PROPOSAL FOR
TOWN OF NORTH CASTLE
COMPREHENSIVE PLAN UPDATE

OCTOBER 15, 2016

FERRANDINO & ASSOCIATES INC.
with D&B ENGINEERS AND ARCHITECTS P.C. + HIGHLAND PLANNING LLC

F&A FERRANDINO & ASSOCIATES INC.
PLANNING AND DEVELOPMENT CONSULTANTS

October 15, 2016

Adam R. Kaufman, AICP
Director of Planning
Town of North Castle
17 Bedford Road
Armonk, NY 10504

Re: Town of North Castle Comprehensive Plan Update

Dear Mr. Kaufman:

On behalf of our Team, consisting of **Ferrandino & Associates Inc. Planning and Development Consultants** of Elmsford, NY, **D&B Engineers and Architects P.C.** of White Plains, NY and **Highland Planning LLC** of Rochester, NY, we are pleased to submit this Proposal to provide comprehensive planning and community outreach services to the Town of North Castle. Enclosed herewith are twelve (12) bound and one (1) unbound copies of our Proposal and CD. We accept the terms and conditions and requirements contained within the RFP, as understood per the scope of work included in this Proposal.

The Consultant Team has recent experience completing similar assignments, as outlined in the Proposal. We will draw upon these experiences and our specific expertise in our respective fields to undertake this assignment.

We believe that our experience with the full range of Plan components, and the availability of experienced principal and senior staff, make our team a valuable resource for the Town in this regard. A description of relevant experience and key personnel is included in our package. For administrative purposes, if retained by the Town, Ferrandino & Associates Inc. will be the contracting party and I will serve as principal-in-charge.

The Consultant Team does not have any project commitments which could affect the project schedule. F&A prides itself for delivering its projects on time and within budget.

We anticipate your consideration of our Team and look forward to hearing from you.

Very truly yours,

Vince Ferrandino, AICP
Principal

Enclosures: 12 bound and 1 unbound copies of the Proposal plus CD.

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SAMPLE COMPREHENSIVE PLAN
Town of North Salem, NY

1.0 TEAM INTRODUCTION

For this assignment, ***Ferrandino & Associates Inc. Planning and Development Consultants (F&A)*** of Elmsford, NY will collaborate with specialty sub-consultants ***D&B Engineers and Architects P.C. (D&B)*** of White Plains, NY and ***Highland Planning LLC*** of Rochester, NY to provide all of the services necessary to successfully complete the *Town of North Castle Comprehensive Plan Update*. F&A will serve as the project manager and contracting party for the Consultant Team, directing all tasks, and preparing the *Comprehensive Plan Update* and SEQR documentation. D&B will take the lead in preparing the sustainability, natural resources and utilities chapters of the Plan update. Highland Planning will direct the public outreach portions of the project.

Ferrandino & Associates Inc. (F&A), founded in 1988, is a multi-disciplinary planning firm with extensive experience in comprehensive and strategic planning, zoning, land use and environmental studies/reviews, sustainability, parking and traffic analysis, GIS mapping, SEQR documentation, real estate market analysis, affordable housing, commercial revitalization and community and economic development.

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The firm services large and small municipalities, County, State and Federal agencies, not-for-profit groups, and private corporations and institutions ranging from large developers to grass-roots civic, neighborhood and business associations. F&A's land use and zoning experience includes preparation of comprehensive plans, zoning ordinances, corridor studies, neighborhood plans, downtown plans and hamlet studies. The firm's wide range of consulting expertise also includes community development planning and administration, market studies for market rate and workforce housing, commercial revitalization, economic development and grants procurement. F&A has established a solid presence in the tri-state area servicing over 100 municipalities, including several assignments in the Town of North Castle.

For example, F&A prepared Comprehensive Plans for the **Towns of Greenburgh** (currently underway) and **North Salem** (including a separate Parks and Recreation Master Plan), **Cortlandt** (Central and South Cortlandt), **Goshen** and **Wallkill** and the **Villages of Port Chester** and **Hempstead, L.I.**. Further, the firm prepared a Vision Plan for **Hastings-on-Hudson** and the **Town/Village of Scarsdale** in Westchester County. The firm also prepared market studies and economic development or revitalization plans for the **Towns of Hempstead, LI, Cortlandt** and the **City of New Rochelle**. In addition, F&A prepared ***Westchester's County's Economic Development Plan***, a strategic plan aimed at attracting business clusters to the County.

The firm's principal, Vince Ferrandino, AICP, formerly served as the Director of Planning for several New York State municipalities which underwent extensive revitalization under his direction. He has authored numerous master plans and redevelopment strategies. Further, both he and his firm have considerable experience in implementing land use and economic development plans, community development plans and comprehensive plans.

D&B Engineers & Architects, P.C. (D&B) was founded in 1965 with a primary focus on wastewater engineering. D&B is headquartered in Woodbury, NY, with additional offices in: White Plains, NY; East Syracuse, NY; South Plainfield, NJ; Coral Gables, FL; and Trevose, PA. D&B employs more than 200 people, including over 48 Professional Engineers and numerous certified environmental professionals specializing in all phases of civil and environmental engineering and science. D&B's experienced and diverse staff includes: professional engineers; scientists; architects; environmental, civil, mechanical, chemical, sanitary, process, electrical and structural engineers; geologists and hydrogeologists; environmental scientists and ecologists; quality assurance specialists; construction managers; resident engineers; construction inspectors; specification writers; water and wastewater treatment plant operators; environmental health and safety professionals; and CAD operators and designers.

D&B has supported hundreds of public and private clients on thousands of projects with budgets ranging from several thousand dollars to over $500M. The firm has planned, designed and performed construction management on thousands of public works projects, and has succeeded in having repeat clients over its over 5 decades of service.

Since 1965, D&B has a long and proven track record of developing innovative solutions to meet its clients' needs in the following areas:

- Environmental Assessment and Permitting
- Phase I/Phase II Environmental Site Assessments
- Municipal Planning
- Sustainability
- Wastewater Management
- Water Supply Engineering
- Multimedia Environmental Compliance
- Hazardous Waste Site Investigation/Remediation
- Hazardous Waste Management
- Solid Waste Management and Recycling
- Civil/Site Engineering
- Storm Water Management
- Construction Management and Multi-Disciplined A/E Projects
- Architectural Services

D&B consistently receives high rankings at the national and regional level from the following major engineering publications:

- *Engineering News-Record (ENR)* "Top 500 Design Firm";
- *Engineering News-Record (ENR)* "Top 200 Environmental Design Firm";
- *Trenchless Technology* "Top 50 Trenchless Technology Firm"; and
- *New York Construction* "Top 100 Design Firm".

Highland Planning LLC was established in 2007 by Tanya Mooza Zwahlen, AICP. The firm's area of practice is planning, with an emphasis on public outreach, economic development, grant writing and research management. Highland Planning's office is located in Rochester, New York and has two full-time employees and three part-time employees. **The firm was certified as a Women Owned Business Enterprise (WBE) in 2008 and as a Disadvantaged Business Enterprise (DBE) in 2011.**

Tanya Mooza Zwahlen, AICP is Principal and Owner of Highland Planning. She has more than 15 years experience in the fields of planning and community development. She is currently leading the public engagement efforts for the Town of Brighton Comprehensive Plan update and the City of Rochester Comprehensive Plan update, and is beginning a study of law enforcement for Orleans County. Ms. Zwahlen served on the Board of Directors of the South Wedge Planning Committee for eight years. She has been a member of the City of Rochester Environmental Commission since 2008.

2.0 WORK PROGRAM

A successful comprehensive plan inspires and guides the future growth and development of a community. A comprehensive plan lays out the path for continued economic growth and prosperity, balanced by the need to preserve environmental resources and the character of the community which are valued by the public.

The Town of North Castle last prepared a comprehensive plan update twenty years ago in 1996. This was the same year that the Nintendo 64 game system was released, Braveheart won the Oscars for best picture, the OJ Simpson trial began and Atlanta hosted the Summer Olympics. The world has significantly changed since then and we've entered a new century. This Comprehensive Plan Update represents an opportunity to revisit the Town's vision for a new generation.

What follows is an overview of the approach and methodology that, if retained, our Team will utilize in completing the tasks outlined below. It is likely that this scope will be fine-tuned, based upon further communication with the Comprehensive Plan Steering Committee (CPSC) and Town Planner.

Although the items specified in the RFP are interrelated, and may have overlapping timelines, we have grouped them by thematic content and organized them into three (3) phases and multiple tasks.

PHASE I: BACKGROUND REVIEW & OUTREACH

Review of Base Studies & Existing Reports

This task will consist of the following items identified in the RFP: #1, #2, #3 & #21.

Our Team will review existing studies and reports including: the T*own of North Castle Planning Base Studies: A Detailed Study of Existing Conditions* (*Existing Conditions Report*) which was prepared by Westchester County with extensive input by the Town; the *1996 Comprehensive Plan Update*; the *Armonk Main Street Planning & Design Study*; the *North Castle Biodiversity Plan*; the *Town of North Castle: Hamlet Design Guidelines*; the *Westchester County Hazard Mitigation Plan* (North Castle Chapter); and the *Code of the Town of North Castle*.

Based upon this review, we will prepare a draft Table of Contents outlining the Chapters of the proposed Comprehensive Plan Update. Based upon the items required in the RFP, the Table of Contents for the Comprehensive Plan Update will likely include, but will not be limited to, the following Chapters:

- Introduction & Process
- Sustainability
- Economic Development
- Historic and Cultural Assets and Programs
- Parks, Open Space and Recreation
- Environmental Resources
- Public Infrastructure and Services
- Mobility
- Housing
- Quality of Life
- Land Use & Zoning
- Implementation

Where appropriate, the Chapters will be broken down by hamlet to provide tailored analysis and recommendations for the Armonk, Banksville and North White Plains hamlets. Each Chapter will include a summary of relevant “goals”, “objectives” and “policies”. Goals will be derived from the Town’s overall mission and help set the direction for the Comprehensive Plan Update. The objectives will ascertain what must be accomplished to achieve these goals, and policies will be the actions that the Town will take to accomplish the goals and objectives.

Prepare Participation Plan

This task will consist of the following items identified in the RFP: #6.

North Castle aims to inspire and create excitement through the development of its Comprehensive Plan Update. The Town is committed to a participatory process and actively seeks to engage its constituents. Highland Planning believes that the investment of time to develop a detailed public participation plan, communications plan and stakeholder database will ensure the success of the comprehensive plan. While we are skilled engagement professionals, with a toolbox of more than 100 techniques to use in meetings and surveys, there is a need to understand the key issues in North Castle before we develop a public participation plan. It would be short sighted to propose how to engage the public without talking with them first. Once we understand the needs of the community, we will develop an outreach plan to make the process fun, interesting and useful.

Highland Planning's public engagement process is heavily influenced by the International Association of Public Participation (IAP2). IAP2 developed a standard process for developing a public participation plan, which includes the following five steps:

1. Gaining internal commitment
2. Learning from the public
3. Selecting the level of participation
4. Defining the process and identifying the public participation and communication objectives
5. Designing the public participation and communications plan

Preliminary Stakeholder Interviews

Our initial process will involve interviewing key stakeholders about important issues that the planning process needs to address. We will identify key issues, develop an initial list of key stakeholders, and develop a process and engagement techniques that support the objectives of the project. A focused and tailored outreach process means we will ask better questions throughout the Comprehensive Plan Update process, and make sure the right people are in the room when we're making decisions about the Comprehensive Plan. We will review this process with the Town, and develop a participation plan that responds to both the citizens and the Town's expectations for the process.

The North Castle Comprehensive Plan Update Public Participation Plan will identify goals and desired outcomes of public outreach efforts, articulate how and when our team will engage the public, and identify how comments will be incorporated into the Comprehensive Plan Update. Our communications plan will include a specific plan to leverage the asset of MySidewalk, draft meeting notices, press releases, Facebook calendars, and frequently asked questions. Finally, the initial stakeholder database will include names and email addresses of key stakeholders that must be included in the comprehensive plan update process from the first day.

Public Outreach

This task will consist of the following items identified in the RFP: #5 & #7.

The tools and timing of how we use them to solicit feedback and inform the public will be tailored to what we hear from the Town and the public, but will undoubtedly include a project website, public meetings, several surveys and focus groups. Additionally, we believe public outreach works better when we "go-to-them," because only a small percentage of a population attends public meetings. Our "go-to-them" strategy can be accomplished through surveys, meetings-in-a-box, outreach tables at community events, and adding the comprehensive plan to agenda items of established groups with regular meeting schedules.

The **first public meeting** will include an overview of the Comprehensive Plan Update process, a presentation of data trends and existing conditions, a summary of preliminary findings and goals from stakeholder interviews, and a review of previous plans and studies. Our Team will work with stakeholders to identify existing issues and opportunities. Presentation materials will be designed to provide an understanding of the project, and the meeting format will encourage small group discussion and one-on-one engagement. Presentation materials and meeting summaries will be posted to the

project website after the meeting, and we will encourage the public to provide written comments.

In between the first and second public meetings, we anticipate launching a public opinion survey. The Consultant Team will work with the Town to assess if the survey will be mailed or sent electronically. We typically uses Survey Monkey and/or Textizen, a text-based survey tool that we have used with great success.

Visioning

An initial visioning session with the CPSC, Town Board, Planning Board and municipal staff will set the stage for the second public meeting.

The **second public meeting** will help further develop the community vision. We have used several successful visioning techniques such as cardstorming and chalkboard vision portraits, in which meeting participants respond to questions, such as:

- Why did you choose to live in North Castle?
- Why do you continue to stay?
- Today, North Castle is _____.
- In 2027, North Castle will be _____.

After the second public meeting, the Consultant Team will summarize and share input with the Town Board, Planning Board and municipal staff, and propose a draft vision statement for the Comprehensive Plan Update. This vision will be used to develop goals, objectives and policies.

Survey

In between the second and third public meeting, we will hold **three or four focus groups**. The purpose of the focus groups will be to discuss issues related to specific geographic areas or topic specific opportunities, such as transportation, infrastructure, housing or recreation. We will delve deeper into ideas and opportunities raised in stakeholder interviews and at the first public meeting, and begin to discuss potential solutions or recommendations.

The **third and fourth public meetings/hearings** will be to present the draft and final comprehensive plan before the Town Board, respectively. Again, meeting materials will be posted to the project website after the public meeting/hearing and we will solicit feedback by email for one week after the meeting/hearing.

We will prepare all meeting notices in compliance with the New York State Open Meetings Law. Steering committee and public meeting summaries will be developed to document decisions and public input. All attendance records and meeting materials will be provided to the Town on a regular basis, and outreach efforts will be documented in the draft and final Comprehensive Plan Update.

As noted in the RFP, public meetings will be scheduled in each of the three hamlets of Armonk, Banksville and North White Plains.

PHASE II: DRAFTING THE PLAN

Concurrently with Phase I of the project, as the Town of North Castle's Comprehensive Plan Update goals are identified and the public weighs in on their vision and priorities for the Town, we will begin drafting the Comprehensive Plan Update document.

Introduction & Process

An introduction to the Comprehensive Plan will outline the purposes of the document, the process that was undertaken to prepare the Comprehensive Plan Update and the history of planning in the Town of North Castle. A summary of the public outreach results will be included in this Chapter.

Sustainability Chapter

In the 21st Century, with the warming of the planet and increasing concern by the public about the impacts of climate change, "sustainability" has become the new watchword. Sustainability, which includes sustainable development, is the ongoing effort to enhance well-being and improve environmental, economic and social resources. Sustainability seeks to ensure that human impact today allows for an equal or better future for the generations of tomorrow. Ideally, consumption of Earth's resources should be only at a rate in which the Earth can replenish them. Sustainability and sustainable practices can be a part of many different aspects of a community's built and natural environment. Striving for sustainability inherently allows a community to partake in responsible development.

Sustainability can be incorporated into all aspects of a comprehensive plan. While planning for better traffic flow, streetscape improvements such as increased sidewalk space, permeable pavers and green infrastructure can lead to enhanced pedestrian safety, traffic calming, storm water management and air quality. Planning for open spaces and parks and recreation areas incorporates sustainability through the protection of natural resources and increasing the community's quality of life. Examining current land uses and future development trends will help enable sustainable development decisions for the future regarding which lands should be protected or preserved and which lands are suitable for development.

When incorporating sustainable practices, quality of life increases through increased water and air quality, decreased solid wastes, increased connectivity to nature, increased availability of alternative means of transportation and a greater sense of pride in one's community. The Consultant Team will seek to incorporate sustainable development principles and ideas wherever possible.

This Chapter of the Comprehensive Plan Update will provide an overview of what "sustainability" is and "what it means to North Castle" and will set the framework for the interconnections of all other Chapters in the Plan. This Chapter will pull from the *Mid-Hudson Regional Sustainability Plan*, the *North Castle Biodiversity Plan* and the *Westchester County Hazard Mitigation Plan* (North Castle Chapter).

The Consultant Team, with D&B leading, will work with the Town to incorporate sustainable development and sustainable practices into the Comprehensive Plan Update. Sustainability goals, objectives and policies will be outlined. Some of these goals may include pedestrian and bicycle paths, choosing mixed-use and infill development for main streets, preserving undeveloped land, establishing waste reduction and/or reuse policies, incorporating green infrastructure and alternative energy sources, etc.

In this Chapter, will also take a look at "resiliency" in the Town. Resiliency involves planning for hazards such as flooding, severe storms and heat waves, as well as preparedness for future global changes by building and retrofitting in ways that can withstand future climatic differences. Sustainability and resilience are intertwined and should be considered together. For example, incorporating solar energy into the community is both sustainable (providing energy through renewable resources) and resilient (by building redundancy into the system). D&B will make recommendations regarding hazard preparedness and resiliency when appropriate within the Comprehensive Plan Update.

Economic Development Chapter

This Chapter will consist of the following items identified in the RFP: #9, #12, #13 & #23.

For the Town of North Castle, the importance of economic opportunities cannot be overstated. Real estate market analyses, redevelopment plans and financial incentives are some of the tools that the Town can use to leverage its assets to drive growth, create jobs and improve quality of life. Economic goals, objectives and policies will be outlined.

Hamlet Preservation Strategies

The Town has already commissioned several studies (*Armonk Main Street Planning & Design Study* and the T*own of North Castle: Hamlet Design Guidelines*) focused on planning and design of the hamlets. F&A will complement the work already undertaken, and focus its efforts on the economic factors that will support and preserve the commercial aspects of these hamlets.

For each of the three hamlets (Armonk, Banksville and North White Plains) F&A will undertake a survey of existing businesses to quantify the commercial mix and character of the hamlet centers. Based on this survey, F&A will develop tailored recommendations and strategies to promote and preserve these cores. These strategies may include such ideas as the creation of Business Improvement Districts (BIDs), establishing hamlet wide events, changes to the zoning code to permit new or different uses, and identifying funding opportunities.

With the imminent closing of the Somers' IBM campus and relocation of many employees to their North Castle location, the Armonk hamlet analysis would consider the impact of this change and focus on retaining and strengthening this important business hub.

Part of this process will entail examining the Town's existing zoning code and analyzing the impacts the code requirements have on the viability and sustainability of the commercial cores. Additionally, based on feedback from the public, this analysis will examine the appropriateness of changes to the code to either prohibit formula businesses or to require design interventions to make them conform with each of the hamlets' unique characters.

Industrial Revitalization Strategies

The Town of North Castle's industrial base, like many other similar communities in Westchester County, has seen a decline in traditional manufacturing. For the Town's existing industrial areas there are many potential futures, but to chart a path forward, the larger economic, social and environmental influences that define them today, and that will shape them tomorrow, need to be understood. Examining national, regional and local trends against the unique factors that define the character of the Town's industrial areas is critical to identifying successful strategies for revitalization or repurposing of these lands and buildings. It is equally important to understand that many small incremental steps are needed to realize any vision and a vision, without a good implementation plan, will remain just a report that will sit on a shelf.

The analysis and recommendations proposed by F&A as part of this Scope of Work would only represent the first step in the process to implementation and revitalization or repurposing of the Town's industrial areas. Specific plans, development scenarios and recruitment and retention efforts for the Armonk, Westchester County Airport and North White Plains industrial districts are not included in this Scope of Work.

Tax Base Sustainability Analysis

Key to the continued prosperity of the Town is the sustainability of its tax base. With data provided by the Town, F&A will examine the taxes generated by the Town's large commercial properties, office headquarters and hamlet centers for the past 10 years and, considering wider trends, will evaluate the sustainability of the tax base and project estimated taxes for the next 10 years. Additionally, areas where government spending can potentially be reduced (e.g. shared services opportunities and intergovernmental coordination) will be identified.

Historic and Cultural Assets and Programs Chapter

The Town of North Castle was originally incorporated in 1788. Originally a farming community, the industrial revolution in the mid-1800s led to the decline of agriculture in the area, as many New York City business leaders established estates in North Castle. While not examined in the 1996 Comprehensive Plan, the Town has established "Landmark Preservation" policies in its code. Based upon public input and data from the Base Studies, goals, objectives and policies will be developed for the Town's historical and cultural assets and programs.

Parks, Open Space and Recreation Chapter

This Chapter will consist of the following items identified in the RFP: #14.

The Town of North Castle has a long history of actively preserving its open space and recreational lands. In is 2003 Open Space Study, the Town's found that changes in land use and increased

development threatened the Town's open space resources. With publicly owned parks and open space accounting for 6,348 acres, or approximately ½ acre per resident, the Parks, Open Space and Recreation Chapter of the Comprehensive Plan Update will play an important role in the future of the Town. Building upon the Base Studies and the findings of the 2003 Open Space Study, F&A will discuss various strategies that the Town could employ to preserve existing open spaces within the Town, that are not otherwise already preserved, including: creation of conservation overlay districts, cluster development provisions, easements and purchase of open space lands, etc. Additionally, recommendations will be developed on how to enhance the recreational aspects of the Town's existing parks and conserved lands. Parks, open space and recreation goals, objectives and policies will be outlined.

Environmental Resources Chapter

This Chapter will consist of the following items identified in the RFP: #15 & #16.

D&B will review the regulations protecting the Town's natural resources as well as the Existing Conditions Report and information gathered from public outreach activities to evaluate the effectiveness of the existing regulations and make recommendations to improve the regulations, if warranted. The evaluation will be conducted in the context of expanding existing regulations as necessary to protect vital natural resources of the Town and surrounding communities. D&B will address natural resource facets such as: air quality issues, water quality issues, wetlands protection, impervious surfaces, steep slope protection and tree preservation, to work towards a Town-wide, community specific approach to managing these facets in a sustainable way. D&B will make specific goal, objective and policy recommendations upon review of existing regulations, Town policies and existing background research as well as state and federally approved best practices and regulations.

Renewable energy development can be considered from a community-wide and individual property owner perspective and can be harvested from many natural sources. D&B will assist in identifying potential locations for sustainable renewable energy generation where feasible. Working with the community to help determine which types of renewable energies they are interested in is crucial to the successful implementation of sustainable energy development. D&B will work to identify future study areas as appropriate and make recommendations where possible.

Public Infrastructure & Services Chapter

Public infrastructure is the backbone of a community. Without proper infrastructure a community cannot support its citizens or future development. Ensuring public infrastructure is in good working condition and continues to have capacity to support community growth is critical for continued community success.

While not specifically identified in the RFP, D&B, with assistance from F&A and Town officials, will provide updates to the Town's 1996 Plan's "Community Facilities and Services" chapter. The new Public Infrastructure and Service chapter will review the data provided within the Existing Conditions Report and the old chapter for accuracy and provide recommendations for new services or changes to existing services when warranted and in association with the ideas of the whole Comprehensive

Plan Update. If development in certain areas is thought to increase, it will be necessary to ensure that proper infrastructure is in place to support the development. Topics within this chapter may include water service and storage, wastewater treatment and service, electricity, gas and heating fuels, telecommunications, solid waste management and composting, child care facilities and libraries, Town facilities and fire, police and emergency services.

This chapter also relates to other public services such as transportation and park facilities. In the chapters that cover these topics, further details regarding efficiency, availability and accessibility will be discussed.

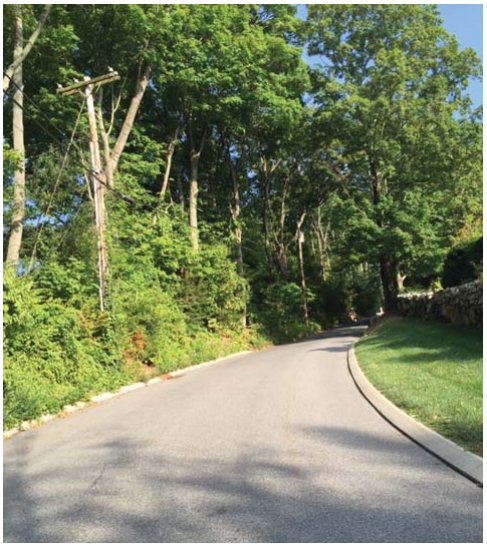
Mobility Chapter

This Chapter will consist of the following items identified in the RFP: #10, #11, #19 & #20.

An important component in the vitality of any Town is the ability to access and circulate within its borders. For North Castle, that mobility primarily depends on the roadways that serve the residential and commercial areas in the Town.

F&A will carefully review the data in the Planning Base Studies prepared by the Town and County, focusing on the areas of concern related to traffic flows on the major roads and intersections that serve the Town, including all three hamlets (Armonk, Banksville and North White Plains). Several "hot spots" were identified in the Planning Base Studies as problem locations that may be candidates for improvements. F&A will identify areas and intersections of concern for future study.

Other forms of mobility will be evaluated as well including pedestrian and bicycle routes. Pedestrian and bicycle circulation will be assessed in all three hamlets. F&A will conduct pedestrian and bicycle observations in the hamlets during peak activity period. Areas of concern will be identified through the community outreach process. In Banksville, there are existing sidewalks along North Street at the North Street Shopping Center. These sidewalks will be evaluated as to the viability of extending them along the east side of the road to the Tennis Center and Finch's Country Store. The feasibility of constructing additional sidewalks along the west side of this commercially zoned street will also be addressed. Reviews of existing right-of-way boundaries will be conducted and locations of additional high-visibility painted crosswalks will be identified. Recommendations to extend, enhance and safeguard pedestrian and bicycle infrastructure will be developed. Mechanisms to fund these pedestrian improvements will be explored.



Traffic calming or reduction measures will be discussed. In North White Plains, F&A will rely on its experience with traffic calming strategies, which include speed limit reductions, traffic circles, chicanes, mid-block pedestrian signals and signage, to make recommendations on improvements to NYS Route 22. Existing sidewalks, which are not continuous along Route 22 through the North White Plains hamlet, will be evaluated as to the viability of extending them in order to create a fully pedestrian connected commercial zone. Reviews of existing right-of-way boundaries will be conducted and locations of additional high-visibility painted crosswalks will be identified. Mechanisms to fund these pedestrian improvements will be explored. The same approach will be used to evaluate traffic calming methodologies on Virginia Road and Lafayette Avenue.

Using the data provided in the Planning Base Studies F&A will identify strategies to improve parking supplies in the hamlet areas. Previous studies will be reviewed and updated as needed to address any persistent parking issues, particularly in the crowded residential North White Plains neighborhoods. We will propose methods to increase the parking supply including adjusting the Town's zoning codes, if appropriate. This will help to ensure that adequate off-street parking is provided with all new development, as well as control the ultimate land area necessary to accommodate the actual parking spaces. Land areas where potential off-street municipal parking lots in the hamlets may be built will be identified, and strategies to implement their construction will be outlined. "Fee-in-lieu" of providing on-site parking in the hamlets will be evaluated for viability.

Housing Chapter

This Chapter will consist of the following items identified in the RFP: #18.

In communities across Westchester County there is a present and growing concern that senior citizens, young people, police, firefighters, EMS volunteers/first responders, teachers, municipal employees, tradespeople and teachers, among others, can no longer afford to live here. This has the potential to result in a loss of population diversity and a reduction in available services.

Building upon the data provided in the Existing Conditions Report, and the Town's affordable housing ordinance, F&A will prepare a Housing Chapter for the Comprehensive Plan that will present a plan for the Town to preserve and increase the diversity of its housing stock. The housing Chapter will include a summary of the existing housing stock mix and discuss "what has worked" to create and maintain this housing stock mix.

A significant objective of this Chapter is to address the Town's responsibilities under the Westchester County Housing Settlement, the Westchester County Affordable Housing Allocation Plan and County Housing Settlement Agreement Compliance and to assess the affordable housing need in North Castle. The Housing Chapter will determine the need for affordable housing utilizing a supply/demand model, accounting for current and future need. Challenges to providing affordable housing will be discussed, including: limited availability of land for housing development, the cost of land, constrained lands, land and housing costs, infrastructure and regional factors.

Goals, objectives and policy considerations will be proposed to preserve and increase housing diversity in the Town. Examples may include: liberalization of regulations and incentivizing the creation of accessory dwellings and apartments above retail, increasing density in multi-family zones for affordable housing set-asides, establishing an affordable housing trust fund, etc. Additionally, the Housing Chapter will identifying suitable locations for future multi-family housing and affordable housing, which will be coordinated with the future land use plan in the Land Use and Zoning Chapter.

Quality-of-Life Chapter

This Chapter will consist of the following items identified in the RFP: #24.

There are numerous intangible social, cultural, environmental and economic resources that contribute to a high quality of life that must be preserved and supported in the Comprehensive Plan Update. This Quality of Life Chapter will examine those factors that lead to "healthy and happy" communities, including walkability, access to health care, safety, cultural and social institutions, etc. Existing factors in the Town will be documented and, based upon public input, missing or underutilized factors will be identified. The need for quality of life neighborhood enhancements, such as street trees, sidewalks, street lights and other infrastructure improvements will be identified and mapped. Goals, objectives and policies to maintain and enhance well-being and quality of life for all community members will be developed.

Land Use & Zoning Chapter

This Chapter will consist of the following items identified in the RFP: #8, #17, #22, #25.

The ultimate purpose of any comprehensive plan is to allow for the orderly growth and development of a community. The Land Use and Zoning Chapter is the capstone of the Comprehensive Plan, as it sets forth the recommendations and policies that direct the future development of the Town.

After reviewing the Town's zoning code, the Existing Conditions Report and the public's input, F&A will prepare a map identifying areas for future development. Areas for potential future redevelopment and infill development, multi-family residential development and commercial and industrial development will be identified. New development will be focused on areas that have, or will have, the necessary water and sewer capacity. Strategies and policies to implement the future development will be outlined, including the potential use of overlay zones, incentive zones and other zoning or Town code amendments, etc. As part of this Chapter, the current home occupation requirements will be reviewed and updates for the 21st century proposed. A matrix identifying the short, medium and long-term activities necessary to implement the future development vision will be developed and the responsible agency or departments identified.

Implementation Chapter

Our Team firmly believes that a Plan without identified steps for implementation will by definition be unsuccessful. A matrix identifying the short, medium and long-term activities necessary to implement the future development vision will be developed and the responsible agency or departments identified. Funding opportunities and order of magnitude estimates for implementation of the identified activities will be provided.

As an optional extra, we can prepare the actual language for the Town code, zoning text and zoning map amendments proposed in the Land Use and Zoning Chapter above. This language could then be adopted by the Town Board either in conjunction with the Comprehensive Plan Update or separately. The fee to prepare the Town code, zoning text and map amendments would be dependent on the recommendations of the Comprehensive Plan Update and would be discussed with, and agreed upon by, the Town Board prior to commencement of this extra task. Note: inclusion of the Town code, zoning code and map amendments in the adoption of the Comprehensive Plan Update will have implications on the SEQR review as outlined below.

PHASE III: STATE ENVIRONMENTAL QUALITY REVIEW (SEQR)

Subsequent to the finalization of the draft Comprehensive Plan Update our Team will work closely with the Town to determine what environmental review actions will be necessary for the adoption of the Plan. Two options are proposed:

Adoption of Comprehensive Plan without Zoning Code and Map Amendments

If the Town chooses to adopt the Comprehensive Plan Update, without any accompanying zoning code or map amendments, or any other legislative changes, the Town may be able to adopt the Comprehensive Plan Update utilizing only a Full Environmental Assessment Form (FEAF) with addenda. In this scenario, the adoption of the Comprehensive Plan Update would have no potentially significant adverse impacts and the Town could adopt the Plan with a Negative Declaration, ending the SEQR process. The zoning code and map amendments would have to undergo a subsequent and separate SEQR analysis prior to adoption.

As part of this process our Team will prepare the following documents:

- Full Environmental Assessment Form (FEAF): Parts I, II & III
- Addenda for Part III

As part of the overall SEQR process, our Team will review additional documents that are prepared by Town staff and/or Town Attorney including any other resolutions or notices necessary. This scenario includes one (1) public meeting/hearing before the Lead Agency.

Adoption of Comprehensive Plan with Zoning Code and Map Amendments (Optional)

If the Town chooses to adopt the Comprehensive Plan Update with the accompanying zoning code and map amendments, the Town will likely have to undergo a more detailed SEQR review. Based on our prior experience, and depending upon the nature of the amendments, the adoption of zoning text and map amendments may trigger the need for a full Environmental Impact Statement (EIS). In this scenario both the Comprehensive Plan Update and the zoning text and map amendments would be examined as part of one coordinated SEQR process. A build-out analysis comparing “no change” to “zoning amendment implementation” would be developed to determine what the impacts of the proposed changes may be on the potential growth of the Town.

As part of this process our Team will prepare the following documents:

- Long-Form Environmental Assessment Form (EAF)
- Scoping Document
- Draft Generic Environmental Impact Statement (DGEIS)
- Final Generic Environmental Impact Statement (FGEIS)
- Environmental Findings (in concert with the Town Attorney or Special SEQR Counsel)

As part of the overall SEQR process, we will review additional documents that are prepared by Town staff and/or Town Attorney including any other resolutions or notices necessary. This scenario includes three (3) public meetings/hearings before the Lead Agency.

The fee to prepare the SEQR documentation for both the Comprehensive Plan Update and the zoning text and map amendments would be dependent on the specific amendments to be adopted and would be discussed with, and agreed upon by, the Town Board prior to commencement of this extra task.

DELIVERABLES

Based upon the Scope of Services outlined above, our Team will prepare the following deliverables:

- Public Participation Plan & Documentation
- Draft Comprehensive Plan
- Final Comprehensive Plan
- Draft Town Code, Zoning Text and Map Amendments (optional extra)
- SEQR Documentation (as outlined above)

Draft Chapters of the Plan establishing the goals, objectives and policies will be prepared following the completion of the Public Outreach activities. The CPSC will provide one (1) round of review/feedback on the proposed goals, objectives and policies, which will then be revised based. Once finalized, the Draft Comprehensive Plan Update will be compiled for review by the public. If authorized, we will also prepare the draft Town Code, Zoning Text and Map Amendments at this time.

Based upon the feedback from the public, the final draft of the Comprehensive Plan Update will be prepared and submitted to the Town Board for adoption. Fifty (50) bound color copies, one (1) unbound color copy, one digital editable file (Word or InDesign) and one PDF copy will be prepared and submitted to the Town. At this time SEQR will commence and the required documentation will be prepared.

MEETINGS

The Consultant Team proposes a mixture of committee meetings, public meetings, focus groups and public hearings throughout the Comprehensive Plan Update process. To summarize, meetings held throughout the process will accomplish the following:

- CPSC Meetings (10): Progress Updates and Feedback
- Public Meeting #1: Identify Key Issues and Opportunities/Draft Focus Areas
- Town Representatives Visioning Session
- Public Meeting #2: Visioning
- Focus Groups (4): Geographic or Topic Specific
- Public Meeting/Hearing #3: Draft Comprehensive Plan
- Public Meeting/Hearing #4: Final Comprehensive Plan & SEQRA Compliance

Select Team members will attend up to ten (10) CPSC meetings, one a month, to provide progress updates and receive feedback from the Committee. Four (4) Public Meetings/Hearings will be the main public presentations of the Plan and its progress. A summary of these events is above in the Community Outreach section of this Proposal. In addition to the Public Meetings/Hearings, we propose an additional visioning session with representatives of the Town and four (4) focus groups. Select team members will attend these meetings.

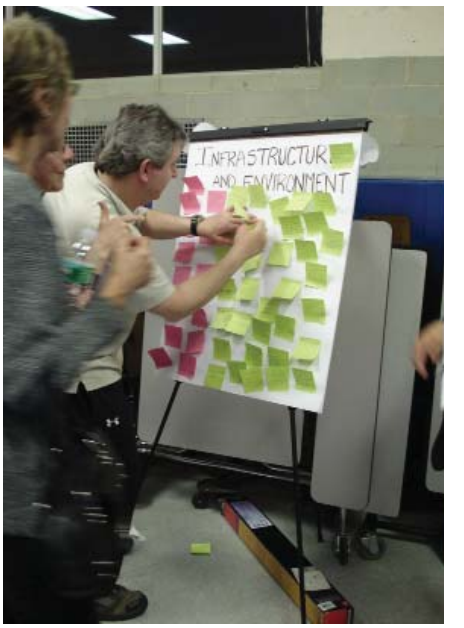
We will prepare all meeting notices in compliance with the New York State Open Meetings Law. Steering Committee and public meeting summaries will be developed to document decisions and public input. All attendance records and meeting materials will be provided to the Town on a regular basis, and outreach efforts will be documented in the draft and final Comprehensive Plan.

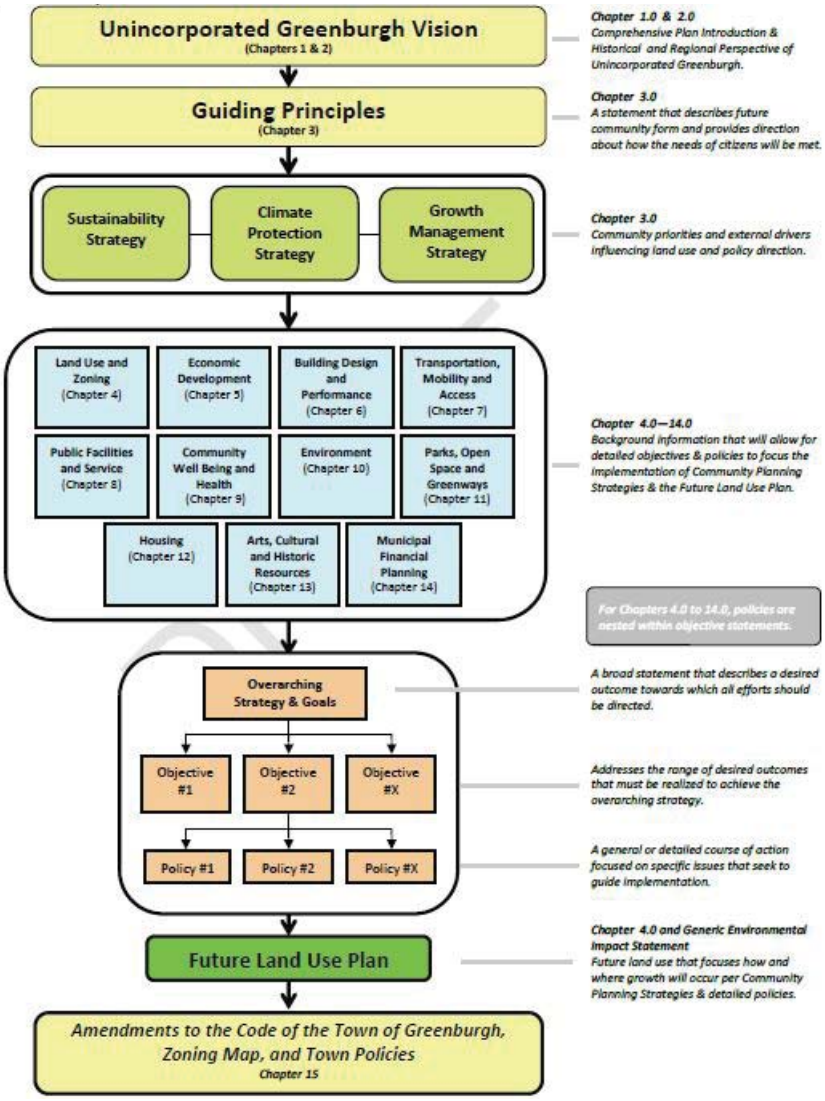
As noted in the RFP, public meetings will be scheduled in each of the three hamlets of Armonk, Banksville and North White Plains.

3.0 EXPERIENCE AND QUALIFICATIONS

Ferrandino & Associates Inc.
D&B Engineers and Architects P.C.
Highland Planning LLC

SELECTED RELEVANT PROJECTS





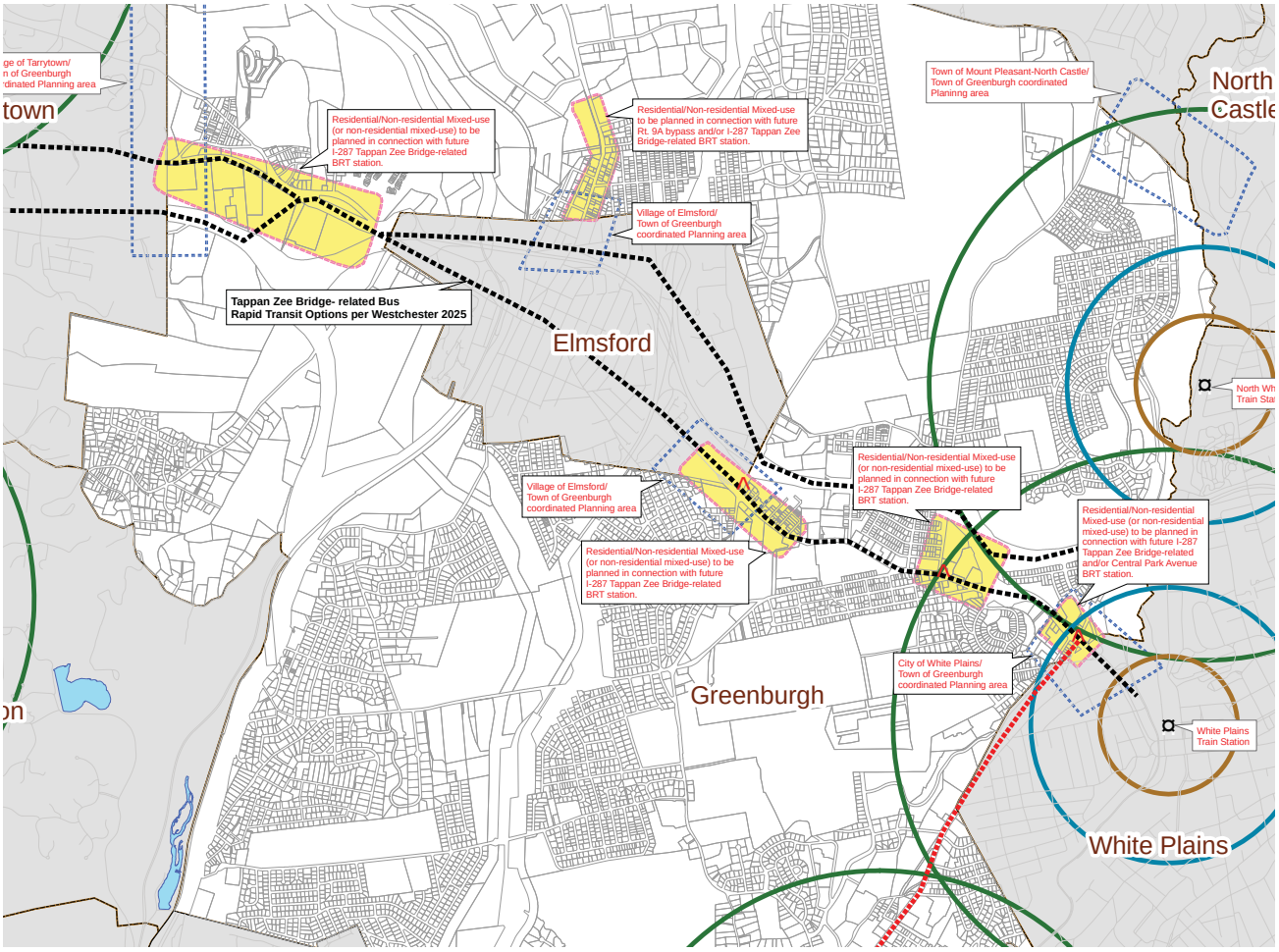
Town of Greenburgh, NY
Comprehensive Plan Update

F&A is leading a multi-disciplinary team to prepare a consensus-based update to the Town's *Comprehensive Plan*. The team was selected after a competition involving 12 firms. Tasks include an inventory of land uses, including residential, historical and cultural resources, transportation and utility infrastructure. Study elements also include zoning, real estate and development trends, demographic analysis and business profile. The project involves extensive community participation, stakeholder outreach and visioning in developing design principles and alternative development strategies with specific action plans. The Plan was unanimously adopted by the Town Board on September 28, 2016.

For further information on the Greenburgh Comprehensive Plan: http://greenburghcomprehensiveplan.com/

Contact:
Francis Sheehan, Chair
Comprehensive Plan Steering Committee
Phone: 914-522-8246
fsheehan@greenburghny.com

SELECTED RELEVANT PROJECTS



Town of Greenburgh, NY
Central Park Avenue Corridor Study

As a part of the Comprehensive Plan update the team prepared the *Central Park Avenue Market Positioning Analysis* which examined the current performance and competitiveness of Central Park Avenue as a corridor for retailing and to make recommendations that would allow the Town to provide redevelopment opportunities for pedestrian oriented and experience-based retailing.

Contact:
Francis Sheehan, Chair
Comprehensive Plan Steering Committee
Phone: 914-522-8246
fsheehan@greenburghny.com

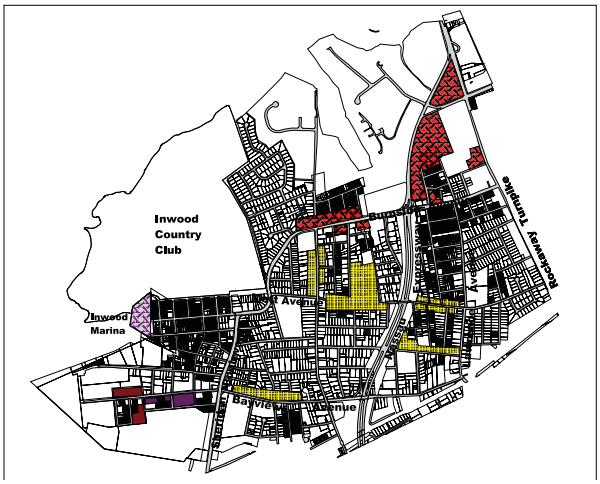
SELECTED RELEVANT PROJECTS

Town of Hempstead, NY
Inwood Master Plan

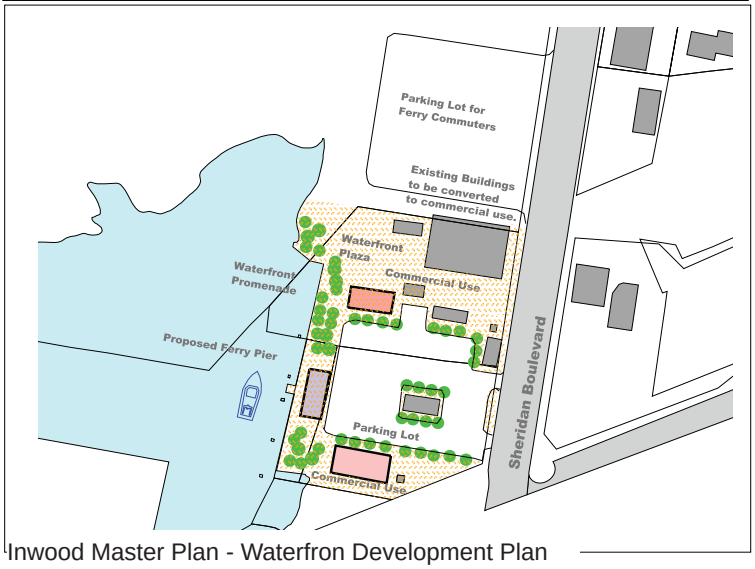
F&A was retained by the Town of Hempstead to prepare a Master Plan for the Inwood area that addresses incompatible land use mixes, blighted areas, and development strategies for vacant or underutilized property, including the waterfront, conservation of natural resources and brownfields redevelopment strategies. Tasks for this 2.1-square mile area adjacent to Kennedy Airport in Queens included data collection, creation of an analytical GIS, demographic overview of the community and trend analysis, community outreach and visioning, land use and zoning components, revitalization efforts and implementation techniques. The Plan was adopted by the Town Board in 2012.

