legal publication costs.

The said petitioners further agree to provide or obtain any easements if necessary, for the construction of the proposed Town of Brunswick Water District No. 13 and to dedicate such easements to the Town of Brunswick.

Upon completion, Town of Brunswick Water District No. 13 shall be dedicated to and deeded over to the Town of Brunswick for future operation and maintenance.

Said petitioners further agree to pay any future costs for this proposed water district. This will include the water usage, debt service charges, if any and the annual operation and maintenance charges paid to the Town of Brunswick.

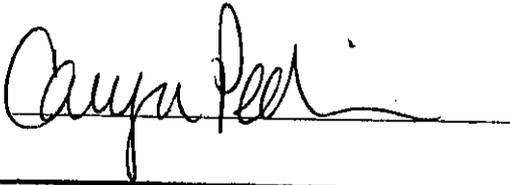
Dated: January 10, 2005


Thomas M. Murley, Operating Manager
TOPATOMA LLC

ACKNOWLEDGMENT

STATE OF NEW YORK }
 }ss.:
COUNTY OF RENSSELAER}

On this 10th day of January in the year Two Thousand and Five before me, the undersigned, a notary public in and for said state, personally appeared **Thomas M. Mulrey** personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledge to me that he executed the same in his capacity, and that by his signature on the instrument, the individual or the person upon behalf of which the individual acted, executed the instrument.



CARYN PEDRICK
Notary Public, State of New York
No. 6099509
Qualified In Albany County
Commission Exp. September 29, 2007

Notary Public-State of New York
My Commission Expires:

Exhibit "A"

**Town of Brunswick
Water District No. 13**

Legal Description

January 10, 2005

All that certain piece or parcel of land, lying and being in the Town of Brunswick, County of Rensselaer, State of New York, more particularly bounded and describe as follows:

Beginning at a point on the west right-of-way line of NYS Route 142 (aka Grange Road),

Said point being located approximately 126.85 feet southerly from an existing New York State highway concrete monument located at a point on the City of Troy / Town of Brunswick municipal boundary line as it intersects with the west right-of-way line of NYS Route 142,

Said New York State highway concrete monument also being approximately 175 feet southerly from the southerly right-of-way line of Hialeah Drive,

Said point of beginning also being the southeasterly corner of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran) and the northeasterly corner of Tax Map Parcel 80.00 – 2 – 3 (n/f TOPATOMA LLC),

Thence, southerly along said west right-of-way line of NYS Route 142 for a distance of 351.95+/- feet to a point; said point being the northeasterly corner of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier);

Thence, westerly along the north property line of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier) for a distance of 150+/- feet to a point;

Thence, southerly along the west property line of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier) for a distance of 99.22+/- feet to a point;

Thence, westerly along the north property line of Tax Map Parcel 80.00 – 2 – 7 (n/f Vallee) for a distance of 39.8+/- feet to a point;

Thence, southerly along the west property line of Tax Map Parcel 80.00 – 2 – (n/f Vallee) for a distance of 208.1+/- feet to a point;

Thence, westerly along the south property line of Tax Map Parcel 80.00 – 2 – 3 (n/f TOPATOMA LLC) for a distance of 1,098.2+/- feet to a point;

Thence, northerly through Tax Map Parcel 80.00 – 2 – 3 (n/f TOPATOMA LLC) for a distance of approximately 780+/- feet to a point; said point being on the City of Troy / Town of Brunswick municipal boundary line;

Thence, along the City of Troy / Town of Brunswick municipal boundary line for the following distances: 27.3+/- feet, 155.0+/- feet, 272.0+/- feet, 100+/- feet, 150+/- feet, 100+/- feet and 263.20+/- feet to a point, said point being the northwest corner of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran);

Thence, along the property line of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran) as shown on a map prepared by Charles E. Hartnett, LS entitled “Survey of a Portion of Lands of the Estate of Gerard A. Ripp (Reputed Owner)” dated November 9, 2000 and revised on November 17, 2000, the following distances 247.06 +/- feet, 154.94+/- feet, 132.0+/- feet and 95.0+/- feet to point and place of beginning of proposed Water District No. 13;

All as shown on a map entitled “Proposed Water District No. 13 – District Boundary Map”, dated January 13, 2005 and prepared by Thomas M. Murley, P.E. and;