Contact:
Lorne Birch, AICP
Town Planner
Cell: 516-551-8466

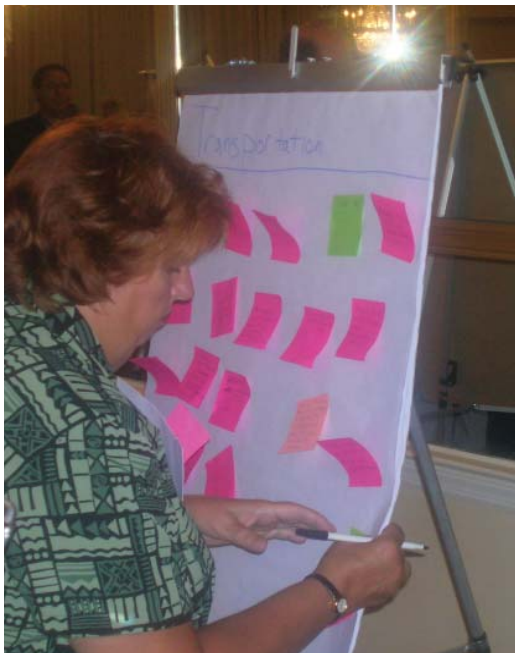
Map X: Proposed Rezoning



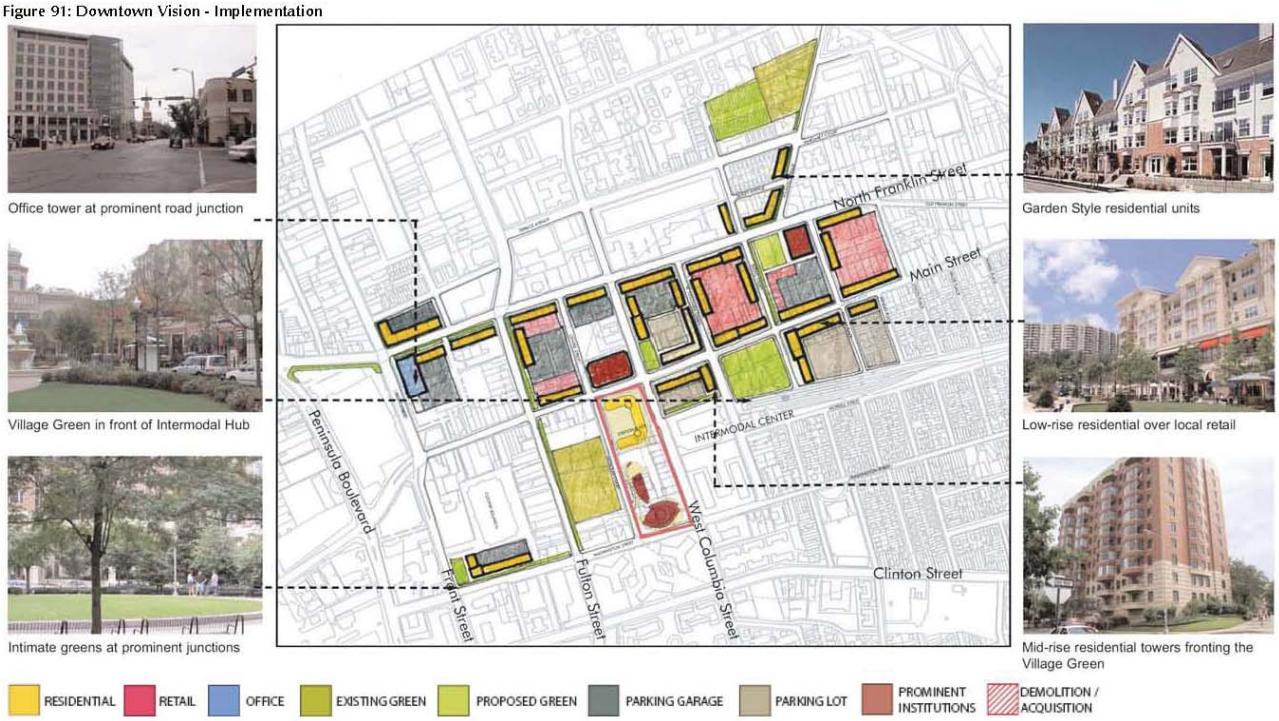
Map 5: Waterfront Development



Inwood Master Plan - Waterfron Development Plan



SELECTED RELEVANT PROJECTS



Village of Hempstead Downtown Vision – Implementation: Ferrandino & Associates Inc./FXFOWLE Architects PC.

Village of Hempstead, NY
Downtown Comprehensive Plan and GEIS

F&A was retained by the Community Development Agency to prepare an update to the Village's *Comprehensive Plan* and zoning, including a focus on the Village's downtown. This action-oriented, stakeholder-driven plan includes extensive community visioning, land use, zoning economic impact and urban design components, such as streetscape and adaptive reuse of vacant and under-utilized buildings, and issues associated with vehicular and pedestrian circulation and parking for the largest village (population 56,588) in Nassau County. Long-term components of the Transit Oriented Development Downtown Plan included a capital improvements program and a market study that are assisting the Village in conducting business recruitment efforts. Together with representatives of the Village of Hempstead, County of Nassau and State of New York, the F&A team conducted a series of public visioning forums to ensure that the general concerns and needs of the Village's taxpayers were met. The Plan was adopted in 2009 following public hearings and the completion of a Generic Environmental Impact Statement including several build-out scenarios and impacts emanating from same.

A developer RFP was subsequently issued and awarded by the Village to Downtown Renaissance Group/RXR based upon the Plan and zoning and F&A is currently reviewing that project on behalf of the Village.

Contact:
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SELECTED RELEVANT PROJECTS

Town of North Salem, NY
Master Plan Update and
Parks and Recreation Master Plan

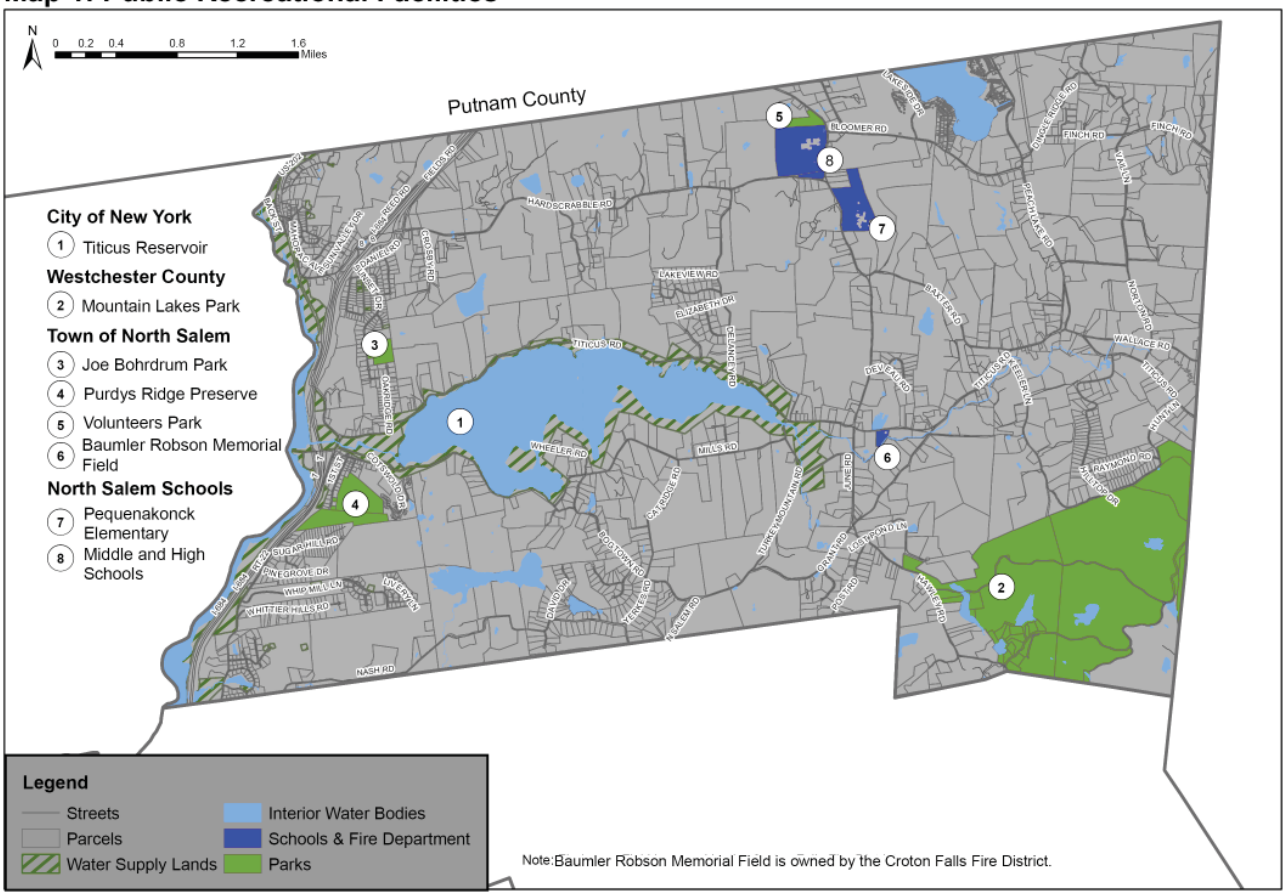
F&A was retained to assist the Town with its update to the Master Plan. Tasks included facilitating Town visioning and technical discussions, site visits, field reconnaissance and attendance at meetings, assistance in writing the Plan, preparing the GEIS and Environmental Findings and advising the Town on technical aspects of the document. The Plan was adopted by the Town Board in 2011.

Contact:
Cynthia Curtis
Town Planning Board Chair
Phone: 914-669-4393
cynthiamcurtis@gmail.com

The firm's principal also served as expert witness for the Town of North Salem in the landmark *Continental Inc. vs North Salem* court case. On the Town's behalf, the firm defined the region for fair share housing, analyzed Westchester County housing policy and critiqued the Town's Master Plan and zoning ordinance which were based on growth management principles. The firm's principal also testified for several days in Westchester County Supreme Court on North Salem's behalf and advised the Town on strategy in the case.

SELECTED RELEVANT PROJECTS

Map 1: Public Recreational Facilities



Town of North Salem, NY
Parks and Recreation Master Plan

In 2014 the firm also assisted the Town in preparing a Parks and Recreation Master Plan that will establish a blueprint for recreation programming town-wide. The Plan assesses existing resources and future recreation needs for the Town, to serve as a foundation for goals, objectives and recommendations and will serve as a guide for the acquisition, development, improvement and financing of recreational lands, facilities and programs.

Contact:
Cynthia Curtis
Town Planning Board Chair
Phone: 914-669-4393
cynthiamcurtis@gmail.com

North Salem Day Camp at Hemlock Lake

The Recreation Department organizes and runs the annual North Salem Day Camp which is held in a 20 acre section of Mountain Lakes Park bordering Hemlock Lake. The camp program serves approximately 300 campers entering pre-K through 7th grade during a five week session each summer.

The Town's Mountain Lakes facility has a wonderful outdoor area with a lake, cabins, ball field, swimming pool and out buildings. Typical camp activities include sports, art, music, karate, gymnastics, canoeing, kayaking, outdoor skills, nature, games and dance. Specials events such as Pizza Day, Cupcake Day, Ice Cream Sundae Day and Barbeque Day are held periodically throughout the five week program.

Images (top left to bottom right): Campers learn about wildlife (credit: Pat Sallstrom); Canoeing on Hemlock Lake (credit: Pat Sallstrom); Archery practice (credit: Janice D'Erasmo); Circus Day at camp (credit: Pat Sallstrom); Swimming in the pool at Hemlock Lake Camp (credit: Janice D'Erasmo).

SELECTED RELEVANT PROJECTS

Village of Port Chester, NY
Comprehensive Plan/GEIS and US Route 1 Corridor Study as part of a major update to the Village's Comprehensive Plan

F&A completed a *Route 1 Corridor Study/Downtown Plan*—examining vacant and underdeveloped or 'soft' sites on Boston Post Road from the Rye City border to Greenwich, to identify potential redevelopment opportunities. Tasks included land use, parking, traffic and infrastructure analyses, build out of vacant sites and a retail market study to determine optimal re-uses and redevelopment in the study area. Also recommended were "branding" for the corridor, as well as suggested economic development tools and an organizational framework to implement the Plan. The study was adopted by the Board of Trustees and is being used by the Village as a blueprint for business attraction and retention.

At the same time, under SEQR, the firm prepared a Generic Environmental Impact Statement [GEIS] as part of a Comprehensive Plan update, which evaluated the potential impact of implementing the Comprehensive Plan and zoning amendments. A build out analysis was conducted as well to determine the impacts of the several zone changes, with the goal of limiting density in residential areas and increasing density along development nodes in the downtown. The updated Comprehensive Plan and GEIS were adopted by the Board of Trustees in December 2012 and amended zoning was adopted in March of 2013. The plan was subsequently the recipient of a planning award from the Westchester Municipal Planning Federation.

Contact:
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Former Village Administrator
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russo954@aol.com

SELECTED RELEVANT PROJECTS

Town of Greenburgh, NY
Comprehensive Plan Update

As a sub consultant to F&A, D&B assisted in the development of the Town wide Comprehensive Plan. The work involved various task/ activities, meetings, research and planning for development of the Plan.

As part of the recommendations for the Comprehensive Plan Update and based on the data and information collected, D&B prepared a summary of existing conditions, goals, objectives and strategies for the following:

- Water Supply
- Wastewater
- Floodplains and Flood Prone Areas
- Solid Waste
- Hazardous Waste/Brownfields
- Storm Water including Current Storm Water Management Systems for Proposed Development/Redevelopment, the Municipal/Town MS4 Storm Water Management Plan and Alternative LEED/"Green" Storm Water Design and Landscaping
- Town Roadway Drainage Systems
- Infrastructure Needs Related to Certain Town Special Functions

D&B also coordinated with respect to the green buildings component of the Plan and the Town's vision for green construction. D&B regularly attended Comprehensive Plan Steering Committee (CPSC) meetings and meetings with Greenburgh staff, team consultants, etc. as needed to coordinate and complete the work.

The Plan was unanimously adopted by the Town Board in September 2016.

Contact:
Francis Sheehan, Chair
Comprehensive Plan Steering Committee
Phone: 914-522-8246
fsheehan@greenburghny.com

SELECTED RELEVANT PROJECTS

City of Glen Cove
Grant Administration/Project Management
for Transportation Projects

D&B Engineers and Architects, P.C. (D&B) has provided grant administration and project management professional services for the City of Glen Cove. Projects included the Glen Cove Ferry Terminal Building and the Reconstruction of Herb Hill/Garvies Point Road, also known as the Waterfront Connector. These projects were funded by a combination of various Federal Highway Administration programs administered by the New York State Department of Transportation and capital funding programs through Empire State Development. Both projects support sustainable redevelopment of remediated former Superfund and Brownfield sites.

The projects included a number of ADA compliant pedestrian/cyclist improvements, in conjunction with linkages to the waterfront Esplanade and connectivity to the City's downtown. With the addition of future shuttle buses to service the three Long Island Rail Road stations in the vicinity of Glen Cove's downtown, the Esplanade and Waterfront Connector both support multi-modal linkages to the $1 billion Garvies Point mixed-use development planned for the waterfront. D&B has ensured compliance and coordination with involved granting agencies and Nassau County, while closely monitoring the activities of the involved consultants to maintain adherence to project budgets and schedules.

Contact:
Ms. Myralee Machol
Executive Director
Glen Cove CDA
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mmachol@glencoveda.org

SELECTED RELEVANT PROJECTS

Town of Riverhead, NY
Calverton Enterprise Park SEIS

The Proposed Action for Enterprise Park at Calverton (EPCAL) was an amendment to the Zoning Use District Map of the Town of Riverhead to provide an additional 590 acres of planned industrial park zoning.

The Town contracted the D&B team to complete the SEQRA process and prepare a supplemental environmental impact statement (SEIS). The task was two-fold. First, D&B team member Ferrandino & Associates Inc. prepared a market study to determine feasibility of the zoning change and ultimate industrial use. It included research to determine existing industrial supply in the region, absorption rates and demand for additional industrial uses in Riverhead, and more specifically, the EPCAL property.

Subsequent to the market study, D&B prepared a focused SEIS to analyze the impacts of rezoning the subject properties to industial uses. As determined by the Town and D&B team, the principal environmental impact categories were: traffic, visual impacts, socio-economics and infrastructure. The SEIS effort included public scoping, preparation of Draft SEIS, coverage at the DSEIS public hearing and preparation fo a Final SEIS.

Contact:
Stan Carey
Town of Riverhead
Planning Board
Phone: 631-727-3200 EXT. 240

SELECTED RELEVANT PROJECTS

Various Municipalities
Hazard Mitigation Grant Program Applications for Emergency Backup Generators

D&B provided grant writing and administration services to the Incorporated Village of Williston Park and the Village of Mineola for the Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program. The process involved substantial coordination efforts among our clients, the Nassau County Office of Emergency Management (NC OEM), the New York State Office of Emergency Management (NYS OEM) and FEMA.

D&B worked to collect necessary data for the application from municipal clients and outside sources and agencies. As part of this effort, D&B utilized expertise from several divisions within the company. For instance, the Electrical Division provided necessary generator information for each generator specific application. The GIS team assisted with the creation of necessary maps and datasets. The Civil Engineering division provided viable project alternatives. The Planning Group was responsible for the development of benefit/cost analysis documentation as well as the overall coordination of all associated parties; responses for all written sections; advancement of the finalized applications to the State; responses to all Requests for Information (RFIs) and submission of required paperwork for individual projects for inclusion into Nassau County Hazard Mitigation Plan.

Detailed scopes, budgets and storm histories were prepared as part of each HMGP application. Any needed engineering feasibility documentation for projects was also prepared as supporting application materials. Each submitted application was subject to several rounds of review and comment by the State and FEMA; D&B prepared all required additional documentation in partnership with our clients. D&B remains involved with the progression of this ongoing grant program and has worked with Nassau County to support each municipal client's incorporation into the County's planning efforts.

Contact:
Mr. Tom Rini
Superintendent of Public Works
Village of Mineola
Phone: 516-746-5291
trini@mineola-ny.gov

SELECTED RELEVANT PROJECTS

Various Municipalities
Streetscape/Sidewalk Projects

Jericho Turnpike Streetscape Phase I - Village of New Hyde Park
D&B provided construction phase services for the first phase of the Jericho Turnpike Streetscape Improvements project. The project included replacement of sidewalks, street lighting, and landscape appurtenances. The services included intensive coordination with NYSDOT personnel and adherence to the Procedures for Locally Administered Federal Aid Projects Manual (PLAFAPM).

East Second Street Improvements - Village of Mineola
D&B provided design and construction phase services for the East Second Street Improvements project. The project included the complete reconstruction of all sidewalks, curbs and roadways, as well as drainage improvements. The services included intensive coordination with NYSDOT personnel and adherence to the Procedures for Locally Administered
Federal Aid Projects Manual (PLAFAPM).

2010 Road Improvements - Village of Williston Park
D&B provided design and construction phase services for the first phase of the Village's 2010 Street Improvements project. The project included the complete rehabilitation of sidewalks, curbs and roadways, as well as drainage improvements. The services included intensive coordination with NYSDOT personnel and adherence to the Procedures for Locally Administered Federal Aid Projects Manual (PLAFAPM).

Sunrise Highway Lighting - Village of Valley Stream
D&B provided design phase services for the Sunrise Highway Street Lighting Improvements project. The project included the complete replacement of all street lighting along Sunrise Highway within the Village of Valley Stream. The services included lighting and electrical design, associated highway improvements, as well as intensive coordination with NYSDOT personnel and adherence to the Procedures for Locally Administered Federal Aid Projects Manual (PLAFAPM).

Contacts:
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Village of New Hyde Park
Phone: 516-354-0022

Mr. Tom Rini
Superintendant of Public Works
Village of Mineola
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trini@mineola-ny.gov

Mr. Keith Bunnell
Superintendent of Public Works
Village of Williston Park
Phone: 516-746-2193
publicworks@villageofwillistonpark.org

Mr. Vincent Ang
Former Town Clerk
Village of Valley Stream
Phone: 516-825-4200

SELECTED RELEVANT PROJECTS

Town of Brighton, NY
Comprehensive Plan

Highland Planning is leading the public engagement process for the Town of Brighton Comprehensive Plan update. The project is funded by the New York State Energy Research and Development Authority (NYSERDA), and is being directed by a 15-member steering committee representing elected officials, Town planning and engineering, citizen boards and commissions, and business owners.

The plan, entitled *"Envision Brighton: Planning for a Sustainable Future,"* includes an assessment of existing conditions, set goals for the future, and recommends projects, policies and programs to achieve those goals. Once adopted, *Envision Brighton* will serve as a decision making guide for Town staff, appointed officials, and elected officials for decisions related to land use, public investments and capital improvements. The process also has included a park master plan for an area of undeveloped land that the Town owns adjacent to an existing park.

To date, our process has included:

- 20 stakeholder interviews
- Project website
- Textizen and Survey Monkey surveys
- Facebook posts
- Engagement at farmer's market
- Tweets by the Town Supervisor
- Press releases
- Three public meetings

Contact:
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Town of Brighton
Phone: 585-784-5229
ramsey.boehner@townofbrighton.org

SELECTED RELEVANT PROJECTS

City of Buffalo, NY
Parkside Neighborhood Traffic Study

Highland Planning coordinated the public engagement process for the City of Buffalo Parkside Neighborhood Traffic Study. The project analyzed neighborhood traffic conditions and proposed improvements that will address the issues identified by the stakeholders. The specific objectives of the study were to evaluate traffic volumes, traffic speeds, pedestrian and bicycle needs and cut-through traffic; and to develop possible solutions to improve safety, reduce speeds, provide greater pedestrian access and maintain access to local institutions.

The outreach process engaged more than 150 stakeholders and communicated information about and sought input regarding issues and opportunities, and the subsequent findings. Several changes to the project design were the result of public input. The process included:

- A project specific public outreach plan
- Five stakeholder interviews
- Three steering committee meetings
- In-person surveys of more than 600 zoo patrons
- Three public meetings

Contact:
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Department of Public Works
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mfinn@ch.ci.buffalo.ny.us

SELECTED RELEVANT PROJECTS

City of Olean, NY
North Union Street Transformation

Highland Planning coordinated the public engagement process and is not involved in communication related to construction for the City of Olean North Union Street Transformation Project. This road reconstruction project is updating infrastructure in the downtown commercial district. The project received a $6.5 million TIGER grant in September 2013. The design aims to calm traffic, improve safety and create a more vibrant shopping district.

The outreach process engaged hundreds of stakeholders and has both communicated information about and sought input regarding the design and construction. The process included:

- Stakeholder interviews
- Steering committee meetings
- Three public meetings
- Open house
- A field study to East Aurora and Hamburg, NY
- Focus groups
- A Frequently Asked Questions brochure
- Downtown merchant meetings
- Development and support of www.walkableolean.com
- Walkable Olean Facebook page
- Weekly travel advisory emails

Contact:
Mary George, Program Coordinator
City of Olean
Department of Community Development
Phone: 716-376-5647
mgeorge@cityofolean.org

SELECTED RELEVANT PROJECTS

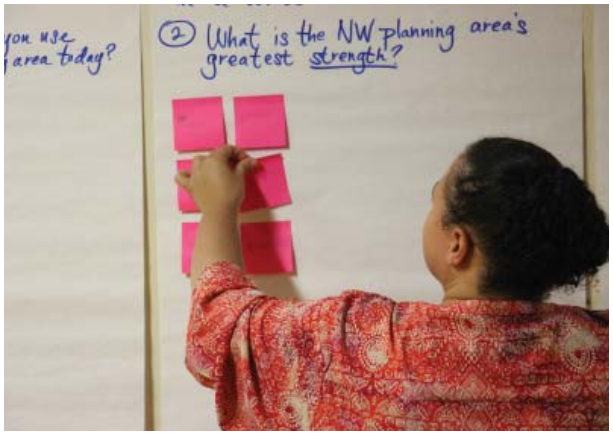
City of Rochester, NY
Comprehensive Plan Update

Highland Planning is leading the public engagement process for the City of Rochester Comprehensive Plan Update. Rochester's 1999 Comprehensive Plan used a bottom-up participatory approach, dividing the City into 10 sectors and developing a plan over 18 months.

The 2016 plan update builds upon the legacy of previous planning efforts, but updates the planning areas to coincide with five police geographic service areas. Highland Planning is managing engagement for the northwest and southeast planning areas. The process is engaging neighborhood and business leaders, as well as interest groups, residents and business owners who have not been involved in previous planning efforts. Our staff pride ourselves on being residents of the City of Rochester, and we are committed soliciting input from as many residents as possible.

To date, the process has included:

- Stakeholder interviews
- Mayor's Advisory Council (MAC) meetings
- Textizen survey
- Survey Monkey survey
- Project Advisory Committee (PAC) meetings
- Public meetings



Contact:
Doug Benson, Associate City Planner
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Bureau of Planning and Zoning
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Doug.Benson@CityofRochester.gov

SELECTED RELEVANT PROJECTS

City of Rochester, NY
Southeast Street Manager Program

Since 2010, Highland Planning has developed the Street Manager Program for the City of Rochester, aimed at improving two business districts: Monroe Avenue and South Clinton Avenue.

The firm's work over the past six years has included marketing grants and loans, avenue branding, collective advertising, grant writing, façade improvements, street clean up days, flower planting, events, promotions and communication.

In 2015, the City's $20,000 investment in the Street Manager program led to more than $369,000 of investment in private businesses, as well as the creation or retention of 30 jobs. Highland Planning advertised the City's grants and loans, attracted new businesses to vacant commercial spaces, and supported reinvestment in businesses and real estate.

In 2015, the firm's staff also supported the planning of the third annual Show on Monroe, which brought thousands of people to the avenue. The event included a free lunch, a scavenger hunt, more than 50 street buskers, promotions and sales at many retail stores and restaurants, and live music.

Contact:
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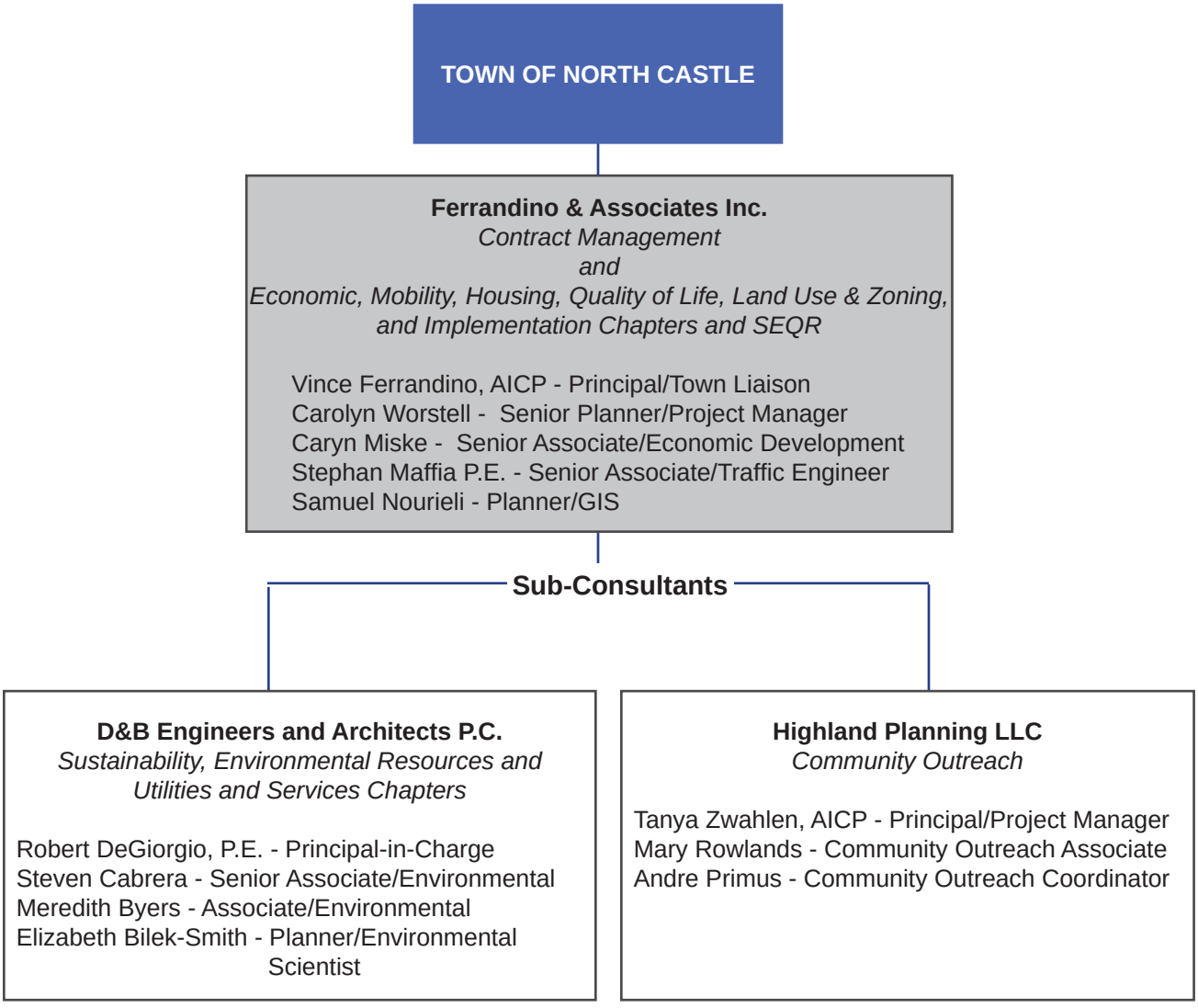
Senior Economic Development Specialist
City of Rochester
Department of Neighborhood and Business Development
Phone: 585-428-6920
Mccarthm@CityofRochester.gov

4.0 PERSONNEL

ORGANIZATIONAL CHART OF KEY TEAM MEMBERS

The following organizational chart identifies the key team members who would be working on the Comprehensive Plan Update. Please see Appendix B for resumes for all key team members and Section 7.0 for the tasks and hours for each member.



Additional firm personnel at the same or lower pay level(s) may be pulled in for small tasks as needed to complete the project on-time and on budget.

5.0 CLIENT LISTS

Selected Client List

NEW YORK
Brewster, Village of
Briarcliff Manor, Village of
Bronxville, Village of
Brookhaven, Town of

Chester, Town of
Cortlandt, Town of
Croton-on-Hudson, Village of

Dutchess, County of

Eastchester, Town of
East Fishkill, Town of
East Hampton, Town of
Ellenville, Village of
Elmsford, Village of

Goshen, Town of
Greenburgh, Town of

Harrison, Town/Village of
Hastings-on-Hudson, Village of
Haverstraw, Town of
Hempstead, Town of
Hempstead, Village of

Islip Housing Authority
Kingston, City of
Long Beach, City of

Mamaroneck, Town of
Mamaroneck, Village of
Mount Kisco, Town/Village of
Mount Vernon, City of

Newburgh, City of
New Castle, Town of
New Rochelle, City of
New Rochelle Housing Authority
New Square, Village of
New York, City of

North Castle, Town of
North Salem Town of

Old Brookville, Village of
Ossining, Village of

Patchogue, Village of
Peekskill, City of
Pleasantville, Village of
Port Chester, Village of
Poughkeepsie, City of
Poughkeepsie, Town of

Ramapo, Town of
Riverhead, Town of
Rockland, County of

Scarsdale, Village/Town of
Shandaken, Town of
Sleepy Hollow, Village of
Southampton, Town of
Southold, Town of
Staten Island, Borough of
Suffolk, County of

Tarrytown, Village of

Ulster, County of
Union, Town of
Wallkill, Town of
Wawarsing, Town of
Westchester County
White Plains, City of

Yonkers, City of
Yorktown, Town of

CONNECTICUT
Bridgeport, City of
Bridgeport Housing Authority
Danbury, City of
Fairfield, Town of
Meriden, City of
New Britain, City of
Plainville, Town of
Stamford, City of
Torrington, City of
Torrington Housing Authority
Waterbury, City of

NEW JERSEY
Union, County of

D&B ENGINEERS AND ARCHITECTS P.C.

Selected Client List

NEW YORK
Croton-on-Hudson, Village of

Fishkill, Town of
Floral Park, Village of

Garden City, Village of
Glen Cove, City of
Greenburgh, Town of

Kings Point, Village of
Long Beach, City of

Mineola, Village of
Mount Vernon, City of
Munsey Park, Village of

Nassau, County of
New Hyde Park, Village of
North Hempstead, Town of

Ocean Beach, Village of
Ossining, Village of
Oyster Bay, Town of

Pleasantville, Village of
Quogue, Village of

Riverhead, Town of
Rockland County Solid Waste Management Authority
Rockville Centre, Village of
Roslyn Harbor, Village of
Russell Gardens, Village of

Sag Harbor, Village of
Southampton, Town of
Stewart Manor, Village of

Valley Stream, Village of

Westchester County
Westhampton Beach, Village of
White Plains, City of
Williston Park, Village of

HIGHLAND PLANNING LLC

Selected Client List

NEW YORK
Brighton, Town of
Buffalo, City of
Cortland, City of
Dunkirk, City of

Elmira, City of
Elmira-Chemung Transportation Council

Genesee Transportation Council
Jamestown, City of
Livingston, County of

Niagara Frontier Transportation Authority
New York State Housing and Community Renewal

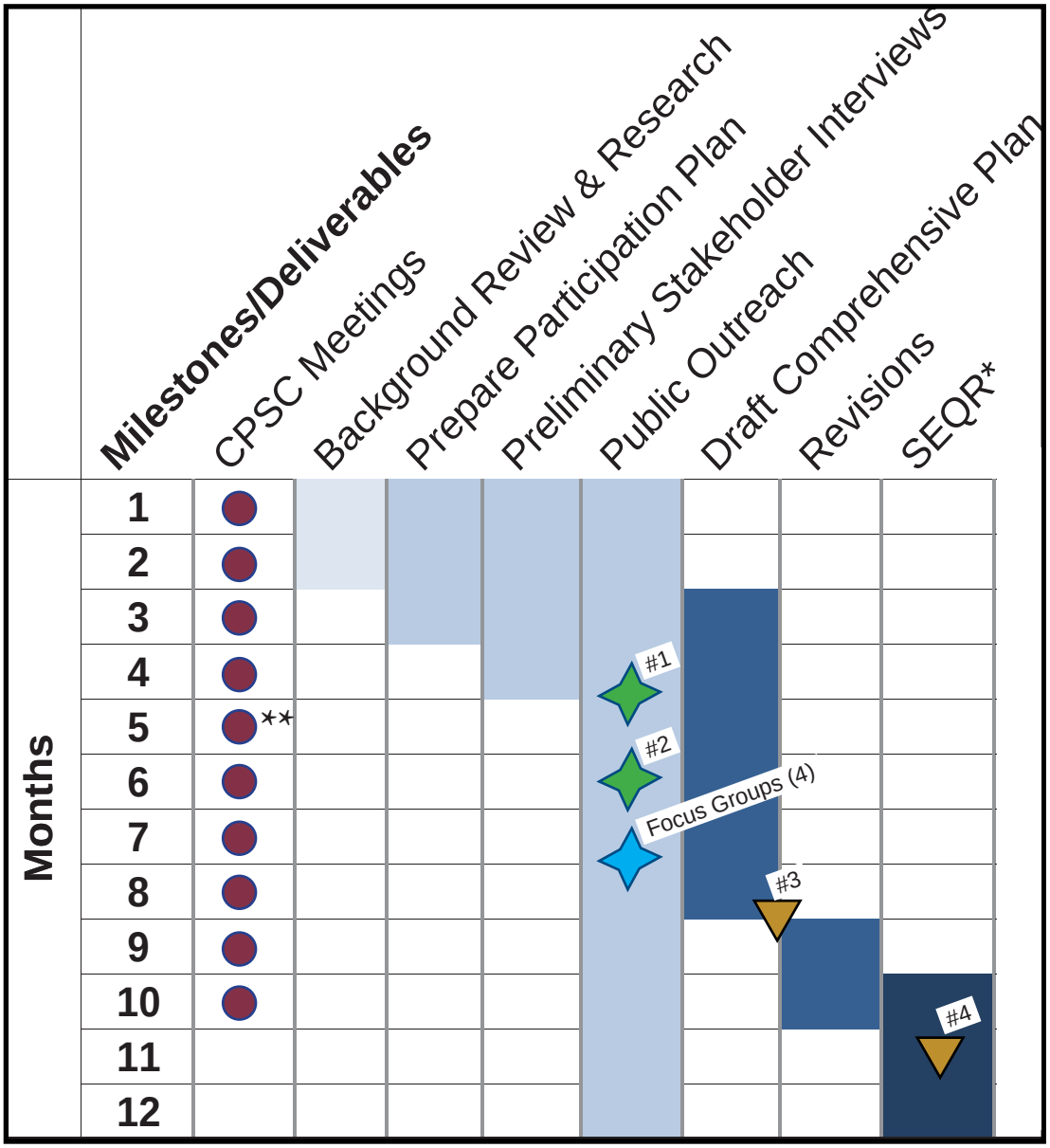
Ontario, County of
Orleans, County of
Olean, City of

Rochester, City of
Rochester-Genesee Regional Transportation Authority
Rochester Housing Authority

PRIVATE/NON-PROFIT
Konar Properties
North East Area Development
South Wedge Planning Committee
South East Area Coalition

NATIONAL
Transportation Research Board
U.S. Environmental Protection Agency
Federal Transit Administration

6.0 TIMEFRAME FLOWCHART



* SEQR assumes Adoption of Comprehensive Plan without Zoning Code and Map Amendments.

Team members will attend CPSC Meetings prior to completion of the Plan and commencement of SEQR.
** Vision session with CPSC, Town Board, Planning Board and Town Staff

Public Meeting

Focus Group

Public Hearing before the Town Board

Town of North Castle Comprehensive Plan	Personnel			Fee
Proposed Budget	**F&A**	**D&B**	**Highland Planning**	
PUBLIC OUTREACH & MEETINGS	**Person Hours**			
Preliminary Stakeholder Interviews	6	0	10	$2,140
Draft Community Participation Plan	0	0	10	$1,060
Public Meetings/Hearings (four)	45	36	138	$27,477
Focus Group Meetings (four)	32	12	64	$14,180
Surveys (Textizen and Survey Monkey)	0	0	38	$3,470
Steering Committee Meetings (10)	57	32	28	$17,437
Steering Committee/Client Calls	27	10	20	$7,666
Totals (Hours & Fees)	**167**	**90**	**308**	**$73,430**
DRAFT COMPREHENSIVE PLAN				
Introduction & Process	24	0	0	$4,200
Sustainability	16	73	0	$11,132
Economic Development	88	0	0	$14,900
Historic & Cultural Assets and Programs	41	0	0	$6,695
Parks, Open Space and Recreation	48	0	0	$7,920
Environmental Resources	16	89	0	$14,554
Public Infrastructure & Services	16	82	0	$13,582
Mobility	93	0	0	$17,895
Housing	51	0	0	$8,475
Quality of Life	26	0	0	$4,330
Land Use & Zoning	51	0	0	$8,725
Implementation	38	0	0	$6,970
Totals (Hours & Fees)	**508**	**244**	**0**	**$119,378**
REVIEW OF INTERIM PRODUCTS, DRAFT AND FINAL COMPREHENSIVE PLAN				
Public Outreach Section/Summaries	7	0	12	$2,615
Draft Document Review	50	22	8	$12,996
Final Document Review	44	22	8	$11,936
Totals (Hours & Fee)	**101**	**44**	**28**	**$27,547**
SEQR				
SEQR Documentation (Proposed Action without Code or Map Amendmer	**65**	**28**	**0**	**$14,370**
Grand Total Hours	1,583			
Expenses*				$12,775
Grand Total Fee				**$247,500**

* Proposed hours include anticipated travel time, but not tolls or mileage expenses. Estimated expenses associated with travel, reproduction costs, etc. are proposed not to exceed $12,775.

Detailed Extimated Costs

Ferrandino & Associates Inc.
D&B Engineers and Architects P.C.
Highland Planning LLC

Town of North Castle Comprehensive Plan	Personnel					Fee
Proposed Budget	**V. Ferrandino**	**C. Worstell**	**S. Maffia**	**C. Miske**	**S. Nourieli**	
Hourly rates	**$275**	**$185**	**$195**	**$195**	**$135**	
PUBLIC OUTREACH & MEETINGS						
Preliminary Stakeholder Interviews	0	6	0	0	0	$1,110
Public Meetings/hearings (four)	6	24	0	0	15	$8,115
Focus Group Meetings (four)	8	16	8	0	0	$6,720
Steering Committee Meetings (10)	12	30	0	0	15	$10,875
Steering Committee/Client Calls	0	15	0	0	12	$4,395
Totals (Hours & Fees)	26	91	8	0	42	$31,215
DRAFT COMPREHENSIVE PLAN						
Introduction & Process	4	8	0	0	12	$4,200
Sustainability	4	12	0	0	0	$3,320
Economic Development	8	20	0	15	45	$14,900
Historic & Cultural Assets and Programs	4	12	0	0	25	$6,695
Parks, Open Space and Recreation	6	12	0	0	30	$7,920
Environmental Resources	4	12	0	0	0	$3,320
Public Infrastructure & Services	4	12	0	0	0	$3,320
Mobility	6	12	65	0	10	$17,895
Housing	6	15	0	0	30	$8,475
Quality of Life	3	8	0	0	15	$4,330
Land Use & Zoning	6	20	0	0	25	$8,725
Implementation	6	20	0	0	12	$6,970
Totals (Hours & Fees)	61	163	65	15	204	$90,070
REVIEW OF INTERIM PRODUCTS, DRAFT AND FINAL COMPREHENSIVE PLAN						
Public Outreach Section/Summaries	2	5	0	0	0	$1,475
Draft Document Review	5	30	0	0	15	$8,950
Final Document Review	5	25	0	0	14	$7,890
Totals (Hours & Fee)	12	60	0	0	29	$18,315
SEQR						
SEQR Documentation (Proposed Action without Code or Map Amendments)	5	25	0	0	35	$10,725
Grand Total Hours	841					
Expenses*						$7,175
Grand Total Fee						$157,500

* Proposed hours include anticipated travel time, but not tolls or mileage expenses. Estimated expenses associated with travel, reproduction costs, etc. are proposed not to exceed $7,175.

Town of North Castle Comprehensive Plan	Personnel				Fee
Proposed Budget	Robert DeGiorgio	Steven Cabrera	Meredith Byers	Elizabeth Bilek-Smith	
Hourly rates	$256	$176	$110	$100	
PUBLIC OUTREACH & MEETINGS					
Preliminary Stakeholder Interviews	0	0	0	0	$0
Public Meetings/hearings (four)	8	8	8	12	$5,532
Focus Group Meetings (four)	0	0	4	8	$1,240
Steering Committee Meetings (10)	0	4	8	20	$3,582
Steering Committee/Client Calls	0	2	3	5	$1,181
Totals (Hours & Fees)	**8**	**14**	**23**	**45**	**$11,535**
DRAFT COMPREHENSIVE PLAN					
Introduction & Process	0	0	0	0	$0
Sustainability - D&B	2	0	20	51	$7,812
Economic Development	0	0	0	0	$0
Historic & Cultural Assets and Programs	0	0	0	0	$0
Parks, Open Space and Recreation	0	0	0	0	$0
Environmental Resources -D&B	4	20	20	45	$11,234
Public Infrastructure & Services - D&B	6	12	22	42	$10,262
Mobility	0	0	0	0	$0
Housing	0	0	0	0	$0
Quality of Life	0	0	0	0	$0
Land Use & Zoning	0	0	0	0	$0
Implementation	0	0	0	0	$0
Totals (Hours & Fees)	**12**	**32**	**62**	**138**	**$29,308**
REVIEW OF INTERIM PRODUCTS, DRAFT AND FINAL COMPREHENSIVE PLAN					
Public Outreach Section/Summaries	0	0	0	0	$0
Draft Document Review - D&B part of Plan	6	0	8	8	$3,216
Final Document Review - D&B part of Plan	6	0	8	8	$3,216
Totals (Hours & Fee)	**12**	**0**	**16**	**16**	**$6,432**
SEQR					
SEQR Documentation (Proposed Action without Code or Map Amendmer	2	6	8	12	$3,645
Grand Total Hours	406				
Expenses*					$1,080
Grand Total Fee					$52,000

* Proposed hours include anticipated travel time, but not tolls or mileage expenses. Estimated expenses associated with travel, reproduction costs, etc. are proposed not to exceed $1,080.

Town of North Castle Comprehensive Plan
Highland Planning Fee Estimate
20-Sep-16

	Personnel			Fee
	Tanya Zwahlen	Mary Rowlands	M. Andre Primus	
Hourly Rates	**$115**	**$100**	**$85**	
Project Initiation				
Preliminary Stakeholder Interviews	4	4	2	$1,030
Public Outreach & Engagement				
Draft Community Participation Plan	4	6	0	$1,060
Public Meetings (four)	40	60	38	$13,830
Focus Group Meetings (four)	24	4	36	$6,220
Surveys (Textizen and Survey Monkey)	2	12	24	$3,470
Project Planning, Design and Project Coordination				
Steering Committee Meetings (three)	12	16	0	$2,980
Client Review Meetings & Analysis				
Steering Committee/Client Calls	10	6	4	$2,090
Review of Interim Products, Draft, and Final Comprehensive Plan				
Public Outreach Section/Summaries	2	4	6	$1,140
Draft Document Review	2	6	0	$830
Final Document Review	2	6	0	$830
Totals (Hours & Fee)	102	124	110	$33,480
Grand Total Hours		336		
Expenses				$4,520
Grand Total Fee				$38,000

* Proposed hours include anticipated travel time, but not tolls or mileage expenses. Estimated expenses associated with travel, reproduction costs, etc. are proposed not-to-exceed $4,520.

APPENDIX A

RESUMES

Ferrandino & Associates Inc.

D&B Engineers and Architects P.C.

Highland Planning LLC

VINCE FERRANDINO, AICP
PRINCIPAL AND CEO

EXPERTISE
Land Use and Zoning
Comprehensive Planning
Environmental Planning
Economic Development
Community Development
Affordable Housing

EDUCATION
B.A*, with honors*
St. John's University
New York

Master of Urban Planning
NYU-The Wagner School
New York

Post- graduate study in real estate finance
University of Pennsylvania
The Wharton School
Philadelphia, PA.

Post- graduate study in urban policy analysis
New School University,
New York

Courses in real estate brokerage, appraisal , finance and sales
NYU Schack Real Estate Institute

EXPERIENCE

A professional planner and management consultant, Mr. Ferrandino has many years of experience in the development field. As a professional planner, he has served a myriad of clients in both the public and private sectors and has held positions of increasing responsibility at the municipal level.

A former Commissioner of Planning and Development for the City of Mount Vernon and the Town of Greenburgh, NY, Mr. Ferrandino and the communities he served have been recognized for many outstanding professional achievements in housing, planning and economic development by such organizations as the US Department of Housing and Urban Development, the US Department of Commerce, the American Planning Association and the Westchester Municipal Planning Federation.

Combining technical expertise with excellent management and presentation skills, he has been able to balance economic needs against environmental concerns and to sensitively articulate issues and positions on behalf of both public and private sector clients in local, county, state and federal areas.

Mr. Ferrandino, as firm principal, has directed or been involved in hundreds of projects including:

- Comprehensive Plans/Vision Plans
- Corridor Studies
- Downtown and TOD Plans
- Blight Determination Studies and Urban Renewal Plans
- Environmental Impact Statements under NEPA, SEQR and CEQR
- Economic Development Policy Plans and Fiscal Impact Studies
- Affordable and Market Rate Housing Market Studies
- Office and Retail Market Studies
- Consolidated Plans for Community Development
- Public Housing Authority Strategic Plans
- Expert Testimony before the Courts

See the firm's web site—www.faplanners.com—for a listing of the projects which Mr. Ferrandino has directed or been involved.

PROFESSIONAL EXPERIENCE IN THE PUBLIC SECTOR

Commissioner of Planning and Community Development
Executive Director, Mount Vernon Urban Renewal Agency
Executive Director, Mount Vernon Industrial Development Agency
City of Mount Vernon, New York

Director of Planning and Community Development
Town of Greenburgh, New York

City Planner and Deputy Executive Director
Peekskill Community Development Agency
City of Peekskill, New York

TEACHING/LECTURING IN PLANNING

Associate Professor of Planning (adjunct faculty)
Pace University, New York
Graduate Program in Public Administration
Associate Professor of Planning (adjunct faculty)
State University of New York at Purchase
New York University
Robert F. Wagner School of Public Service
Graduate Program in Urban Planning
Pratt Institute
Graduate School of Planning and Architecture
Long Island University
Graduate Program in Urban Affairs
Pace University Law School
Land Use Leadership Alliance

MEMBERSHIPS

American Institute of Certified Planners
American Society of Consulting Planners
New York Metro Chapter, American Planning Association
Connecticut Chapter, American Planning Association
Institute for Urban Design (Fellow)
Urban Land Institute
National Council for Urban Economic Development
National Association of Housing and Redevelopment Officials
New York Main Street Alliance
Association of Westchester Community Development Officials (Past President)
New York City Zoning Advisory Council
Westchester Municipal Planning Federation
Former Member, Board of Directors and Program Chair
Westchester County Housing Implementation Commission (former member)
Rockland Municipal Planning Federation
Former Chairperson of Advisory Board, WEST-HELP
Transitional Housing, Mount Vernon, N.Y.
Land Use Leadership Alliance – Pace University Law School

OTHER

Serve as "expert witness" on behalf of private and public sector clients on zoning, planning, housing and economic development matters

New York State Civil Service Examiner for management and technical positions - New York State Housing and Community Renewal

Lecturer, Land Use Training Institute
Westchester Municipal Planning Federation

Articles on planning published in *Westchester County Business Journal, New York Real Estate Journal, Fairfield County Business Journal and Impact Magazine*, among others.

CARYN A. MISKE
SENIOR ASSOCIATE

EXPERTISE
Environmental Planning
Economic Development
Real Estate and Market Analysis
Fiscal Impact Analysis

EDUCATION
B.A. Public Affairs, *Cum Laude*
SUNY/Albany

M. of Public Administration
School of International and Public Affairs
Columbia University

J.D. of Law
University of Montana

EXPERIENCE 28 Years

Ms. Miske, a planner and attorney, has prepared and reviewed numerous Environmental Impact Statements (EISs), including EIS reviews for the Avalon Green II project in Greenburgh, a 794 unit townhouse development, and Avalon on-the-Sound in New Rochelle, a 1000 unit luxury rental and retail project; a controversial Shoprite Superstore in the Village of Hastings-on-Hudson; and the Young Israel Synagogue expansion in New Rochelle. She has also prepared and analyzed environmental assessments, including a review of the planned expansion of the United Water filtration plant in Eastchester and the preparation of environmental documentation for a proposed Holiday Inn Express Hotel in Port Chester. Ms. Miske has developed planning strategies to analyze open space and potential development scenarios, including the development of a *Vision Plan* for the Village of Hastings-on-Hudson and the preparation of a land use study for a large not-for-profit institution in Yonkers.

On the economic development front, she has prepared business development and marketing plans for the Village of Ellenville, the Town of Wawarsing, the Cities of Mount Vernon and White Plains and the Hunts Point (South Bronx) Economic Development Corp. She also prepared economic development plans for the City of Poughkeepsie/Dutchess County consortium (including the Towns of Poughkeepsie and East Fishkill) as part of these municipalities' successful joint application for New York State Empire Zone designation. In addition, she has prepared market studies for several live-work loft projects in Bridgeport and Norwalk Connecticut and Poughkeepsie, New York.

Ms. Miske has designed revolving loan programs, as well as Section 108 and EDI loan programs. She served as the project manager for the Hunts Point Economic Development Corporation, which is a New York State designated Empire Zone, as well as a Federally-designated Empowerment Zone. Ms. Miske spearheaded an economic development and business recruitment/ retention program for this Bronx-based non-profit.

She served as project manager for a comprehensive market study and plan for downtown White Plains that included retail and office market analysis, building re-use, business promotion and special events planning. She directed the City's business recruitment and marketing outreach programs for office and retail tenants which included direct mail and telephone follow up. Ms. Miske also provided technical assistance to the New Rochelle Overall Economic Development Corporation (NROEDC) implementing a marketing plan featuring a database for vacant commercial and industrial properties, funded by the former New York State Urban Development Corporation. Additional work related to New Rochelle included preparation of an economic impact study for the redevelopment of the 500,000 square foot New Rochelle Mall (now New Roc City) and the preparation of the *New Rochelle Downtown Market Study*, which included a market strategy to develop office, hotel and market-rate rental housing. Ms. Miske also prepared the City of Stamford *Value Retail/ Megastore Study* which included developing a retail/industrial policy, typology of value retail uses, and the development of land use standards. The goal of the study was to permit value retail on certain sites while protecting the integrity of the CBD and preserving industrially zoned land. Design standards for superstores were incorporated into this study.

Ms. Miske prepared an industry study for the Borough of Staten Island. The components of the study included a feasibility analysis to ascertain needed capital improvements in order to redevelop vacant waterfront parcels, industry clusters that would be best suited for relocation to Staten Island, and a business recruitment campaign to target latent market niches. Also, for the Westchester County Association, Ms. Miske served as project manager for a Business Retention and Recruitment Survey of Westchester businesses.

Other economic impact studies include the 400,000 square foot Riverhead Centre (a power center on Route 58), the 225,000 square foot Manufacturers Outlet Center (formerly the Bazaar Mall) including a Target store, in Mt. Kisco, a Shoprite Super Store in Hastings, a 200,000 square foot Wal-Mart in Monsey, the 225,000 square foot Midway Shopping Center in Scarsdale, and a mixed use lifestyle center in Yonkers [Ridge Hill Village], New York, comprised of 1.2 million square feet of retail with multi-plex theaters, 800 dwelling units, a 350 room hotel/conference center, a 250,000 square foot office building and 5,000 parking spaces – one of the largest development projects ever conceived in the Hudson Valley.

She is currently completing fiscal and socioeconomic impact analyses for a proposed 156,000 square foot Costco store in the Town of Yorktown as part of an EIS and assisted in preparing a market analysis and commercial character assessment for the proposed store.

At the Columbia University Business School, Ms. Miske helped design an initiative fostering environmentally sustainable economic development. The Regional Round Table on the Environment and Economy linked government officials, business leaders and non-profit organizations in order to develop consensus and innovative policies on contentious economic and environmental issues.

Ms. Miske developed strong marketing and communications skills as a result of her work with Batten, Barton, Durstine & Osborne (BBDO) and a Young Rubicam (Y&R) subsidiary, Wunderman Worldwide. She is responsible for writing and producing a newsletter on direct marketing, coordinating agency workshops and producing slide shows to solicit new accounts.

Ms. Miske has also worked in the not-for-profit sector as both a fundraiser and community outreach worker. At the March of Dimes, she wrote foundation grant proposals, formulated strategic marketing plans, conducted feasibility studies and was responsible for planning and managing a bi-annual telemarketing campaign.

At the Arbor Hill Development Corporation, located in Albany, New York, Ms. Miske designed and administered a survey to assess the housing needs of local residents. Based on the results of the survey, she launched a public education campaign to stimulate resident participation in HUD-funded programs.

OTHER EXPERIENCE
Adjunct Professor – University of Montana
Environmental Conservation and Natural Resources Policy

STEPHAN A. MAFFIA, P.E.
SENIOR ASSOCIATE/TRAFFIC ENGINEER

EXPERTISE
Transportation Planning
Traffic Engineering Studies
Parking Studies
Highway/Traffic Signalization
Concept Plans

EDUCATION
B.E. Civil Engineering.
Manhattan College, NY

M.E. Civil Engineering
Manhattan College, NY

EXPERIENCE 36 Years

Mr. Maffia, a licensed professional engineer, has conducted numerous traffic and environmental impact studies for small and large scale development projects throughout New York State including New York City, Long Island and Westchester, Putnam, Dutchess, Rockland, Orange and Ulster Counties. He has prepared concept and design plans for improvement projects that involved new and modified traffic signals and roadway construction/reconstruction or widening, in addition to parking, bicycle and pedestrian studies. He heads up the firm's traffic and parking practice.

PROFESSIONAL LICENSES/AFFILIATIONS
Institute of Transportation Engineers – Fellow
National Society of Professional Engineers
New York State Society of Professional Engineers
Chi Epsilon, Honorary Civil Engineering Society

REPRESENTATIVE EXPERIENCE
Traffic Studies:
Alexan on Main: DEIS, Hempstead, NY*
Arrow Parcel: Commercial Development, Brookhaven, NY
Bellmore Base, Hempstead, NY
Blauners LLC: Pondfield Court, Bronxville, NY*
Brookhaven Walk: DEIS, Brookhaven, NY
City of Mount Vernon, NY: City Council Support*
42 West Broad Development*
Multi Family Senior Citizen Floating Overlay Zone*
Grace Terrace Senior Housing Development*
City of Mount Vernon, NY: Urban Renewal Agency Support*
South Fourth Avenue-East Third Street Urban Renewal Plan*
Covanta: Energy from Waste Plant-TOHIDA, Hempstead, NY
Formula 1 LI Sports Facility, Riverhead, NY
LOMTO Credit Union, Queens County, NY
Point Lookout, Hempstead, NY
Riverside Drive, Riverhead, NY
The Landing Homeowners Association, Dobbs Ferry, NY*
Town of Eastchester, NY: Planning Board Support
Town of Greenburgh, NY: Tappan Zee Bridge: Alternative Rehab Plan Review*
Willets Point: Areawide Plan, Queens County, NY
Village of New Square, NY: Downtown Plan*
Village of Sleepy Hollow, NY: Planning Board Support*
Kendal on Hudson*
Open Door Medical Center*

Parking and Access Studies:
42 West Broad, Mount Vernon, NY*
Blauners LLC, Village of Bronxville, NY*
CVS Pharmacy, Montgomery, NY
Irvington Station Area, Irvington, NY

Long Hill Township Transit Village, Long Hill, NJ
Mori Property, Secaucus, NJ
Pelham Schools, Pelham, NY
The Landing Homeowners Association, Dobbs Ferry, NY*
Union Baptist Church, Greenburgh, NY
Village of New Square, NY
Village of Sleepy Hollow, NY*

Planning Level Concept Preparation:
Fishkill Avenue/Rt.9 Roadway Reconfiguration, Philipstown, NY
Red Mills Access, Carmel, NY
Route 9 Modification, Ossining, NY
Rye TOPICS Study, Westchester County, NY

Signal and Roadway Design Projects:
ARRA Signal & Pedestrian Improvements, Rye, NY
Industrial Retro-Poughkeepsie, NY
New Hackensack Road Office, Wappingers, NY
NYSDOT Corridor Improvements, Middletown, Port Jervis, NY
Walgreen's NY Rt. 208, Montgomery, NY

PRIOR EXPERIENCE
Project Manager
TRC Engineers, Inc., Hawthorne, NY

Principal
Parish Weiner & Maffia, Inc
Planning, Development & Traffic, Elmsford, NY

Project Engineer
John Collins Engineers, P.C., Hawthorne, NY

Civil Engineer II
NYS Department of Transportation, Poughkeepsie, NY

Town Engineer
Town of Poughkeepsie, NY

Engineer/Inspector to Senior Engineer
The RBA Group White Plains, NY and Morristown, NJ

Engineer/Inspector
Hardesty & Hanover, Inc, New York, NY and Jersey City, NJ

* With Ferrandino & Associates Inc.

CAROLYN WORSTELL
SENIOR PLANNER

EXPERTISE
Comprehensive Planning
Environmental Planning
Urban Design
Community Development
Geographic Information Systems (GIS) Mapping and Analysis

EDUCATION
B.A. Chemistry and
B.A. Art History
George Washington University

M.S. City & Regional Planning
Rutgers, the State University of New Jersey

Ms. Worstell is a senior planner with expertise in a wide variety of specialized areas. She addresses the needs of many diverse clients and works closely with multi-disciplinary professionals, local and state officials, business owners, stakeholders and community residents.

Ms. Worstell is currently working on several long-range planning projects at F&A. In coordination with the City of Mount Vernon, she is developing a mixed-use Commercial Corridor District and design guidelines for the rezoning of a 20 acre area along the East Third Street corridor which promotes high-density mixed use. As a team member for the 2014-2019 Consolidated Plans (ConPlan) for the City of Mount Vernon and Rockland County, she is preparing surveys and outreach materials and conducting public and stakeholder meetings for the citizen participation components of the Plans and Analysis of Impediments to Fair Housing. In addition, she is assisting in the review of a transit-oriented downtown development project in the Village of Hempstead involving mixed use on behalf of the Village Board.

She prepared a Generic Environmental Impact Statement (GEIS) for an Urban Renewal Plan on the south side of Mount Vernon. The recently adopted Plan and Zoning Code Amendments, prepared by F&A for a partnership between the City and a private developer, includes a new urban renewal planned unit development overlay zone and urban design guidelines to accommodate mixed use development and public parking in a heretofore blighted area. The GEIS examined the impacts of the full build-out of the Urban Renewal Area under the proposed overlay zone, including neighborhood and community character analysis, shadow analysis, fiscal and socio-economic, traffic, impacts on City services, and analysis of alternative redevelopment scenarios. Ms. Worstell is now preparing an EIS for a proposed development within the Urban Renewal Area consisting of 250 residential affordable units, 50,000 square feet of retail and commercial space and a ±400 unit municipal parking garage.

Also in Mount Vernon, Ms. Worstell prepared a GEIS addressing the impacts of a recently adopted Multifamily Senior Citizen Floating Overlay zone (RMF-SC). She also prepared an EIS for the rezoning and development of *Grace Terrace*, a senior housing development in Mount Vernon.

Ms. Worstell coordinated a team to develop a recently adopted Parks and Recreation Master Plan for the Town of North Salem, including conducting site visits and meetings with Town officials, drafting narrative outlining existing open space and recreational facilities, conducting a needs assessment and drafting recommendations.

She recently completed several SEQR reviews: for an 18-story, 268,750 square foot mixed use market-rate residential and retail building and 4-story parking garage renovation in the Fleetwood neighborhood of the City of Mount Vernon, and the development of a vacant site on Fulton Avenue in the Village of Hempstead, a project involving the rezoning of an approximately 10,000 square foot property, a former gas station, and redevelopment into several commercial spaces. In addition, in the Town of Yorktown, she also completed land use, fiscal, socioeconomic and visual impact analyses for a proposed 156,000 sq. foot Costco store as

part of an Environmental Impact Statement for site plan approval.

Ms. Worstell has worked on a number of market studies for affordable housing projects as part of the 2013-2014 New York State Homes and Community Renewal funding round, including market study updates for housing projects in Lloyd and Newburgh, NY and a large family housing project in East New York, Brooklyn, NY. She has also worked on six LIHTC funding projects: family housing projects in Amagansett, East Hampton, NY, Brooklyn, NY and New Rochelle, NY and senior housing projects in Mount Vernon, NY, New Rochelle, NY and Rye Manor, NY.. Ms. Worstell also prepared a market study as part of a preliminary feasibility analysis for the potential development of affordable senior housing on the Dominican Sisters of Hope Center of Hope property in Ossining, NY. These market studies evaluate market trends to assess demand among income-qualified households in the market areas and their abilities to absorb new housing developments.

Ms. Worstell is skilled in GIS mapping and spatial analysis for land use, zoning, housing, environmental and other planning needs. She is adept at preparing advanced graphics for diverse projects using Adobe Suite CS5 applications.

In addition, Ms. Worstell is involved in an urban planning and architecture collective that is working with a community group in Jersey City, NJ to develop and implement a neighborhood plan. The plan is aimed a redesigning a pocket park, improving pedestrian safety though design and fostering increased interaction between the community and a local university.

While working for a not-for-profit organization in New Jersey, Ms. Worstell was involved in a developing a new certification level for a municipal sustainability rating program. The program was looking to establish metrics and targets to measure progress toward sustainable outcomes for municipalities. As part of the process she was involved in writing several sustainability issue papers for a forum, on topics such as sustainable agriculture and indoor environmental health hazards.

PRIOR EXPERIENCE

Project Manager
Mass Urban
Jersey City, NJ

Research Assistant
Sustainable Jersey
Ewing, NJ

Policy Intern
New Jersey Future
Trenton, NJ

SAMUEL NOURIELI
PLANNER

EXPERTISE
Environmental Planning
Geographic Information Systems (GIS) Mapping and Analysis

EDUCATION
B.A. Sociology
Phi Beta Kappa
Macaulay Honors College at CUNY Brooklyn College, Brooklyn, NY

MCRP, City and Regional Planning
Edward J. Bloustein School of Planning & Public Policy, Rutgers, New Brunswick, NJ

Mr. Nourieli is a planner with expertise in a variety of specialized areas. He addresses the needs of diverse clients and works closely with multi-disciplinary professionals, local and state officials.

Mr. Nourieli is skilled in GIS mapping and spatial analysis for land use, zoning, environmental and other planning needs. He is also proficient at preparing advanced graphics for diverse projects using Adobe Suite applications.

Mr. Nourieli is currently working on several projects at F&A. He is a member of a team preparing a Generic Environmental Impact Statement (GEIS) for a rezoning of the East Third Street Corridor in the City of Mount Vernon to a higher density mixed use Commercial Corridor District, conducting land use and zoning analyses, photo reconnaissance and developing GIS maps. He is preparing sections for a site-specific Draft Environmental Impact Statement (EIS) for the *The Pointe* development, located at South Fourth Avenue and East Third Street, also in Mount Vernon. *The Pointe,* upon completion, will include four mixed use buildings, providing approximately 42,660 square feet of retail/office space, 266 affordable units, 100 assisted living units, and 630 spaces of garage parking. Mr. Nourieli is also currently assisting in the preparation of expert testimony, first for a property annexation lawsuit in the Village of Chester, NY, having compiled background data on zoning and SEQR practices and second, for the opposition to a proposed Urban Renewal Plan in the Village of Brewster, NY, examining a faulty Blight Study upon which it is premised, through a comparative review process.

Mr. Nourieli assisted with the preparation of a market study for *The Enclaves at Fleetwood*, a housing development consisting of a total of 179 market-rate units in Mount Vernon, concluding that the development would likely serve as a viable addition to the local market. He also assembled a 3D building model with photo simulations, incorporated as part of the expert testimony by the firm for a zoning challenge in Lido Beach, NY. As part of F&A's marketing endeavors, Mr. Nourieli created the latest E-Newsletter, highlighting key projects for the firm. He also recently completed the Environmental Review for a Section 18 Disposition Application submitted on behalf of the Municipal Housing Authority for the City of Yonkers. The review involved a field examination of seven residential sites, totaling 200 units set to be rehabilitated following the expected disposition.

While working in Somerset County, New Jersey, Mr. Nourieli collaborated on a County Natural and Cultural Resource Inventory, editing chapters, creating GIS maps and finalizing the design template for the document.

He also worked for the NYC Department of City Planning's Environmental Assessment and Review Division, collaborating with lead project managers on the review of Environmental Assessment Statements (EAS) as well as preparing official documents for the City Planning Commission.

PRIOR EXPERIENCE
Environmental Assessment and Review Division
New York City Department of City Planning (NYCDCP)

Environmental Campaign
New York Public Interest Research Group (NYPIRG)

Green Infrastructure Team Intern
CUNY Brooklyn College Department of Earth and Environmental Sciences

ROBERT J. DeGIORGIO, P.E., CPESC, CPSWQ

Corporate Title
Senior Vice President

Education
M.E. (Environmental Engineering) – 1996

B.S. (Mechanical Engineering) - 1992

Professional Licenses
New York, Professional Engineer

Certified Professional in Erosion & Sediment Control (CPESC)

Certified Professional in Storm water Quality

Professional Societies
Water Environment Federation

New York Water Environment Association (Board of Directors)

American Society of Civil Engineers

NYSPE

Professional Institute of Engineering (PIE)

Certifications
NYCT Track Training

Years Experience
24

Office Location
White Plains, NY

Contact
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Professional Experience

Mr. DeGiorgio has 24 years of experience in environmental and mechanical designs for municipal, industrial, wastewater and hazardous waste remediation projects for government, private and industrial clients. His technical expertise encompasses wastewater, remedial and process design, water supply, construction, startup, operations and maintenance, and storm water management. He has managed and supervised a staff of multi-disciplined engineers for a variety of land development, municipal and water projects.

Mr. DeGiorgio's prior experience includes the following:

Land Development and Municipal:

- Town of Orangetown, Baseball and Soccer Field Complexes. Mr. DeGiorgio was the principal in charge for the design of a baseball field complex (six fields) for the Town of Orangetown. Design included drainage, irrigation, water supply, electrical design and required coordination with the NYSDEC due to wetland impacts and proximity. Mr. DeGiorgio was also the principal in charge of a soccer field design, which included 7 primary fields adaptable to 14 fields, a 360 spot parking lot, retaining walls and site lighting.

- Village of Warwick, Sewer System Evaluation Study (SSES). Mr. DeGiorgio was the principal in charge of an SSES for the Village in response to an Order on Consent from the NYSDEC. Chronic manhole overflows and excessive inflow/infiltration issues were the focus of the study. Mr. DeGiorgio wrote the work plan for the study which included continuous flow monitoring, smoke testing and manhole inspections.

- United Water, New York, Main Extension Designs. Mr. DeGiorgio was the principal in charge of the design and health department approval for various water main extensions proposed by United Water. The work entailed the design of the extension including valves, hydrants, air relief and specifications necessary for Rockland County Health Department approval. Main extension varied in size from 8 inches to 24 inches and varied in length from 1,000 feet to 10,000 feet.

- WP3 Residential Land Development, Water Supply Design. Mr. DeGiorgio was the principal in charge of the investigation and design of a water supply system for a 450 unit development project in Woodbury, New York. A yield of over 400 GPM of new well water source was developed for the project. The project included two 200,000-gallon storage tanks, three booster stations and approximately 10 miles of water main designed to serve in three primary pressure zones. Wastewater upgrades included the expansion of an existing 100,000 GPO extended aeration plant to a 370,000 GPO membrane bioreactor plant.

- Legacy Ridge Residential Land Development, Water and Wastewater Design. Mr. DeGiorgio was the principal in charge of this 280 home residential land development project. Responsibilities included water supply infrastructure design comprised of two 200,000-gallon glass lined tanks, rehabilitation of an existing storage, new booster stations and over five miles of distribution piping. An existing 50,000 gpd activated sludge wastewater plant was upgraded using MBR technology to a 170,000 gpd plant.

- Village of Upper Nyack, Municipal Services. Mr. DeGiorgio provided storm water, utility and general design services to the Village of Upper Nyack. In 2005, he led a comprehensive drainage study for the entire Village to assess infrastructure needs and flooding problems. Mr. DeGiorgio also provided utility design and general consulting services to the Village. The result of the study revealed five priority areas in need of drainage improvement. The Village has implemented one of five thus far.

Storm Water:

- Village of Scarsdale, NY, South Fox Meadow Storm water Improvement Project, 2012. Mr. DeGiorgio was the partner in charge and project manager -for this flood mitigation project. The project included the construction of two dry detention basins for storm water retention and peak flow reduction as well as a 30,000 square foot constructed wetland and a 3,000 square foot rain garden, both are one of the largest constructed in the County.

- Village of Greenport, NY, 5111 Street and Manor Place Water Quality Improvement Projects, 2013. Mr. DeGiorgio was the design engineer for the development of this water quality improvement project. The project includes over 1,000 feet of green right of way bio-swales and bio-retention areas to treat road side run off and reduce volume. The program also includes the monitoring of nutrient water quality in and out of the practices to determine percent removal efficiencies of nitrogen, phosphorus and other storm water quality parameters.

- Village of Scarsdale, NY, Public Library Rain Garden, 2013. Mr. DeGiorgio is partner in charge and project manager for this design of a library roof top run off treatment project. The project includes the collection of storm water run-off from an 18,000 square foot roof and diverts flow to a 1,800 square foot rain garden for treatment and run-off reduction. The goal of the program is to correlate the amount of water infiltration with the intensity of certain storms.

- Village of Scarsdale, NY, Harcourt Woods Aquatic Bench Water Quality Improvement Project, 2013. Mr. DeGiorgio is partner in charge and project manager for the design of 1,000 ft stream bank stabilization project which includes a water quality aquatic bench to provide treatment of run-off under high flow conditions within the South Fox Meadow Brook.

- Village of Upper Nyack, NY, Municipal Services. Mr. DeGiorgio provided storm water, utility and general design services to the Village of Upper Nyack. In 2005, he led a comprehensive study for the entire Village to assess infrastructure needs and flooding problems.

- Village of Scarsdale, NY, Comprehensive Storm water Management Plan, 2011. Mr. DeGiorgio was the project manager for the development of the a Village Wide comprehensive storm water management plan for the Village encompassing three water sheds (Bronx River, Sheldrake and Hutchinson River). The entire Village was modeling in HEC-RAS and HMS to provide an interactive flood mitigation and drainage model. Twenty six capital improvement projects were identified to improve water quality and mitigate flooding.

- Storm Water Pollution Prevention Planning. Mr. DeGiorgio authored· and directed over a dozen storm water pollution prevent plans (SWPPPs) for a variety of land development, wastewater and industrial projects. Areas of disturbance varied from 1 acre to over 500 acres and plans typically included erosion and sediment control design, water quality and quantity assessments and post construction maintenance plans.

Remediation:

- IBM Corporation, Recreational Small Arms Shooting Range Remediation. As Project Manager, Mr. DeGiorgio was responsible for the management, treatability studies, design, construction and permitting of this turnkey in-situ stabilization remediation project.

- Metro-North Railroad (NY), Construction Management. Mr. DeGiorgio was the Project Manager for the oversight of the construction of a $1,000,000 soil vapor extraction/air injection remediation system. Responsibilities included oversight of

the daily construction, monthly reporting, field construction decisions, quality assurance reports and shop drawing review and tracking.

- New York State Department of Transportation, Soil Vapor Extraction/Air Sparging System. Mr. DeGiorgio was the Project Manager for the design, construction, and operation and maintenance of a SVE/AS remediation system at this former UST site. Responsibilities included plan and specifications development for landfill cap system maintenance and sparging system, construction oversight and system operation and maintenance.

- Chemical Company Remediation Project. As lead engineer, Mr. DeGiorgio was responsible for mechanical and process design of an in-situ bioremediation treatment system for subsurface soils and groundwater contaminated with volatile organic compounds (VOCs). Responsibilities included preparation of detailed engineering design calculations and drawings for extraction/reinjection system; pump and pipe sizing; carbon adsorption; chemical feed systems and filtration systems; preparation of all mechanical and equipment specifications for the 100% design package; prepared State Discharge to Groundwater (DGW) permit applications and Treatment Work Approval (TWA) permit application. Mr. DeGiorgio assisted in the preparation of other. required permits such as the Site Plan and the Stream Encroachment State permit applications. He served as Lead Startup Engineer for the in-situ bioremediation system. Responsibilities included preparation of complete operation and maintenance manuals and startup plans, and starting up all mechanical and electrical devices.

- New York State Department of Environmental Conservation, Groundwater Treatment Plant. Mr. DeGiorgio was the Project Manager for the operation and maintenance of a 150 GPM groundwater treatment plant. Unit operations included UV oxidation, sand filtration and sludge handling and dewatering. Mr. DeGiorgio evaluated system performance and modified system operations in an effort to reduce recurring operation and maintenance costs.

- IBM, Groundwater Treatment System. Mr. .DeGiorgio was the Project Manager responsible for the design of an underground, double-contained piping conveyance system encompassing over 2,000 feet of pipe, condu.it and ancillary details such as manholes. He was also responsible for the design of a Thermal Oxidizer System with wet scrubber to control air stripper off gases with a flow rate of 1,000 scfm. Mr. DeGiorgio managed the construction of the conveyance system and off gas treatment with a project budget of over $5,000,000. He served as the on-site engineer and lead startup engineer upon construction completion.

- U.S. Army Corps of Engineers, Silresim Superfund Site, Lowell, MA. As Lead Engineer, Mr. DeGiorgio prepared design and construction drawings for a Vapor Phase Treatment System as part of a groundwater treatment system. His responsibilities included equipment procurement, submittals review and approval, system design, preparation of construction drawing and equipment Inspections. Mr. DeGiorgio served as Lead Startup Engineer for the groundwater treatment facility. Responsibilities included the startup and testing of all mechanical and electrical devices, instrumentation, system integration and control.

- U.S. Navy Remedial Action Contract, Long Island, New York. Mr. DeGiorgio was the Engineer responsible for design, construction startup and operation of a SVE and air sparging (AS) system for the remediation of subsurface soils contaminated with VOCs.

- New York U.S. Environmental Protection Agency; ARCS II Contract, Mattiace Property, Glen Cove, New York. Mr. DeGiorgio was the Project Engineer responsible for the overall design of a groundwater and soil vapor extraction system. He was responsible for process calculations, mass balance, specifications and construction drawings. Mr. DeGiorgio served as Project Engineer during the construction and startup of this $6 million treatment facility.

- Natural Gas Company, Atlantic Highlands, New Jersey. Mr. DeGiorgio assisted in the preparation of feasibility study analyzing alternative soil and groundwater treatment technologies for this MGP site. Responsibilities included capital and operational cost estimating, preliminary design, equipment assessments and report organization.

- Utility Company, Toms River, New Jersey. Mr. DeGiorgio was the Project Engineer responsible for the design of a groundwater treatment system utilizing dissolved air flotation and air stripping for the removal of organic compounds at this former MGP site. He was responsible for all aspects of design including project engineering, interdiscipline review, preparation of technical specifications and drawing development.

- Pharmaceutical Company, Hanover. New Jersey. Mr. DeGiorgio prepared a conceptual design report investigating various treatment systems for the reduction of solvent emissions from a pharmaceutical process. He was the Engineer responsible for the preparation of the final design specification for this turnkey emissions control system featuring thermal oxidation and regenerative carbon adsorption.

Publications

"Minimize Scale Formation During Groundwater Treatment," DeGiorgio, R.J; Chemical Engineering Magazine; November 1998; Pg. 135.

"Focus on Phosphorus," Robinson, L.A and DeGiorgio R.J; Industrial Wastewater; July/August 2001; Page 30.

"Stormwater Phase II Compliance Issues," DeGiorgio, R.J.; NYWEA Lower Hudson Valley Conference, 2001.

"Vapor Intrusion Design Elements," DeGiorgio, R.J.; NYS Society of Professional Engineers Spring Conference, 2005.

"Minimize Scale Formation During Groundwater Treatment," DeGiorgio, R.J; Chemical Engineering Magazine; November 1998; Pg. 135.

"Focus on Phosphorus," Robinson, L.A and DeGiorgio FLJ; Industrial Wastewater; July/August 2001; Page 30.

"Storm Water Phase II Compliance Issues," DeGiorgio, R.J.; New York Water Environmental Association (NYWEA) Lower Hudson Valley Conference, 2001.

"Vapor Intrusion Design Elements," DeGiorgio, R.J.; NYS Society of Professional Engineers Spring Conference, 2005.

"Same Site: Four Times the Flow- a MBR Retrofit Design Study," DeGiorgio, R.J.; New York Water Environmental Association Spring Conference, 2008.

STEVEN M. CABRERA

Corporate Title
Senior Associate

Education
Long Island University, B.A. (Geography/Environmental Science) - 1985

Long Island University, M.S. Candidate (Environmental Management)

Years Experience
29

Office Location
Woodbury, NY

Contact
scabrera@db-eng.com

Professional Experience

Mr. Cabrera provides expertise to the firm's Environmental Studies and Permits Group. His primary responsibilities are to provide guidance on environmental review and permitting requirements for projects, particularly those projects requiring environmental review under Federal (NEPA), State (SEQRA) or other local environmental review regulations. Mr. Cabrera also consults on Storm Water Management projects for numerous municipalities including:

- Storm Water Planning, Design and Permitting:
  - Town of North Hempstead
  - Town of Riverhead
  - Town of Southampton
  - Westchester County
  - Town of Oyster Bay
  - City of Mount Vernon
  - City of Long Beach
  - City of White Plains
  - Rockland County Solid Waste Management Authority
  - Nassau County Incorporated Villages (Floral Park, Garden City, Kings Point, Mineola, Munsey Park, New Hyde Park, Rockville Centre, Roslyn Harbor, Russell Gardens, Stewart Manor, Valley Stream, Williston Park)
  - Suffolk County Incorporated Villages (Quogue, Westhampton Beach, Sag Harbor)
  - Westchester County Incorporated Villages (Croton-on-Hudson, Ossining, Pleasantville)
  - U.S. Merchant Marine Academy
- Environmental Permitting (i.e., Tidal/Freshwater Wetlands, Protection of Waters, Dredging, Water Quality Certification, Coastal Consistency) for the following facilities:
  - Town of Hempstead Grand Canal and Milburn Creek – Bulkhead Replacement
  - Suffolk County – Bergen Point WWTP Force Main Project
  - Village of Valley Stream – Hendrickson and Hill Pond and Stream Improvements
  - Village of East Hampton – Pond Restoration, Pond and Outfall Structures
  - City of Glen Cove – Ferry Terminal Project
  - Village of Lawrence, NY – Golf Course Bulkhead Replacement
  - Westchester County – Yonkers WWTP Bulkhead Upgrade
  - Village of Bayville Drainage Improvement Project
  - City of Glen Cove Wetlands Enhancement and Storm Water Treatment System
  - Rockland County Transfer Station, and Recycling and Composting Center
  - New York City (City Island-Eastchester Bay Force Main Project)
  - Village of Scarsdale - Brewster Road Storm Water Improvements
  - Gowanus Facilities Upgrade
  - Nassau County – Cedarmere and Chelsea Pond Invasive Species Removal and Wetlands Mitigation
  - Village of Scarsdale – Fox Meadow Brook Storm Water and Stream Stabilization

- Environmental Assessments/Impact Statements under New York State Environmental Quality Review Act (SEQRA):

  - Suffolk County Scavenger Waste Treatment Facility
  - SWMP/GEIS for Suffolk County Towns (Brookhaven, Huntington, Riverhead, Southold, Shelter Island)
  - SWMP/GEIS for New York Counties (Suffolk, Nassau, Oneida, Onondaga, Orange, Putnam, Westchester)
  - Riverhead – Calverton Redevelopment Plan Zoning
  - Brookhaven – Community Preservation Fund GEIS
  - City of Long Beach, NY – Incinerator Dismantling
  - Sands Point Water District – Water Storage Tank
  - Seaford Creek Wetlands Preservation Project
  - Massapequa Preserve Stream Augmentation Project
  - Cold Spring Harbor Library - Environmental Center Project
  - City of Glen Cove – Ferry Terminal NEPA EA

- Environmental Assessments under New York City Environmental Quality Review process (CEQR):

  - City Island-Eastchester Bay Force Main Project
  - Neptune Avenue Pumping Station and Force Main Project
  - City Island Pumping Station Upgrade
  - Gowanus Facilities Upgrade Project
  - Oakwood Beach WPCD Upgrade
  - Coney Island WPCD Upgrade
  - Wards Island WPCD Upgrade

- State/Local Environmental Assessments/Permitting (Private/Commercial):

  - American Telephone & Telegraph
  - Sprint
  - Bechtel
  - Northrop Grumman
  - Metro-North Commuter Railroad
  - Clean Water of New York
  - Petro
  - Booth Oil

- Special Environmental Studies and/or Field Programs:

  - Gowanus Canal Air/Water Quality Sampling Program
  - Neptune, NY, Soil and Groundwater Sampling Program
  - Nissequogue River Bivalve Field Study
  - Manhasset Bay Water Quality Improvement Plan
  - Beaverdam Creek Headwaters Delineation Study
  - Dykman-Andrus Wetlands Identification Study
  - Chelsea and Cedarmere Pond Invasive Species Management

MEREDITH A. BYERS

Corporate Title
Associate

Education
Columbia University, M.A. (Conservation Biology) – 2006

University of Maryland, B.S. (Environmental Science and Policy – Biodiversity and Conservation Biology) - 2004

Certifications
University of Maryland College Park Scholars Program – Life Sciences - 2001

Years Experience
9

Office Location
Woodbury, NY

Contact
mbyers@db-eng.com

Professional Experience

Ms. Byers serves as an Associate for the firm's Environmental Studies and Permits group and as the coordinator of the firm's Geographic Information System (GIS) team. She is a specialist in ecology, conservation biology and GIS and has worked with numerous municipalities and districts on projects requiring environmental regulatory compliance, geographic analysis, permit applications, environmental quality review and storm water pollution prevention. Ms. Byers is also intimately involved in projects requiring terrestrial and aquatic habitat assessment and water resource studies for wetlands, streams and pond improvements and rehabilitation.

Ms. Byers' responsibilities include implementation and coordination of the state and federal Phase II Storm Water Management Program permit requirements for dozens of municipalities throughout the region. These comprehensive municipal-wide and activity/facility-specific program tasks include preparation of annual reports; storm sewer and environmental mapping; facility and outfall inspections; industrial and construction site storm water pollution prevention plans; written procedures; recordkeeping forms; site plan review and inspections; and best management practices guidance documents. In addition, Ms. Byers has participated in and guided municipal clients through USEPA and NYSDEC Storm Water Management Program audits, interviews, inspections and evaluations.

- Storm Water Studies and Permitting Clients
  - Nassau County
  - Westchester County
  - Town of Brookhaven
  - Town of North Hempstead
  - Town of Oyster Bay
  - Town of Riverhead
  - Town of Southampton
  - City of Glen Cove
  - City of Mount Vernon
  - City of Long Beach
  - City of White Plains
  - U.S. Merchant Marine Academy
  - Rockland County Solid Waste Management Authority
  - 17 Nassau County Incorporated Villages
  - 3 Westchester County Incorporated Villages
  - 5 Suffolk County Incorporated Villages

In addition to her storm water permit compliance experiences, Ms. Byers has worked on numerous projects requiring environmental quality review, environmental assessment statements and environmental impact statements. Ms. Byers has been involved with the review, analysis and documentation of existing and future environmental conditions of developed and undeveloped lands in relation to natural resources, vegetative and wildlife habitats, topography, soils and geology. Services have included jurisdictional review, map creation, site analysis, information gathering, evaluation of impacts and permit application submittals.

Ms. Byers is also the firm's expert in GIS mapping applications and analysis. The services provided by Ms. Byers include the acquisition, integration and analysis of geographic and topographic data and aerial photography from federal, state, county and local sources to generate useful and informative maps for a wide variety of engineering, municipal planning and environmental review projects. Ms. Byers is experienced in digitizing new features and populating the related attribute tables based on information obtained from field inspections, paper maps, GPS coordinates and visual analysis to symbolize and depict newly created map layers. She has designed composite maps presenting geographic features including water resources, watersheds, habitat features, open spaces, transportation networks, municipal boundaries, land use, zoning, water and sewer districts, flood zones and storm sewer systems.

Some of Ms. Byers' major GIS mapping and analysis projects have included:

- Outfall Reconnaissance Inventory: Nassau County Department of Public Works: Ms. Byers provided a project management and GIS coordination for the inventory and illicit discharge assessment of the storm water outfalls along 16 streams on the south shore of Nassau County. Data was collected electronically in the field from over 700 outfalls to assess the structural and water quality conditions at each drainage structure.

- Tier II Environmental Review Record Site-Specific Checklists – Dormitory Authority State of New York: Ms. Byers was instrumental in the establishment of a company-wide database and employee GIS training program for the environmental reviews associated with each residential homeowner application for Hurricane Sandy reconstruction funds. In order to meet the State's extremely aggressive schedule, Ms. Byers produced a standardized ArcGIS Explorer Desktop basemap and mapping protocols for the analysis of environmental, aesthetic and historic resources that were used in the processing of hundreds of application reviews.

- Underground Storage Tank and Environmental Remediation Program – New York City Transit Authority: Ms. Byers provided GIS database and mapping services that included the integration of historical petroleum release information with the current data from active remediation, groundwater monitoring and product recovery systems. Utilizing a combination of tools and ArcGIS extensions, Ms. Byers generated workflow models to generate groundwater elevation contours, groundwater flow direction and product thickness feature classes from monthly monitoring well data.

- Oil Spill Contingency Plans and Facility Response Maps - Con Edison: Ms. Byers had a lead GIS role in establishing site-specific oil discharge pathways and deployment areas for spill response actions at dozens of sub-stations. The mapping utilized data from many different sources including site inspections, municipal paper maps, storm sewer information, and federal, state and county GIS data.

Ms. Byers is also experienced in field investigation, sampling techniques, laboratory analysis and data processing. Ms. Byers has expertise in the evaluation of aquatic and marine resources using field monitoring instruments to perform data collection. She served as a team leader for urban freshwater ecological research and habitat restoration at the University of Maryland and is knowledgeable in terrestrial, freshwater and marine biological conservation planning.

Ms. Byers also heads up the D&B Goes Green initiative, which has implemented multiple eco-friendly programs, including: recycling office paper, plastics, metals and glass; purchasing 30% post-consumer recycled content paper and tree-free paper products; paper-reduction programs; and distributing reusable shopping bags and organic cotton t-shirts to employees.

ELIZABETH R. BILEK

Corporate Title
Planner/Environmental Scientist

Education
University at Albany, Masters in Regional Planning, MRP -2013

University at Albany, Environmental Science, BS - 2011

Specialized Training
Certification in Geographic Information Systems (GIS)

OSHA 10-hour Construction Safety

Years Experience
4

Office Location
Woodbury, NY

Contact
ebilek@db-eng.com

Professional Experience

Ms. Bilek serves as a Planner/Environmental Scientist at D&B bringing a unique concentration of professional knowledge tying together planning principles with sound environmental, transportation and community development practices. She is knowledgeable of the various planning studies and documents that affect the regional area and is continuously gaining knowledge of different funding programs that can aide planning and environmental efforts. Ms. Bilek is knowledgeable of state and federal environmental permitting processes, storm water management and erosion and sediment control.

Ms. Bilek has been assisting D&B staff and multiple Long Island and Westchester municipalities with the Phase II Storm Water Management Program permit requirements. These comprehensive municipal-wide and activity/facility-specific program tasks include preparation of annual reports, storm sewer and environmental mapping, outfall inspections, municipal trainings and storm water pollution prevention plans.

Ms. Bilek has been active in post Hurricane Sandy efforts on Long Island. Recently she supported the completion of applications to the FEMA Hazard Mitigation Grant Program for the municipalities of Mineola and Williston Park. This involved municipal, county and state government collaboration and incorporation of material in the Nassau County Multi-Jurisdictional Natural Hazard Mitigation Plan. She has also supported development of a Storm Mitigation Loan Program application for the Village of Ocean Beach, available through the Environmental Facilities Corporation.

Ms. Bilek has provided Geographic Information Systems (GIS) mapping support for various projects including an analysis of water transmission systems in the City of Glen Cove and a parking study analysis for Manayunk, Pennsylvania. She provided GIS mapping support for planning studies and projects including the redevelopment/adaptive reuse of a 4 acre property in Glen Cove and mapping for municipal pedestrian bicycle projects. She regularly uses GIS to create maps required with EAF Long and Short Forms submission and other environmental reviews. She has used GIS to show municipal land uses and also to map municipal sewersheds.

Ms. Bilek has provided research and documentation for a number of civil engineering group projects such as a new pedestrian pathway in Plandome Manor, a school greenhouse and a community band stand. She has also provided research in association with the preparation of a Draft Environmental Impact Statement for mosquito control in Nassau County.

Ms. Bilek has provided technical support for the Dormitory Authority of the State of New York (DASNY) to advance the “New York Rising” Program by conducting Tier 2 environmental reviews as required under the National Environmental Policy Act (NEPA) and New York State Environmental Quality Review Act (SEQRA). The Tier 2 reviews were conducted on properties where homeowners had applied for disaster relief funding to repair damage sustained during Hurricane Sandy. Further, Ms. Bilek has assisted with project management activities, providing record keeping services.

Prior to joining D&B, Ms. Bilek worked for the New York State Department of Transportation on an asset management mapping project and on the NY27 Sustainable Transportation

Corridor Study. As part of these assignments regarding transportation planning and public outreach she participated in field excursions to collect transportation data and assisted with survey formation and advertisement. The collected data was displayed visually within GIS.

While receiving her Master's Degree, Ms. Bilek participated in a planning project with the City of Saratoga. This project involved the development of a greenway around the City which would connect three existing trails. The project required considerable background research and the organization of public meetings.

Ms. Bilek worked for the New York State Department of Environmental Conservation during this time, developing and managing a GIS geo-database to display stream basin characteristics of New York State Streams.

Also while receiving her Master's Degree, Ms. Bilek served as a Project Aide for the Evaluation Consortium of the Research Foundation of the State University of New York at Albany. As a Project Aide, she analyzed statistical information to document the effectiveness of grants awarded to area school districts.

EXPERIENCE

Community + Economic Development

- Street Manager for South Clinton Avenue, Monroe Avenue and Dewey Avenue in the City of Rochester, NY. Working to increase membership of business associations, organize merchant subcommittees, analyze market opportunities, market loans and grants, and advance beautification projects (2010-2016).
- Provided technical support to Black Chamber of Commerce and Black Rock Citizens Alliance in the City of Buffalo and the City of Salamanca, NY to support the development of their Main Street programs (2015-2016).
- Working with North Union Street merchants in Olean, NY to mitigate the impacts of an $8.8 road reconstruction project in the historical commercial district (2012-2016).
- Developed a business district improvement strategy for Watkins Glen and Montour Falls, NY. Awarded 2006 Best Comprehensive Plan by NY Upstate APA (2004-2005).