Said proposed Water District No. 13 area being approximately 16.6+/- acres in size; and

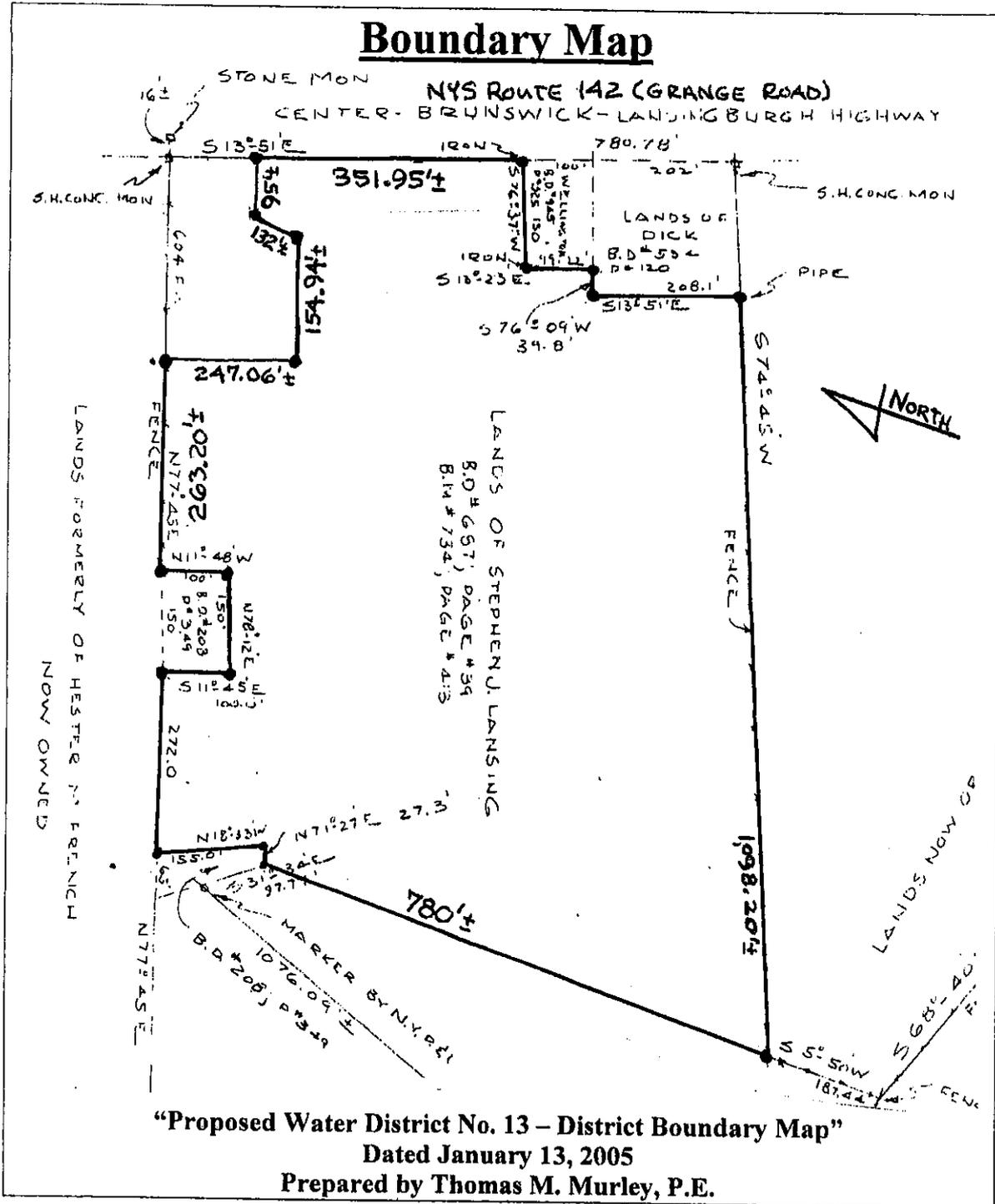
Being a portion of Tax Map Parcel 80.00 – 2 – 3 (n/f TOPATOMA LLC) as shown on a map entitled “Survey & Map of Lands Now or Formerly of Stephen J. Lansing, in the Town of Brunswick, Rensselaer County, NY”, dated November 11, 1965 and prepared by Richard Danskin, Land Surveyor #33,686.