Public Outreach

- Leading public engagement efforts for the Brighton Comprehensive Plan (2015-2016).
- Facilitating public engagement for the City of Rochester Comprehensive Plan Update (2016).
- Administering on-board quarterly customer satisfaction surveys to transit riders on behalf of the Rochester-Genesee Transportation Authority (2014-2016).
- Designed and managed public engagement for the NYS Analysis of Impediments to Fair Housing choice. The process included 21 stakeholder interviews and 15 public meetings throughout the state (2015).
- Led public outreach processes for several projects in the City of Rochester, including Mount Read Boulevard Corridor Study, La Avenida Phase II Improvements, Promenade at Erie Harbor, Charles Carroll Park Redesign, and the Dewey Avenue/Driving Park Road Realignment (2013-2016).
- Led the public outreach process for the nine county Regional Trails Initiative on behalf of the Genesee Transportation Council (2014-2015).
- Led the public outreach processes for the Parkside Neighborhood Traffic Study and the Allen Street Extension Phase III in Buffalo, NY (2013-2015).
- Conducted door-to-door surveys to collect pertinent resident relocation data on behalf of the Rochester-Genesee Transportation Authority (2014).
- Managed the public outreach process on behalf of Niagara Frontier Transportation Authority for a bus shelter relocation project (2013-2014).
- Managed the public outreach component of a nine county regional freight study on behalf of the Genesee Transportation Council (2011-2012).
- Developed community survey in Holley, NY to ascertain local opinions regarding land use, municipal needs and shopping and travel patterns (2009).

Grant Writing

- Part of a team that developed the cost benefit analysis for two successful TIGER grant applications, bringing $33 million to Buffalo, NY's Main Street (2011, 2015).
- Wrote successful $200,000 NYS Affordable Housing Program grant for North East Area Development, Inc. to rehabilitate owner-occupied homes in the City of Rochester (2014).
- Wrote application and administered a $200,000 New York Main Street grant, which funded improvements to six properties in the City of Rochester, NY (2010-2013).
- Established partnership with MVP Healthcare to provide $40,000 for the street manager program for Monroe and S. Clinton Avenue in the City of Rochester, NY (2011-2012).

Program Management + Program Implementation

- Managing NCHRP synthesis projects on behalf of the Transportation Research Board. Develop project oversight panel, edit scope of work, facilitate selection of project consultant, and oversee advancement of research projects (2011-2016).

HIGHLAND PLANNING

Tanya Zwahlen, AICP

Address 820 S Clinton Avenue, #3
Rochester NY 14620
Email tanya@highland-planning.com
Phone (585) 315-1834
Website www.highland-planning.com

EDUCATION

- Bachelor of Arts, English & Art History, Boston College, 1998
- Master of City & Regional Planning, Cornell University, 2003
- Center for Dispute Settlement, Basic Mediation Training, 2012
- IAP2, Foundations in Public Participation, 2015

AFFILIATIONS & SERVICE

- Member, City of Rochester Environmental Commission, 2008-present
- Member, American Institute of Certified Planners, 2006-present
- Member, Upstate New York Chapter of the American Planning Association, 2003-present
- Co-Founder, Rochester Love Notes, 2013
- Co-Founder, Young Lion, 2012
- Member, Board of Directors

HIGHLAND PLANNING

Mary M. Rowlands

Address 820 S Clinton Avenue, #3
Rochester NY 14620
Email mary@highland-planning.com
Phone (585) 287-2755
Website www.highland-planning.com

EXPERIENCE

Transportation + Urban Planning

- Managed multi-million dollar complete streets projects that included client relations, scoping, fee preparation and budgeting, scheduling, contract negotiations, preliminary and final design compliant with New York State design standards and Locally Administered Federal Aid Procedures (LAFAP).
- Managed numerous transportation planning studies that provided analysis of existing traffic and land use conditions and provided recommendations for safety and aesthetic improvements.
- Managed Brownfield Opportunity Area (BOA) Nomination Studies that provided detailed site inventory and analysis, land use planning, urban design, community visioning, and area-wide master planning for the two Syracuse area neighborhoods.
- Oversaw and administered all aspects of the Metropolitan Planning Organization (MPO) for the Syracuse Metropolitan Area, including the preparation and implementation of the Long-Range Transportation Plan (LRTP), the Unified Planning Work Program (UPWP), and the Transportation Improvement Program (TIP) compliant with Federal Highway and Federal Transit Administration requirements.
- Oversaw and administered all aspects of the Division `of Transportation within the Syracuse Department of Public Works which included office administration, budgeting, operations (traffic signals, signs, pavement markings, and parking meters), design, contract administration and street lighting.

Sample Project Experience

- Syracuse Connective Corridor, City of Syracuse, NY
- Syracuse Brownfield Opportunity Area (BOA) Nomination Studies: South Salina Street Gateway and Erie Boulevard East Neighborhoods, City of Syracuse, NY
- Forman Park Renovations, City of Syracuse/Syracuse University, Syracuse, NY
- The Warehouse Plaza & Park, Syracuse University, Syracuse, NY
- Traffic and Transportation Term Services, City of Syracuse, NY
- Village of Central Square Traffic Circulation Study, Central Square, NY
- Circulation, Accessibility, and Parking Study, Genesee Transportation Council
- Corridor Management Plan, State Route 370, Town of Lysander, NY

Administration + Program Development

- Responsible for budget preparation, analysis and administration; schedule preparation and adherence; and project scoping and cost estimating for a variety of transportation and land use studies, and federal aid multi-modal design projects, traffic studies, corridors studies and brownfield studies.
- Responsible for budgetary and technical preparation and implementation of the Long Range Transportation Plan, Unified Planning Work Program, and Transportation Improvement Program while serving as the Executive Director of the Syracuse Metropolitan Transportation Council.
- Responsible for budget preparation, formulating budgets and budget analysis and summaries for public works functions including capital

EDUCATION

- B.S. Transportation Management, Niagara University

EXPERTISE

- Transportation + Urban Planning Project Management
- Contract Negotiations
- Budget Development
- Public Works Administration and Operations

AFFILIATIONS & SERVICE

- Institute of Transportation Engineers, Member, 1992-present
- American Planning Association, Member, 2007-2013
- Erie Canal Museum, Board Member, 2008-2014

EXPERIENCE

Public Outreach and Education

- Founded RocShare, the area's leading alternative economics organization.
- Organized festivals involving about two hundred people, more than 7 organizations and more than 12 events.
- Reported on local alternative economy through social media, blogging, and speaking engagements.
- Collaborated with existing sharing organizations locally and internationally.
- Set up sharing systems in Rochester in partnership with faith groups.
- Spoke about alternative economics at TedXFlour City 2014, Greentopia Futures Summit 2015, and Rochester Improvement Society
- Designed and ran social media campaigns for neighborhood groups and public engagement projects.
- Helped organize events for local business associations
- Facilitated public meetings
- Surveyed public transportation users on quality of service

Geographic Information Systems and Community-Driven Mapping

- Organized community mapping events, empowering community members to identify and map hundreds of local assets.
- Generated maps of statistical hot-spots of bicycle and pedestrian accidents.
- Generated and tested regression models of factors contributing to accidents.
- Geocoded traffic count data, rated federal roads and generated maps and data visualizations.
- Served as a GIS Intern at the Genesee Transportation Council

Technical Assistance

- Provided support to New York Main Street Grant applicants on mapping, surveying of business owners, main street revitalization approaches.
- Designed database of businesses and developers looking to redevelop a brownfield site

HIGHLAND PLANNING

M. André Primus

Address 820 S Clinton Avenue, #3
Rochester NY 14620

Email andre@highland-planning.com

Phone (585) 642-9007

Website www.highland-planning.com

EDUCATION

- B.S. Geography w/ Environmental Design Minor, SUNY University at Buffalo

EXPERTISE

- Event Organization and Facilitation
- Geographic Information Systems
- Community-Driven Mapping
- Social Media

AFFILIATIONS & SERVICE

- Sharing Cities Network Fellow 2014, 2016
- TedXFlourCity Speaker 2014

F&A FERRANDINO & ASSOCIATES INC.

PLANNING AND DEVELOPMENT CONSULTANTS

Land Use Planning

Environmental Planning

Economic & Community Development

Public Outreach

QUALIFICATIONS

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FIRM DESCRIPTION

THE FIRM

Ferrandino & Associates Inc. (F&A) is a multi-disciplinary planning consulting firm with offices in Elmsford, New York.

F&A brings together the best professionals in their respective fields to focus on a particular problem, issue or project. Operating under the principal's personal direction, each professional affiliated with the firm, both on a staff and sub-consultant level, provides flexible, top-flight service, with substantial cost and time savings to the client.

LOCAL AND REGIONAL FOCUS

F&A services municipalities large and small, County, State and Federal agencies, not-for-profit groups, and private corporations, developers and institutions. We have been active throughout Westchester, Rockland, Putnam, Dutchess, Orange, Ulster, Greene, Herkimer, Broome, Nassau, and Suffolk Counties, as well as in the five boroughs of New York City, New Jersey, Connecticut, Massachusetts, South Carolina, Illinois and the Commonwealth of Puerto Rico.

SERVICES

F&A provides a variety of professional services including:

- Comprehensive planning, zoning and land use studies and reviews
- Community visioning
- Environmental impact statements and reviews
- Urban design studies and site analysis
- Graphics/computerized mapping/GIS
- Parking and traffic studies and impact analysis
- Air quality and noise analysis
- Wetlands delineation, analysis and mitigation
- Phase I Environmental Audits
- Economic development planning/implementation
- Corporate relocation
- Real estate analysis
- Fiscal impact analysis
- Market research/demographic analysis/projections
- Neighborhood and commercial revitalization studies
- Business Improvement District feasibility studies
- Federal and State economic development loan packaging
- Housing studies and technical assistance pertaining to public, market rate and affordable housing
- Housing and community development plan preparation/consultation
- Historic preservation planning
- Federal, State and not-for-profit grants procurement
- Public policy analysis/evaluation
- Expert testimony pertaining to housing, zoning, land use and economic development matters

VINCE FERRANDINO AICP PRINCIPAL

A professional planner and management consultant, Vince Ferrandino has years' of experience in the development field. As a professional planner, he has served a myriad of clients in both the public and private sectors and has held positions of increasing responsibility at the municipal level.

A former Commissioner of Planning and Development for the City of Mount Vernon and the Town of Greenburgh, N.Y., Mr. Ferrandino and the communities he served have been recognized for many outstanding professional achievements in housing, planning and economic development by such organizations as the U.S. Department of Housing and Urban Development, the U.S. Department of Commerce, the American Planning Association and the Westchester Municipal Planning Federation.

In his career, he has overseen the construction or rehabilitation of over 10,000 dwelling units and several million square feet of office, industrial and shopping center space. Additionally, he has directed large and small scale redevelopment projects, administered over $100 million in industrial revenue bond (IRB) and Urban Development Action Grant-financed (UDAG) projects, and supervised staffs of up to fifty professional and technical people. His broad-based exposure enables Mr. Ferrandino to bring special insight to the problems of local development.

Combining technical expertise with excellent presentation skills, he has been able to balance economic needs against environmental concerns and to sensitively articulate issues and positions on behalf of both public and private sector clients in local, county, state and federal arenas.

Mr. Ferrandino has been a member of the graduate faculty in planning and public administration at Pace University and has lectured in several graduate planning programs. Among his professional memberships are the American Institute of Certified Planners (AICP), the Institute for Urban Design (Fellow), the Urban Land Institute (ULI) and the National Council for Urban Economic Development (CUED).

STAFF RESUMES

VINCE FERRANDINO, AICP
PRINCIPAL AND CEO

EXPERTISE
Land Use and Zoning
Comprehensive Planning
Environmental Planning
Economic Development
Community Development
Affordable Housing

EDUCATION
B.A*, with honors*
St. John's University
New York

Master of Urban Planning
NYU-The Wagner School
New York

Post- graduate study in real estate finance
University of Pennsylvania
The Wharton School
Philadelphia, PA.

Post- graduate study in urban policy analysis
New School University,
New York

Courses in real estate brokerage, appraisal , finance and sales
NYU Schack Real Estate Institute

EXPERIENCE

A professional planner and management consultant, Mr. Ferrandino has many years of experience in the development field. As a professional planner, he has served a myriad of clients in both the public and private sectors and has held positions of increasing responsibility at the municipal level.

A former Commissioner of Planning and Development for the City of Mount Vernon and the Town of Greenburgh, NY, Mr. Ferrandino and the communities he served have been recognized for many outstanding professional achievements in housing, planning and economic development by such organizations as the US Department of Housing and Urban Development, the US Department of Commerce, the American Planning Association and the Westchester Municipal Planning Federation.

Combining technical expertise with excellent management and presentation skills, he has been able to balance economic needs against environmental concerns and to sensitively articulate issues and positions on behalf of both public and private sector clients in local, county, state and federal areas.

Mr. Ferrandino, as firm principal, has directed or been involved in hundreds of projects including:

- Comprehensive Plans/Vision Plans
- Corridor Studies
- Downtown and TOD Plans
- Blight Determination Studies and Urban Renewal Plans
- Environmental Impact Statements under NEPA, SEQR and CEQR
- Economic Development Policy Plans and Fiscal Impact Studies
- Affordable and Market Rate Housing Market Studies
- Office and Retail Market Studies
- Consolidated Plans for Community Development
- Public Housing Authority Strategic Plans
- Expert Testimony before the Courts

See the firm's web site—www.faplanners.com—for a listing of the projects which Mr. Ferrandino has directed or been involved.

PROFESSIONAL EXPERIENCE IN THE PUBLIC SECTOR

Commissioner of Planning and Community Development
Executive Director, Mount Vernon Urban Renewal Agency
Executive Director, Mount Vernon Industrial Development Agency
City of Mount Vernon, New York

Director of Planning and Community Development
Town of Greenburgh, New York

City Planner and Deputy Executive Director
Peekskill Community Development Agency
City of Peekskill, New York

TEACHING/LECTURING IN PLANNING

Associate Professor of Planning (adjunct faculty)
Pace University, New York
Graduate Program in Public Administration
Associate Professor of Planning (adjunct faculty)
State University of New York at Purchase
New York University
Robert F. Wagner School of Public Service
Graduate Program in Urban Planning
Pratt Institute
Graduate School of Planning and Architecture
Long Island University
Graduate Program in Urban Affairs
Pace University Law School
Land Use Leadership Alliance

MEMBERSHIPS

American Institute of Certified Planners
American Society of Consulting Planners
New York Metro Chapter, American Planning Association
Connecticut Chapter, American Planning Association
Institute for Urban Design (Fellow)
Urban Land Institute
National Council for Urban Economic Development
National Association of Housing and Redevelopment Officials
New York Main Street Alliance
Association of Westchester Community Development Officials (Past President)
New York City Zoning Advisory Council
Westchester Municipal Planning Federation
Former Member, Board of Directors and Program Chair
Westchester County Housing Implementation Commission (former member)
Rockland Municipal Planning Federation
Former Chairperson of Advisory Board, WEST-HELP
Transitional Housing, Mount Vernon, N.Y.
Land Use Leadership Alliance – Pace University Law School

OTHER

Serve as "expert witness" on behalf of private and public sector clients on zoning, planning, housing and economic development matters

New York State Civil Service Examiner for management and technical positions - New York State Housing and Community Renewal

Lecturer, Land Use Training Institute
Westchester Municipal Planning Federation

Articles on planning published in *Westchester County Business Journal, New York Real Estate Journal, Fairfield County Business Journal and Impact Magazine*, among others.

CARYN A. MISKE
SENIOR ASSOCIATE

EXPERTISE
Environmental Planning
Economic Development
Real Estate and Market Analysis
Fiscal Impact Analysis

EDUCATION
B.A. Public Affairs, *Cum Laude*
SUNY/Albany

M. of Public Administration
School of International and Public Affairs
Columbia University

J.D. of Law
University of Montana

EXPERIENCE 28 Years

Ms. Miske, a planner and attorney, has prepared and reviewed numerous Environmental Impact Statements (EISs), including EIS reviews for the Avalon Green II project in Greenburgh, a 794 unit townhouse development, and Avalon on-the-Sound in New Rochelle, a 1000 unit luxury rental and retail project; a controversial Shoprite Superstore in the Village of Hastings-on-Hudson; and the Young Israel Synagogue expansion in New Rochelle. She has also prepared and analyzed environmental assessments, including a review of the planned expansion of the United Water filtration plant in Eastchester and the preparation of environmental documentation for a proposed Holiday Inn Express Hotel in Port Chester. Ms. Miske has developed planning strategies to analyze open space and potential development scenarios, including the development of a *Vision Plan* for the Village of Hastings-on-Hudson and the preparation of a land use study for a large not-for-profit institution in Yonkers.

On the economic development front, she has prepared business development and marketing plans for the Village of Ellenville, the Town of Wawarsing, the Cities of Mount Vernon and White Plains and the Hunts Point (South Bronx) Economic Development Corp. She also prepared economic development plans for the City of Poughkeepsie/Dutchess County consortium (including the Towns of Poughkeepsie and East Fishkill) as part of these municipalities' successful joint application for New York State Empire Zone designation. In addition, she has prepared market studies for several live-work loft projects in Bridgeport and Norwalk Connecticut and Poughkeepsie, New York.

Ms. Miske has designed revolving loan programs, as well as Section 108 and EDI loan programs. She served as the project manager for the Hunts Point Economic Development Corporation, which is a New York State designated Empire Zone, as well as a Federally-designated Empowerment Zone. Ms. Miske spearheaded an economic development and business recruitment/ retention program for this Bronx-based non-profit.

She served as project manager for a comprehensive market study and plan for downtown White Plains that included retail and office market analysis, building re-use, business promotion and special events planning. She directed the City's business recruitment and marketing outreach programs for office and retail tenants which included direct mail and telephone follow up. Ms. Miske also provided technical assistance to the New Rochelle Overall Economic Development Corporation (NROEDC) implementing a marketing plan featuring a database for vacant commercial and industrial properties, funded by the former New York State Urban Development Corporation. Additional work related to New Rochelle included preparation of an economic impact study for the redevelopment of the 500,000 square foot New Rochelle Mall (now New Roc City) and the preparation of the *New Rochelle Downtown Market Study*, which included a market strategy to develop office, hotel and market-rate rental housing. Ms. Miske also prepared the City of Stamford *Value Retail/ Megastore Study* which included developing a retail/industrial policy, typology of value retail uses, and the development of land use standards. The goal of the study was to permit value retail on certain sites while protecting the integrity of the CBD and preserving industrially zoned land. Design standards for superstores were incorporated into this study.

Ms. Miske prepared an industry study for the Borough of Staten Island. The components of the study included a feasibility analysis to ascertain needed capital improvements in order to redevelop vacant waterfront parcels, industry clusters that would be best suited for relocation to Staten Island, and a business recruitment campaign to target latent market niches. Also, for the Westchester County Association, Ms. Miske served as project manager for a Business Retention and Recruitment Survey of Westchester businesses.

Other economic impact studies include the 400,000 square foot Riverhead Centre (a power center on Route 58), the 225,000 square foot Manufacturers Outlet Center (formerly the Bazaar Mall) including a Target store, in Mt. Kisco, a Shoprite Super Store in Hastings, a 200,000 square foot Wal-Mart in Monsey, the 225,000 square foot Midway Shopping Center in Scarsdale, and a mixed use lifestyle center in Yonkers [Ridge Hill Village], New York, comprised of 1.2 million square feet of retail with multi-plex theaters, 800 dwelling units, a 350 room hotel/conference center, a 250,000 square foot office building and 5,000 parking spaces – one of the largest development projects ever conceived in the Hudson Valley.

She is currently completing fiscal and socioeconomic impact analyses for a proposed 156,000 square foot Costco store in the Town of Yorktown as part of an EIS and assisted in preparing a market analysis and commercial character assessment for the proposed store.

At the Columbia University Business School, Ms. Miske helped design an initiative fostering environmentally sustainable economic development. The Regional Round Table on the Environment and Economy linked government officials, business leaders and non-profit organizations in order to develop consensus and innovative policies on contentious economic and environmental issues.

Ms. Miske developed strong marketing and communications skills as a result of her work with Batten, Barton, Durstine & Osborne (BBDO) and a Young Rubicam (Y&R) subsidiary, Wunderman Worldwide. She is responsible for writing and producing a newsletter on direct marketing, coordinating agency workshops and producing slide shows to solicit new accounts.

Ms. Miske has also worked in the not-for-profit sector as both a fundraiser and community outreach worker. At the March of Dimes, she wrote foundation grant proposals, formulated strategic marketing plans, conducted feasibility studies and was responsible for planning and managing a bi-annual telemarketing campaign.

At the Arbor Hill Development Corporation, located in Albany, New York, Ms. Miske designed and administered a survey to assess the housing needs of local residents. Based on the results of the survey, she launched a public education campaign to stimulate resident participation in HUD-funded programs.

OTHER EXPERIENCE
Adjunct Professor – University of Montana
Environmental Conservation and Natural Resources Policy

STEPHAN A. MAFFIA, P.E.
SENIOR ASSOCIATE/TRAFFIC ENGINEER

EXPERTISE
Transportation Planning
Traffic Engineering Studies
Parking Studies
Highway/Traffic Signalization
Concept Plans

EDUCATION
B.E. Civil Engineering.
Manhattan College, NY

M.E. Civil Engineering
Manhattan College, NY

EXPERIENCE 36 Years

Mr. Maffia, a licensed professional engineer, has conducted numerous traffic and environmental impact studies for small and large scale development projects throughout New York State including New York City, Long Island and Westchester, Putnam, Dutchess, Rockland, Orange and Ulster Counties. He has prepared concept and design plans for improvement projects that involved new and modified traffic signals and roadway construction/reconstruction or widening, in addition to parking, bicycle and pedestrian studies. He heads up the firm's traffic and parking practice.

PROFESSIONAL LICENSES/AFFILIATIONS
Institute of Transportation Engineers – Fellow
National Society of Professional Engineers
New York State Society of Professional Engineers
Chi Epsilon, Honorary Civil Engineering Society

REPRESENTATIVE EXPERIENCE
Traffic Studies:
Alexan on Main: DEIS, Hempstead, NY*
Arrow Parcel: Commercial Development, Brookhaven, NY
Bellmore Base, Hempstead, NY
Blauners LLC: Pondfield Court, Bronxville, NY*
Brookhaven Walk: DEIS, Brookhaven, NY
City of Mount Vernon, NY: City Council Support*
42 West Broad Development*
Multi Family Senior Citizen Floating Overlay Zone*
Grace Terrace Senior Housing Development*
City of Mount Vernon, NY: Urban Renewal Agency Support*
South Fourth Avenue-East Third Street Urban Renewal Plan*
Covanta: Energy from Waste Plant-TOHIDA, Hempstead, NY
Formula 1 LI Sports Facility, Riverhead, NY
LOMTO Credit Union, Queens County, NY
Point Lookout, Hempstead, NY
Riverside Drive, Riverhead, NY
The Landing Homeowners Association, Dobbs Ferry, NY*
Town of Eastchester, NY: Planning Board Support
Town of Greenburgh, NY: Tappan Zee Bridge: Alternative Rehab Plan Review*
Willets Point: Areawide Plan, Queens County, NY
Village of New Square, NY: Downtown Plan*
Village of Sleepy Hollow, NY: Planning Board Support*
Kendal on Hudson*
Open Door Medical Center*

Parking and Access Studies:
42 West Broad, Mount Vernon, NY*
Blauners LLC, Village of Bronxville, NY*
CVS Pharmacy, Montgomery, NY
Irvington Station Area, Irvington, NY

Long Hill Township Transit Village, Long Hill, NJ
Mori Property, Secaucus, NJ
Pelham Schools, Pelham, NY
The Landing Homeowners Association, Dobbs Ferry, NY*
Union Baptist Church, Greenburgh, NY
Village of New Square, NY
Village of Sleepy Hollow, NY*

Planning Level Concept Preparation:
Fishkill Avenue/Rt.9 Roadway Reconfiguration, Philipstown, NY
Red Mills Access, Carmel, NY
Route 9 Modification, Ossining, NY
Rye TOPICS Study, Westchester County, NY

Signal and Roadway Design Projects:
ARRA Signal & Pedestrian Improvements, Rye, NY
Industrial Retro-Poughkeepsie, NY
New Hackensack Road Office, Wappingers, NY
NYSDOT Corridor Improvements, Middletown, Port Jervis, NY
Walgreen's NY Rt. 208, Montgomery, NY

PRIOR EXPERIENCE
Project Manager
TRC Engineers, Inc., Hawthorne, NY

Principal
Parish Weiner & Maffia, Inc
Planning, Development & Traffic, Elmsford, NY

Project Engineer
John Collins Engineers, P.C., Hawthorne, NY

Civil Engineer II
NYS Department of Transportation, Poughkeepsie, NY

Town Engineer
Town of Poughkeepsie, NY

Engineer/Inspector to Senior Engineer
The RBA Group White Plains, NY and Morristown, NJ

Engineer/Inspector
Hardesty & Hanover, Inc, New York, NY and Jersey City, NJ

* With Ferrandino & Associates Inc.

CAROLYN WORSTELL
SENIOR PLANNER

EXPERTISE
Comprehensive Planning
Environmental Planning
Urban Design
Community Development
Geographic Information Systems (GIS) Mapping and Analysis

EDUCATION
B.A. Chemistry and
B.A. Art History
George Washington University

M.S. City & Regional Planning
Rutgers, the State University of New Jersey

Ms. Worstell is a senior planner with expertise in a wide variety of specialized areas. She addresses the needs of many diverse clients and works closely with multi-disciplinary professionals, local and state officials, business owners, stakeholders and community residents.

Ms. Worstell is currently working on several long-range planning projects at F&A. In coordination with the City of Mount Vernon, she is developing a mixed-use Commercial Corridor District and design guidelines for the rezoning of a 20 acre area along the East Third Street corridor which promotes high-density mixed use. As a team member for the 2014-2019 Consolidated Plans (ConPlan) for the City of Mount Vernon and Rockland County, she is preparing surveys and outreach materials and conducting public and stakeholder meetings for the citizen participation components of the Plans and Analysis of Impediments to Fair Housing. In addition, she is assisting in the review of a transit-oriented downtown development project in the Village of Hempstead involving mixed use on behalf of the Village Board.

She prepared a Generic Environmental Impact Statement (GEIS) for an Urban Renewal Plan on the south side of Mount Vernon. The recently adopted Plan and Zoning Code Amendments, prepared by F&A for a partnership between the City and a private developer, includes a new urban renewal planned unit development overlay zone and urban design guidelines to accommodate mixed use development and public parking in a heretofore blighted area. The GEIS examined the impacts of the full build-out of the Urban Renewal Area under the proposed overlay zone, including neighborhood and community character analysis, shadow analysis, fiscal and socio-economic, traffic, impacts on City services, and analysis of alternative redevelopment scenarios. Ms. Worstell is now preparing an EIS for a proposed development within the Urban Renewal Area consisting of 250 residential affordable units, 50,000 square feet of retail and commercial space and a ±400 unit municipal parking garage.

Also in Mount Vernon, Ms. Worstell prepared a GEIS addressing the impacts of a recently adopted Multifamily Senior Citizen Floating Overlay zone (RMF-SC). She also prepared an EIS for the rezoning and development of *Grace Terrace*, a senior housing development in Mount Vernon.

Ms. Worstell coordinated a team to develop a recently adopted Parks and Recreation Master Plan for the Town of North Salem, including conducting site visits and meetings with Town officials, drafting narrative outlining existing open space and recreational facilities, conducting a needs assessment and drafting recommendations.

She recently completed several SEQR reviews: for an 18-story, 268,750 square foot mixed use market-rate residential and retail building and 4-story parking garage renovation in the Fleetwood neighborhood of the City of Mount Vernon, and the development of a vacant site on Fulton Avenue in the Village of Hempstead, a project involving the rezoning of an approximately 10,000 square foot property, a former gas station, and redevelopment into several commercial spaces. In addition, in the Town of Yorktown, she also completed land use, fiscal, socioeconomic and visual impact analyses for a proposed 156,000 sq. foot Costco store as

part of an Environmental Impact Statement for site plan approval.

Ms. Worstell has worked on a number of market studies for affordable housing projects as part of the 2013-2014 New York State Homes and Community Renewal funding round, including market study updates for housing projects in Lloyd and Newburgh, NY and a large family housing project in East New York, Brooklyn, NY. She has also worked on six LIHTC funding projects: family housing projects in Amagansett, East Hampton, NY, Brooklyn, NY and New Rochelle, NY and senior housing projects in Mount Vernon, NY, New Rochelle, NY and Rye Manor, NY.. Ms. Worstell also prepared a market study as part of a preliminary feasibility analysis for the potential development of affordable senior housing on the Dominican Sisters of Hope Center of Hope property in Ossining, NY. These market studies evaluate market trends to assess demand among income-qualified households in the market areas and their abilities to absorb new housing developments.

Ms. Worstell is skilled in GIS mapping and spatial analysis for land use, zoning, housing, environmental and other planning needs. She is adept at preparing advanced graphics for diverse projects using Adobe Suite CS5 applications.

In addition, Ms. Worstell is involved in an urban planning and architecture collective that is working with a community group in Jersey City, NJ to develop and implement a neighborhood plan. The plan is aimed a redesigning a pocket park, improving pedestrian safety though design and fostering increased interaction between the community and a local university.

While working for a not-for-profit organization in New Jersey, Ms. Worstell was involved in a developing a new certification level for a municipal sustainability rating program. The program was looking to establish metrics and targets to measure progress toward sustainable outcomes for municipalities. As part of the process she was involved in writing several sustainability issue papers for a forum, on topics such as sustainable agriculture and indoor environmental health hazards.

PRIOR EXPERIENCE

Project Manager
Mass Urban
Jersey City, NJ

Research Assistant
Sustainable Jersey
Ewing, NJ

Policy Intern
New Jersey Future
Trenton, NJ

SAMUEL NOURIELI
PLANNER

EXPERTISE
Environmental Planning
Geographic Information Systems (GIS) Mapping and Analysis

EDUCATION
B.A. Sociology
Phi Beta Kappa
Macaulay Honors College at CUNY Brooklyn College, Brooklyn, NY

MCRP, City and Regional Planning
Edward J. Bloustein School of Planning & Public Policy, Rutgers, New Brunswick, NJ

Mr. Nourieli is a planner with expertise in a variety of specialized areas. He addresses the needs of diverse clients and works closely with multi-disciplinary professionals, local and state officials.

Mr. Nourieli is skilled in GIS mapping and spatial analysis for land use, zoning, environmental and other planning needs. He is also proficient at preparing advanced graphics for diverse projects using Adobe Suite applications.

Mr. Nourieli is currently working on several projects at F&A. He is a member of a team preparing a Generic Environmental Impact Statement (GEIS) for a rezoning of the East Third Street Corridor in the City of Mount Vernon to a higher density mixed use Commercial Corridor District, conducting land use and zoning analyses, photo reconnaissance and developing GIS maps. He is preparing sections for a site-specific Draft Environmental Impact Statement (EIS) for the *The Pointe* development, located at South Fourth Avenue and East Third Street, also in Mount Vernon. *The Pointe,* upon completion, will include four mixed use buildings, providing approximately 42,660 square feet of retail/office space, 266 affordable units, 100 assisted living units, and 630 spaces of garage parking. Mr. Nourieli is also currently assisting in the preparation of expert testimony, first for a property annexation lawsuit in the Village of Chester, NY, having compiled background data on zoning and SEQR practices and second, for the opposition to a proposed Urban Renewal Plan in the Village of Brewster, NY, examining a faulty Blight Study upon which it is premised, through a comparative review process.

Mr. Nourieli assisted with the preparation of a market study for *The Enclaves at Fleetwood*, a housing development consisting of a total of 179 market-rate units in Mount Vernon, concluding that the development would likely serve as a viable addition to the local market. He also assembled a 3D building model with photo simulations, incorporated as part of the expert testimony by the firm for a zoning challenge in Lido Beach, NY. As part of F&A's marketing endeavors, Mr. Nourieli created the latest E-Newsletter, highlighting key projects for the firm. He also recently completed the Environmental Review for a Section 18 Disposition Application submitted on behalf of the Municipal Housing Authority for the City of Yonkers. The review involved a field examination of seven residential sites, totaling 200 units set to be rehabilitated following the expected disposition.

While working in Somerset County, New Jersey, Mr. Nourieli collaborated on a County Natural and Cultural Resource Inventory, editing chapters, creating GIS maps and finalizing the design template for the document.

He also worked for the NYC Department of City Planning's Environmental Assessment and Review Division, collaborating with lead project managers on the review of Environmental Assessment Statements (EAS) as well as preparing official documents for the City Planning Commission.

PRIOR EXPERIENCE
Environmental Assessment and Review Division
New York City Department of City Planning (NYCDCP)

Environmental Campaign
New York Public Interest Research Group (NYPIRG)

Green Infrastructure Team Intern
CUNY Brooklyn College Department of Earth and Environmental Sciences

REFERENCES

Cynthia M. Curtis, Planning Board Chair
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Village of Hempstead, New York
516-478-6275

Joseph L. Hammer, Esq.
Day Pitney LLP
Hartford, Connecticut
860-275-0391

Richard Leland, Esq.
Ackerman LLC
New York, New York
212-259-6417

Louis Albano, Deputy Commissioner of Planning
City of Yonkers
Yonkers, New York
914-772-4131

Michael C. Mills, Administrator
Village of Elmsford, New York
914-592-6555

Steven M. Silverberg, Esq.
Silverberg Zalantis, LLP
Tarrytown, New York
914-682-0707

Marguerite Wolffsohn, AICP
Planning Director
Town of East Hampton, New York
631-324-2178

CLIENT LISTS

Selected Client Sample

NEW YORK

Brewster, Village of
Briarcliff Manor, Village of
Bronxville, Village of
Brookhaven, Town of

Chester, Village of
Cortlandt, Town of
Croton-on-Hudson, Village of

Dutchess, County

Eastchester, Town of
East Fishkill, Town of
East Hampton Housing Authority
East Hampton, Town of
Ellenville, Village of
Elmsford, Village of

Goshen, Town of
Greenburgh, Town of

Harrison, Town/Village of
Hastings-on-Hudson, Village
Haverstraw, Town of
Hempstead, Town/Village of

Islip Community Development Agency
Islip Public Housing Authority

Kingston, City of

Long Beach, City of

Mamaroneck, Town/Village of
Mount Kisco, Town/Village of
Mount Vernon, City of
Mount Vernon Industrial Development Agency

Newburgh, City of
New Castle, Town of
New Rochelle, City of
New Rochelle Industrial Development Agency
New Square, Village of
New Square Housing Authority
New York, City of
New York City Department of Environmental Protection
New York City Housing Authority
North Castle, Town of
North Salem Town of

Old Brookville, Village of
Ossining, Village of
Ossining Public Library
Ossining Union Free School District

Patchogue, Village of
Peekskill, City of
Pleasantville, Village of
Port Chester, Village of
Poughkeepsie, City of
Poughkeepsie, Town of
Putnam County Department of Planning

Ramapo, Town of
Riverhead, Town of
Riverhead Joint Planning and Development Commission
Rockland County Department of Planning

Scarsdale, Village/Town of
Shandaken, Town of
Sleepy Hollow, Village of
Southampton, Town of
Southold, Town of
Staten Island, Borough of
Suffolk County Board of Legislators

Tarrytown, Village of

Ulster County
Union, Town of

Wallkill, Town of
Wawarsing, Town of
Westchester County Office of Economic Development
Westchester County Department of Planning
Westchester County Department of Parks, Recreation and Conservation
Westchester County Department of Transportation
Westchester County Housing Opportunity Commission
White Plains, City of

Yonkers, City of
Yonkers, City of, Municipal Housing Authority
Yorktown, Town of

CONNECTICUT

Bridgeport, City of
Bridgeport Housing Authority
Danbury, City of
Fairfield, Town of
Meriden, City of
New Britain, City of
Plainville, Town of
Stamford, City of
Torrington, City of
Torrington Housing Authority
Waterbury, City of

NEW JERSEY

Fort Lee, Borough of
Union County Department of Human Services

ILLINOIS

Chicago, City of

PRIVATE SECTOR CLIENTS

Selected Client Sample

NEW YORK

Ace Motocross, Plattekill
AJC NOW, LLC, Newburgh
Astor Rhinebeck, New York
A&T Iron Works, Inc., New Rochelle
AVIS Rent-A-Car, Garden City

Bay Parkway Developers Corp., Brooklyn
Bell Atlantic NYNEX Mobile, (now Verizon) Orangeburg
Bergen R[E] Corp, Brooklyn
Blauners LLC / Pondfield Court LLC, Bronxville
BLDG Management Corp., New York
Bradley Corporate Park, Blauvelt
Breslin Realty Corp., Garden City
BT Holdings, LLC New York
Burr Davis-Sharpe Funeral Homes, Inc., Mount Vernon

Calgi Construction Corp., New Rochelle
Canon USA Inc., Melville
Cappelli Enterprises, Inc., Valhalla
Carlton Construction Corp., New City
Carlyle Construction Corp New York
CCC Realty, New Rochelle
Central Iron and Metal Company Inc., New York
The Cheshire Group, Inc., New York/Hartsdale
Chesterfield Enterprises, Ltd., Huntington
Corporate Property Investors, Inc. [now the Simon Properties], New York
Cosi Restaurants, Inc. New York

DBF Development Group Ltd., Elmsford
Derfner Management Company, Inc. New York
Development Strategies Company, LLC, Harrison

Doorley Subdivision [owner Michael Doorley], Sleepy Hollow
Dwelling Research Corp., Brooklyn

Eagle Capital Group, Ltd., New York
Eagle River Builders Inc., Brewster
East Nyack Holding Company, Nyack
Enclave Equities LLC. Purchase, New York
E/N Properties LLC, Scarsdale
Enzo's Restaurant, Mamaroneck

Michael E. Fareri, Armonk
Felix Industries, Inc., Lincolndale
Fine Associates, Elmsford
Freedom Industries Inc., Bronx
French Farms Associates, New City
Fun City Enterprises, Ltd., Mount Vernon

George Comfort & Sons, New York
Geritrex Corp,. Mount Vernon
Great American Leasing Corp.,Mount Vernon
Greenburgh Shopping Center Associates Inc., Elmsford

Harvest Court, Properties, Inc., Brewster
Heffner Residence, Irvington
Hillside Development Corporation, White Plains

IBM, Armonk
Ivy Properties Inc., White Plains

Jamamy Realty, New Rochelle
JGW Realty, Elmsford

Kip Construction Corp./MM&L Realty, Port Chester

Landmark Partners, Inc./ KearneyGroup, Somers
Larizza-Capocci Construction Corp., Port Chester
Levinson/Doynow Development Corp. Forest Hills
LILCO, Hicksville
Lynmark Realty, Suffern
Lyons, Mortgage Corp., Astoria

M. Melnick & Co. 1N Fulton, LLC, Bronx
Marlborough Associates, L.P., Marlboro
McSam Hotel Group, New York
Michael Anthony Jewelers, Inc., New York
Midway Shopping Center, LLC,Scarsdale
Montgomery, LLC, New York
M&NI Realty, LLC
Mountco Development and Construction Corp., Scarsdale

MVP Realty Associates LLP/ Lettire Group, New York City

National Realty and Development Corp., Purchase
New Roc Associates, White Plains
North Brook Realty Associates, New Rochelle

Paragon Fitness & Health Club, Inc., White Plains
Penn Traffic Company, Syracuse
Pepsico/Pepsi Bottling Group, LILC, Somers
Perbar Realty Company, Elmsford
Phelan Development Company, Ossining
Plumbrook Properties, LLC, New Hyde Park
Prospero Nurseries, Inc., Pleasantville

Ramapo Energy Limited Partnership, Ramapo
RD Management, New York
R&D Young Developers, New Rochelle
REG Development, Irvington
R.E.I. Associates, Poughkeepsie
Reliable Automatic Sprinkler Company, Mount Vernon
Related Properties Inc, New York
Renaissance Realty Corp., Brooklyn
Riverhead Centre, LLC, Riverhead
Rusciano Associates, Inc., Pelham Manor

Schleifer Realty Corporation, New York
Sparrow Construction Corporation, Bronx
Speiser-Dabran, Inc., Yonkers

Star Key Industries, New Rochelle
Starrett Construction/ Grenadier Realty, Brooklyn

Third Street Recycling and Material, LLC, Islip

Unitex , Mount Vernon

Van Tongeran Realty – York Farm Estates, Yorktown Heights

Wallabout Properties, Inc., Brooklyn
Woodbury Mall Associates, Woodbury

CONNECTICUT

Aquarion Water Company, Bridgeport
Connecticut Packaging Materials, South Windsor
The Fusco Corp., New Haven
Whitehead Associates, Greenwich

MASSACHUSETTS

World Trade Group, Inc., Boston

NEW JERSEY

Slater & Slater Management Corp., Fort Lee
Somerset Development, LLC, Lakewood

OHIO

Simon Property Group, Columbus

OKLAHOMA

BP Amoco, PLC, Tulsa

TEXAS

Southlands Corporation, Dallas

AUSTRALIA

Scarswin Associates, Sydney

Other:

Several individual property owners who prefer to remain anonymous.

Selected Client Sample

NEW YORK

Ardsley Park Homeowners Association, Irvington
Association for the Improvement of Lake Mohegan, Lake Mohegan

Belmont-Arthur Avenue LDC, Bronx
Birchwood Civic Association, Oyster Bay
Bnos Menachem School, Brooklyn
Bronx Council for Economic Development, Bronx
Bronxville Field Club, Bronxville
Brooklyn Navy Yard Development Corporation, Brooklyn

Carmel-Mahopac Restoration Revitalization, Inc., Carmel
Center for Preventive Psychiatry, Inc. White Plains
Central Westchester Humane Society, Elmsford
Chemical Bank (Bronx – Westchester Division) White Plains
Cold Spring Harbor Area Civic Association, Huntington
College of New Rochelle, New Rochelle
Community Improvement Council, Inc., New Square
Construction Industry Foundation, Westchester County
Cowdin Lane Association, Inc., Chappaqua

Deepdale Coalition, Inc, North Hills
Dominican Sisters of Hope and Wartburg, Center of Hope Senior Living Center, Ossining
Dutchess County Economic Development Corp., Poughkeepsie

El Olivar Pentecostal Church, Port Chester

Fordham Save Our Neighborhoods, Inc., Bronx
Friedman Hospital for Children, Ossining

Gatehouse Lane Civic Association, Mamaroneck

Glen Cove Industrial Association, Glen Cove
Glen Head Country Club, Glen Cove
Good Samaritan Hospital, Suffern
Gowanus Canal Community Development Corporation (GCCDC), Brooklyn
Gracie Point Community Council, New York
Greenpoint Manufacturing and Design Center, Inc., Brooklyn

Hebrew Hospital Home, Bronx/ Greenburgh
Hunts Point Economic Development Corp. Empire/Empowerment Zone,Bronx

Italian Hospital Society, New York

Jewish Community Council, Mount Vernon and Yonkers
Julia Dyckman Andrus Memorial, Yonkers and Hastings-on-Hudson

Landing Homeowners Association, Dobbs Ferry
Local 456 - Teamsters Union Community Assistance Fund,Elmsford
Los Sures Development Fund Corporation, Brooklyn

Mount Vernon Hospital, Mount Vernon
Music Conservatory of Westchester, White Plains

Newburgh Preservation Association, City of Newburgh
New Rochelle Neighborhood Revitalization Corp., New Rochelle
New Rochelle Overall Economic Development Corp., New Rochelle
New York Hospital - Cornell Medical Center, New York

Pace University, New York City/Pleasantville
Peekskill Business and Community Association, Peekskill
Purchase Environmental Protective Association (PEPA), Harrison

Queen City Local Development Corporation New Rochelle

Research Institute of America,Valhalla

Secor Homes Civic Association, Greenburgh
St. John's Riverside Hospital, Yonkers
St. Nicholas Neighborhood Preservation Corp, Brooklyn
South Bronx Overall Economic Development Corporation (SOBRO), Bronx
South Street Theater (TheatreRow), New York
Staten Island Economic Development Corporation, Staten Island

Ulster County Development Corporation, Kingston
Union Building Trades Non-Profit Development Corp., White Plains
United Jewish Organizations of Williamsburg, Brooklyn
Ursuline Social Outreach Adult Learning Center, New Rochelle

Wartburg Lutheran Nursing Home, Mount Vernon
Washingtonville Housing Alliance, Mamaroneck
Wellspring Zendo - Zen Buddhist Monastery, Pound Ridge

Westchester County
Association, White Plains
Westchester-Putnam
Affirmative Action Program,
White Plains
Westhab, Inc., Elmsford
Workmen's Circle, New York
and Beekman

CONNECTICUT
Bridgeport Economic
Development Corp.
Bridgeport
Stamford Downtown Special
Services District, Stamford

MINNESOTA
Artspace Projects, Inc.,
Minneapolis

TENNESSEE
National Baptist Convention,
Inc., Nashville

COMPREHENSIVE PLANNING

COMPREHENSIVE PLANNING

The following projects reflect the firm's comprehensive or area-wide planning experience and expertise.

Selected Clients/Projects	
BREWSTER, Village of, Brewster, New York	For this Putnam County Village, the firm prepared a Blight Determination Study in anticipation of preparing an urban renewal plan. The plan will be part of an overall Comprehensive Plan update for the Village.
BRIARCLIFF MANOR, VILLAGE of, Briarcliff Manor, New York	F&A completed a study of a relatively undeveloped suburban corridor to plan for anticipated changes such as the development of a senior housing complex, golf-course housing, and the potential subdivision of estate lands. *The Scarborough Road Corridor Study* involved the creation of several possible future scenarios including a project build-out under existing zoning and development regulations (i.e. a "no action" or "do nothing" scenario) and alternative scenarios looking at how corridor development might take place with the implementation of various growth management and traffic management techniques.
BROOKHAVEN, TOWN of, Brookhaven, New York	F&A advised the Town and, on behalf of the Town Board as Lead Agency prepared a Generic Environmental Impact Statement (GEIS) analyzing the potential impacts that would arise from the Town's adoption and implementation of a Community Preservation Fund [CDF]. The action would create a CPF capitalized by a two percent real estate transfer tax, which would be used to acquire property and development rights from "sending areas" identified in the Community Preservation Project Plan. The Fund would also enable the transfer of development rights acquired by the Town to a Clearinghouse and authorize the sale of development rights to property owners in designated areas of the Town ("receiving areas") for various development and redevelopment projects. The GEIS was needed by the Town to permit the legislation to go forward. Brookhaven is the fourth Town on the East End of Long Island to pursue this innovative land preservation program.
CARMEL-MAHOPAC RESTORATION REVITALIZATION, INC., New York	F&A conducted a study of two hamlet areas within the Town of Carmel to determine an optimal physical redesign and public improvement program. The firm's work resulted in the LDC applying to the New York State Empire State Development Corporation for commercial revitalization funds. The grant application was approved and the project has been completed, resulting in the upgrade of several storefront façades in the Carmel and Mahopac hamlet areas.
CONSTRUCTION INDUSTRY FOUNDATION, Westchester County, New York	F&A conducted research and authored a study to determine the feasibility of constructing and operating a privately financed monorail system along Interstate 287 as an inducement for additional development and a means of reducing traffic congestion in the Westchester to Rockland east-west corridor. In this regard, F&A analyzed various worker delivery systems in consultation with the corporate community. The study included an analysis of the economic impacts of the proposal on the region The New York State Department of Transportation has since established a right-of-way along Interstate 287 for

	future monorail or light rail construction as part of its Tappan Zee Bridge construction plan.
CORTLANDT, TOWN of, Cortlandt, New York	• F&A, on behalf of the Town, prepared and updated Town Master Plan to include the central and southern Cortlandt areas. • F&A prepared a Generic Environmental Impact Statement [DGEIS] for the town master Plan. • F&A prepared a pro active economic development plan that is being used to revitalize the Town's economic base. As part of this study, F&A analyzed the town's labor force, infrastructure, transportation, business services, zoning, etc. to ascertain Cortland's strengths and weaknesses as a place to do business. A niche analysis was undertaken to identify potential industries to be targeted for business recruitment purposes. Based upon this research and public input, goals, and objectives were developed, along with benchmarks to evaluate progress over time.
DANBURY, CITY of, Danbury, Connecticut	F&A served as City's consultant on their Community Development Block Grant and HOME programs and preparation of the HUD approved Consolidated Plan and Annual Update; provide ongoing technical assistance.
DUTCHESS, COUNTY of, New York	• F&A served as consultant to the County Planning Department in the preparation of their HUD-approved Consolidated Plan for CDBG and HOME funding. • Served as County's consultant in preparation of an application to the NYS Department of Economic Development for Economic Development Zone (now Empire Zone) status. Prepared economic development plan. Dutchess was one of 21 communities originally designated. The application and economic development plan were rated the best submission in NYS during its funding Area-wide Economic Development Zone (Now Empire Zone) Plan
EASTCHESTER, TOWN of, Eastchester, New York	• F&A completed a study of Town planning procedures and practices to identify ways to make the permitting and approvals process more efficient, and to us the process to promote quality development in the community. • Following the completion of a New Comprehensive Plan, the firm also assisted in the drafting of a new zoning ordinance and prepared environmental documentation for adoption of same.
EAST FISHKILL, TOWN of, East Fishkill, New York	F&A served as the town's consultant in preparation f an application to the NYS Department of Economic Development for Economic Development Zone status. Prepared economic development plan (now Empire Zone). East Fishkill was one of 21 communities designated in the 1994 competition. The application and economic development plan were rated the best submission in the NYS

	during the funding round (see Dutchess county above).
EAST HAMPTON, TOWN of, East Hampton, New York	F&A prepared a neighborhood plan for the North Main Street area of this upscale East End community. Analysis included an inventory of uses, parking and traffic conditions, streetscape and infrastructure improvements as well as extensive community visioning and an intensive 3-day design charrette. *The North Main Street Corridor Study* resulted in a plan to improve circulation along this commercial strip, as well as recommendations to amend zoning and suggest urban design guidelines to make the area more pedestrian friendly.
ELLENVILLE, VILLAGE of, and TOWN of WAWARSING, New York	Prepared, on behalf of the village of Ellenville and the Town of Wawarsing, an application to the NYS Department of Economic Development for Economic Development Zone designation (now Empire Zone). The firm also prepared the economic development plan which was the basis for designation as a sub zone to the City of Kingston.
ELMSFORD, VILLAGE of, Elmsford, New York	F&A was retained by the Village of Elmsford to prepare an ordinance aimed at regulating the location of adult-oriented businesses in the Village. In addition, F&A prepared a secondary effects study and a planning analysis to determine the potential impact of adopting the proposed legislation which was ultimately approved by the Village Board of Trustees. F&A continues to advise the Village
FAIRFIELD, TOWN of, Fairfield, Connecticut	F&A served as the Town's consultant on Community Development Block Grant administration and preparation of their Consolidated Plan and annual Action Plans. The firm was also available "on call" to assist the community development staff on pro0jects before the town and to provide ongoing technical and grants procurement assistance.
GOSHEN, TOWN of, Goshen, New York	• F&A was retained by this Orange County town to advise its boards on all issues pertaining to land use, zoning, comprehensive planning and environmental review. • As part of this assignment, F&A updated the Town's Comprehensive Plan, including recommendations for zoning map and text revisions. The planning process included extensive community participation, outreach and visioning, with F&A working in concert with an active citizen's advisory committee. The Plan and new zoning have been adopted. • As part of the Comprehensive Plan process, F&A prepared options for the use/reuse of 1,740 acres of land along the Wallkill River as a natural preservation/recreation area. The Wallkill River Trailway Assessment will help to preserve and enhance the biodiversity in the area, help improve the quality of the Wallkill River, provide a trail for walking, jogging and biking (as well as extending the existing Heritage Trail path), provide opportunities for environmental education programs, create additional open and public space for Town residents, and enhance existing Town recreational facilities. F&A prepared three conceptual plans for consideration, as part of this

	Trailway Assessment.
GOWANUS CANAL COMMUNITY DEVELOPMENT CORPORATION, Brooklyn, New York	F&A directed a multi-disciplinary planning, design and engineering team in developing a Comprehensive Community Plan for the area surrounding the Gowanus Canal in the Borough of Brooklyn. Sub-consultants included Ehrenkrantz Eckstut & Kuhn Architects, Langan Engineering & Environmental Services, and ACP Visioning & Planning, Ltd. Study elements included demographic, business, transportation, infrastructure and land use trend analyses. The project involved extensive stakeholder outreach and community participation and visioning in formulating design principles and alternative development strategies with specific action plans. The recommendations, which provide the framework for growing a sustainable "green" community, embrace restoration of the Canal for its historic, ecological and recreational value in addressing underutilized and vacant parcels along the Canal and in the surrounding neighborhood, and open space needs. This HUD-funded project was completed in 2007 and adopted by the Gowanus Canal Community Development Corporation. Zone changes emanating from the Plan are now being considered by Brooklyn City Planning and a developer has been chosen by New York City for Public Place, one of the area's largest underdeveloped brownfield sites.
GRACIE POINT COMMUNITY COUNCIL New York, New York	F&A was retained by this community based organization to review and analyze environmental documents, including the City of New York's Solid Waste Management Plan and accompanying Draft and Final Environmental Impact Statements examining the proposed long-term export plan for disposing New York City's waste in the absence of the Fresh Kills landfill. Working with land use attorneys Kramer Levin and Civil Engineers Vanasse Hangen Brustlin, Inc., the firm investigated land use, zoning, visual, open space, cultural resources, design, visual resources, and shadows, neighborhood character, natural resources, hazardous materials, infrastructure, traffic and parking, water and air quality, odor, and noise impacts related to the reopening of the East 91st Street Converted Marine Transfer Station particularly, one of eight proposed waste transfer facilities. F&A also produced visual simulations and mapping, animating proposed alternatives on behalf of the Client. The goal was to exclude East 91st Street from stations being re-opened by the City. Litigation is pending.
GREENBURGH, TOWN of, Greenburgh, New York	• F&A is leading a multi-disciplinary team to prepare a consensus-based update to the Town's Comprehensive Plan. The team is comprised of Ferrandino & Associates Inc. as lead; Dvirka and Bartilucci Consulting Engineers, Fitzgerald and Halliday, Inc., Fairweather Consulting and Stephen Tilly, Architect. The team was selected after a competition involving 12 firms. Tasks include an inventory of land uses, including residential, historical and cultural resources, transportation and utility infrastructure. Study elements also include zoning, real estate and development trends, demographic analysis and business profile. The project involves extensive community participation, stakeholder outreach and visioning in developing design principles and alternative development strategies with specific action plans. Recommendations will be the result of

	extensive evaluation of existing conditions, including traffic, infrastructure and community character vetted through a Generic Environmental Impact Statement. Working closely with the Town and community, the firm is preparing a Plan that not only addresses current issues and concerns but also promotes future growth and prosperity over the next 15 years. See the Plan's dedicated website: www.greenburghcomprehensiveplan.com • F&A, along with TRC Engineers, was retained by the Town to advise it on impacts of the proposed Tappan Zee Bridge replacement/renovation, including review of transportation alternatives, with respect to land use and traffic issues. • As part of a Town-wide Affordable Housing Study funded with Federal HOME funds, the firm prepared a market analysis to determine supply and demand of housing for various segments of the population in the unincorporated area of Westchester's largest Town. F&A drafted amendments to local codes and ordinances to facilitate the construction and/or rehabilitation of affordable housing units. The final work product was a Comprehensive Affordable Housing Plan for the Town. • F&A reviewed and critiqued the proposed Village of Elmsford Comprehensive Plan and Generic Environmental Impact Statement to determine any impacts it may have had on the Town as part of the SEQRA process. • Through a State grant and on behalf of the Secor Homes Civic Association, F&A completed a study of Town planning procedures and practices to identify ways of making the permitting and approvals process more efficient, and of using the process to promote quality development in the community. A final report was prepared and accepted by the State and is being used as a guide for procedural and organizational improvements in the Town.
HASTINGS-ON-HUDSON, VILLAGE of, Hasting on Hudson, New York	F&A prepared a Vision Plan for this Hudson River community which included a review of local ordinances, plans and development opportunities and constraints, an active citizen participation component and interaction with the Planning Board. The final product was incorporated into an update to the Village's Comprehensive Plan.
HAVERSTRAW, TOWN of, Haverstraw, New York	F&A, in concert with FxFowle Architects, was retained by the Town of Haverstraw to prepare a Campus Plan for the former Letchworth Village Developmental Disabilities Center. The Plan includes reuse of existing buildings, new construction and blight determination for purposes of acquisition and clearance. Marketability of proposed uses has also been tested. The Plan was needed by the Town to satisfy bonding requirements in its purchase of the 160-plus acre campus from the State of New York. F&A also oversaw an extensive developer solicitation and selection process including the preparation and issuance of both a Request for Expressions of Interest (RFEI) and Request for Proposals (RFP). WCI Communities was selected and F&A oversaw the site plan and environmental review processes for Encore Palisades, a 500-unit mixed use, age-restricted residential and commercial project based upon "Smart Growth" principles, with ten percent of the units affordable. The developer achieved site plan review, but subsequently filed for bankruptcy and

abandoned the project.

HEMPSTEAD, TOWN of, Hempstead, New York

- F&A was retained by the Town of Hempstead to prepare a Comprehensive Plan for the Inwood area that addresses incompatible land use mixes, blighted areas, and development strategies for vacant or underutilized property, including the waterfront, conservation of natural resources and brownfields redevelopment strategies. Tasks included data collection, creation of an analytical GIS, demographic overview of the community and trend analysis, community outreach and visioning, land use and zoning components, revitalization efforts and implementation techniques. Following a Town-wide kickoff meeting and visioning session, the Plan was adopted by the Town in 2011.

- On retainer to the Town, F&A prepared a plan for the Hewlett hamlet, an upscale area of the Town. Analysis included an inventory of uses, parking and traffic conditions, streetscape and infrastructure improvements as well as extensive stakeholder involvement. The Hewlett Streetscape Plan resulted in a plan to improve circulation along the commercial strip, as well as recommendations to amend zoning and suggest urban design guidelines to make the area more pedestrian friendly.

- F&A was retained to review under SEQR, on behalf of the Hempstead Department of Planning and Economic Development, the Lighthouse @ Long Island mixed use project in Uniondale. The project, one of the largest proposed in the history of Nassau County, consisted of amendments to the Building Zone Ordinance of the Town of Hempstead to establish a new "Planned Development District" which would be mapped on the 150+/- acre site of the upgrading and renovation of the Nassau Coliseum to approximately 928,000 sq. ft.; expansion of existing on-site office space to 2,558,000 sq. ft.; new retail space of approximately 500,000 sq. ft.; and 2,306 units of new residential housing. As part of public scoping, F&A commented on traffic, air quality, noise, and community character, visual and socio-economic impacts as they affect the Town, County and region. The project was subsequently withdrawn by the applicant.

HEMPSTEAD. VILLAGE of, Hempstead, New York

- F&A, with sub-consultants FxFowle Architects, PC and Urbitran Associates, Inc., was retained by the Community Development Agency to prepare an update to the Village's Comprehensive Plan, including a focus on the Village's downtown. This action-oriented, stakeholder-driven plan includes extensive community visioning, land use, zoning and urban design components, such as streetscape and adaptive reuse of vacant and under-utilized buildings, and issues associated with vehicular and pedestrian circulation and parking for the largest village (population 56,588) in Nassau County. Long-term components of the Downtown Plan included a capital improvements program and a market study that will assist the Village in conducting business recruitment efforts. Together with representatives of the Village of Hempstead, County of Nassau and State of New York, the F&A team conducted a series of public visioning forums to ensure that the general concerns and needs of the Village's taxpayers were met. The Plan was adopted in 2009 following public hearings and the completion of a Generic Environmental Impact Statement.

- F&A is currently representing the Village of Hempstead Board of Trustees

in a SEQR review of the *Renaissance Downtown Redevelopment Plan*. The proposed master plan concept, based upon a Downtown Plan that F&A prepared in 2011, is a $2.5 billion mixed use project comprised of a mix of condos and rental buildings for residents of various income levels (at least 10 percent affordable), a hotel, shops and other entertainment uses. The proposed Plan is anticipated to generate 12,000 construction jobs, 3,300 direct permanent jobs and 5,000+ permanent jobs including indirect and induced jobs. It is also anticipated to generate $10 million annually to the Village and $25 million annually to the school district in tax revenues. Upgrades to the sewer and water systems are also proposed. The Project is currently on hold for site plan issues: (1) inadequate sewer capacity and (2) inadequate parking (parking analysis currently underway).

- F&A was retained by the Village of Hempstead to prepare an ordinance aimed at regulating the number and location of adult-oriented businesses in the Village. In addition, F&A prepared a secondary effects study and a planning analysis to determine the potential impact of adopting the proposed legislation. F&A's work was in response to a lawsuit filed by an existing adult use establishment in the downtown. F&A served as the Village's expert witness in defending the suit and prepared the legislation amending the Village Code
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- In addition, the firm was hired to prepare two urban renewal plans for the Village, including the preparation of blight determination studies and environmental documentation for the plans. F&A also represented the Village in reviewing development applications coming before the Trustees and Planning Board and is served as the Village's SEQR consultant.

JULIA DYCKMAN ANDRUS MEMORIAL, Yonkers and Hastings-on-Hudson, New York

F&A was retained to conduct a study of land use and development options for this private school with 107± largely undeveloped acres in the midst of a densely developed, urbanized area. F&A explored the feasibility of the site for development, along with existing market conditions, and made recommendations to the school's Board of Trustees for meeting its goals of resource maximization while preserving the campus' special rural qualities. The final product was a campus plan with several development options and financing scenarios explored, including single-family residential and office, pro-formas and detailed site plans, topo and wetlands determination.

ISLIP, TOWN of, Islip, New York

- F&A prepared the agency's 2005-2009 Consolidated Plan for Community Development. The Town, with a population of nearly 317,000, receives $3.27 million in CDBG funds and $1.65 million in HOPWA funds the latter serving all of Nassau and Suffolk Counties.

- F&A prepared the Authority's Five Year Plan (2000-2005) and Annual Plan Update. The Five Year Plan describes the mission of the Islip PHA and the PHA's long range goals and objectives for achieving its mission over the 5 year term. The Annual Plan provides details about the PHS's immediate operations, residents, programs and services, and the PHS's strategy for addressing operation concerns, residents' concerns and needs, programs and services for the upcoming year.

MAMARONECK, TOWN of, Mamaroneck, New York	• F&A served as consultant to the Town Board in the preparation of Draft, Supplemental and Final Generic Environmental Impact Statements to analyze the development potential of three large country clubs – Bonnie Briar, Winged Foot and Hampshire – comprising 12 percent of Town's land area. Alternatives included cluster residential, public and private recreation, and various combinations thereof. Environmental findings resulted in rezoning of these sites to a newly created Recreation Zone. F&A subsequently served as the Town's expert witness in litigation successfully defending the zone change. The case is considered a landmark and the recreation zone and approach have been emulated by other communities. • During a moratorium on development, F&A prepared a zoning study of food-related retail uses in the Town as the basis for zoning ordinance amendments to regulate these uses. The impact analysis that accompanied the zoning examined parking and traffic issues. Zoning amendments were unanimously adopted. • F&A was retained by the Town to analyze land use, zoning, parking, traffic and aesthetics in the Town's BMUB District encompassing the Myrtle Boulevard area abutting the Village of Larchmont's downtown and New Rochelle's border. The Plan/process included significant stakeholder involvement, focused primarily on residents and merchants in the area. The result of this study was the Myrtle Boulevard Plan, which included amended zoning, traffic re-routing, a streetscape and capital improvement plan, and alternative parking arrangements. The firm also provided environmental documentation for this study, which resulted in an amendment to the Town's Comprehensive Plan. F&A also prepared the Town's application for CDBG funds to help finance a portion of the recommended improvements (see below).
MERIDEN, CITY of, Meriden, Connecticut	F&A prepared the 2010-2015 Consolidated Plan, consistent with HUD guidelines, on the behalf of the City of Meriden. The Consolidated Plan is a long range strategic plan that includes analysis of the City's housing market, identification of housing and community development needs of low and moderate income households, as well as the resources to address those needs, and establishment of priorities to fund programs to meet these needs. A strategic plan for revitalization within a local and regional context was developed (integrating economic, physical, environmental, community and human development components) to identify long term goals, specific objectives, annual goals and benchmarks for measuring progress. Subsequently, an annual action plan that identified resources to be used to address priority program objectives was produced for the City.
MOUNT KISCO, VILLAGE/TOWN of, Mount Kisco, New York	Prepared review, analysis and written report regarding municipal planning and zoning policies on behalf of Town/Village Manager and governing board as part of moratorium on development. Recommendations currently being implemented.
MOUNT VERNON, CITY of, Mount Vernon, New York	• F&A prepared the *2015-2019 Consolidated Plan* and *2015 First Year Action Plan* for the City of Mount Vernon. The Consolidated Plan is a HUD-mandated long range strategic plan that includes an analysis of the City's housing market, as well as housing, homeless, non-homeless special needs

and non-housing community development needs analysis. Mount Vernon receives$2.16 million annually in Community Development Block Grant (CDBG), HOME Investment Partnerships, Housing Opportunities for People with AIDS (HOPWA) and Continuum of Care funds.

The needs assessment and housing market analysis, which F&A conducted using demographic data and input from public and stakeholder meetings/hearings, inform the strategic plan. The strategic plan establishes priorities, funding allocations, long term goals, specific objectives and benchmarks for measuring progress. As part of the five year Plan, an Annual Action Plan that identifies resources to be used to address priority program objectives was completed.

In order to qualify for Federal funds, municipalities must comply with fair housing regulations. Accordingly, as part of the consolidated planning process, F&A also prepared an *Analysis of Impediments to Fairy Housing Choice (AI)* for Mount Vernon. The AI complies with HUD's Affirmatively Furthering Fair Housing (AFFH) regulations. A key part of the analysis was reaching out to stakeholders and the public for input on the current status of fair housing. F&A evaluated the City's current fair housing complaints, assessed lending practices via Home Mortgage Disclosure Act data and conducted extensive demographic and zoning analyses to determine patterns of segregation. A critical component of the AI involves identifying impediments to fair housing in both the private and public sectors, which includes exclusionary zoning, discriminatory housing practices, property tax policies and fair housing education and enforcement. Mount Vernon's Consolidated Plan and AI were approved by HUD in the fall of 2015.

- F&A prepared a Generic Environmental Impact Statement (GEIS) for an Urban Renewal Plan on the south side of Mount Vernon. The Plan, prepared by F&A for a partnership with the City and a private developer, includes a new urban renewal planned unit development overlay zone and urban design guidelines to accommodate mixed use development and public parking in a heretofore blighted area. The GEIS examined the impacts of the full build-out of the Urban Renewal Area under the proposed overlay zone, including neighborhood and community character analysis, shadow analysis, fiscal and socio-economic, traffic, impacts on City services, and analysis of alternative redevelopment scenarios. The Urban Renewal Plan builds upon a Blight Determination Study, prepared by F&A, that was adopted by the City in October 2012 for an approximately ten acre area consisting of 64 parcels. The Mount Vernon plan was adopted by the City Council in December of 2014.

- F&A prepared a GEIS addressing the impacts of a recently adopted Multifamily Senior Citizen Floating Overlay Zone (RMF-SC). The ordinance was created to foster the orderly development of senior housing within the City. Environmental analysis of the RMF-SC Overlay Zone looked at four prototypical senior housing sites close to mass transportation, shopping and other senior services, where senior housing could be constructed provided it is compatible with the City's proposed comprehensive plan. The ordinance, which won a planner's award from the Westchester Municipal Planning Federation, further ensures that any senior housing built preserves neighborhood scale and character and allows for enhanced building design while encouraging commercial development along the City's existing commercial corridors. Following the adoption of the new ordinance

	in December 2013, F&A prepared a site specific EIS for the rezoning of the Grace Terrace senior housing development site to the RMF-SC Overlay Zone, which was approved by the City Council in March 2014. The innovative floating overlay zone was subsequently the recipient of an award from the Westchester Municipal Planning Federation. • Served as consultant to Mount Vernon in preparation of Twentieth-first Century Policy Plan on City's future. • Prepared City's successful NYS Empire Zone application which was approved in the 2002 round. Prepared City's Overall Economic Development Plan. • Prepared plans to expand two existing Urban Renewal areas in the City: conducting land use updates, blight studies and inventory of properties. - wide Empire Zone Plan. • Designed and helped implement comprehensive urban design and capital improvement projects for City's neighborhood shopping areas and downtown. • Directed comprehensive traffic and parking studies in densely populated commercial and industrial areas of the municipality. Recommendations subsequently implemented.
NEW BRITIAN, CITY of, New Britian. Connecticut	F&A was retained to prepare the City's 2001-2005 Consolidated Plan for the Community Development Block Grant Program. This plan included preparing the City's Needs Assessment and update of the City's Analysis of Impediments to Fair Housing and citizen participation process.
NEW SQUARE COMMUNITY PLANNING AND DEVELOPMENT CORORATION New Square, New York	In September 2011, the Village of New Square Community Improvement Council Inc. (CIC) retained F&A to initiate a planning process to develop a *Main Street Revitalization Plan* for this Hasidic community in the Town of Ramapo in Rockland County. During the planning process, development issues and opportunities were evaluated to identify recommendations for revitalization of the business and shopping district located at the west end of Jefferson Avenue in the Village, in an effort to promote economic expansion and improve the ambiance and functionality of the area. Key work tasks included an inventory of businesses, survey of shopping district users, analysis of existing conditions and creation of a "vision" for the future and strategy for addressing needs and fostering growth. The revitalization plan for the "downtown" area provided major changes to the retail clusters and parking areas addressing the five major issues raised in the community survey: unsafe for pedestrians, unattractive environment, too few shops and poor variety of goods offered, traffic congestion and inadequate play and sitting areas. The Plan includes new parking, along with urban design guidelines and recommended retail niches for recruitment by the Village
NEW ROCHELLE, CITY of, New	• F&A completed a major update to the City's Zoning Ordinance. Map and text changes, procedural and definitional updates and recommendations for

Rochelle, New York

the implementation of the Comprehensive Plan, including waterfront and downtown design district regulations, have been incorporated into the new Ordinance. The firm also prepared a GEIS for the new Zoning Ordinance, which was last updated in the1960s. The City Council unanimously endorsed the new Ordinance.

- Prior to the above, F&A was retained by the City of New Rochelle to prepare an Ordinance aimed at regulating the location of adult-oriented businesses in the City. The Ordinance, which incorporates separation restrictions on the location of adult uses, has been adopted by the City Council. In addition, F&A completed an analysis to determine the potential impact of adopting the proposed legislation and provided oversight in the preparation of a secondary effects study. No new adult uses have emerged since the adoption of the ordinance. However, a recent challenge by a topless bar seeking to relocate in the downtown was litigated by the City in Federal District Court, and F&A served as the New Rochelle's expert witness in defending the Ordinance. The case was adjudicated in the City's favor, upholding the Adult Use Ordinance.

- On behalf of the New Rochelle Neighborhood Revitalization Corporation in partnership with the City of New Rochelle, F&A completed a Neighborhood Development Plan for a superblock in West New Rochelle. The Plan involved a blight determination study, an acquisition and relocation analysis, an environmental analysis including a Phase I Environmental audit, the development of an architectural concept plan for the area, and a financial feasibility analysis for construction of 172 units of affordable housing for families and elderly. The end product was an urban renewal plan and zoning requirements, also prepared by the firm, which were tailored to meet the needs of the superblock. F&A also prepared a GEIS to analyze environmental impacts of the project. The project has been completed and is in occupancy

NORTH SALEM, TOWN of, North Salem, New York

- F&A was retained to assist the Town in updating its Comprehensive Plan. Tasks included assistance in organizational aspects of the Plan, facilitating Town visioning and technical discussions, field reconnaissance and review of pertinent documents. In the second phase of the project, F&A, assisted in writing the Plan, coordinating SEQR, including build-out and economic impact analysis and advising the Town on technical aspects of the document. The Plan unanimously was adopted in 2011.

- In 2014, the firm also assisted the Town in preparing a Parks and Recreation Master Plan, last updated in 1994, that will establish a blueprint for recreation programming town-wide. The Plan assesses existing resources and future recreation needs for the Town, to serve as a foundation for goals, objectives and recommendations and will serve as a guide for the acquisition, development, improvement and financing of recreational lands, facilities and programs. Additionally, the Plan presents a vision for the Town's acquisition and rehabilitation of a 20 acre section of the Mountain Lakes Park.

- The firm's principal served as expert witness for the Town of North Salem in the landmark *Continental Inc. vs North Salem* court case. On the Town's behalf, the firm defined the region for fair share housing, analyzed

	Westchester County housing policy and critiqued the Town's Master Plan and zoning ordinance which were based on growth management principles. The firm's principal also testified for several days in Westchester County Supreme Court on North Salem's behalf and advised the Town on strategy in the case. The recently adopted Comprehensive Plan has a strong affordable housing component reflecting this landmark decision. Additionally, new affordable housing is being built in the Town.
PATCHOGUE, VILLAGE of, Patchogue, New York	F&A collaborated with a team of engineers, architects and urban designers to create design plans and an implementation strategy for redevelopment of a Village-owned waterfront site in this Suffolk County community. The project, designed to create a maritime center, included extensive visioning and design charrettes to solicit public input. The process involved planning for community-oriented recreation facilities, other water-dependent uses and intermodal linkages between the site and the Village's downtown. Land use, zoning and urban design changes were projected for this waterfront plan which included a strong economic development and economic impacts component. The Village has since issued a Request for Proposals to developers, based upon this Plan.
PEEKSKILL, CITY of, Peekskill, New York	• Directed planning for two mixed use urban renewal projects in and around the city's retail business district. • Directed downtown urban design, parking and circulation studies. • As part of a moratorium on development, F&A was retained by the City to analyze zoning within the Central Business District, with a focus on creating an historic district and drafting guidelines for preservation of aesthetically or historically significant structures. Working closely with the City's planning staff and the historic Commission, the proposed zoning and historic district regulations prepared by F&A were adopted by the Common Council.
PLAINVILLE, TOWN of, Plainville, Connecticut	F&A was retained by the Town of Plainville to prepare a Needs Assessment for the downtown area of this community of 17,000 people in central Connecticut. The assessment included community visioning, land use, zoning and urban design components, such as streetscape and adaptive reuse of vacant and under-utilized buildings, issues associated with vehicular and pedestrian circulation, and economic analysis for revitalization of the CBD. The Needs Assessment, recently completed, is the first step toward developing a full-scale Downtown Revitalization Plan.
PORT CHESTER, VILLAGE of, Port Chester, New York	• As part of a major update to the Village's Comprehensive Plan, F&A recently completed a *Route 1 Corridor Study/ Downtown Plan*—examining vacant and underdeveloped or 'soft' sites on Boston Post Road from the Rye City border to Greenwich, to identify potential redevelopment opportunities. Tasks included land use, parking, traffic and infrastructure analyses, build out of vacant sites and a retail market study to determine optimal re-uses and redevelopment in the study area. Also recommended were "branding" for the corridor, as well as suggested economic development tools and an organizational framework to implement the Plan. The study was adopted by the Board of Trustees and is being used by the

	Village as a blueprint for business attraction and retention. • At the same time, under SEQR, the firm prepared a Generic Environmental Impact Statement [GEIS] as part of a Comprehensive Plan update, which evaluated the potential impact of implementing the Comprehensive Plan and zoning amendments. A build out analysis was conducted as well to determine the impacts of the several zone changes, with the goal of limiting density in residential areas and increasing density along development nodes in the downtown. The updated Comprehensive Plan and GEIS were adopted by the Board of Trustees in December 2012 and amended zoning was adopted in March of 2013. The Plan was subsequently the recipient of a planning award by the Westchester Municipal Planning Federation. • F&A was retained by the Village of Port Chester to prepare an Ordinance aimed at regulating the location of adult-oriented businesses in the Village. In addition, F&A prepared a secondary effects study and an analysis to determine the potential impact of adopting the proposed legislation.
POUGHKEEPSIE, CITY of, Poughkeepsie, New York	• Served as City's consultant on Community Development Block Grant and HOME programs and preparation of Consolidated Plan, one of the first to be approved in the nation and rated of "high quality" by HUD Washington. • Prepared City-wide park plan and application of Federal funding to finance improvements (UPARR program). • Served as City's consultant in preparation of application to NYS Department of Economic Development for Empire Zone status. Prepared economic development plan. Poughkeepsie was one of 21 communities approved. The application and economic development plan were rated the best submission in NYS during the 1994 funding round
RAMAPO and HAVERSTRAW, TOWNS of, New York	F&A's principal served as expert witness on both Towns' behalf in review of proposed annexation of Town land by Village of Pomona. Prepared report and reviewed DEIS for affected 250,000 square foot proposed shopping center; reviewed and critiqued Master Plan for all three municipalities and testified on both Towns' behalf in opposition to annexation before three judge panel of the New York State Supreme Court. The annexation ruling was in favor of the Towns of Ramapo and Haverstraw.
RIVERHEAD-CALVERTON EMPIRE ZONE, TOWN of, New York	• Area-wide Empire Zone Plan. As part of a major rezoning of 590 acres from recreation to industrial use, F&A prepared a market study to examine supply and demand on Long Island vis-à-vis the potential to absorb this space when and if rezoned. The site is located in the 2900 acre Calverton Empire Zone which F&A assisted in establishing when it prepared the Town's application for designation by the State of New York. Following completion of the market study, a supplemental Generic Environmental Impact Statement (GEIS) was prepared to analyze the impacts of the proposed zone change. The zone change was adopted unanimously by the Town Board. The Town subsequently issued a developer RFP for this area which was met with enthusiastic response. The Town has designated Rex Corp. as the developer and the SEQR process is underway.

- On the Town and Suffolk County's behalf, F&A prepared an area-wide economic development plan and successful application for Empire Zone status for the 2,900 acre Riverhead Calverton former Air Facility Base and Grumman Northrup Industries installation. The designation was granted in June 1998.

ROCKLAND, COUNTY of, New York

F&A prepared the 2015-*2019 Consolidated Plan* and *2015 First Year Action Plan* for Rockland County. The Consolidated Plan is a HUD-mandated long range strategic plan that includes an analysis of the County's housing market, as well as housing, homeless, non-homeless special needs and non-housing community development needs analysis. Rockland County receives $3.35 million annually in Community Development Block Grant (CDBG), HOME Investment Partnerships, Housing Opportunities for People with AIDS (HOPWA) and Emergency Solutions Grants (ESG) funds.

The needs assessment and housing market analysis, which F&A conducted using demographic data and input from public and stakeholder meetings/hearings, inform the strategic plan. The strategic plan establishes priorities, funding allocations, long term goals, specific objectives and benchmarks for measuring progress. As part of the five year Plan, an Annual Action Plan that identifies resources to be used to address priority program objectives was completed for Rockland County.

In order to qualify for Federal funds, municipalities must comply with fair housing regulations. Accordingly, as part of the consolidated planning process, F&A also prepared an *Analysis of Impediments to Fairy Housing Choice (AI)* for Rockland County. The AI complies with HUD's Affirmatively Furthering Fair Housing (AFFH) regulations. A key part of the analysis was reaching out to stakeholders and the public for input on the current status of fair housing. F&A evaluated the County's current fair housing complaints, assessed lending practices via Home Mortgage Disclosure Act data and conducted extensive demographic and zoning analyses to determine segregation patterns of segregation. A critical component of the AI involves identifying impediments to fair housing in both the private and public sectors, which includes exclusionary zoning, discriminatory housing practices, property tax policies and fair housing education and enforcement. Rockland's Consolidated Plan and AI were approved by HUD in the fall of 2015.

SCARSDALE, VILLAGE/TOWN of, Scarsdale, New York

F&A was retained by the Town/Village of Scarsdale to develop a Downtown Infrastructure Improvement Plan to create better parking conditions, traffic circulation and pedestrian safety, as well as a more aesthetically pleasing environment as a result of new zoning, streetscape and design guidelines that were ultimately implemented. As part of the Plan, F&A conducted extensive community outreach and crafted a strategic partnership approach with a downtown committee to enhance the economic viability of the CBD and identify retail market niches for the Village to pursue. A $5 million capital improvement program, based upon the Infrastructure Improvement Plan, and reflecting the firm's recommendations, was implemented by the Village. In addition, F&A assisted in creating a Special Tax Assessment District to help finance the recommended improvements.

SOUTHAMPTON, TOWN of, Southampton, New York	• F&A prepared a revitalization study and plan for the Flanders-Northampton-Riverside area of this East End community. Analysis included inventory of uses, blighted conditions, infrastructure and right-of-way improvements for this lower income area of an otherwise affluent town. A key component of the Plan was extensive community outreach and visioning, as well as stakeholder workshops and design charrettes. The result was a plan combining land use, zoning, urban design, housing and economic development recommendations, which, after public hearings, was adopted as an amendment to the Town's Comprehensive Plan. • Also completed is a study of the Noyac Road area, which investigated land use, zoning, traffic and community character issues. Known as the Noyac Road Corridor Study, the effort was consensus–based, relying heavily upon input from local residents through public meetings, design charrettes and one-on-one focus group meetings. A final report was delivered to the Town Board which, after public hearings, was adopted as an amendment to the Town's Comprehensive Plan.
SOUTHOLD, TOWN of, Southold, New York	F&A prepared a State-approved corridor management plan for this Suffolk County town that addresses external development pressures while protecting private property rights and fostering sustainable development. The Plan, which featured extensive citizen participation and stakeholder involvement, included an inventory of existing conditions, identification of corridor(s) for State Scenic Byways designation, and a management and implementation strategy to guide future development and land use. This study, on Long Island's North Fork, is being used as a model for similar plans throughout New York State.
STAMFORD, CITY of, Stamford, Connecticut	• F&A prepared a value retail/megastore study for the City which focused on developing a retail/industrial policy, a typology of value retail uses, and the development of land use standards that has been incorporated into both the City's existing zoning ordinance and Master Plan. The goal was to permit value retail on certain sites while protecting the integrity of the central business district and preserving industrially zoned land. Our recommendations are currently being implemented by the City. • F&A was retained by the Downtown Stamford Special Services District (DSSD) to prepare an economic impact analysis and commercial character assessment to determine the impact of a proposed "big box" development on existing retail in the City and the long-term viability of the downtown, and to ascertain reasonable alternatives. Tasks included determining the maximum quantity of retail the Stamford economy can support; establishing the types of retail which would most complement the downtown and be in character with the surrounding concentrations of new and revitalized commercial activity; determining the most appropriate location to land unmet retail needs; estimating the impact of big box retail development on existing downtown retail; and reviewing and analyzing the relevance of non-retail vs. retail streets as designated in the City's zoning regulations. F&A matched technical analysis with field research, mapping, data collection and input from stakeholders in the form of focus groups designed to elicit opinions and ideas, which ultimately informed the technical analysis.

STATEN ISLAND, BOROUGH of, New York	Working with the Staten Island Economic Development Corporation, and the office of the Borough President, F&A prepared a borough wide industry study to determine which industries should be targeted for recruitment, a database of businesses on Staten Island and a marketing campaign to attract businesses to the borough. The plan is currently being used by the SIEDC to attract industry to the Borough.
SUFFOLK COUNTY LEGISLATURE, New York	The firm completed an assessment of County court needs in Suffolk and recommended, based upon analyses involving traffic, parking space needs and economic impact, the optimal location for 18 additional courtrooms in Riverhead and Central Islip. F&A headed a team of management consultants, a retired New York State Supreme Court justice and architects experienced in courthouse design. The report served as the basis for the County adopting a budget to proceed with construction in these locations. Court facilities, along with a branch of Touro Law School, have been constructed in Central Islip.
TORRINGTON, CITY of, Torrington, Connecticut	• F&A was retained by a public-private partnership and the City of Torrington to develop a Downtown Plan. This action-oriented, stakeholder-driven plan included extensive community visioning, land use, zoning and urban design components, such as streetscape and adaptive reuse of vacant and under-utilized buildings, and issues associated with vehicular and pedestrian circulation and parking for this former manufacturing town in Litchfield County. Long-term components of the Downtown Plan include a capital improvements program and a market study that are assisting this public-private partnership in conducting business recruitment efforts. • Building upon the firm's Downtown Plan, F&A worked closely with local officials to implement a number of recommendations. The Plan includes recruitment of businesses, implementation of streetscape and tourism plans and suggestions for projects to benefit the downtown area.
UNION,TOWN of, Union, New York	F&A was retained as this Broome county town's consultant to prepare the community's 2001-2005 Consolidated Plan for the Community development Block Grant program, as well as to seek other grants.
WALLKILL, TOWN of, Wallkill, New York	• F&A was retained by this Orange County community to prepare a Comprehensive Plan. A Town whose Plan was last updated in 1974, Wallkill is a fast-growing community with a mix of commercial and rural/suburban residential uses. The Plan, which included close coordination with a citizens' advisory committee, stakeholder visioning and focus groups, will be completed over a two year period. • As an offshoot of the Comprehensive Plan, F&A was retained by the Town of Walkill to prepare an Ordinance aimed at regulating the location of adult-oriented businesses in the Town. In addition, F&A prepared a secondary effects study and a planning analysis to determine the potential impact of adopting the proposed legislation.

WATERBURY, CITY of, Waterbury, Connecticut	F&A prepared the 2008-2013 Consolidated Plan for Housing and Community Development Programs, consistent with HUD guidelines and objectives, for the Waterbury Development Corporation (WDC), on behalf of the City of Waterbury, Connecticut. The Consolidated Plan is a long range strategic plan that includes analysis of the City's housing market, identification of housing and community development needs of low and moderate income households, as well as the resources to address those needs, and establishment of priorities to fund programs to meet these needs. A strategic plan for revitalization within a local and regional context will be developed (integrating economic, physical, environmental, community and human development components) to identify long term goals, specific objectives, annual goals and benchmarks for measuring progress. Subsequently, an annual action plan that identifies resources to be used to address priority program objectives will be produced for the City. Waterbury receives $2.315 million in CDBG funds, $952,000 in HOME funds and $100,000 in Emergency Shelter Grants on an annual basis.
WESTCHESTER, COUNTY of, New York	As part of a multi-disciplinary national team, F&A prepared an economic development plan and marketing strategy for Westchester County. This project involved an assessment of the County's business environment; the potential for both the attraction of new industry and the expansion of existing businesses; the identification of several industry clusters; and an evaluation of the existing organizational framework and marketing strategies. The Plan represents Westchester's first effort at long-range economic development planning.
WESTCHESTER, PUTNAM AND ROCKLAND , COUNTIES of, New York	F&A was retained as part of a multi-disciplinary team to prepare a bicycle and pedestrian master plan for Westchester, Rockland and Putnam Counties. The Plan focuses on the creation of a safe and efficient network of bicycle and pedestrian routes to be developed in partnership with various interest groups, property owners and government bodies. The intent was to provide viable choices of alternative transportation modes that are compatible with local, regional and state transportation master plans. The Plan, which included an extensive citizen participation component, has been completed and endorsed by all three counties.
WESTCHESTER COUNTY NY DEPARTMENT OF PARKS, RECREATION AND CONSERVATION, New York	F&A was retained as part of a multi-disciplinary team by Westchester County to prepare a *Master Plan for Rye Playland Park*, the only municipally owned amusement park in the country. Tasks included overseeing a participatory "visioning" process and analysis of land use and zoning matters pertaining to the Park's expansion and increase in market share. The Plan was completed and accepted by the County as its blueprint for future marketing, operations and capital improvements.
WESTCHESTER COUNTY OFFICE OF ECONOMIC DEVELOPMENT New York	• As part of a multi-disciplinary national team, F&A prepared an economic development plan and marketing strategy for Westchester County. This project involved an assessment of the County's business environment; the potential for both the attraction of new industry and the expansion of existing businesses; the identification of several industry clusters; and an evaluation of the existing organizational framework and marketing strategies. The Plan represents Westchester's first effort at long-range economic development planning.

	• As part of the Plan's implementation, keying into the bio-tech cluster, F&A assisted in the preparation of a *Request for Qualifications/Expressions of Interest* for prospective bio-tech developers and tenants to develop a bio-tech campus on a site adjacent to the Westchester Medical Center and New York Medical College. F&A also participated in developer selection, as part of a limited screening panel.
WHITE PLAINS, CITY of, White Plains, New York	F&A prepared City-wide Comprehensive Marketing and Economic Development Plan for retail and office sectors, in addition to developing database of vacant office and retail properties. The program consisted of a market analysis that laid the foundation for the development of an economic development and advertising concept to revitalize the downtown. As part of this overall strategy, a full public relations campaign with special events and press was designed and implemented, along with a direct mail program and the development of an 8 page 4 color brochure and inserts. The F&A Plan served as the basis for the subsequent White Plains downtown renaissance (*City Center*) that includes entertainment retail, a Target store, multiplex theater, restaurants, hotels and over 1,000 units of luxury housing.
WORKMEN'S CIRCLE, New York	F&A, in concert with Amie Gross Architects and Hutton Associates of NYC, was retained to prepare a master plan for a 200-acre site in Beekman, NY (currently known as Circle Lodge) to create a first class resort and a cultural center for Jewish studies. The assignment included land use, zoning and environmental documentation, and permit processing, as well as market and fiscal impact analysis to determine optimal re-use of this underutilized facility with frontage on Sylvan Lake in Dutchess County. F&A also advised the client on financing and grants procurement to offset development costs.
YONKERS CITY of, Yonkers, New York	• Prepared a strategic plan for the City's Empire Zone, one of many zones so designated in NYS by the Department of Economic Development. Analysis included recommendations for improved marketing, human resources development and financial and technical incentives to attract and expand industry within targeted areas of the City. • F&A was retained by the City to analyze the physical and economic trends of Westchester County's busiest commercial thoroughfare as it winds from the Cross County Shopping Center to the Greenburgh town line. Retail mix, land use, infrastructure, zoning and design issues were examined and a long term solution to Central Park Avenue's needs were addressed in a comprehensive study and plan. This study, the Central Park Avenue Corridor Plan represents the first time the seven mile corridor has been studies in any detail, and currently serves as a blueprint for the area's rebirth. • F&A assisted the City of Yonkers in preparing its *2015-2019 Consolidated Plan*, preparing the Needs Assessment, Housing Market Analysis and Strategic Plan sections. The Consolidated Plan is a HUD-mandated long range strategic plan that includes an analysis of the City's housing market, as well as housing, homeless, non-homeless special needs and non-housing community development needs analysis. Yonkers receives $4.35

	million annually in Community Development Block Grant (CDBG), HOME Investment Partnerships and Emergency Solutions Grants (ESG) funds. The needs assessment and housing market analysis, which F&A conducted using demographic data and input from public and stakeholder meetings/hearings, inform the strategic plan. The strategic plan establishes priorities, funding allocations, long term goals, specific objectives and benchmarks for measuring progress. Yonkers Consolidated Plan was approved by HUD in the fall of 2015.
YORKTOWN, TOWN of, Yorktown, New York	F&A prepared a Generic Environmental Impact Statement [GEIS] for the Town board to investigate the up-zoning of 3000 acres in the environmentally sensitive Hunterbrook area of the Town. Previously the subject of a successful lawsuit by property owners, the firm prepared the scope for the environmental review and potential rezoning. Impacts included land use and zoning traffic, drainage and aquatic and fiscal. The study has been adopted by the town board and incorporated into an update of the Town's Comprehensive Plan.
OTHER:	• Former Adjunct Professor of Planning--Pace University Graduate Program in Public Administration--courses on comprehensive planning, regional planning. • Regularly lecture on Municipal Zoning / Comprehensive Planning Process -- Westchester Municipal Planning Federation-short courses on Planning and Zoning (several) and New York State Planning Federation. • Several awards for citizen participation in planning -- City of Peekskill, Town of Greenburgh, City of Mount Vernon, Village of Port Chester.