Map No. 1

**Proposed Water District No. 13
District Boundary Map**

Town of Brunswick
Rensselaer County, New York

Proposed Water District No. 13



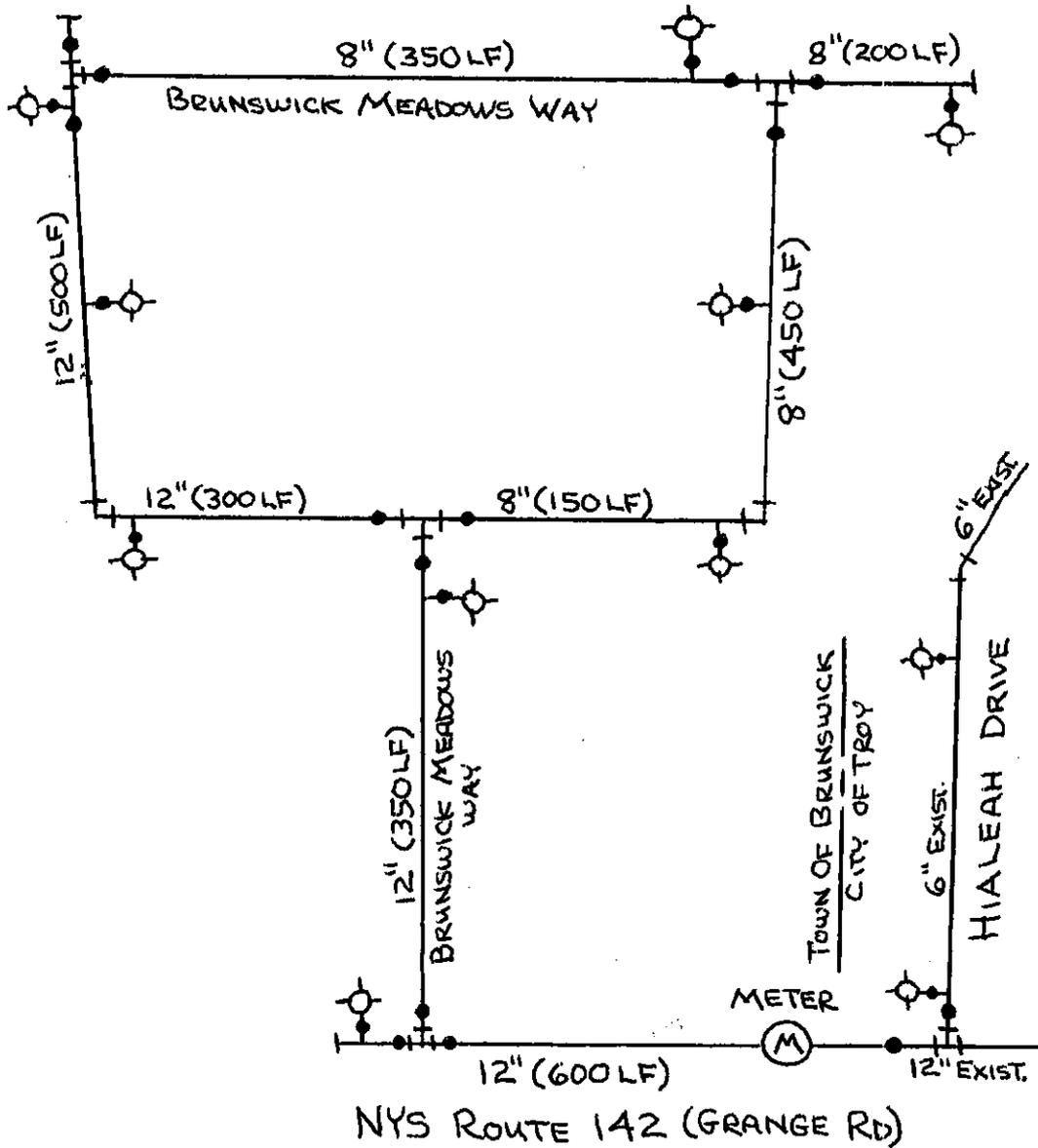
Map No. 2

**Proposed Water District No. 13
General Plan**

Town of Brunswick
Rensselaer County, New York

Proposed Water District No. 13

General Plan



"Proposed Water District No. 13 - General Plan Map"

Dated January 13, 2005

Prepared by Thomas M. Murley, P.E.