EXPERT TESTIMONY

EXPERT TESTIMONY

Expert testimony before, public agencies, commissions, and the courts on land use, zoning, environmental, housing and economic development matters

FEDERAL DISTRICT COURT (SOUTHERN DISTRICT)

SUPREME COURT OF THE STATE OF NEW YORK
Albany County
Dutchess County
New York County
Orange County
Rockland County
Sullivan County
Suffolk County
Westchester County

NEW YORK STATE
Board on Electric Generation Siting and the Environment
Department of Social Services
Division of Homes and Community Renewal
Empire State Development Corporation

CITY OF NEW YORK
City Council
Planning Commission
Board of Standards and Appeals
Department of Environmental Protection
Housing Authority
Industrial Development Agency
Landmarks Preservation Commission

WESTCHESTER COUNTY
Board of Legislators
Department of Social Services
Housing Opportunity Commission
Industrial Development Agency

Cities of Westchester
Mount Vernon City Council
Mount Vernon Planning Board
Mount Vernon Urban Renewal Agency
Mount Vernon Zoning Board of Appeals
Mount Vernon Industrial Development Agency
Mount Vernon Empire Zone Board
Mount Vernon Housing Authority
New Rochelle City Council
New Rochelle Planning Board
New Rochelle Board Appeals on Zoning
New Rochelle Municipal Housing Authority
New Rochelle Industrial Development Agency
Peekskill Common Council
Peekskill Planning Commission
Peekskill Zoning Board of Appeals
Peekskill Urban Renewal Agency
Peekskill Housing Authority
Peekskill Historic Preservation Board
White Plains Common Council
White Plains Planning Commission
Yonkers City Council
Yonkers Planning Board
Yonkers Zoning Board of Appeals
Yonkers Empire Zone Board
Yonkers Industrial Development Agency

Towns of Westchester
Bedford Planning Board
Cortlandt Town Board
Cortlandt Planning Board
Eastchester Town Board
Eastchester Planning Board
Eastchester Zoning Board of Appeals
Greenburgh Town Board
Greenburgh Planning Board
Greenburgh Zoning Board of Appeals
Harrison Town Board
Harrison Planning Board
Mamaroneck Town Board
Mamaroneck Planning Board
Mamaroneck Zoning Board of Appeals
New Castle Town Board
New Castle Planning Board
North Castle Town Board
North Salem Town Board
North Salem Planning Board
Pound Ridge Town Board
Scarsdale Board of Trustees
Somers Planning Board
Somers Zoning Board of Appeals
Yorktown Town Board
Yorktown Planning Board

Villages of Westchester
Briarcliff Manor Board of Trustees
Briarcliff Manor Planning Board
Bronxville Board of Trustees
Bronxville Design Review Committee
Bronxville Planning Board
Bronxville Zoning Board of Appeals
Dobbs Ferry Board of Trustees
Dobbs Ferry Planning Board
Elmsford Board of Trustees

Elmsford Zoning Board of Appeals
Hastings Board of Trustees
Hastings Planning Board
Mamaroneck Board of Trustees
Mount Kisco Board of Trustees
Mount Kisco Planning Board
Pleasantville Board of Trustees
Port Chester Board of Trustees
Port Chester Planning Board
Port Chester Zoning Board of Appeals
Port Chester Waterfront Commission
Scarsdale Board of Trustees
Sleepy Hollow Planning Board
Sleepy Hollow Board of Trustees
Sleepy Hollow Zoning Board of Appeals
Sleepy Hollow Local Waterfront Advisory Board
Tarrytown Planning Board

PUTNAM COUNTY
Putnam County Board of Legislators

Towns/Villages of Putnam County
Brewster Village Board
Carmel Town Board
Southeast Planning Board

ROCKLAND COUNTY
Rockland County Legislature
Rockland County Planning Board

Towns of Rockland County
Clarkstown Town Board
Clarkstown Planning Board
Haverstraw Town Board
Haverstraw Planning Board
Haverstraw Urban Renewal Agency
Orangetown Town Board
Orangetown Planning Board
Ramapo Town Board
Ramapo Planning Board

Villages of Rockland County
Montebello Zoning Board of Appeals
New Square Board of Trustees
Sloatsburg Board of Trustees
Upper Nyack Village Board
Upper Nyack Planning Board
Village of Nyack Board of Trustees

DUTCHESS COUNTY
Dutchess County Board of Legislators
Dutchess County Economic Development Corp.
Dutchess County Empire Zone Board

Cities of Dutchess County
Poughkeepsie Common Council

Towns of Dutchess County
East Fishkill Town Board
Poughkeepsie Town Board
Rhinebeck Town Board

BROOME COUNTY
Town of Union Town Board

ORANGE COUNTY
Towns/Villages of Orange County
Chester, Town & Village
Goshen Town Board
Goshen Planning Board
Goshen Zoning Board of Appeals
Montgomery Town Board
Wallkill Town Board
Wallkill Planning Board
Woodbury Town Board

ULSTER COUNTY
Cities of Ulster County
Kingston Common Council
Kingston Planning Commission

Towns of Ulster County
Esopus Planning Board
Plattekill Town Board
Shandaken Planning Board
Shandaken Town Board
Wawarsing Town Board

Villages of Ulster County
Ellenville Board of Trustees
Marlboro Planning Board

HERKIMER COUNTY
Village of Herkimer Planning Board

NASSAU COUNTY
Towns of Nassau County
Hempstead Town Board
Hempstead Planning Board
Hempstead Zoning Board of Appeals

Oyster Bay Town Board
Oyster Bay Planning Commission
Oyster Bay Zoning Board of Appeals

Villages of Nassau County
Hempstead Board of Trustees
Hempstead Planning Board
Hempstead Community Development Agency
North Hills Planning Board
Old Brookville Board of Trustees
Old Brookville Planning Board
Sea Cliff Zoning Board of Appeals

SUFFOLK COUNTY
County Board of Legislators

Towns of Suffolk County
Brookhaven Town Board
Islip Community Development Agency
Islip Housing Authority
East Hampton Town Board
Riverhead Town Board
Riverhead Community Development Agency
Southampton Town Board
Southampton Planning Board
Southold Town Board

CONNECTICUT
Cities of Connecticut
Bridgeport Housing Authority
Danbury Board of Selectmen
Meriden City Council
New Britain City Council
Stamford Planning Board
Stamford Zoning Board of Appeals
Torrington City Council
Torrington Housing Authority
Waterbury City Council

Towns of Connecticut
Fairfield Board of Selectmen
Plainville Town Board
South Windsor Planning and Zoning Commission

OTHER
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Union County, NJ Dept. of Human Services

NORTH SALEM

COMPREHENSIVE PLAN

Prepared by:

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Adopted December 20, 2011

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A sincere thank you is also extended to the residents, businesses and property owners who participated in the planning process.

Signature Page

This draft Comprehensive Plan is endorsed by the Comprehensive Plan Committee to be reviewed and adopted by the Town Board.

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DRAFT

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Appendix B: Town-Wide Survey and Results (http://northsalemny.org/sites/default/files/14) Appendix B - Townwide Survey.pdf & http://northsalemny.org/sites/default/files/15) Appendix B - Townwide Survey Results.pdf)

Appendix C: Demographic Analysis (http://northsalemny.org/sites/default/files/20)%20Appendix%20F%20-%20Demographic%20Analysis.pdf)

Appendix D: Open Space Report (http://northsalemny.org/sites/default/files/18) Appendix E - Open Space Report.pdf)

Appendix E: Eastern Westchester Biotic Corridor Report
(http://www.ecostudies.org/mca/4_Eastern_Westchester_Biotic_Corridor.pdf)

Appendix F: Eastern Westchester Biotic Corridor: Titicus Reservoir Addendum
(http://www.ecostudies.org/mca/4b_Eastern_Westchester_Biotic_Corridor.pdf)

Appendix G: Croton Plan for Westchester
(http://www.westchestergov.com/planningdocs/CrotonPlan/CROTONPLAN.pdf)

Appendix H: Municipal Groundwater Resources Report (http://northsalemny.org/sites/default/files/16) Appendix C -Municipal Groundwater Resource Report 1-51.pdf & http://northsalemny.org/sites/default/files/16) Appendix C - Municipal Groundwater Resource Report 52-65.pdf & http://northsalemny.org/sites/default/files/17) Appendix C - Aquifer Map.pdf)

Appendix I: Housing Technical Information
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EXECUTIVE SUMMARY

The Town of North Salem, founded in 1731, is a scenic, rural and historic community—primarily residential—located in the northeast corner of Westchester County, 41.1 miles from mid-town Manhattan with a population of about 5,200.

In Spring 2008, a Comprehensive Plan Committee (CPC) was established by the Town Board to provide leadership and guide the planning process for North Salem's Comprehensive Plan 2010. This Plan has been prepared to responsibly maintain the Town's cherished character into the future, and to serve as a public and private sector guide for decisions affecting quality of life, sustainability and delivery of services in North Salem.

The CPC held monthly meetings over a two year period to investigate, prioritize and balance community issues. The CPC served as a sounding board, reacting to concepts and draft documents, and also assisted in obtaining input from residents. Public meetings and a Town-wide survey were conducted as an integral part of the planning process.

Throughout the planning process, the residents of North Salem were very clear about their vision for their Town: to maintain and enhance North Salem's rural residential character and identity. Based upon this vision, the Comprehensive Plan's recommendations reflect the needs and priorities expressed by residents of North Salem. Below is a summary of these recommendations.

COMMUNITY CHARACTER AND DESIGN:

- **Preserve Rural Character**
  - Create and adopt a local "dark sky" policy, which would help reduce nightly use of outdoor lighting and energy consumption.
  - Conserve public lighting usage.
  - Adopt a "disturbing the peace" ordinance, a noise ordinance which regulates the hours of operation for heavy, noisy machinery (construction and landscaping equipment, such as leaf blowers) and establishes appropriate decibel limits, and a complete set of general noise standards.
  - Maintain and enhance the overall rural and quaint appearance of the Town through the site plan and permitting process.
  - Strengthen the historic identity of the Town.
- **Protect Open Space**
  - Preserve and enhance the scenic landscapes and natural resources of the Town's rural areas.
  - Preserve ecologically significant land.
  - Enhance and link existing open space areas.
  - Incorporate any new development into the natural landforms.

- **Promote Environmentally Friendly Provisions**
    - Promote solar, geothermal and other renewable energy sources for new development.
    - Promote land planning that accommodates motor and public transportation but places greater importance on pedestrians.
    - Promote affordable housing near workplaces and mass transit.

LAND USE AND ZONING:

- **Preserve Town Character through Zoning**
    - Maintain all existing residential densities (R-4, R-2, R-1, R-1/2 and R-1/4) with the exception of rezoning two areas in the general vicinity of Turkey Hill Road from R-2 to R-4, and limiting the PD-CCRC district to its current location.
    - Modestly expand the RO zone on Fields Lane and add light manufacturing, service businesses and offices to the list of permitted uses to allow flexibility in types of businesses permitted.
    - Amend the Town's regulations with respect to co-location of cellular towers.
    - In areas of the Town that are environmentally fragile, explore the implementation of "performance zoning" regulations that would regulate the intensity of development that is acceptable based upon soils, topographic and additional natural resources data rather than traditional zoning.
- **Protect Environmental Resources**
    - Amend the current tree preservation ordinance to simplify the approval process for homeowners and add provisions for the harvesting of trees.
    - Adopt legislation for steep slopes to better protect the Town's environmentally sensitive areas, water resources and wetlands and to preserve viewsheds.
    - Preserve environmentally sensitive undeveloped land to avert sprawl, reduce carbon footprint and protect natural ecosystems including wetlands and forests.
    - Explore and encourage the use of tools for open space preservation, and continue to support the County's agricultural districts.

ENVIRONMENTAL RESOURCES

- **Protect Water Quality**
    - Support and facilitate domestic well and public well testing for radiologicals.
    - Reduce road salt application rates during winter.
    - Adopt an ordinance to protect local aquifers.

HOUSING:

- **Promote Affordable Housing Initiatives**
  - Based upon an examination of existing demand, projected demand and projected supply, the total affordable housing need in Town of North Salem to the year 2015 is an additional 26 units.
  - In light of the current financial situation, and challenges in providing affordable home-ownership programs, three initiatives are recommended to kick-start affordable housing opportunities:
    (1) adjust the Town formula for affordability (household income criteria) so that it is aligned with HUD income limits used by Westchester County,
    (2) increase support for affordable rental units by exploring partnership opportunities with both for-profit and non-profit organizations to construct and rehabilitate affordable rental housing, and
    (3) work with Westchester County to implement the fair housing settlement and facilitate fair and affordable housing.
  - Other policy considerations include: liberalizing regulations and incentivizing the creation of accessory dwellings, encouraging accessory dwelling owners to include accessory dwellings in the Moderate Income Housing (MIH) stock, establishing an affordable housing trust fund, and buying existing homes (negotiating the purchase and/or taking as a vehicle to obtain title) and renting them to income constrained tenants.

TRANSPORTATION:

- **Support Transportation Improvements on State and Local Roads**
  - Advocate for NYSDOT improvements to major thoroughfares I-684 and I-84 from Brewster to the Connecticut boundary, including I-684 northbound off ramp to I-84 capacity and safety improvements.
  - Advocate NYSDOT to increase capacity of I-684 (widening from 2 to 3 lanes).
  - Support creation of a round-about at the intersection of Route 202 and Croton Falls Road.
  - Continue to coordinate with the Town of Somers and the NYSDOT in developing a solution to the parking and traffic congestion problem in Croton Falls.
- **Promote Safe Transportation**
  - Encourage slower travel speeds through more vigorous enforcement and speed limit reductions [June Road, Titicus Road (Route 116) and Bloomer Road].
  - Provide context sensitive solutions for safety enhancements at key intersections.

- **Manage Traffic Demand at Key Land Uses**
    - Develop traffic demand management programs for the schools and the Town's Summer Camp at Mountain Lakes Park[1].
- **Encourage Transportation Related Actions that Promote Energy Conservation**
    - Encourage ride-sharing for energy conservation.
    - Encourage ways to reduce fuel consumption.
    - Encourage use of hybrid vehicles or non-fossil fuels in motor vehicles.
    - Conduct a bicycle study to determine the best routes and facilities for accommodating bicycle travel.

PUBLIC FACILITIES AND SERVICES:

- **Enhance Public Facilities and Services**
    - Form a committee comprised of representatives from the School District, Town government and residents to study the sharing of services.
    - Maintain and support tax incentives for volunteers in the Croton Falls Fire Department and the North Salem Volunteer Ambulance Corps.
    - Research funding and grant availability to allow all schools to become emergency shelters.
- **Enhance Recreational Facilities**
    - Preserve Town-owned parks and consider instituting a program of capital infrastructure maintenance for recreational facilities.
    - Explore the feasibility of providing a swimming pool and support facilities at Mountain Lakes Park that is run by the Town under a license agreement with the County of Westchester.
    - Update the 1994 Town Recreation Master Plan.

CAPITAL PLAN:

- **Support and Encourage the Creation of a Capital Plan**
    - Undertake a capital planning process to ensure future Town-wide sustainability by inventorying assets, establishing priority ranking criteria, preparing financial forecasts, submitting project requests and prioritizing projects.
    - Use the Comprehensive Plan as the starting point for the capital plan, as well as a barometer for progress in achieving plan goals

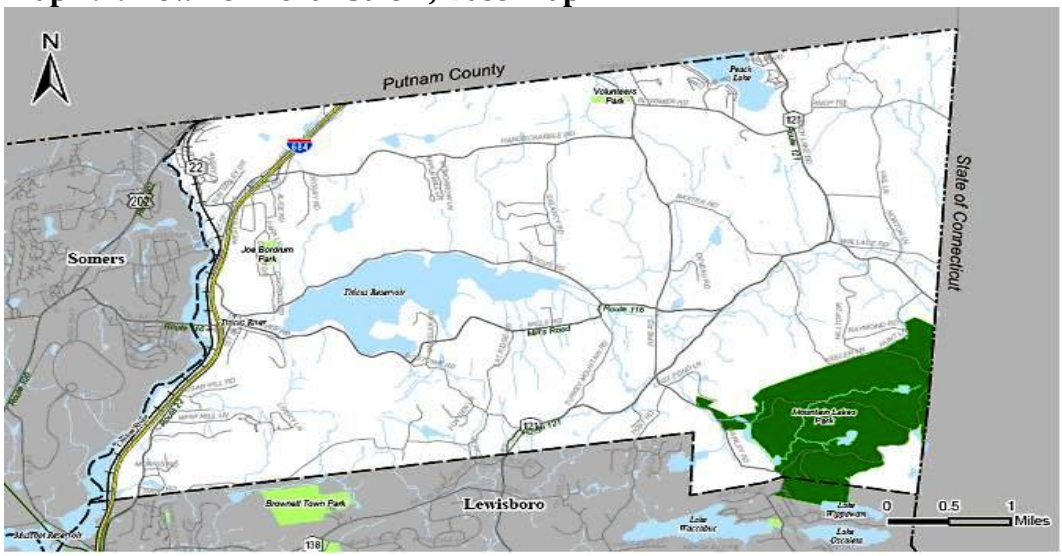
[1] The Sal J. Prezioso Mountain Lakes Park shall hereafter be referred to as Mountain Lakes Park within the Plan.

1.0 INTRODUCTION

North Salem marks Westchester County's northern border and is 41.1 miles north of mid-town Manhattan.[2] Despite its proximity to the City, much of the Town's land is open, inspiring green space. Tranquil, scenic vistas create a unique environment within a one-hour commute of Grand Central Station. Residents overwhelmingly cite the Town's rural character as the reason they live here. North Salem's character is the result of thoughtful planning, diligent local government and residents committed to preserving the Town's scenic beauty and rural tranquility.

This Comprehensive Plan has been prepared to responsibly maintain the Town's cherished character into the future. The Plan is a public and private sector guide for deciding quality of life issues and determining the delivery of essential services impacting North Salem. The Plan's recommendations reflect both the needs and priorities of townspeople as expressed in meetings and surveys conducted over more than two years.

Map 1.1: Town of North Salem, Base Map



The Town of North Salem is a scenic, rural and historic community—primarily residential in character—located in the northeast corner of Westchester County, New York, with Putnam County, New York to the north, the Connecticut border to the east, the Town of Lewisboro to the south and the Town of Somers to the west. According to U.S. Census estimates, the Town had a population of 5,219 in 2008 and has a total area of 23.2 square miles, of which 21.7 square miles is land and 1.5 square miles is water. [3]

[2] According to Google Earth measurement between North Salem's southern border and 42nd Street.

[3] Population estimates are from *American Community Survey*, 2008 and total area is from *Land Use in Westchester* by the Westchester County Department of Planning (2010).

1.1 HISTORICAL DEVELOPMENT

The earliest known settlement of North Salem dates back to the Archaic Period (8,000 BC – 1,000 BC). We see from artifacts that hunter-gatherers camped, fished and hunted along the Town's streams, and hid from the elements in rock shelters. Many landmarks in North Salem today are named after the Native American Indian settlers of the Mahican Tribe, such as Pequenakonck School and the Croton and Titicus Rivers. "Titicus" is derived from the name the Indians gave it, Mughtiti-coos, meaning Buffalo Creek. Buffalo were so plentiful at one time that the Titicus was known as Buffalo Creek to the Town's first settlers.

The Titicus Watershed has an ancient and complex geology, characterized by metamorphic rock and greatly eroded mountains. The glacier that last retreated twenty thousand years ago scoured the landscape down to bedrock and left myriad smaller boulders behind, which early settlers used to build miles of stone walls that are a visible characteristic of the Town landscape today.[4]

One of the larger boulders left by the glacier is the famous "Balanced Rock," a boulder weighing many tons that sits atop five smaller rocks. It is located a few feet from the Titicus River near Titicus Road, just south of the Keeler Bridge in North Salem. [5]

In the late 17th Century, a wealthy Dutch merchant, Stephanus Van Cortlandt with permission of King William III of England, bargained with the Indians to purchase a tract of land where North Salem is now situated.[7] The Dutch came to this area to trade for furs, as animals here included beavers, martins, minks as

Scenic beauty and water power in North Salem streams welcomed early settlers, where they built a saw and grist mill on the Titicus River. [6]

[4] John Steele Gordon,"The Titicus River and its Watershed," 1994, 45.

[5] Ibid., 45, 46.

[6] Frances Eichner and Helen Ferris Tibbets, eds., *When Our Town Was Young: Stories of North Salem's Yesterday* (North Salem: the Board of Education, 1945), 5.

[7] Ibid., 3.

well as the woodland bison, for whom the Titicus had been originally named.[8]

In the 18th century, Stephen Delancey inherited about four square miles of Van Cortlandt land, and divided it into 200-acre tracts, selling them to the Dutch and English tenant farmers who became the founding fathers of North Salem, with familiar-sounding names such as Van Scoy, Delavan, Smith, Nash and Steenrod. Land transactions from 1731 show property acquisition by notable families that Town roads and municipal buildings are named after, including Baxter, Hawley, Finch, Vail, Wallace and Lobdell.[9]

As farmers moved in, they girdled deciduous trees from the heavily forested area and created pastures for their livestock and fields for their crops. By 1800 most of the original oak and hickory forests had vanished, replaced by open fields, meadows and pastures. Only the wetlands and steeper slopes remained covered in trees, including maples, sycamores and tulip trees. But the Titicus Watershed was never rich farming country. Its soil is thin in most parts as there is much hillside, and the soil has only had a few thousand years to build up since the retreat of the glacier. Because the land was relatively poor, dairy farming and orchards were the dominant form of agriculture and most field crops that were grown, principally hay, were for local consumption.[10]

In the early 19th century, residents of the Titicus Watershed had to supply virtually all their own needs. They built blacksmith shops, slaughter houses, tanneries, flour mills, nail factories and saw mills.[11] The Titicus River supplied much of the power for these enterprises in North Salem (Mill Hollow), Salem Center (Delanceytown) and Purdys to serve a growing population (1,204 in 1810). Circus and menagerie companies attracted the interest and investment money of several residents including the Purdy, Angevine and June families.

With the arrival of the railroad to Purdys in 1847, dairy farmers prospered from the easy access trains offered to New York City markets, and George Juengst moved his electric light industry to Croton Falls. The population grew and the area thrived; Purdys boasted several hotels, and the summer communities around Peach Lake attracted visitors.

[8] Gordon, 46.

[9] Ibid., 15.

[10] Ibid., 46.

[11] Ibid., 47.

Table 1.1: North Salem Population, 1840-1920

Year	Population	
	Number	Percent Change
1840	1,161	-
1845	1,228	5.8
1850	1,335	8.7
1860	1,497	12.1
1865	1,527	2.0
1890	1,730	13.3
1900	1,133	(34.5)
1910	1,694	49.5
1920	934	(44.9)

Source: J.T. Scharf, *History of Westchester County*, 1886 and North Salem Historical Society Bulletin, "North Salem at the Turn of the Century," 2000.

Titicus Reservoir, North Salem

In 1893, the Titicus Reservoir was built by the City of New York as part of the Croton Reservoir system that supplies the city with about ten percent of its water needs. The reservoir is about two and a half miles long, and at its widest point, is about a mile wide.[12] Formed by a dam at its western end, the reservoir required hundreds of acres along the Titicus to be condemned; farms and buildings were moved or destroyed including most of the mills. And the village of Purdys was moved to its present day location.

During the 20th century, the remaining dairy farms began to disappear, while wealthy landowners raised beef cattle. Today, agriculture is nearly gone, while horse farms, riding and boarding stables and a few orchards remain. Perhaps seventy percent of the watershed is forest, nearly a reversal of the situation a century ago. The environment of the Titicus Watershed is in better shape than it has been in more than 200 years as industry is nearly nonexistent and the population density remains low, which is important to the City of New York's water supply, as there is less pollution. [13]

Town residents strongly value North Salem's nature, open space and history. In an effort to maintain a sustainable environment, North Salem residents have created several organizations including the North Salem Open Land Foundation, the North Salem Energy Advisory Panel, the North Salem Improvement Society, the North Salem Historical Society and the Historic Preservation Commission.

[12] Ibid., 45.

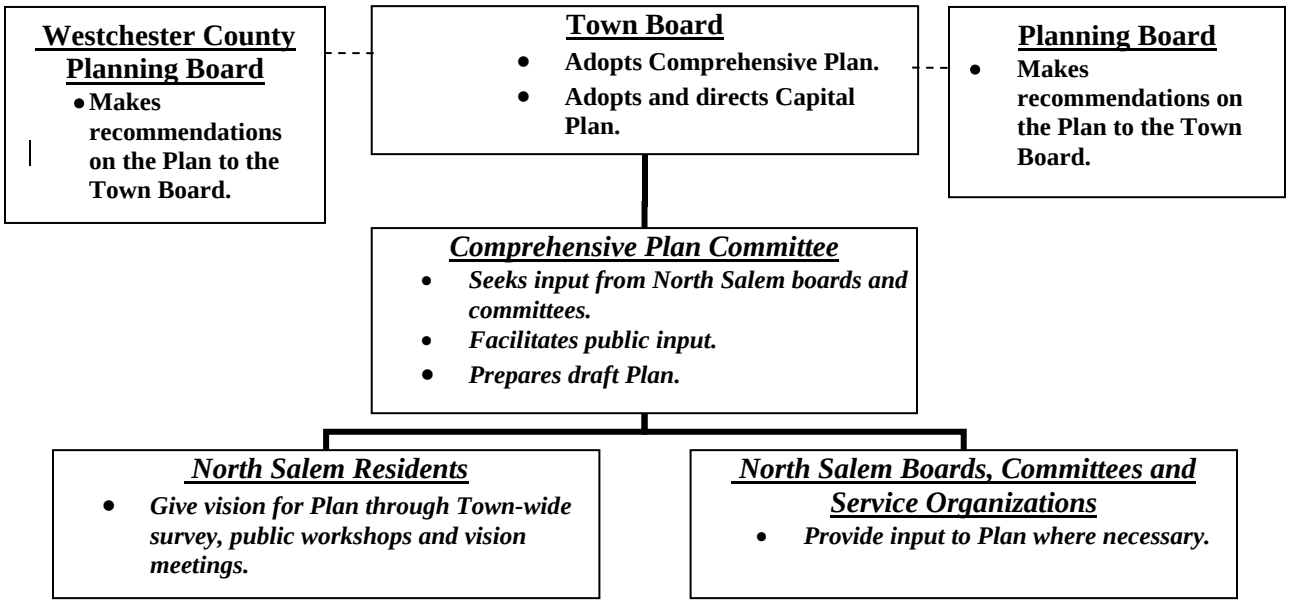
[13] Ibid., 48.

2.0 PUBLIC INVOLVEMENT PROCESS

This section describes the public, consultative process by which the Comprehensive Plan was prepared, reviewed and refined throughout the planning process.

The Town Board decided early on that this should be a community-based Plan, with input from a wide variety of stakeholders.[14]

2.1 COMPREHENSIVE PLAN COMMITTEE



A Comprehensive Plan Committee (CPC) was established in Spring 2008 to provide leadership and guide the planning process. Monthly meetings were held over a 24 month period to investigate, prioritize and balance community issues. The CPC served as a sounding board, reacting to concepts and draft documents, and also assisted in developing a Town-wide survey questionnaire and obtaining significant input from local residents.

The CPC's first meeting was on March 18, 2008; from that time there have been 34 meetings (14 in 2008, 16 meetings in 2009 and 4 meetings in 2010). The CPC held a Public Hearing on the Comprehensive Plan on April 29, 2010. The North Salem web site has a dedicated section to the CPC (http://www.northsalemny.org/comprehensive-plan/comprehensive-

[14] A complete list of stakeholders, which include North Salem boards, committees, services and organizations can be found on the Town's web site: www.northsalemny.org

plan-home). During the planning process, residents and interested parties could find the names of CPC members, previous meeting minutes and the current meeting agenda, as well as various drafts of Plan chapters, on the web site.

2.2 COMMUNITY INVOLVEMENT

Public input to the planning process began with a Town-wide vision meeting on September 20, 2008. This full day meeting served as a catalyst in bringing Town residents together to discuss their community in different ways. Forty seven (47) people attended the visioning meeting, which was comprised of three segments: an introductory presentation and two breakout sessions. At the introduction, the CPC Chair and Town Supervisor stressed the importance of gathering public commentary for the planning process. For the breakout sessions, participants formed small groups that discussed components of the Plan. The five breakout topics were: transportation/ mobility, land use, environmental/ natural resources and sustainability, visual and community character and shared facilities and services. The meeting offered an opportunity for citizens to identify important issues and begin developing an overall community vision, including goals and potential strategies that are considered appropriate for achieving that vision. During the vision meeting, the 47 participants brought up many issues about the future of North Salem. Of these topics of conversation, the participants agreed the three most important were:

- maintaining the rural character of the Town;
- diverting the amount of commuter traffic congesting local roads; and
- protecting the natural, scenic and historic resources of the Town.[15]

Land Use & Quality of Life

The various factors affecting neighborhood quality of life were discussed, such as environmental conditions, traffic congestion and safety, open space protection and sprawl,

[15] All public comments are available in Appendix A.

among others. Residents were concerned about the need for careful balancing with regard to promoting housing variety and affordability while maintaining neighborhood character and natural landscapes, values and stability. Other resident concerns included preserving open space while sustaining affordability, directing relatively high density development to Town centers (Purdys and Croton Falls) and creating opportunities for transportation and recreation options.

Transportation/Mobility

Residents perceived traffic congestion as one of the key problems affecting the quality of life in North Salem. The Town's roads are burdened by the journey to work and schools, traffic generated by major commercial and incremental housing development as a regional impact, as well as the increasing number of cars owned and used per family. Residents were concerned with the failures of I-684 and I-84. In general, residents felt that speed was an issue and more enforcement is needed. Also, residents voiced concerns that North Salem's character must be preserved by protecting dirt roads, maintaining the scenic quality of most roads (possibly through scenic designation), placing "gateway signage" at the Town borders emphasizing North Salem as environmentally friendly, and considering traffic control tools (such as rotaries and stop signs) that contribute to the rural character of the Town. Residents also noted the need to promote school bus service for North Salem Central School District students, provide public transportation for seniors and possibly transit services for medical related trips and transportation for senior aides and nurses.

Environment/Natural Resources/Sustainability

Discussions involved upgrading infrastructure to improve storm water management and water quality, and to actively plan and manage ecological habitats. Residents supported sustainable, managed growth, and discussed the importance of addressing pesticide/ herbicide management and other environmental protections on developed and developable land. Residents also thought the Town would benefit from preventing roadside littering, reducing light and noise pollution and discouraging development in environmentally sensitive areas.

Visual/Community Character

North Salem has a wealth of historic, cultural and scenic resources that deserve recognition and protection. Three of these resources are currently on the National Register of Historic Places and many others are worthy of listing, in addition to local protection.[16] One challenge is how to properly *identify and interpret* these resources. Residents helped identify historic sites and views worthy of protection, as well as historic design features to be protected and enhanced, e.g. through promotion of adaptive reuse of existing buildings.

Residents noted that visual character would benefit from the protection of view sheds, preservation of historic buildings, strict enforcement of signage regulations and preservation of the Town's natural features (trees, dirt roads, open fields, pastures and open space). Another challenge recognized therefore was how to provide meaningful design guidelines without creating undue burdens for property owners, businesses and residents.

Town Shared Facilities and Services

In a semi-rural community like North Salem, the schools are the primary shared community facilities. Many community groups use both school buldings. Other important community facilities include Delancey Hall, the Lobdell House, the Ruth Keeler Memorial Library, St. James Church Parish Hall, the Firehouses of the Croton Falls Fire Department, Mountain Lakes Park, Joe Bohrdrum Park and Volunteers Park. Several ideas about how to expand and improve Town facilities and services were put forth at the Town-wide meeting, including constructing a cultural/recreational facility and expanding after school activities, especially for teens. Participants also discussed the extent to which services are currently shared between the Town and the School District and by both with neighboring towns and the County. While there is considerable sharing of services already taking place, participants felt more collaboration should be encouraged. Questions were asked about whether the North Salem Central School District should be merged with a neighboring district and the pros and

[16] Historic resources of the Town are discussed in Section 4.2.

cons of such a merger were discussed. Participants strongly agreed that the Town should have a long term public facilities plan.

2.3 TOWN-WIDE SURVEY

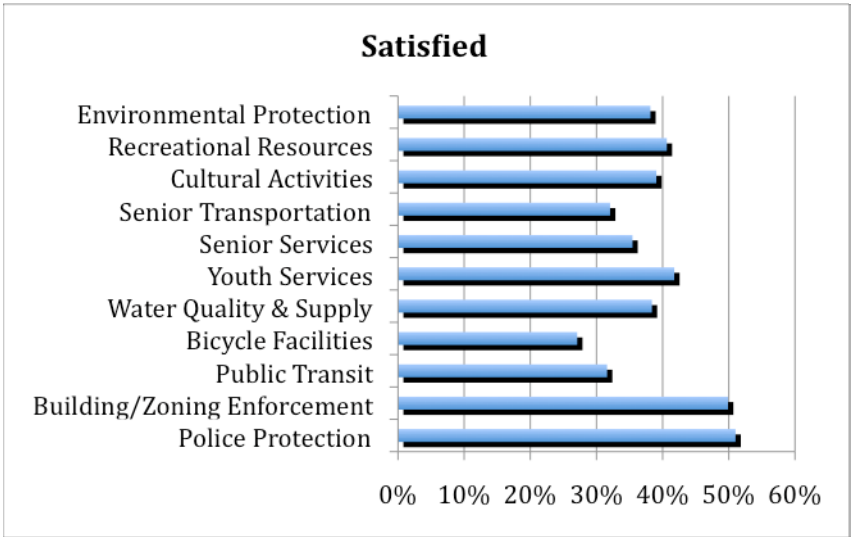
In July 2009, the CPC mailed surveys to 1,812 property owners in North Salem.[17] The CPC received 443 responses, a 24 percent response rate. The respondents were very familiar with the Town, as 41 percent have lived in North Salem more than 20 years (including nearly half of the respondents between the ages of 19-34), with 25 percent residing in the Town from 11 to 20 years. Key findings of the survey are summarized below.

Most residents choose to live in North Salem because of its rural character.

Over half of survey respondents are satisfied with building and zoning code enforcement and police protection services. Around 40 percent of respondents expressed satisfaction with Town services related to

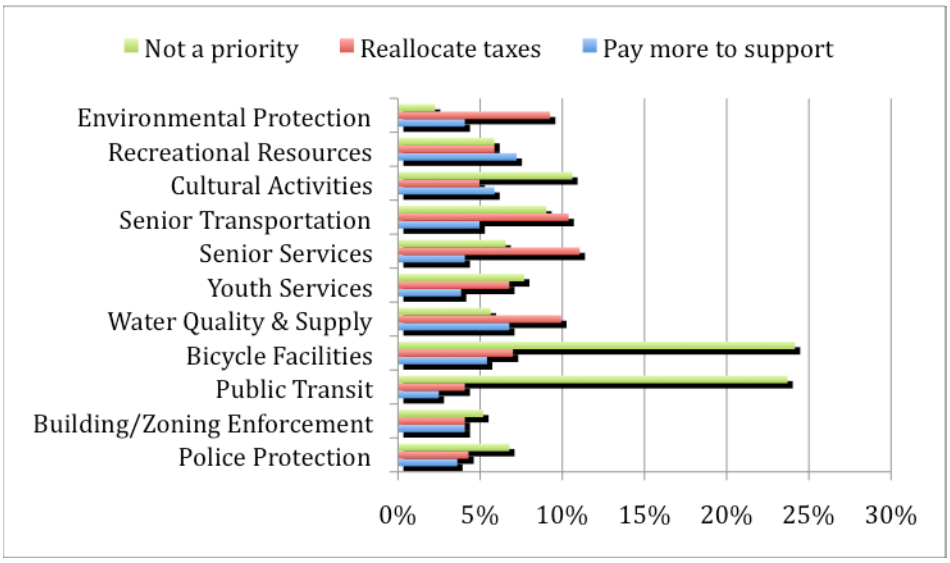
[17] A copy of the survey, as well as a PowerPoint presentation which displays the complete results of the survey is included in Appendix B.

environmental protection, recreational resources, cultural activities, water quality and supply, and youth services. Slightly less respondents, around 30 percent, are satisfied with senior transportation and services, bicycle facilities and public transit services.



About 10 percent of survey respondents support reallocation of taxes for environmental protection, senior transportation and services, and water quality and supply. About 5 percent of respondents support reallocation of taxes for recreational resources, cultural activities, youth services, bicycle facilities, public transit, building and zoning enforcement and police protection. About double the number of respondents support reallocation of taxes rather than paying more to support environmental protection, senior transportation, youth and senior services. Residents would pay more, however, for cultural activities and recreational resources. Support for reallocation of taxes versus paying more to support services was about the same for recreational resources, cultural activities, bicycle facilities, police protection, and building and zoning enforcement.

Most residents believe that recreation facilities for most activities are sufficient, but a large portion desire an indoor pool, outdoor pool or bicycle/walking paths paid by user fees. The bulk of residents support the existing zoning code as it pertains to residential and commercial development. Also, the majority of residents believe that local housing needs are being met, and that open space preservation is very important.



2.4 Vision and Guiding Principles

In order to effectively plan, a community must define its aspirations for the future. The Town's "vision statement" captures those aspirations and provides a basis upon which the Plan and strategic initiatives can be identified. Furthermore, the vision, when combined with a set of guiding principles, becomes a yardstick by which to measure progress. In addition to serving as the basis for the development of this Plan, the vision and guiding principles can be used to evaluate ideas and proposals that may not have been addressed or may be the result of changes not anticipated by the Plan. The Town's vision statement was formulated through citizen input provided at public meetings, the Town-wide survey, Comprehensive Plan Committee discussions, Town Board, Planning Board and Recreation Committee meetings. To ensure that the vision and guiding principles still capture the community's aspirations for the future, the community should revisit these every few years.

<u>The Vision for North Salem</u>

The Town seeks to maintain and enhance its rural residential character and identity.

<u>Guiding Principles</u>

In pursuit of this vision, the Town's guiding principles are to:

1. Preserve and protect our natural resources, including open space, wooded hills, water bodies, wetlands, wildlife habitat and scenic views.

2. Preserve and protect our historic and cultural resources, including buildings, landmarks and artifacts.
3. Expand open space and recreational opportunities for all residents.
4. Provide a variety of housing choices that enables residents to remain in the community.
5. Reduce our carbon footprint and proactively adapt to climate change.
6. Provide public facilities and services in a fiscally responsible manner and at levels adequate to ensure the health, safety and general welfare of residents.
7. Support a safe and efficient multi-modal transportation network.
8. Encourage agricultural uses as a source of the Town's economic vitality.
9. Limit non-residential development, in keeping with the rural character of the Town, to what is necessary to provide North Salem residents with adequate services.

3.0 DEMOGRAPHICS & THE LOCAL ECONOMY

This chapter presents demographic statistics for North Salem, compared with two nearby local municipalities (Pound Ridge and Lewisboro, combined) and with Westchester County. Refer to Appendix C for more detailed data.

3.1 POPULATION AND GROWTH TRENDS

Between 1990 and 2000, the Town's population increased by 448 persons, or 9.5 percent. During this period, the Town's population growth rate was higher than that of Westchester County. From 2000 to 2010, however, the Town's population decreased by 69 residents, or 1.3 percent, while the population in Westchester County increased 2.8 percent.

Table 3.1: Population Estimates, 1940-2010

Year	North Salem		Pound Ridge +Lewisboro		Westchester County	
	#	**%** change (previous decade)	#	**%** change (previous decade)	#	% change (previous decade)
1940	1,194	-	2,735	-	573,558	-
1950	1,622	35.8	3,586	31.1	625,816	9.1
1960	2,345	44.6	6,738	87.9	808,891	29.3
1970	3,828	63.2	10,402	54.4	894,406	10.6
1980	4,569	19.4	12,880	23.8	866,599	(3.1)
1990	4,725	3.4	15,863	23.2	874,866	1.0
2000	5,173	9.5	17,050	7.5	923,459	5.6
2010	5,104	(1.3)	17,515	2.7	949,113	2.8

Source: U.S. Census Bureau.

3.1.1 Age

North Salem and Westchester County are experiencing a gradual shift toward an older population. Between 1990 and 2010, both geographies experienced fairly large decreases in the ages 15-29 and 30-44 cohorts, and increases in the ages 45-54 and 60+ cohorts. The median age of the County's population was 36.2 in 1990, 37.6 in 2000 and 40 in 2010. Table 3.2 below compares population changes by age group.

Table 3.2: Population by Age, 1990-2010

		Age Groups					
		0-14	15-29	30-44	45-59	60+	Total
North Salem	1990	886	840	1,233	881	885	4,725
	2000	1,179	580	1,298	1,140	976	5,173
	2010	982	696	782	1,372	1,272	5,104
	%t Chg	10.8	(17.1)	(36.6)	55.7	43.7	8.0
Lewisboro + Pound Ridge	1990	3,449	2,630	4,307	3,486	1,991	15,863
	2000	4,429	1,777	4,278	4,369	2,197	17,050
	2010	2,470	1,379	1,771	3,442	2,351	11,413
	% Chg	(28.4)	(47.6)	(58.9)	(1.3)	18.1	(28.1)
Westchester County	1990	159,303	186,424	210,579	147,589	170,971	874,866
	2000	195,992	159,059	225,766	178,308	167,334	923,459
	2010	186,091	171,550	188,343	210,820	192,309	949,113
	% Chg	16.8	(8.0)	(10.6)	42.8	12.5	8.5

Source: U.S. Census Bureau

3.2.2 Race

With regard to racial composition, North Salem is much less diverse than Westchester County: its total minority population (all races except white) makes up only 6.4 percent of the Town's population, whereas in Westchester County, the minority population accounts for 31.9 percent of the population. However, between 2000 and 2010, North Salem's minority population increased from 236 persons (4.6 percent) to 329 persons (6.4 percent).

Table 3.3: Population by Race, 2010

	North Salem		Pound Ridge + Lewisboro		Westchester County	
	#	%	#	%	#	%
Total Population	5,104	100	17,515	100	949,113	100
White	4,775	93.6	16,429	93.8	646,471	68.1
Black or African American	63	1.2	228	1.3	138,118	14.6
American Indian and Alaska Native	10	0.2	13	0.1	3,965	0.4
Asian	89	1.7	393	2.2	51,716	5.4
Native Hawaiian and Other Pacific Islander	1	0.0	1	0.0	387	0.0
Some Other Race	91	1.8	122	0.7	78,503	8.3
Two or More Races	75	1.5	329	1.9	29,953	3.2

Source: U.S. Census Bureau.

3.2.3 Population Projections

Population projections can be used to determine future demand for land, housing, resources and recreational space. Over time, different methodologies have been used by various planning bodies to estimate population growth. These include projections made for North Salem's *1985 Master Plan*, the Westchester County Planning Department projections in 1995 and 2005, and the Town's linear projections for this Plan.

Westchester County Projections, 2000-2020

The 2010 population in North Salem exceeds the population projected in a 1995 Westchester County Planning report.

Table 3.4: Westchester County Population Projections, 2000-2020

	2000	2010	2020
North Salem	4,900	4,725	5,000
Westchester County	891,000	882,000	905,000

Source: *2020 Foresight: Population Projections for Westchester County to the Year 2020*, Westchester County Department of Planning, Research Information Report.

1985 Master Plan Projections

Table 3.5 provides the population projections from the *1985 Master Plan*, which estimated a 22.5 percent increase in the North Salem population between 1980 and 1990 and a 49.5 percent population increase between 1980 and 2000. Actual figures from the 1990 and 2000 Census show that the North Salem population increased only 3.4 percent between 1980 and 1990 and 13.2 percent between 1980 and 2000.

Table 3.5: *1985 Master Plan* Projections, 1990-2010

1990		1995		2000		2010	
Low	High	Low	High	Low	High	Low	High
4,900	5,600	5,200	7,100	5,100	6,800	6,200	8,300

Source: *1985 Master Plan*, page A-3.

Westchester County Population Projections, 2005-2030

The County's most recent population projections for the years 2005 through 2030 are provided in 5-year intervals in Table 3.6 below for the Town of North Salem and Westchester County. This shows slow population growth rates in North Salem from 2005 through 2015 (1 percent or less per 5-year period) and slow rates of decrease from 2015 through 2030 (-0.5 percent to -1.5 percent per 5-year period). During the same period, the County's population is projected to increase slowly (at rates of 0.8 percent to 1.2 percent).

Table 3.6: Population Projections, 2005-2030

	2005	2010 (% chg)	2015 (% chg)	2020 (% chg)	2025 (%chg)	2030 (%chg)
North Salem	5,246	5,300 (1)	5,335 (0.6)	5,307 (-0.5)	5,258 (-0.9)	**5,179** (-1.5)
Westchester County	935,127	945,148 (1.1)	957,256 (1.2)	964,527 (0.8)	973,480 (0.9)	982,708 (1)

Source: *2020 Foresight: Population Projections for Westchester County to the Year 2020*, Westchester County Department of Planning.

Linear Projections

Based upon North Salem's population changes between 1990 and 2010, the linear population projection is 19 persons per year.

Table 3.7: Updated Population Projections, North Salem, 1990-2020

1990	2000	2010	2015	2020
4,725	5,225	5,104	5,199	5,294

Source: U.S. Census Bureau.

3.2.4 Residential Building Permits

Another indicator of growth is the number of residential building permits issued annually. Table 3.9 below provides the number of building permits for new single-family dwellings and apartments. Single-family dwellings include detached and attached units. Apartments include accessory apartments as attached units or detached structures, as well as units that are part of multi-family structures (3 or more dwellings). Employee dwellings, such as "caretaker's cottages" and "grooms quarters" and other accessory dwellings are counted as apartments.

Table 3.8: North Salem Residential Building Permits, 1990-2008

Year	Single-Family Dwellings	Apartments
1990	2	5
1991	10	5
1992	4	6
1993	2	4
1994	21	2
1995	30	4
1996	31	0
1997	18	6
1998	10	0
1999	17	0
2000	5	1
2001	12	3
2002	6	1
2003	5	2
2004	7	1
2005	7	4
2006	8	1
2007	9	3
2008	2	1
TOTAL	206	49

Source: Town of North Salem Building Department, 2008.

3.3 EMPLOYMENT BY OCCUPATION

The Town's residents are employed primarily in management, professional, service and office occupations. The majority of residents work outside of Town, including 57.6 percent who work within Westchester County and 37.8 percent who work outside of the County (only 4.6 percent live and work in the Town). And the average commuting time to their respective places of work is 38 minutes, which is 16 percent higher than the County average commuting time of 32.7 minutes. North Salem's economic profile is inextricably related to its existing and potential residents commuting to and from their places of work. Table 3.10 below provides key employment indicators for the Town's residents.

North Salem's agricultural operations and residential development also play key roles in the local economy. The Town's farms, open spaces and cultural facilities induce some seasonal resident and tourist activity—though local businesses primarily serve the Town's residents and nearby communities.

Table 3.9: Employment by Occupation and Status, 2000

	No. of Persons	% of Pop.
Population 16 years and over	3,930	100
In labor force	2,722	69.3
Employed	2,600	66.2
Unemployed	122	3.1
Occupation		
Management, professional, and related occupations	1,437	55.3
Service occupations	251	9.7
Sales and office occupations	562	21.6
Farming, fishing and forestry occupations	0	0
Construction, extraction, and maintenance occupations	245	9.4
Production, transportation, material and moving occupations	105	4.0
Commuting to Work		
Workers 16 years and over	2,569	100
Car, truck or van - driving alone	1,877	71.3
Car, truck or van – carpooling	206	8.0
Public transportation (including taxicab)	316	12.3
Walked	43	1.7
Other Means	8	0.3
Worked at home	119	4.6
Mean travel time to work (minutes)	38	1.0
Worked in Westchester County (not at home)	2,240	57.6
Worked outside Westchester County	1,486	37.8

Source: U.S. Census Bureau.

There are a number of local workplaces that employ residents and people

who commute from other communities to work in North Salem. These employers include offices, stores, restaurants, institutions, schools, cultural facilities and other businesses and services in the Town's hamlet areas, along NYS Route 22 and in the area of Hardscrabble Road and Fields Lane. The proportion of land in the Town that is zoned and occupied by business uses, however, is relatively small (less than 1 percent).

Two other important sources of jobs in North Salem are farms and estate homes. Both types of land uses frequently employ caretakers, who often live on-site. Maintenance and service workers are also employed to care for the buildings, grounds and landscaping and to provide household services. Farms, and particularly horse farms, also employ grooms, trainers and other animal care and farm workers as well as office personnel on the larger farms.

4.0 COMMUNITY CHARACTER AND DESIGN

North Salem is a unique place with its historic and picturesque neighborhoods.

The Town's residents appreciate excellent local recreational opportunities, and the character of the community defined by its bucolic landscape and sense of tranquility. Historically, the Town was an agricultural community. Currently, it is more developed, but largely retains the rural background of its past. This chapter addresses the character and appearance of the Town, its historic resources and recommendations to maintain the community's unique rural character.

4.1 CHARACTER AND APPEARANCE

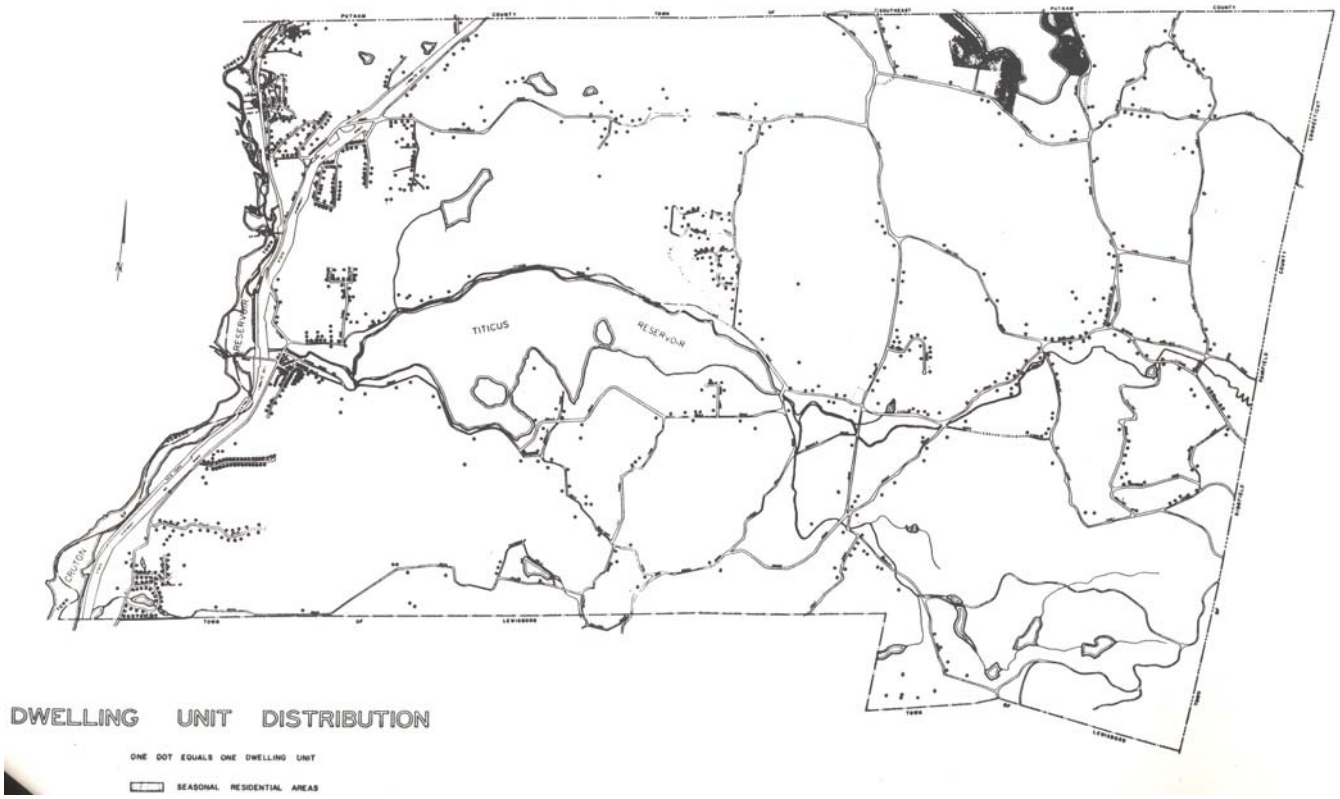
Development in North Salem is largely determined by access to transportation, which can be viewed historically. The Harlem Railroad (which would become New York Central) serviced both Croton Falls and Purdys since 1847. According to *North Salem at the Turn of the Century*, most roads in North Salem and the neighboring municipalities were unpaved, as the typical modes of transportation were horse-drawn carriages or wagons. Dirt roads worked well in good weather, but in rainy weather and with the flooding of the Titicus Reservoir, the roads were often washed out. Paved roads were first introduced to North Salem in 1920.

The Town's first Comprehensive Plan in 1964 established that the hamlets of Purdys and Croton Falls grew around the train stations and I-684 (which at the time was mapped as I-87), while the eastern portion of the Town was characterized by farms and scattered homes. In 1964, the Route 22 corridor was the most developed along with portions of Town west of the Titicus Reservoir, which include the areas of Pinegrove Drive and Valeria Circle. Developed areas in the eastern portion of Town included Delancey Road and its offshoots, as well as Grant Road (Route 121) and Titicus Road (Route 116). The dwelling unit distribution map illustrates the development of North Salem in 1964 (Map 4.1).

Since 1964, North Salem has evolved from a farming community to a low density suburb with a rural character. Although there are many working

farms in the Town (9.2 percent of land is comprised of agricultural land uses), more land is occupied by single family houses. One of the more notable transformations includes Peach Lake, which has become an area of relatively dense single family housing as a result of a strong demand from vacationers for lakeside property. Other developed areas include the subdivision on Hilltop Drive (off of Titicus Road) and the development of single family houses around the Titicus Reservoir.

Map 4.1: Dwelling Unit Distribution, Town of North Salem (1964)



4.2 HISTORIC RESOURCES

As noted above, North Salem's rich history has grown from its agricultural roots. With settlement as early as the 1600s, the first land sale in 1731 was to a group of tenant farmers on a parcel of land in the eastern portion of Town. The Town was incorporated in 1788 and had a population of over 1,000 in 1790.

In 1984, the Town created an Historic Preservation Commission, an administrative and advisory board for the Town's Landmark and

Historic Preservation law and Historic Roads law, which regulate historic landmarks and local roads of North Salem. [18]

Starting in 1986, the Town has designated twenty-seven local landmarks, three of which, the Purdy Homestead, Union Hall and Delancey Hall, are on the State and National Register of Historic Landmarks[19]. The most well known landmark is the Balanced Rock on Titicus Road. Of the twenty-seven designated local landmarks (refer to Table 4.1), fifteen are private residences, three are community facilities, two are stone chambers, one is an exceptional children's school, two are mixed use (commercial and residential), one is a commercial property, one is infrastructure, one is a natural site and one is a roadway (Baxter Road). Efforts should be made by the Town to increase the number of designated historic local roads and designated historic districts.

Although there are no historic districts currently in Town, the residents of Purdys are beginning the process of forming an historic district. According to the Town's historian, there are eight other possible areas that are candidates for historic districts, but they have not begun the process. Map 4.2 shows all historic resources in the Town.

[18] A historic landmark is any building, structure, object, ruins, cemetery or natural object, configuration, geological formation or feature or parcel of land which has historic significance or is identified with historic personages or important historic events. A historic road is "any road of historical value or aesthetic interest by reason of its antiquity as a cultural or heritage resource."

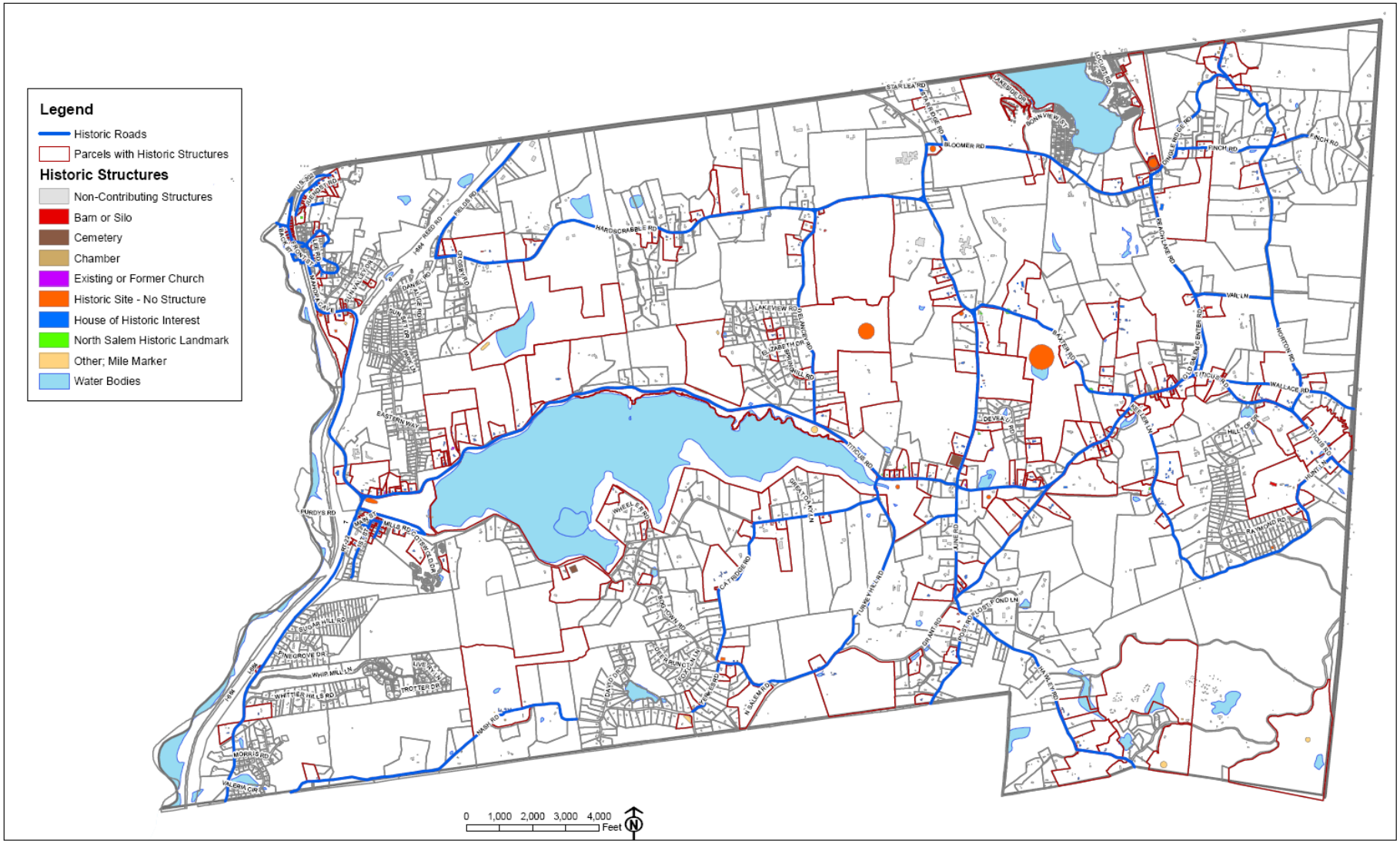
[19] The Town of North Salem has recently designated four additional landmarks: Spur Street Cottage; Purdy's Schoolhouse; Central High School; and Purdy Homestead Stone Chamber

Table 4.1: Local Historic Resources in North Salem		
Title	Address	Property Type
Landmarks		
Thaddeus Crane House	2 Baxter Road	Residence
Keeler Homestead	85 Keeler Lane	Residence
Purdy Homestead	102 Titicus Road	Mixed Use
Mills House	425 Mills Road	Residence
Samuel Wallace House	1 Wallace Road	Residence
John June House	71 June Road	Residence
Delancey Hall	266 Titicus Road	Community Facility (Town Hall)
Uriah Wallace House	264 Titicus Road	Residence
Stebbins Baxter Quick House	669 Titicus Road	Residence
Union Hall	673 Titicus Road	Commercial
Old Methodist Church	687 Titicus Road	Residence
Charles Decker House	8 Juengstville Road	Residence
Crow's Nest	9 Juengst Raod	Residence
Purdys Hotel	2 Main Street	Multi-Family Residence
McKeel's Market	8 Main Street	Mixed Use
Keeler Lane Bridge	Keeler Lane	Infrastructure
Quick Barn	667 Titicus Road	Community Facility (Storage Barn)
The Balanced Rock	667 Titicus Road	Natural
The White Elephant	81 Keeler Lane	Community Facility (Historic Society Headquarters)
The D.D. Smith House	Titicus Road	Residence
The Margaret M. Mahoney House	12 Main Street	Residence
Spur Street Cottage	3 Spur Street	Residence
Peach Pond Stone Chamber	955 Peach Lake Road	On private property
Purdy Homestead Stone Chamber	100 Titicus Road	On private property
Central High School	520 Route 22	Exceptional Children's School
Purdy Schoolhouse	8 Old Schoolhouse Road	Residence
Roads		
Baxter Road	Baxter Road	Historic Road
Districts		
Pending		

Source: Town of North Salem web site, Historic Preservation Landmarks Page, supplemented by the Planning Board Chair.

* Shaded cells indicate landmarks on a National or State Register.

Map 4.2: Historic Resources in North Salem, 2009



4.3 RECOMMENDATIONS

The rural character of North Salem is a valued asset for residents, as it was the most popular response in the Town-wide survey as a reason for living in the Town. Steps must be taken to preserve the character of the Town for future residents. These recommendations for lighting, noise, trees and community design are some initial steps in that direction. Promotion of greater climate and energy awareness are also important steps.

4.3.1 Lighting

Currently, the only opportunity to control lighting in the Town is during site plan review, as there are no regulations governing the intensity and direction of artificial light in the Town's residential and commercial districts. In order to preserve the Town's rural character and encourage sustainable energy usage, general standards should be established to regulate the various forms of illumination (i.e. municipal street lights, residential lighting and commercially illuminated signs). These should be codified into a Uniform Lighting Code.

The following recommendations for lighting control are based on public input from visioning sessions and discussions at Comprehensive Plan Committee meetings and should be considered a starting point for drafting legislation controlling illumination in the Town.

- *Creation of a "Dark Sky" Policy*

<u>Commercial Properties</u>

To reduce the amount of light pollution within the Town and maintain its rural character, a "dark sky" regulation should be written into the Zoning Ordinance prohibiting the emission of artificial light or glare that is visible beyond the lot line of commercial properties with specific times of operation. This would include all signs, lucent and translucent, emitting artificial light visible to the passerby from outside the lot lines. Exceptions to this regulation would include illuminated signs of certain commercial facilities during normal hours of operation (e.g. restaurants, bars, etc.). Neon lights of any type would continue to be prohibited.

As part of the "dark sky" policy, the Town should amend its site plan regulations (§250-45 - §250-52) to require all new commercial and non-single family residential developments larger than 3 acres to submit lighting plans that reflect amended regulations and demonstrate compliance with lighting standards.

Residential Properties

The "dark sky" policy would also prohibit the emission of artificial light or glare that is visible beyond the lot line of residential properties, most notably exterior lights on the main structures, driveways and accessory structures (e.g. tennis courts, swimming pools, horse stables, etc.) on the property. The residential portion of the "dark sky" regulation should provide the option of exterior lights turned off or activated motion sensors at specific times during all days. It is also recommended that residential exterior lights adhere to a shielded design standard that allows the emission of artificial light facing downward, as shown in the photo to the left. The residential portion should include amendments regarding flexibility for holiday lighting. New York State municipalities with similar legislation include the Towns of Ossining, Southampton, Warwick and Amherst.

Public Property

- *Motion Detectors on Street Lights*

In an effort to reduce light emissions and be both safe and cost effective over time, the Town should consider installing motion detectors on all municipal street lights. For example, from the hours of 12:00AM to 5:00AM, all street lights would operate on a motion detection basis, thereby limiting the amount of light emitted while still providing illumination for drivers. Motion detectors would need to be able to detect a moving vehicle from fifty yards away and maintain light during motion for at least one minute. A cost-benefit analysis should be done to determine if the cost of purchasing and maintaining the motion detectors versus savings from reduced energy usage would be economically feasible for the Town.

- *Conserve Usage of Municipal Lighting*

The hamlet of Croton Falls has municipal lights illuminated during the evening after businesses are closed and the last train has arrived. In order to reduce unnecessary light emissions and be safe, energy efficient and cost effective, the Town should involve the public through workshops and/or a survey on the necessity of having the Croton Falls' downtown street lights illuminated at specific times during all days and converting the current lights to street lamps which project all illumination downward. The hours of illumination should be coordinated with the Metropolitan Transportation Authority MetroNorth train schedule. By reducing the number of hours the Croton Falls' street lights are illuminated and redirecting light emissions, the Town would become more cost effective as well as reduce unnecessary light emissions.

- *Cost-Benefits Analysis of Illuminated Municipal Buildings*

Currently, the Town must keep interior and exterior portions of municipal buildings illuminated after hours to comply with insurance and safety requirements. Considering the importance of reducing light emissions, the Town should calculate the cost of having all municipal buildings darkened after hours. If keeping the lights off in all municipal buildings is cost effective, the Town should discuss options with its insurance provider to determine if the Town's buildings can be covered while remaining dark or at least minimally lit during the night. Motion detecting lights, rather than having lights on or off all night, may be an economically feasible option.

4.3.2 Noise

Noise reduction is an important goal of the Town, as unnecessary noise impacts community character and quality of life. The results of the Town-wide survey show that residents are concerned about noise, as it was one of the most cited issues regarding quality of life. The Town Building Inspector has also expressed concern about the regulation of noise. Currently, the Town has various regulations to control noise (§250.58, Landscaping and Environmental Requirements; Performance Standards), but current legislation is limited to commercial properties in the zoning ordinance. It is recommended that a complete set of general standards be adopted. The following recommendations for noise control are based on public input from visioning sessions and discussions at Comprehensive Plan Committee meetings.

- *Adoption of a "Disturbing the Peace" Ordinance*

The Town of North Salem does not have an ordinance regulating noise levels emanating from private residences or commercial establishments. In order to maintain the peace and quiet of North Salem, the Town should adopt an ordinance which, within reason, would give police officers the ability regulate excessive noise.

- *Adoption of a Noise Ordinance*

In an effort to reduce noise and keep peace within the Town, it is recommended that the Town adopt a noise ordinance that specifies times for use of heavy, noisy machinery, including construction and landscaping equipment, such as leaf blowers, and establish appropriate decibel limits. For example, §250.58 of Town Code could be amended to limit working hours of construction and landscaping businesses to Monday to Friday from 8:00AM to 6:00PM, or sunset, whichever occurs earlier (currently, §250.58 states 8:00AM to sunset).

4.3.3 Community Design

The Town seeks to promote quality architecture and community design that advances North Salem's attractive, rural character.

Design guidelines provide a more detailed focus than the broad goals of the Comprehensive Plan, yet allow greater flexibility and creativity in addressing design issues than zoning laws. The Town's intent is not to impose design guidelines that are overly rigid, but provide flexibility and creativity in the design process while embracing energy efficiency and conservation of resources.

Design guidelines should encourage development that emphasizes a sense of "neighborhood," is compatible with existing and adjacent buildings and uses, protects the Town's natural amenities, views and open spaces, conserves and enhances structures of historic value, and does not detract from the Town's historic character.

The following are recommended as a guide to be followed by more specific guidelines to be prepared as part of Plan Implementation.

- *Maintain and enhance the overall appearance of the Town.*

The Town should require plans submitted in conjunction with site plan, special permit and conditional use applications to

include architectural, signage, lighting and landscape concepts, particularly for mixed use developments and in Town or hamlet centers. Also, the Town should adopt guidelines and standards for landscaping and buffering for new commercial and residential projects that preserve and promote neighborhood physical characteristics. These landscape guidelines should establish proportional building envelopes for single-family homes, yet allow flexible building setbacks in neighborhoods—relating size and bulk so that it is consistent with buildings in the immediate neighborhood (see also recommendations pertaining to controlling oversized homes in Section 5.4 of the Land Use chapter). The Town should also encourage: buffering of storage and parking and other areas related to unsightly activities; well-planned and inviting streetscape designs and improvements as part of all commercial redevelopment efforts; and new developments that are at a scale consistent with abutting buildings and uses, as well as architecture.

- *Strengthen the historic identity of the Town*.

The Town has a large inventory of historic landmarks and the potential for historic districts. The location and design of proposed projects (including shape, scale, building materials, window patterns and color, etc.) should be sensitive to the historic settlement patterns and rural character, established architecture and traditional streetscape scale of North Salem.

- *Preserve and enhance the unique landscapes and natural resources of the Town's rural areas*.

The Town should protect and retain existing trees, shrubs and other landscape elements, when possible, and encourage applicants to use appropriate indigenous plant materials and traditional planting patterns in areas visible from public thoroughfares so that new buildings blend into their natural surroundings. Also, the Town should encourage applicants to provide site plans and building designs that enhance the existing visual quality and natural resource values that make these locations distinctive.

- *Incorporate any new development into the natural landforms*.

Open space preservation and the rural character of North Salem are important goals of the Town. The Town should preserve,

protect and restore, wherever possible and practicable in new developments, the natural terrain, drainage and vegetation. The Town should encourage the placement of buildings to minimize the need for excessive grading and promote well-designed development that respects the natural features of the land. This will avoid disturbance of steep slopes and important natural resource areas.

- *Promote land planning that, while accommodating the automobile, places greater importance on pedestrians.*

In an effort to promote other modes of transportation, the Town should integrate transportation planning into the community design review process by: evaluating the extent to which new developments provide for safe and adequate pedestrian and (where appropriate) bicycle access; requiring connections (sidewalks) to adjacent compatible developments; providing linkages to existing or planned greenways; and encouraging transit-friendly development principles. This will reduce congestion on the roads while providing residents with transit options.

4.3.4 Energy

4.3.4.1 Introduction

The purpose of this section is to provide guidance for climate and energy awareness strategies and to support an overall vision for a more sustainable, adaptable community. Global warming is one of the most important societal issues facing the world. While at a national level the United States is just beginning to consider formal action on the issue, local government leaders are serious about finding solutions and taking positive steps to combat climate change. According to the International Council for Local Environmental Initiatives (ICLEI), a rapidly growing number of local governments are taking the necessary actions to reduce their energy consumption and associated human-caused greenhouse gas emissions, such as carbon dioxide and methane, which contribute to global warming.

In the Town-wide Comprehensive Plan survey, North Salem residents demonstrated a strong commitment to protecting natural resources and the environment. Due to our rural nature and North Salem's commitment to open space, we have the potential to store more carbon than we emit. But first, we need to know a lot more than we do now about how much greenhouse gas North Salem is

producing.

The Town's first priority should be to focus on energy awareness. Its next priorities – both of equal importance – should be to reduce emissions and plan strategies to adapt to a changing environment. It is now clear that even if humans could halt worldwide greenhouse emissions tomorrow, we would still experience for decades to come the climate change that has already been set in motion. We will have to adapt.

4.3.4.2 What North Salem Has Already Done.

On May 26, 2009, North Salem joined the Northern Westchester Energy Action Coalition, an organization of 14 towns committed to reducing greenhouse gas emissions and increasing use of alternative clean energy sources. North Salem, independently and as part of the Northern Westchester Energy Action Consortium and along with various Westchester municipalities, is actively seeking grants and other funding opportunities that may be available under the American Recovery and Reinvestment Act (ARRA) as well as other public and private sources. On July 14, 2009, the North Salem Town Board established the North Salem Energy Advisory Panel (NSEAP) and charged it with the dual mission of raising energy awareness and developing a plan to reduce North Salem's carbon footprint. At the urging of the NSEAP, the Town Board also passed a resolution to authorize membership in ICLEI, clearing the way for North Salem to complete an inventory of the town's greenhouse gas emissions. The NSEAP hopes to complete the inventory in 2010.

4.3.4.3 Next Steps.

The NSEAP estimates that it will take five to seven months to complete the ICLEI inventory. Once the inventory is completed, North Salem will have critical baseline data upon which to establish goals and build a viable plan for greenhouse gas reduction. North Salem's goals should meet or exceed the goals established in the Westchester Action Plan for Climate Change and Sustainability and should also meet or exceed any goals established at the state and federal levels.

The NSEAP will begin developing a Climate Action Plan for North Salem in 2010. It plans to engage as many members of the community as possible and will establish working groups to focus on municipal, residential and commercial energy use and a

separate working group to focus on public education. The NSEAP will establish criteria – such as the potential to reduce emissions, achievability and likelihood to be embraced – upon which to evaluate each proposed action item. Once established, the Plan will be evaluated annually. The NSEAP has also recommended that the Town appoint a municipal energy manager (this can be a volunteer or a paid position) to work with the NSEAP and facilitate the implementation of the Town's Climate Action Plan.

4.3.4.4 Building A Vision For A Sustainable Future.

North Salem should take a leading role in educating its residents, municipal and school officials, and developers on the advantages and importance of adopting and implementing an Climate Action Plan. The Plan should:

- Recommend policies and measures that the Town will take to reduce greenhouse gas emissions and establish an emissions reduction target.

- Develop public awareness by utilizing such resources as the Town web site and the library to disseminate information and resources regarding energy efficiency.

- Establish energy efficiency standards and transportation policies that will include the purchase and use of energy efficient vehicles, car pooling, ride sharing opportunities, parking incentives for hybrid vehicles, etc.

- Encourage the use of energy audits and the switch to energy-efficient utilities such as Energy Star-rated or better technologies for homes, offices, municipal and school buildings, and facilities.

- Identify financial incentives and low-cost loans for qualifying participants or projects that promote energy-efficiency.

- Ensure that all stakeholders for new construction are utilizing LEED certification (The Leadership in Energy and Environmental Design Green Building Rating System, developed by the U.S. Green Building Council provides a suite of standards for environmentally sustainable construction).

- Insure that municipal boards are requiring developers to utilize LEED certification for green building design and consider providing incentives to developers for meeting higher LEED ratings for green building design.

- Review building codes and identify any measures to improve energy efficiency requirements.

- Encourage the use of renewable energy generators such as solar, wind, hydro-electric, geo-thermal, etc. and identify opportunities for incentives, both financial and easement of regulations, to facilitate their installation.

- Encourage public and private selection of clean energy sources, such as the purchasing of wind energy through New York State Electric & Gas.

- Support the forthcoming "smart grid" efforts to put information and communication technology into electricity generation, delivery and consumption.

- Encourage the Town and school system to modify its procurement policy to specify energy efficiency standards in all bid specs.

- Encourage retrofitting existing buildings and outdoor facilities to improve the efficiency of lighting, plumbing, insulation and HVAC systems, and incorporate renewable energy options.

- Develop and support a Dark Sky light policy (see Section 4.3.1 of this Plan).

- Upgrade recycling policies and laws, and establish other waste-reduction measures such as municipal and residential composting.

- Support the preservation of open space and agricultural land uses, and discourage the development of impervious surfaces; loss of tree cover; loss of natural resources and other development activities that would raise our carbon footprint.

- Encourage and help identify incentives to foster local food production.

- Stay abreast of innovations and funding sources that help lower greenhouse gas emissions, and maintain current information about progress on the Town web site and other sources of community communication.

If enough municipalities like North Salem establish regulations, policies and goals to encourage energy efficiency, it will help to create and encourage the development of markets for the goods and services that make energy efficiency possible on a much larger scale. Once enough industries have found ways to profit from energy reform, there will be a durable constituency for continued change and innovation to both mitigate and adapt to climate change.

4.3.5 Open Space

In 2006, the Town received a grant from the New York State Department of Environmental Conservation (NYSDEC) Hudson River Estuary Program to prepare an open space study as part of the Comprehensive Plan process.[20] The Town Board appointed a volunteer Open Space Committee (OSC) whose task was to prepare a study on existing and potential open spaces within the Town.

A primary goal of the Town's ongoing planning and development review is – in all areas of Town – to continue to preserve and protect the integrity of existing open space areas and to encourage the preservation of additional, desirable open lands. The mission of the OSC was to assist the Town in achieving this goal by defining, inventorying, and evaluating priority open space resources and to recommend and promote a plan for the protection of these resources.

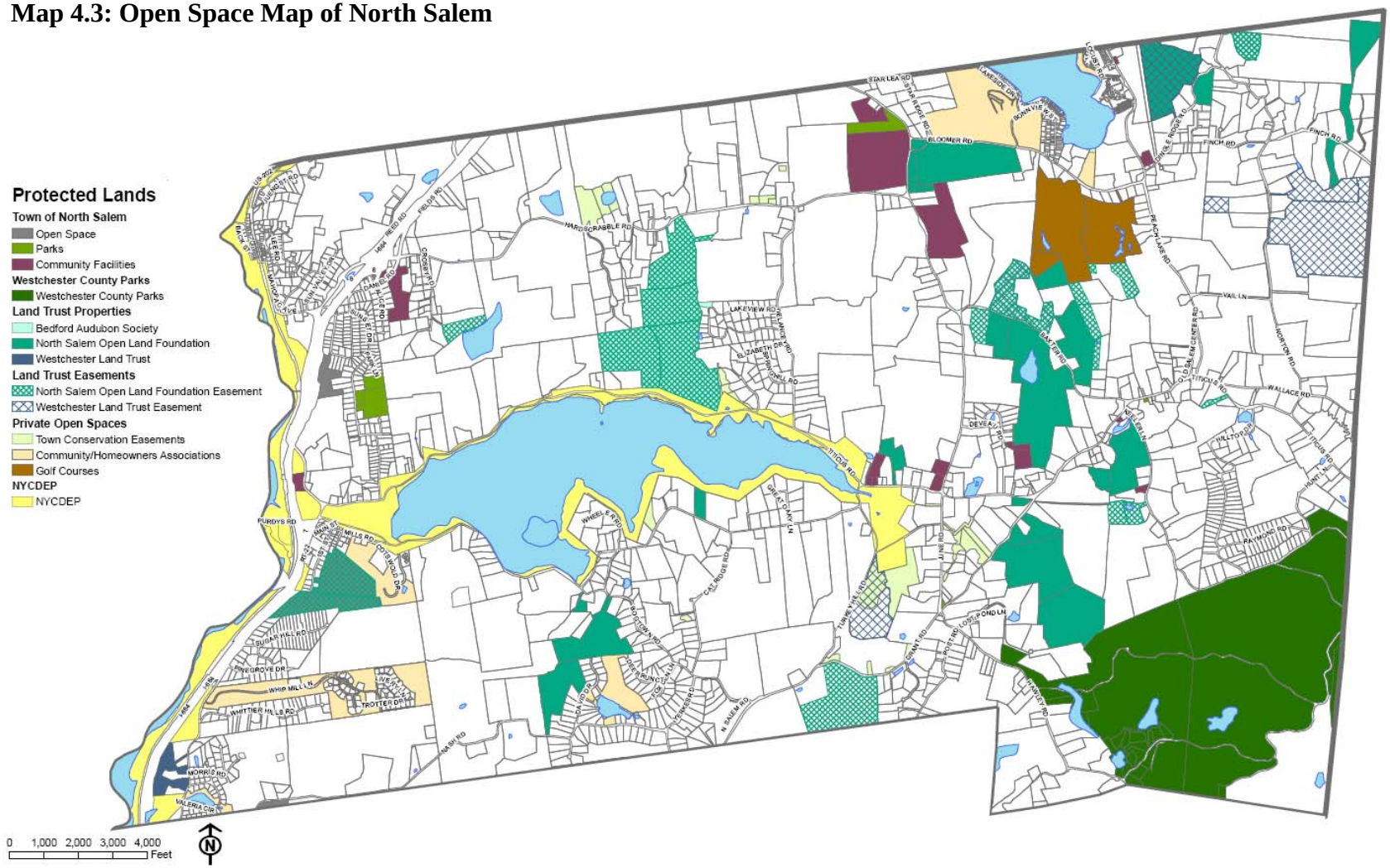
The OSC conducted a comprehensive inventory of existing designated open spaces and scenic viewsheds which was then combined with an inventory of environmental features, agricultural properties and historic resources to create a composite map (see Map 4.3) which the OSC used to identify potential open spaces which should be preserved or set aside to accomplish the following overall goals and objectives:

- To maintain the rural character of the Town by protecting, for example, the visible field/meadow lands and woods that help define the Town's rural character;

[20] The study is included in Appendix D.

- To preserve visual and scenic character, including the viewsheds along public thoroughfares and scenic roadways;
- To preserve scenic topographic features;
- To provide recreational use such as trails for recreational uses including walking, hiking and horseback riding;
- To protect ecologically significant/sensitive lands such as steep slopes and wetlands;
- To preserve and enhance animal and plant habitats;
- To preserve historic landscapes and lands with historic structures;
- To connect open space areas;
- To establish linkages within developed neighborhoods; and
- To protect the quality and quantity of public-use water resources including watersheds, aquifer recharge zones, lakes, and streams.

Map 4.3: Open Space Map of North Salem



The OSC also identified the following specific objectives with respect to several of the goals:

PRESERVE VISIBLE/SCENIC LAND AND LANDSCAPES

1. Identify lands that visually contribute to desirable community and open space character, including those along scenic roadways.
2. Identify land available for open "pockets" and linkages within developed neighborhoods.
3. Ensure publicly accessible and visible open spaces in all areas of Town.
4. Preserve visible open field/meadow lands that define the Town's rural character.
5. Preserve historic landscapes and lands with historic structures.

PRESERVE ECOLOGICALLY SIGNIFICANT LAND

1. Engage in a separate natural resource inventory to identify ecologically significant areas (it is a benefit or threat to human health, it is a natural setting such as wildlife habitats, wetlands, forests and lakes, it has agricultural, social, cultural, historic, archaeological, recreational or educational values, it has an inherent ecological, geological or hydrological sensitivity to change that may be adversely affected by any change), important as habitat for plants and animals, and identify existing and potential Critical Environmental Areas (CEAs) and significant topographic features.
2. Identify and characterize a list of parcels for future conservation that help to protect the quality and quantity of public use of water resources including watersheds, aquifer recharge zones, lakes and streams.
3. Identify contiguous forest areas.
4. Identify and prioritize a list of parcels for future conservation including, or in the vicinity of, significant wetland areas.

CONNECT IMPORTANT OPEN SPACE AREAS

1. Identify connections between ecologically important parcels as part of the Town's involvement in the Eastern Westchester Biotic Corridor.
2. Pursue connections between existing open space areas.
3. Collaborate with surrounding municipalities in open space protection (i.e. identify contiguous open space areas).
4. Identify pedestrian linkages and wildlife corridors and contiguous forest areas.
5. Expand protected land area contiguous with existing protected open spaces.

ENHANCE EXISTING OPEN SPACE AREAS

1. Discuss making improvements to the Town's Summer Camp at Mountain Lakes Park with Westchester County.
2. Provide walking trails on preserved parcels.
3. Educate residents about existing open space areas and recreation possibilities.
4. Develop parking and better public access to trails and open space.
5. Work with Department of Parks and Recreation to enhance existing recreation areas.

5.0 LAND USE AND ZONING

Historically, North Salem was a farming community. Today it borders on areas of suburban development, but its landscape remains largely rural, though increasingly characterized by single-family development. The Town covers an area of 23.2 square miles.[21] Residential zoning comprises about 88 percent of the Town's land area, while actual residential uses occupy 39 percent of the land area. The remainder of land uses include undeveloped, agricultural, water supply lands, parkway lands, nature preserves, transportation, communication and utility, institutional and public assembly, private recreation, interior water bodies, commercial and retail, manufacturing, industrial and warehousing, mixed use, cemeteries and office and research.

5.1 EXISTING DEVELOPMENT

The following is based on a parcel-by-parcel inventory of land uses created by Westchester County (as part of its *Westchester 2025* planning effort). It describes existing land use conditions in North Salem and identifies trends in overall development patterns, specifically in 2007. Westchester County created the following GIS map data based on satellite and aerial images and codes from municipal assessors.

As shown in Table 5.1 below, in 2007 North Salem is characterized by the predominance of its residential land, which totals 5,771.1 acres or 38.8 percent of Town land. Undeveloped and vacant land, another primary land use, occupies 3,299.3 acres or 22.2 percent of Town land area in 2007. Other predominant land uses include agricultural land at 1,372.5 or 9.2 percent of Town land area, New York City water supply lands at 1,270.9 or 8.5 percent, and parkway land at 1,052.67 acres or 7.1 percent.

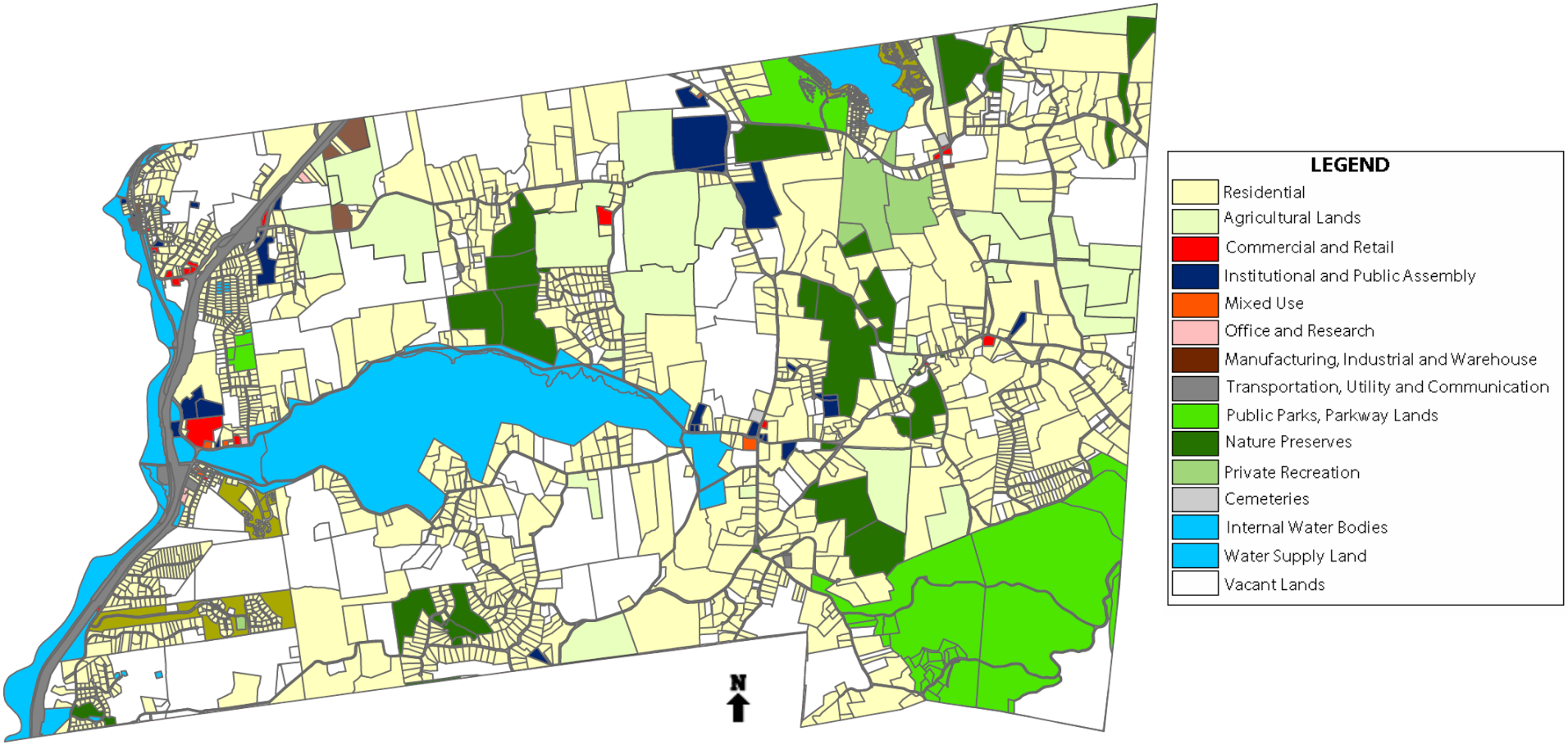
Table 5.1: General Land Use, 2007

LAND USE	Acreage	Percent
Residential	5,771.1	38.8
Agricultural Categories	1,372.5	9.2
Public Parks, Parkway Lands	1,052.7	7.1
Private Recreation	165.4	1.1
Nature Preserves	818.0	5.5
Interior Water Bodies	111.4	0.7
Undeveloped	3,299.3	22.2
Institutional and Public Assembly	202.1	1.4
Commercial and Retail	44.5	0.3
Mixed Use	8.3	0.1
Office and Research	5.4	0.0
Manufacturing, Industrial and Warehousing	35.2	0.2
Transportation, Communication and Utility	700.0	4.7
Cemeteries	7.1	0.0
Water Supply Lands	1,270.9	8.6
TOTAL	14,863.6	100.0

Source: Westchester County GIS Data, 2007.

[21] *Land Use in Westchester* by the Westchester County Department of Planning (2010).

Map 5.1: Land Use in North Salem



5.1.1 Residential

Single-Family

Single-family residential land uses include dwelling units on separate lots and accessory structures. In 2007, single-family land uses comprised 2,823.1 acres or 19.0 percent. Estates and rural residential land uses occupied 2,733.5 acres or 18.4 percent of Town land. Both single family and estates and rural residential land uses are located throughout North Salem, with concentrations of single family houses along the Route 22 corridor.

Multi-Family

In 2007, 51.0 acres or 0.3 percent of Town land area was allocated to multi-family properties. Table 5.2 below outlines residential composition from 2007. Multi-family land uses are represented by developments in Purdys and Croton Falls.

Table 5.2: Residential Composition, 2007

Type	Acres	% of Residential	% of Total
Single Family Year Round	2,818.0	48.8	19.0
Single Family Seasonal	5.0	0.1	0.0
Rural Residential with Acreage*	2,733.5	47.4	18.4
Condominiums	3.4	0.1	0.0
Two and Three Family	46.5	0.8	0.3
Apartments	4.5	0.1	0.0
Multi-structure	4.0	0.1	0.0
Home Owners' Association Common Land	156.1	2.7	1.1
TOTAL	5,771.1	100.0	38.8

*Single family year round uses with more than 3.0 acres.
Source: Westchester County GIS, 2007.

5.1.2 Agricultural

In 2007, agricultural uses occupied 1,372.5 acres or 9.2 percent of Town land. Within agricultural uses, horse farms comprised 423.6 acres or 2.8 percent. Agricultural land serves the community as horse farms are the primary industry in the Town and farm land adds to the community character of the Town. Although varied agricultural uses are found throughout North

Salem, the keeping of horses is predominant, ranging from one to two horse owners to boarder stables. As of 2009, there were 62 horse permits issued and 13 horse farms. Agricultural uses are found in the northern portion of North Salem along Hardscrabble Road, and throughout the eastern portion of the Town.

5.1.3 Recreation and Open Space

Open space uses include land devoted to passive or active recreation or leisure activities, specifically including the designation of public parks, nature preserves, private recreation and interior water bodies. In 2007, public park uses comprised 1,052.7 acres or 7.1 percent of Town land area, nature preserves 818 acres or 5.5 percent, private recreation 165.4 acres or 1.1 percent and interior water bodies 111.4 acres or 0.7 percent. In total, open space uses represented 2,147.4 acres or 14.4 percent of Town land area.

Public park uses include Mountain Lakes Park in southeast North Salem (accessible off Hawley Road), Volunteers Park (abutting the North Salem Middle and High School and also accessible by June Road) and Joe Bohrdrum Park in the western portion of North Salem (accessible by Hardscrabble Road and Titicus Road). Nature preserves can be found off of Titicus Road, Baxter Road and Peach Lake Road (east of Peach Lake and toward the southern Town border). Private recreation is located in the northern portion of the Town near Peach Lake, off of Bloomer Road. Interior water bodies are comprised of Peach Lake, the Titicus Reservoir and River and numerous small lakes and ponds throughout the Town.

5.1.4 Undeveloped Land

Undeveloped land consists of raw land with no impact of construction or development. In 2007, undeveloped uses comprised 3,299.3 acres or 22.2 percent of land in the Town. Undeveloped land can be found in multiple locations throughout North Salem.

5.1.5 Institutional and Public Assembly

Institutional and public assembly uses represent school and government buildings, houses of worship and non-profit owned buildings and land. This land use category contains tax exempt property. In 2007, institutional land uses comprised 202.1 acres or 1.4 percent of Town land. The majority of institutional and public assembly uses are found in the northern portion of the Town, on Hardscrabble Road southwest of Peach Lake, with another large parcel in Croton Falls.

5.1.6 Commercial and Other Non-Residential

Approximately 44.5 acres or 0.3 percent of Town land were occupied by commercial and retail uses in 2007. The primary industry in North Salem is horse farms and other commercial uses are limited. Most of these other land uses can be found in Purdys, Croton Falls and along collector roads in the eastern portion of North Salem.

A land use comparable to commercial and retail is mixed use, which is typically a combination of retail and residential. In 2007, 8.3 acres or 0.1 percent of land uses were allocated to mixed use properties. Mixed use development can be found in various locations including Purdys, Croton Falls and along collector roads in the eastern portion of North Salem.

In 2007, office and research land uses occupied 5.4 acres, less than 0.1 percent of the Town's total land area. Most office and research uses are found in, or in the vicinity of, Croton Falls and Fields Lane.

Industrial land uses include manufacturing, warehousing, assembly and distribution. In 2007, industrial land uses comprised 35.2 acres or 0.2 percent of Town land area. Most industrial uses are found either north of Croton Falls off of I-684, or east of Croton Falls on Hardscrabble Road.

5.2 LAND USE GOALS

The following outlines the Town's overall goals for land use as a residential and rural community, as identified during the planning process, including the results of the Town Survey. [22]

- Maintain the Town's rural and residential identity.
- Protect and preserve scenic vistas, unique geological and open space areas, flood plains, key water bodies and watersheds, and other environmentally sensitive resources and natural features.
- Protect and preserve surface and sub-surface water so as to ensure an adequate supply of potable water.
- Protect and foster the Town's heritage through the identification and preservation of historic areas, landmarks, sites and structures.
- Discourage the conversion of viable agricultural land.
- Provide adequate recreational, educational and cultural facilities and services to meet the varied needs of all segments of the population.
- Rehabilitate, preserve and strengthen existing small hamlet-oriented economic activity centers such as Croton Falls, Purdys and Peach Lake.
- Discourage large scale, traffic generating development that is not in keeping with the rural character of the Town.
- Provide adequate areas for appropriately scaled housing to accommodate the anticipated Town population growth with a variety of housing choices and densities, supported by infrastructure.
- Phase development to coincide with available utilities and services, thereby minimizing the fiscal burden to the community and ensuring adequate and necessary community facilities and services.
- Encourage sustainability in the Town by amending the building code to establish energy efficiency standards for new residential and commercial developments and major renovations and providing incentives for eco-friendly, green design.

5.3 ZONING ANALYSIS AND RECOMMENDATIONS

This section describes existing zoning and proposed changes. The

[22] The goals and objectives for Open Space are stated in Section 4.3.5.

current zoning for the Town was adopted in March 1987 as Chapter 250 of the Code of the Town of North Salem, Zoning, also referred to as the Zoning Ordinance. The 1987 Zoning Ordinance was adopted following adoption of the 1*985 Master Plan*, which included descriptions of some aspects of the proposed zoning changes that were included in the 1987 Zoning Ordinance. The Zoning Ordinance was amended in 2000 to include new multi-family sites and a new zoning district, Planned Development - Continuing Care Retirement Community District.

The Zoning Ordinance is comprised of 14 zoning districts, which include eight residential (five single-family, two multifamily and one planned development-continuing care retirement community), four commercial (two business and two office) and one planned development district. Table 5.3 below shows generalized zoning uses and requirements for each district. Table 5.4, at the end of the chapter, provides bulk requirements for all land uses.

Map 5.2: Generalized Zoning

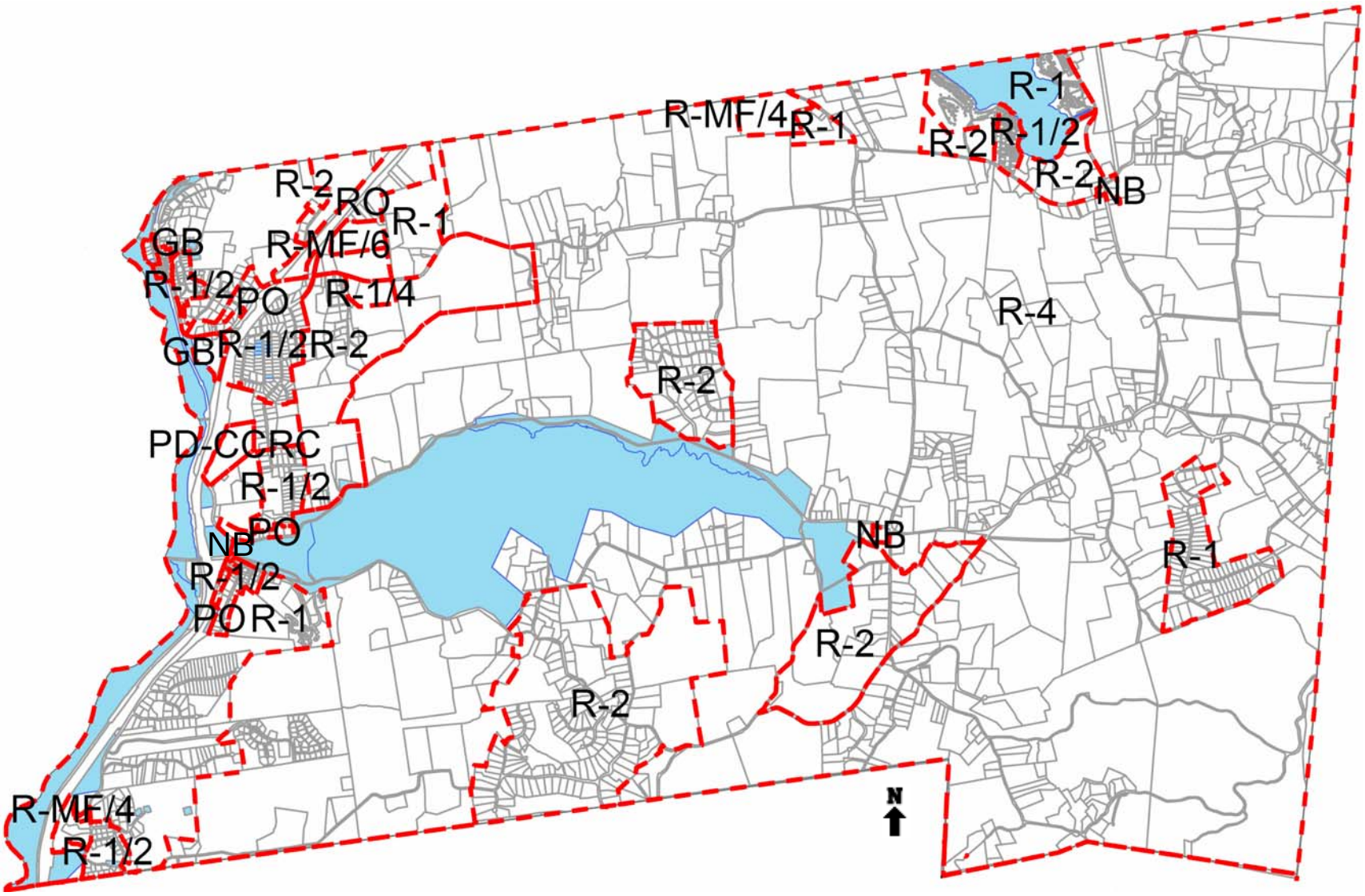


Table 5.3: Zoning Ordinance Generalized

Symbol	Title	Permitted Uses by Right
R-4	Rural Density Residential District	Farms (crops, cattle, fowl, pig and fur-bearing animals), detached single-family dwellings, Town uses, government uses, churches or places of worship, convents and public schools.
R-2	Low Density Residential District	Farms (crops, fowl, pig and fur-bearing animals), detached single-family dwellings, Town uses, government uses, churches or places of worship, convents and public schools.
R-1	Medium Density Residential District	Detached single-family dwellings, churches or places to worship, convents, Town uses, government uses, public schools and railroad rights-of way and passenger stations.
R-1/2	Medium Density Residential District	Detached single family dwellings, churches or places to worship, convents, Town uses, government uses and public schools.
R-1/4	Medium-High Density Residential District	Detached single-family dwellings, multifamily dwellings for elderly and handicapped persons operated by nonprofit organizations, multifamily dwellings, provided that there shall be not more than 4 dwelling units per acre, churches or places to worship, convents, Town uses, government uses and public schools.
R-MF/6	Residential-Multifamily/High Density District	Multifamily dwelling units, detached high-density single-family dwellings and attached high-density single-family dwellings.
R-MF/4	Residential-Multifamily/Medium Density District	Multifamily dwelling units, detached medium-density single-family dwellings and attached medium-density single-family dwellings.
PD-CCRC	Planned Development – Continuing Care Retirement Community District	Assisted/assistive-living facilities, multifamily dwellings for senior citizens and disabled persons, high-density single-family dwellings for senior citizens and disabled persons
NB	Neighborhood Business District	Retail stores for the sale of general goods, barbershops and beauty parlors, shoe repair and tailor shops, business or professional offices and banks, libraries, museums and art galleries, medical and dental clinics, churches or places of worship, convents, Town uses and government uses.
GB	General Business District	Retail stores for the sale of specialty items, retail stores for the sale of general goods, restaurants and other food service establishments, barbershops and beauty parlors, shoe repair and tailor shops, business or professional offices and banks, libraries, museums and art galleries, medical and dental clinics, churches or places of worship, convents, Town uses, government uses and railroad rights-of-way and passenger stations
PO	Professional Office District	Business or professional offices, medical and dental clinics, libraries, museums and galleries, churches or places of worship, convents, Town uses, government uses and detached single-family dwellings
RO	Research-Office District	Business or professional offices, churches or places of worship, convents, Town uses and government uses
PD	Planned Development District	Detached one-family dwellings, attached one-family dwellings, churches or places of worship, convents, Town uses, government uses and public schools.
OHD	Overlay Historic District	Areas of historical significance

In 1987, the Town's zoning map was revised. A majority of the Town's land area was rezoned to R-4 (Rural Density Residential District), and some areas were rezoned to R-2 (Low Density Residential District), which permit a single-family dwelling per four and two acres, respectively. Areas of non-residential zoning (businesses, offices, industrial, etc.) were also reduced as a result of the 1985 Plan.

Since the adoption of the zoning map in 1987, the only changes to zoning districts in the Town included the rezoning of four parcels to medium to high-density residential zoning districts in 2000 and 2001—to create the opportunity for development of affordable housing and to provide for the development of a variety of housing types in the Town. These zoning districts permit multi-family and single-family residential development with inclusionary requirements, which means that a certain proportion (all zoning districts mandate 20 percent, except for PD-CCRC which mandates 10 percent) of the dwelling units constructed in these zones must be affordable units—i.e., Moderate-Income Housing (MIH) units.

Residential Uses

Rural density land uses are located in areas where municipal services, such as central sewer and water services, are not available due to the relatively high cost of providing infrastructure systems in these areas.

With respect to residential uses, it is recommended that:

- *Rural residential densities be maintained at approximately one unit per four acres with some flexibility to recognize the differing land capacities of each development site.*
- *Within these areas, single-family detached dwellings be maintained as the predominant land use, with some concurrent consideration of clustering as an alternative to sprawl.*

Low density residential (without public utilities) areas permit slightly higher densities than rural density residential areas, compatible with surrounding uses and the capacity of the land.

In these areas, it is recommended that:

- *Low density residential densities at one unit per two acres be maintained, due to lack of public facilities.*
- *Cluster development is also possible in this area, at the same density. Specifically, there is a developed area near Turkey Hill, which is currently zoned R-2. Given the site's location in a transitional area, it is recommended that it be rezoned from low density residential(R-2) to rural density residential (R-4).*

Medium-low densities are currently permitted in areas where public utility and infrastructure systems are feasible or currently exist.

In these areas, it is recommended that:

- *The permitted densities be maintained: where public sewers are available, one unit per acre (R-1); where public sewers are lacking, one unit per two acres (R-2). Detached single-family dwellings would be characteristic, but cluster development of the same density would likely be more feasible with consideration of public utilities.*
- *Where appropriate, cluster residences in higher densities in an effort to preserve open space.*

Medium density residential areas (R -1/2) are serviced by at least one utility and are located in proximity to major links of the circulation system and key community facilities and services.

In these areas, it is recommended that:

- *Density be maintained at less than two housing units per acre.*
- *Cluster development be encouraged where soil and topographic conditions can support such development.*
- *The Peach Lake area, for example, remains a suitable area for medium density zoning. A public sewage treatment system is under construction. The system will hook up 457 homes (354 in North Salem and 103 in Southeast) and a few small businesses in North Salem. Most of the homes were built as summer cottages and over the years were converted to year-round residences. Construction of the plant is expected to be completed in 2011 with hook-ups to the homes and businesses by 2012.*

In light of the new sewer system being built which will enable house expansions, an issue affecting the Peach Lake neighborhood that was identified during the planning process was the need for more flexible zoning and unique bulk and supplemental requirements for the Northern Westchester Country Club (NWCC) property (approximately 80 fee-ownership individual surveyed lots in a subdivision) and co-ops (land owned by co-op corporations and leased to shareholders). The bulk requirements of the zoning ordinance are currently applied to "lots," but each co-op is comprised of one or more large lots.

To address this disparity, it is recommended that the Town:

- *Explore new, alternative solutions to Peach Lake's problems with all interested agencies.*

For example, it is currently not permitted to store boats and trailers in a front yard or where they are visible in residential districts, but many Peach Lake residents have both and live on small lots. A special district for the NWCC property and the 3 co-ops (Bloomerside, Pietsch Gardens and Vails Grove), all of which are on Peach Lake, could be considered. Rather than use property-line set backs, a required distance from an adjoining dwelling might be considered. The issue could also be potentially addressed through the proprietary lease clause in the Town's Code. Finally, the creation of a new zoning district that not only has less stringent setback requirements, but also a floor area ratio that limits lot coverage, could also be considered.

In sum, the issue requires further consideration to develop a more appropriate set of district and bulk requirements for co-op properties. This Plan recommends further analysis in order to make a specific zoning recommendation. A standard can then be developed that fits the average lot in a district. With less stringent setback requirements, there would be fewer applicants for variances.

Since the co-op boards don't control the sewer, another sewer board incorporation (the Town Boards of Southeast and North Salem) may be needed. Another possibility is requiring approval from the Zoning Board of Appeals subject to sewer capacity. In this case, the zoning ordinance would not need to be changed.

Medium-high density residential areas (R-1/4) are serviced by public sewers and located near major roads and important community facilities and services.

In these areas, it is recommended that:

- *An overall density of four units per acre be maintained.*

Planned Development – The Continuing Care Retirement Community District (PD-CCRC) is located in Purdys, along the Route 22 corridor in the western portion of Town. Due to the lack of public transit options necessary for seniors, disabled persons and assisted living facilities, and limitations of uses for the district, it is unsuitable for many locations in the Town.

In this regard, it is recommended that:

- *The PD-CCRC Zoning District be limited to its current location.*

The Planned Development – The Continuing Care Retirement Community (PD-CCRC) zoning district requires that a development consist of "a combination of high-density residential development, independent multifamily and single-family dwelling units for senior citizens, persons of age 55 or older and disabled persons, and

development of an assisted-living facility or other conditional or special permit uses." It is recommended that the zoning text be amended to restrict the district to that site alone, given the limitations to the uses. The PD-CCRC zoning district was adopted as part of *the Continental decision*. It would be unwise to rezone another area within the Town PD-CCRC due to the lack of infrastructure, necessity for close proximity to commercial hamlets and lack of public transportation options.

Recreation and Open Space

The Town of North Salem has approximately 1,053 acres of parkland.[23] With a population of 5,219 in 2008, this represents 201.8 acres of parkland per 1,000 residents—a figure much higher than the standards set by the National Recreation and Park Association. This is also higher than the per capita amount of local park and recreational land recommended by New York State—10.25 acres per 1,000 residents. A closer look, however, reveals that the type and location of parkland provided in the Town does not adequately match local needs.

To address this disparity, it is recommended that:

- *Park dedication and recreation requirements in Town regulations and zoning be clarified.*

With regard to recreation set asides and fees, there are currently differences which must be reconciled among the Town regulations Chapter 157 (Open Space), Chapter 200 (Subdivision of Land) and Chapter A267 (Site Plan Rules and Regulations) for RMF-4 and RMF-6 zones. Chapter 157 states that proposals for multi-family developments must provide either a recreation area no less than 10 percent of the total site area or one acre (whichever is greater) or if a suitable recreation area cannot be developed, a fee to be paid to the Town of North Salem (outlined in Chapter 85, Fees). It is currently interpreted as on-site recreation for the benefit of the development, as Chapter 157 states that if a development does not have adequate space for a park and pays a fee, that the recreational area is "intended to benefit primarily, but not exclusively, the residents of the development subject to the fee." The recreation requirement is intended, however, for the benefit of the general public. This should be clarified to reflect intended Town law.

In this regard, it is recommended that:

- *Mini-parks near residential areas be expanded.*

[23] Recreational facilities are discussed in more detail in Section 9.1.7.

As park facilities represent significant assets to the Town's recreational needs, they should be protected from development. An assessment of parkland in North Salem revealed a need for 1.5 acres of mini-parks (between ¼ and ½ acre in size) within a 5 to 10 minute walking distance of residential areas in the Town.

It is recommended that:

- *The Town explore the feasibility of creating a Town-wide trail system. Town residents would benefit from a trail system that could link up different recreational areas. Trails would provide local recreational space for residents who would like walk, ride a bicycle or ride a horse.*

It is further recommended that:

- *Appropriate recreation fees-in-lieu of payment be collected.*

Alternatives to recreation land dedication—i.e., fee payment—are recommended. Since over one-half of Town land (54.5 percent or 8,097 acres) is open space—which includes public parks, nature preserves, agriculture, water supply lands, private recreation, cemeteries, interior water bodies and undeveloped land—and much of the land is either unimproved or cannot be developed due to conservation easements, it is recommended that, whenever feasible, applicants pay a fee in lieu of parkland in order to fund mini-parks and neighborhood parks or recreational programs. This is intended to lessen the burden on the Town's recreational facilities and programs occasioned by new development.

The Town is currently updating its Recreation Master Plan to inventory and evaluate the types and locations of existing recreation facilities and programs, along with the Town's current and anticipated recreational needs. This will provide a thorough and accurate basis for the in-lieu fee determination. Given the projected population growth of North Salem and the amount of developable land and existing parkland, it is recommended that the Town, on an interim basis, require developers to pay $10,000 per lot or $10,000 per dwelling unit. This fee is comfortably within the range of fees in lieu of parkland of Westchester County charged by municipalities—i.e., from $5,000 per lot to $60,000 per lot, and between $2,000 and $8,500 per dwelling unit. The fee should ultimately represent the fair market value of land, considering the large amount of acreage per lot size and amount of land conserved for open space that cannot be developed for active recreation. It is also recommended that this fee be re-evaluated periodically—i.e., the Town should establish a mechanism to adjust the fee annually or bi-annually to reflect changing land costs.

Commercial and Other Non-Residential Uses

Although approximately 130 acres of land are located in the Town's business zoning district, 95 acres are actually occupied by businesses. The remaining land is vacant, undeveloped, or occupied by residences. Within the Town's business zoning districts, nearly all of the land is already developed with a mixture of uses. The exception is land in the Research-Office (RO) zoning district, where some of the parcels remain vacant or are residences.

In 1987, as part of Town rezoning, a significant area of land on the southeast side of Interstate 684 and Fields Lane was rezoned to the RO zoning district. Only four of the properties in the RO zone are developed for office or warehouse uses. These uses were all established before the adoption of the Zoning Ordinance that created the RO zoning district. The remaining ten parcels in the RO zone are single-family residences, agricultural uses or undeveloped. This may reflect long-term limitations in the demand for office space in North Salem and in the region and the narrow scope of the RO zoning district. In addition, as part of the zoning adopted by the Town of North Salem to address *the Continental decision*, a 24-acre parcel of land in the RO district was rezoned to create a new high-density residential (R-MF/6) zoning district.

To address these issues, it is recommended that:

- *Service businesses in the RO zone on Fields Lane be accommodated.*

The primary determinants affecting office/research land uses include the availability of utilities and suitable access. Office/research development has occurred principally along Fields Lane, north of Hardscrabble Road in the Town of Southeast—which provides favorable access to I-684. It is recommended that Fields Lane be targeted as a mixed use zone for multi-purpose small service businesses (excluding retail) or for "flex" space which contains a combination of office, assembly and light industrial and warehousing uses. These flex-type mixed uses would require an application for a special permit from the Town Board—to review potential impacts and ensure the appropriate scale (Floor-Area

Ratio/development coverage), screening/buffers, and quality of design. More flexibility could be provided to those property owners with vehicular access on Fields Lane.

It is further recommended that:

- *Economic activity be focused in the hamlets.*

Small-scale neighborhood shopping areas provide convenience goods and services, including pharmacies, hardware stores, stationary stores, grocery stores and barber or beauty salons, to the adjacent residential community. These commercial and service uses should remain within the hamlets (Croton Falls, Purdys and Salem Center). The role of the hamlet is recognized as the principal business and service center of the Town.

5.4 OTHER LAND USE TOOLS

This section discusses techniques and strategies for achieving the Town's goals and vision—e.g., protecting and preserving natural resources, open space areas and agricultural land in the Town. Other land use tools were recommended in section 4.3.3 (Community Design).

Steep Slope Ordinance

In many rural communities, undeveloped land is often located in areas where steep slopes and wetlands predominate: these are the lands that were once considered too difficult to develop and so were not developed. With current construction practices, more challenging lands are now subject to development pressures. Steep slope regulations are typically applied during the site plan and subdivision review process and may restrict the amount of disturbance to a slope to minimize the potential for soil erosion and slope failure. Typically, disturbance to a slope of 15 percent is considered a threshold for regulatory review and a permitting process is required to consider disturbance to a slope between 15 and 25 percent. The Town of North Salem Planning Board is currently working on draft legislation for steep slopes that has been submitted to the Town Board for review and adoption. Adopting local environmental controls on steep slopes will help to minimize disturbance to these fragile environmental features—on slopes greater than 25 percent.

It is recommended that:

- *The Town adopt legislation for steep slopes.*

Trees

Trees are important in preserving the rural character of North Salem. The current tree preservation ordinance (Chapter 189) regulates tree cutting and tree slashing, but has no provision for the harvesting of trees. The Town should work with all interested agencies (including but not limited to the Westchester County Agricultural and Farmland Protection Board, the Watershed Agricultural Council and the Westchester County Department of Planning) to amend Chapter 189 to include a definition of forestry, which will protect the Town's trees from tree harvesters, as well as a process to regulate timber harvesting in the Town.

It is recommended that:

- *The Town amend its current tree preservation ordinance to simplify the approval process for homeowners and add provisions for the harvesting of trees.*

Guidelines to control oversized homes

The Town has begun to see the appearance of "McMansions" – new, much larger residences, with an incompatible architectural style replacing smaller, more modest homes – that tend to change the character of a neighborhood and the community. Another issue is larger homes, some on large lots, but built close to the road and adjoining houses, rather than appropriately set back. A variety of regulations can be used to address McMansions and control oversized houses relative to lot dimensions—including limits on floor-area ratios, building heights and setbacks, as well as limiting building footprint.

It is recommended that:

- *The Town form a committee to review the issue in depth, using models from other municipalities dealing with similar problems.*

Regulating co-location of cellular towers

The existing ordinance promotes "co-location of cellular tower antennas whenever possible." This was a result of the visually intrusive nature of these cell towers in the past and visual impacts to surrounding areas. Given the advent of new technologies, however, co-location may not be necessary and may not be the best choice for the Town. Therefore the ordinance should be modified with respect to co-location of cell towers. The Town should consider alternative options and best practices for proposed new cell towers, which may entail improved design factors and different geographic locations. If co-location does not require an increase

in height of the cellular tower, it should continue to be encouraged. In other cases, the Town may support creation of new, lower towers instead of co-location. The Planning Board and public should consider the potential impacts of co-location and other opportunities and exercise their discretion in these decisions.

It is recommended that:

- *The Town revisit and amend its regulations regarding co-location of cellular towers.*

Promote the Regulation of Accessory Structures that Create Alternative Energy

Currently, the Town has no ordinance regulating the use of accessory structures (such as solar panels, wind turbines, etc.) that create alternative energy. The Town should promote the creation of alternative energy sources to homeowners by offering tax incentives and streamlining the permit and environmental review process. The accessory structures must meet the criteria of the Town's community design standards.[24]

It is recommended that:

- *The Town consider additional ordinances to promote the creation of alternative energy by homeowners.*

Conservation Easements

Conservation easements are currently a valuable tool for land preservation in the Town. A conservation easement permanently limits the uses of a parcel of land for the purpose of conserving its natural features. Conservation easement donors continue to own and control their property; can sell or mortgage their property, and can pass the land on to their heirs, although the easement will remain in effect in perpetuity. A landowner could use this method, for example, to protect prime farmland while keeping some less productive land for limited development. A landowner would relinquish his/her development rights to a private conservation organization, such as the North Salem Open Land Foundation, which accepts the responsibility of enforcing restrictive covenants. Qualified conservation easements are considered tax-deductible contributions by the IRS—i.e., the lost equity is then recovered

[24] Recommended community design standards for the Town are included in Section 4.3.3.

through deductions from Federal income and estate taxes. To be accepted by the Internal Revenue Service, however, the conservation easement must be donated to a publicly-supported charity or unit of government intended permanently and solely for conservation purposes, and it must further an official State or local agricultural conservation policy. The value of the deduction relates to the difference in the value of the property before and after the easement is established. Additionally, New York State offers an annual credit up to $5000 to conservation easement donors. The Open Space map (Map 4.3) shows all conservation easements.

It is recommended that:

- *The Town continue to promote its existing conservation easement program.*

Acquisition of Land or Development Rights for Open Space

Results from the Town-wide survey indicate that residents value open space, as it adds to the rural character of the Town. The Town could target specific types of open space, such as farmland, and cooperatively select easement acquisitions designed to meet the needs of farmers and to preserve the key attributes of farm properties or other open space parcels. These attributes could include scenic quality, water and other natural resources, open spaces and, of course, productive agricultural land and soils. Acquiring land outright, acquiring the land's development rights, or acquiring conservation easements (prohibiting the owner from developing the land) typically, but not always, requires a payment of some sort. Charitable landowners can donate land, development rights or the easements. In some cases the value of the donation can create tax benefits to the donor.

Towns could also purchase land outright or purchase development rights. Funding for purchases can be obtained through a variety of options, from grants to capital budgeting to long-term bonds. In 2000, North Salem town residents approved an Open Space Referendum authorizing the Town to borrow up to $2 million. A second authorization of $2 million was also approved in 2005. To date, two parcels have been purchased using these Bond authorizations, and additional funds are available.

There are various ways to raise municipal funds for land acquisitions in New York State including:

- general obligation bonds
- devoting budget surpluses to dedicated land acquisition funds
- special capital appropriations

- property tax percentages (e.g., one-half of one percent) as a revenue source for a dedicated capital fund[25]
- revenues from a community preservation fund
- grants

It is recommended that:

- *The Town consider implementing the final step of the Open Space Plan which includes identification of potential parcels for purchase/preservation and an analysis of funding options.*

Agricultural Zoning

Agriculture has always played an important role in the history of North Salem. Since its founding, crop, dairy, beef and fruit farms formed the core of the Town's agricultural industry. In recent decades horse farms have become the most prominent form of agriculture, and the equine industry is the largest employer in the Town and a major consumer of local goods and services. Residences on horse farms contribute to the tax base with minimal impact to Town services. In addition to contributing to North Salem's financial well being, much of the property associated with horse farms has remained undeveloped, and those and other agricultural lands in Town comprise a substantial portion of North Salem's privately owned open space.

It is essential to maintain and encourage the agricultural industry in North Salem in order to help maintain the Town's rural character and open space. Numerous studies have shown that encouraging agriculture is the least expensive way to ensure open space. New York State has long recognized the importance of agriculture, and has developed legislation that promotes agriculture by codifying "right to farm" laws and exempting valid agricultural enterprises from overly restrictive local ordinances. The primary vehicle for this is agricultural districts, a concept which Westchester County adopted and of which North Salem is a part.

In order to assure the continuation of a substantial agricultural presence in North Salem, the Town should formally adopt the basic provisions of New York State's Agricultural and Markets' Articles 25AA, modified so that the Town's current special permit process, administered by the Zoning Board of Appeals, remains in place, and encourage the County to renew

[25] The Trust for Public Land specializes in municipal open space finance programs, and their web site (www.tpl.org) contains several documents and studies that provide case studies and ideas for creative and successful open space programs.

Westchester's agricultural district. All decisions rendered by the various Town boards should take into account their impact on agriculture in the Town, and be crafted so as not to adversely impact or discourage agricultural operations.

It is recommended that:

- *The Town explore adopting the basic provisions of New York State's Agricultural and Markets' Article 25AA and encourage the County to renew Westchester's agricultural district.*

Performance Zoning

"Performance zoning" is an alternative to traditional land use zoning. Whereas traditional land use zoning specifies what uses land can be applied within specified districts, performance zoning specifies the intensity of land use that is acceptable. In other words, it deals not with the use of a parcel, but the performance of a parcel and how it impacts surrounding areas. Performance zoning can be based upon soils, topographic and additional natural resources data, and regulate land development intensity and density by computing the "net buildable area" for each site. This would regulate land use intensity and density based on the protection and preservation of natural resources and the provision of open space.

A mechanism that can be used by the Town in conjunction with performance zoning and that is capable of recognizing the variation of soils from one parcel to another is based on the determination of the soil types existing on any given parcel or lot. This determination would be made at the time of subdivision approval or when a building permit is issued. If the site is well or moderately well drained with no bedrock or slopes above 15 percent (CLASS A), then the minimum lot size would be one acre. If a site is well or moderately well drained with bedrock but no slopes above 15 percent (CLASS B), then the minimum lot size would be 2 acres. If the lot or parcel contains soils that are generally shallow to bedrock with no slopes above 15 percent or are poorly drained with some subject to flooding (CLASS C), then the minimum lot size would be four acres. In the event that a lot has more than one class of soil, the standard applicable to the highest numbered class of soil on the lot would be applicable unless there is sufficient acreage of a lower numbered class soil to satisfy the standards.

The recently adopted *Eastern Westchester Biotic Corridor Report* and specifically, the *Eastern Westchester Biotic Corridor: Titicus Reservoir Addendum*[26], which can be found in Appendix E and Appendix F, identify

[26] Eric R. Davison and Michael W. Klemens, *Eastern Westchester Biotic Corridor: North Salem, Titicus Reservoir Addendum*, 2009.

environmentally fragile sites and areas in need of preservation, which may be helpful in establishing properties appropriate for the application of performance zoning regulations. Another good resource is the *Croton Plan for Westchester* (2009)[27], included as Appendix G, which includes implementation strategies for the Town.

It is recommended that:

- *The Town explore performance zoning regulations in areas that are environmentally fragile.*

[27] Westchester County Department of Planning, *The Croton Plan for Westchester*, 2009.

Table 5.4 Bulk Requirements[28]

1	2	3	4	5	6	7	8	9	10	11
Use Group	Required Lot Area	Required Lot Width (feet)	Required Front Yard (feet)	Required Side Yard 1 Side/Total (feet)	Required Rear Yard (feet)	Required Street Frontage (feet)	Maximum Building Height (feet)	Maximum Development Coverage (percent)	Maximum Building Coverage (percent)	Maximum Floor Area Ratio (F.A.R.)
a	10 acres	400	100	75/200	100	200	35	10	5	0.1
b	4 acres	300	75	75/150	100	150`	35	20	10	0.2
c	6 acres	300	100	75/200	100	200	35	20	10	0.2
d	10 acres	400	75	75/150	75	200	35	40	20	0.3
e	1 acre	150	35	20/50	50	120	35	20	10	0.2
f	1/2 acre	100	30	15/40	35	80	35	25	10	0.2
g	5 acres	300	75	75/150	100	200	35	40	20	0.3
h	1/4 acre	100	30	15/30	30	75	35	25	10	0.2
i	10,000 square feet	60	30	15/15	30	50	35	30	15	0.3
j	10,000 square feet	75	20	10/20	25	50	35	60	20	0.3
k	20,000 square feet	100	30	10/30	30	75	35	40	20	0.3
l	40,000 square feet	150	35	20/50	50	120	35	50	20	0.30
m	2 acres	200	50	30/75	50	150	35	50	25	0.35
n	160,000 square feet	300	75	50/125	75	200	35	30[2]	15[2]	0.30[2]
o	5,000 square feet	70	10[1]	10[1]/20[1]	20[1]	50	35	70	30	0.50
p[3]	6 acres	100	100[4]	75/200[4]	100[4]	100	NA[3]	NA	NA[3]	NA
q[5]	5 acre min. 50 acre max.	400	75	75/125	75	50	35	40	20	0.30
r[6]	5 acre min. 50 acre max.	400	50	50/100	50	50	35	40	20	0.30
s[7]	15 acres	400	50	75/125	75	200	35	60	25	0.30
t[8]	10 acres	400	75	75/150	50	1,320	35	15[9]	5	0.1

NOTES:

1 In conjunction with site development plan approval, the Planning Board may modify said requirements for existing detached buildings which are rehabilitated for moderate-income housing. The Planning Board may also modify the side yard requirements for new attached dwellings which are constructed for moderate-income housing.

2 Said requirements may be increased to no more than the maximum requirements listed below, provided that at least 1/3 of the total number of housing units constructed are moderate-income housing units in accordance with the provisions of Article XXII. In conjunction with site development plan approval, the Planning Board may also modify the side yard requirement for attached dwellings which are constructed for moderate-income housing.

(a) Maximum development coverage: 60%.

(b) Maximum building coverage: 25%.

(c) Maximum floor area ratio (F.A.R.): 0.40.

3 Subject to specific conditional use standards in Article XIII, § 250-77.5, including specific requirements for maximum tower height.

4 Yard setbacks shall be required in addition to the setback related to tower height; see Article XIII, § 250-77.5.

5 Refer to the Table of General Use Requirements and the Table of Uses and Density for the R-MF/6 District. Subject to specific supplemental requirements in Article V, § 250-19.1.

6 Refer to the Table of General Use Requirements and the Table of Uses and Density for the R-MF/4 District. Subject to specific supplemental requirements in Article V, § 250-19.1.

7 Subject to specific supplemental requirements in Article V, § 250-19.2.

8 Subject to specific supplemental requirements in Article XIII, § 250-77.6.

9 Subject to allowance for an additional 20% of development coverage per Article XIII, § 250-77.6N.

[28] Town of North Salem Town Code §250 (Zoning Ordinance Bulk Requirements).

6.0 ENVIRONMENTAL RESOURCES

This chapter reviews conditions and opportunities for sustainable groundwater use in North Salem. Compared to some parts of the United States, North Salem enjoys a relative abundance of water, averaging 46 to 48 inches of annual precipitation with estimates of up to 10 percent more in the future as a result of climate change predictions.

This relative abundance of present and future water does not come, however, without management challenges and responsibilities. The Town currently has areas experiencing operational difficulties either due to yields of individual wells or quality. Studies indicate the Town can overload its local aquifers with septic system wastes or over-pump groundwater in local areas, causing water shortages or imposing drying conditions on wetlands and streams. The Town also must learn how to manage groundwater quality, which in some parts of North Salem contains radiological constituents which can be harmful to human health.

Recent climate change models suggest that the northeastern region of the country will receive more rain in the future. Some models also suggest this water will come in the form of heavier storms with longer dry periods between storms. If these predictions are correct, we must find ways to store or recharge stormwater for the dry periods and to limit floodwater damage.

In the Town-wide survey, North Salem residents demonstrated a strong commitment to the protection and allocation of groundwater functions. Without water, the Town's infrastructure investments in communities and homes are of little practical value or pleasure. The following section summarizes conclusions from a hydrogeologic study of North Salem's aquifers found in Appendix C.

6.1 NORTH SALEM'S GROUNDWATER RESOURCES

Bedrock aquifers underlie all parts of North Salem and generally provide the sole source of potable water for residents and businesses. Most bedrock in the Town consists of metamorphic variants of shale and sandstone or granitic rock (metasediments or gneiss). Some lower-elevation areas exhibit metamorphic variants of limestone (e.g. marble). Limited sand and gravel deposits cover valley areas, offering some opportunities to install wells in sediment formations. In bedrock aquifers, groundwater moves only through small fractures in the otherwise solid and impermeable rock, so rates of groundwater flow are slow and the amount of water stored below ground in bedrock aquifers is somewhat limited. In sedimentary formations, groundwater moves through pore spaces between the sediment grains, often at somewhat higher velocities and with more storage capacity. In both settings, flow velocities are slowed by the complicated flow paths, resulting in natural groundwater movement at

rates of perhaps a few inches per day as groundwater moves from higher elevation areas to lower elevation areas.

Bedrock and sediment aquifers in North Salem are replenished (recharged) by local precipitation. Most meaningful recharge occurs during the autumn through springtime months, with less recharge occurring during the growing season when much of the precipitation the Town receives is either used by vegetation or is lost to evaporation. Recharge rates into the aquifers have been estimated to range between 4.2 to 20.2 inches per year depending on whether precipitation falls on clay or sandy soils. The most common silty-sand soils in North Salem allow aquifer recharge rates of between 7 and 15 inches per year.

Once water enters subsurface bedrock fractures or sediment pore-spaces, it seeps slowly toward low areas and discharges to the Town's streams, riparian wetlands or to the lakes and reservoir. Groundwater movement through aquifers can be thought of as "subsurface runoff" which is moving through fractures and pore spaces toward low areas. The rates of groundwater flow are restricted by the gentle slope of the watertable which mirrors the landscape slopes and by the limited geologic openings. The slow rate of groundwater migration is beneficial because it detains groundwater in the watershed, allowing it to emerge in wetlands and streams many months after recharge events. This delayed discharge is what provides baseflow to streams and wetlands during dry periods and allow the residents of North Salem to drill wells which intercept the slowly migrating groundwater for domestic, agricultural and commercial uses.

Plate 1 in Appendix C of the Comprehensive Plan shows aquifer boundaries, watershed boundaries, estimated watertable contours and general directions of groundwater flow in North Salem. Most of our bedrock formations are somewhat uniformly fractured and can be considered as a single continuous aquifer which extends over the entire Town. However, this aquifer is hydraulically partitioned into many discrete sections by the Town's varied topography, breaking the aquifer up into sections associated with each separate watershed area, with groundwater in any one particular area predictably and uniquely flowing directly from where it was recharged toward the receiving stream, wetland or surface waterbody in that particular watershed. The draw of gravity on groundwater in each watershed ensures that groundwater cannot and does not flow freely across North Salem – instead, groundwater movement in each area is restricted to its local watershed area.

Some of the larger watershed areas in North Salem include the area south of the Titicus Reservoir that drains southward to the adjacent Town of Lewisboro. Others include the area in eastern North Salem that drains to

the Titicus River, the area generally south of Hardscrabble Road that drains to the Titicus Reservoir, the area in southeastern North Salem near Hawley Road flowing into the Crook Brook, the western area of the Town draining into the Muscoot (Croton) Reservoir and finally there are small areas that drain into Peach Lake. Although the bedrock aquifer extending across these watershed basins is generally a continuous groundwater resource, water in these different areas does not mix and cannot be readily moved from one watershed to another or assumed to compensate for overuse in any particular area. This thought process can be broken down into smaller and smaller units, with each subwatershed also having its own recharge budget and related water use budget.

Less than three percent of total groundwater recharge is estimated to currently be removed from aquifers by wells. By this measure, substantial groundwater potential remains in the Town. Groundwater resources can nevertheless be overtaxed locally by concentrated pumping that exceeds groundwater recharge in particular areas. Heavy pumping by one or more wells can exceed local recharge rates, leading to periodic well yield failures, higher electric bills when water must be lifted from a deep drawdown cone, interrupted natural groundwater discharge to streams or wetlands, potential mineralization (closing up) of well fractures due to introduction of oxygen into deep fractures that would otherwise remain saturated, and water quality decay if major fractures are dried up and seldom flushed minor fractures begin supporting the well.

In upland areas, most wells, including most domestic wells, have sustainable yields on the order of 3 to 10 gallons per minute. Higher-yield wells often used by community systems or commercial / industrial / agricultural ventures are often successfully sited in lower-elevation areas where they can take advantage of supplemental water induced to flow into the well from a stream or wetland, and where the well can receive not only water recharged around its own capture radius but also receive a steady contribution of groundwater moving into the well capture area from uphill groundwater recharge.

The most productive bedrock wells are often installed in locations where several major rock fractures intersect, allowing groundwater collection in one well from a large area. Fracture zones are either intercepted by random drilling or more intentionally by conducting fracture trace analysis by trained experts prior to drilling. Productive wells can also often be installed in sand and gravel formations following the Town's low-lying valley bottoms. Provided that withdrawals are matched by equal recharge either from direct or watershed-wide recharge, or by induced flow from a river or watershed, yields of many hundreds of gallons per minute are commonly available from wells installed in sand and gravel formations.

Due to the widely distributed settlement pattern in North Salem, large quantities of domestic wastewater are returned to the Towns aquifers from septic systems. Septic systems are not designed to treat wastewater to a potable standard and rely on dilution within the aquifer for a final achievement of a potable water standard. Wastewater must therefore be discharged into an aquifer receiving sufficient groundwater recharge to provide the necessary dilution. Some aquifer areas in North Salem are likely to be locally impaired because of the current over-concentration of septic systems in areas with low aquifer recharge. The recommended average maximum sustainable septic system density in North Salem ranges between 1.6 to 3 acres of land per system depending on soil types. Analysis of domestic water well samples from Dutchess County has confirmed that water quality decreases on undersized parcels. Areas with undersized parcels in North Salem are identified on Figure 7 in Appendix C. Point of use water treatment systems may be warranted in some of these areas or some areas may someday warrant installation of community water or sewer districts.

North Salem also has some bedrock formations containing radioactive minerals which slowly decay and release radiological constituents into well water. The public water wells for Sunset Hills and Croton Falls are among many which have been challenged to find treatment methods or alternative sources of water to control human exposure to radiologicals. These water systems are believed to withdraw water from the Manhattan formation mapped on Figure 2 in Appendix C. Other formations in North Salem may also release radiologicals but complete exposure relationships are not yet fully understood. Radiological exposure poses known human health risks. Several commercial and proprietary methods exist to treat radiological contamination but concentrated captured radiological residues must be handled with care and are the subject of regulatory requirements.

6.2 WHAT NORTH SALEM HAS ALREADY DONE

North Salem's Planning Board currently requires project applicants to take a hard look at all new water demands proposed in the Town. For larger projects, the Planning Board frequently retains a professional hydrogeologist to help review proposed pumping test protocols, review water budgets, assess wastewater loading impacts on Town aquifers, and review the proposed project "water budget" impact on the new site and on adjacent existing wells, streams and wetlands.

The Town Board also commissioned a Municipal Groundwater Resource Report, completed by The Chazen Companies in 2008, which provided an aquifer map, summarized aquifer recharge rates, estimated current water consumption across North Salem, and provided a range of water use, protection and allocation planning recommendations. Many of those

recommendations are repeated in this summary. The report is found in Appendix C of this Plan.

More recently, the Town's Comprehensive Plan Committee distributed a community survey that gauged citizen concern and interest in a wide range of community topics including the groundwater resources of North Salem. Of the 443 surveys that were returned, nearly 300 use domestic wells for their daily water needs while the rest live in areas where water is provided from one or North Salem's central community well systems. Among those on domestic wells, nearly 200 have sampled their wells for bacteria and over 100 have tested their wells for radiological compounds. In response to the survey question "would you like the Town to proactively coordinate well testing on private wells?" 47 percent of respondents answered "yes" and 53 percent said "no."

6.3 NEXT STEPS

Groundwater offers the only probable source of present and future water supply to residents and businesses in North Salem and warrants protection and/or planning management. Specific measures are recommended here to allocate, extend the sustainable use, and protect the quality of groundwater in the Town.

Yield Test Protocols for New Wells

Mandatory testing required for new subdivisions using multiple individual wells is not currently as thorough as testing required for new community wells. For any such projects where average parcel sizes fall below approximately 1 acre per parcel, North Salem should use its SEQRA authority or zoning code to require that 20 percent of new domestic wells in a proposed subdivision are flow-tested simultaneously at 5 gpm each and that the combined test be extended long enough to detect any stabilized off-site well drawdown impacts or impacts to streams and ponds. Some expanded testing protocols are warranted for new community wells, including provisions for off-site well monitoring, yield premium requirements if tests are conducted during wet periods, and assessments of impacts to surfacewater resources. These test protocol items are addressed in the model aquifer ordinance discussed in a following bullet.

Septic System Impacts to Groundwater

Groundwater quality degradation from septic systems is a form of groundwater overuse if too many septic systems are located in a concentrated area. Septic system contaminants include not only

compounds with existing regulatory standards such as for nitrate or *e*-coli, but also more recently-recognized constituents such as caffeine, pharmaceutical residues, and hormone residues, for which no standards exist. Analysis outlined in Appendix C of this Plan recommends minimum average parcel sizes between approximately 1.6 acres to over 3 acres in areas with individual wells and septic systems. Where smaller parcels are proposed, enhanced wastewater treatment may be needed to protect local groundwater quality or central water supply sources may be warranted to provide an alternate source of water supply. Since septic system effluent is likely to be least diluted during dry periods, public monitoring of groundwater levels and weather conditions could help North Salem officials accurately inform the public when service notifications describing stressed aquifer condition are occurring.

Decentralized Wastewater Treatment

Small sewage treatment districts have become increasingly cost effective to construct and manage. New technologies include small diameter piping systems, opportunities for solids retention on individual parcels, and package scale treatment plants for districts with limited users and even for individual septic systems. Where average parcel sizes on existing or proposed residential parcels fall under sustainable lot sizes discussed above and addressed further in Appendix C, North Salem could encourage use of such systems or enhanced treatment units on individual septic systems to reduce the impacts of subsurface wastewater discharges on groundwater quality.

Road Salt and Brine

Salt sources are non-point contaminant sources affecting groundwater and stream quality. Road salt or salt brine application rates and snow/salt accumulation areas should be actively managed and minimized wherever possible. A 2010 Dutchess County Planning Study shows that dissolved sodium and chloride concentrations were highest in domestic wells where parcels were smaller than minimum average sizes discussed above and addressed further in Appendix C. The increases in these wells likely occur because areas with smaller parcel sizes need higher local road densities and usually have smaller separation distances between wells and roads. Snow aprons, curbing, or even restricted salt application areas may be needed to minimize impacts to wells, at ends of cul-de-sacs, in any area with smaller lots or at bottoms of hills where salty snow piles or salty runoff from either rock salt or salt brine accumulates after snowfalls.

North Salem should try to limit the amount of salt it uses on the roads. Brine (a mixture of salt and water) may be an effective replacement for

road salt. The Town would use less salt if brine was utilized, which would be environmentally beneficial.

Central Service Priorities

In some cases, installation of central sewerage rather than central water is preferred for areas where septic systems have impacted groundwater quality. Providing wastewater treatment will improve groundwater quality both for wells and adjacent surfacewater bodies. Provision of central water without provision of wastewater treatment will allow continued flows of impacted groundwater to surfacewater bodies. In North Salem, there are only limited areas where existing septic system densities may be leading to well water quality defects. Even in these areas, surrounding open lands may be providing compensatory recharge offering all necessary recharge for these wells. The provision of either central water or sewage treatment to these areas would be costly and determining which service to prioritize should be completed considering also whether these areas face radiological exposures in their groundwater wells.

Enhanced Groundwater Recharge

All possible measures should be explored to preserve and even enhance onsite recharge. For example, North Salem should encourage disconnected impervious surfaces, rain gardens, and a wide range of other low-impact-design stormwater detention and infiltration techniques to enhance groundwater recharge. New York State's Estuary Program commissioned the Chazen Companies to prepare a case study of completed infiltration practices which can be used on sites. The manual is available from the Estuary Program and can be found on Chazen's website.[29] Towns around Lake George are adopting local laws requiring that there be "no net change" to post-development runoff volumes up to the 10-year design storm. North Salem should consider adopting a similar measure to preserve aquifer recharge and limit stormwater flooding.

Local Law Addressing Water Resource Management

The Town's groundwater report in Appendix C provides a model aquifer protection ordinance which North Salem may wish to consider for local implementation. An updated version model law is now available: http://www.chazencompanies.com/sustainable_design/index.html Both versions require an aquifer boundary map showing where moderate levels of protection are warranted in North Salem and where stricter protections should be applied to protect areas around high-capacity wells and areas with high concentrations of domestic wells. This tiered approach is

[29] http://www.chazencompanies.com/Sustainable_Design/estuary_index.html

consistent with groundwater management strategies adopted in many communities. The updated model available also includes guidance for cluster subdivision layout, pump test protocols and requirements described above for preserving on-site aquifer recharge capacity up to the 10-year storm event.

Water Quality Testing

Domestic well and public well testing for radiologicals is recommended. Areas where well water contains radiological exposures are currently believed to be concentrated in specific bedrock formations mapped on Figure 3 in Appendix C, but full details of exposure areas would be better understood by a wider sampling network. Protection of human health could also be enhanced by wider sampling so that filtration methods could be extended or recommended more broadly. The Town-wide survey indicated that a significant percentage of residents sample their own wells and that a large minority are supportive of Town efforts to support further sampling. Treatment of water for radiological exposures requires responsible and in some cases regulated care of any filter media which become enriched in retained radiological residue. Beyond radiologicals, little is known about regional concentrations of contaminants from septic systems, including nitrate, caffeine, pharmaceuticals, cleaning products and personal care chemicals. A method for systematic sampling of these compounds may be warranted either immediately or as health standards begin to develop for the newer chemical classes.

Spacing for New Wells

Increased groundwater use can be readily accommodated in North Salem; however especially in areas where the bedrock aquifer is the only source of water, new higher-yield wells should be sufficiently distributed to intercept groundwater recharged over wide areas.

Aquifer Development and Allocation

Detailed mapping of potentially high-yield sand and gravel aquifers in North Salem should be completed to highlight areas with the highest future potential for water resource support to ventures of municipal economic value. Improved measures for tracking current consumption levels against estimated available groundwater capacity should also be explored. Together, these tools would help quantify and describe allocation responsibilities among potable uses, aquatic uses and in-stream flow preservation uses, for its reserve water capacity.

7.0 HOUSING

7.1 RESIDENTIAL DEVELOPMENT OVERVIEW

Ever since the founding of the Town of North Salem in 1731, settlers were drawn to the natural beauty of the place with its lakes, rushing streams, rolling hills and fertile valleys. Early settlers took down trees to build log cabins, clearing the land and removing stones from the fields. Over the next century and a half, farms developed around family-owned agricultural and light industrial businesses, such as milling. Today there is much evidence of the Town's residential history— restored farmsteads from the eighteenth and nineteenth centuries, indigenous stone walls that pioneers built, large tracts of open pasture land, and dirt roads typify the Town's landscape. An air of small town life makes North Salem different from other communities in Westchester County.

In an effort to preserve the Town's scenic quality (which includes the highest point in Westchester County and a County park), and to protect its watershed (which includes the Titicus and Croton Reservoirs that serve New York City with drinking water), the Town has encouraged residential development that is well-integrated into the landscape. Residential zoning districts occupy 88 percent of the Town's land area, and residential land uses occupy 30 percent. Most of the housing consists of single-family homes, some of which include accessory apartments. For a small town, there is a large assortment of housing stock:

- one-to-two bedroom homes in the lake communities
- ranch-style homes built in subdivisions of the 1950-1970s
- townhouse developments
- single-family developments on one-half to four acre lots, and
- farm properties and estates, some with old farmhouses and some with more modern homes.

There are two small hamlets, Purdys and Croton Falls, where housing co-exists with small, locally-oriented businesses. North Salem lacks a town center; consequently, residents shop in neighboring New York and Connecticut towns.

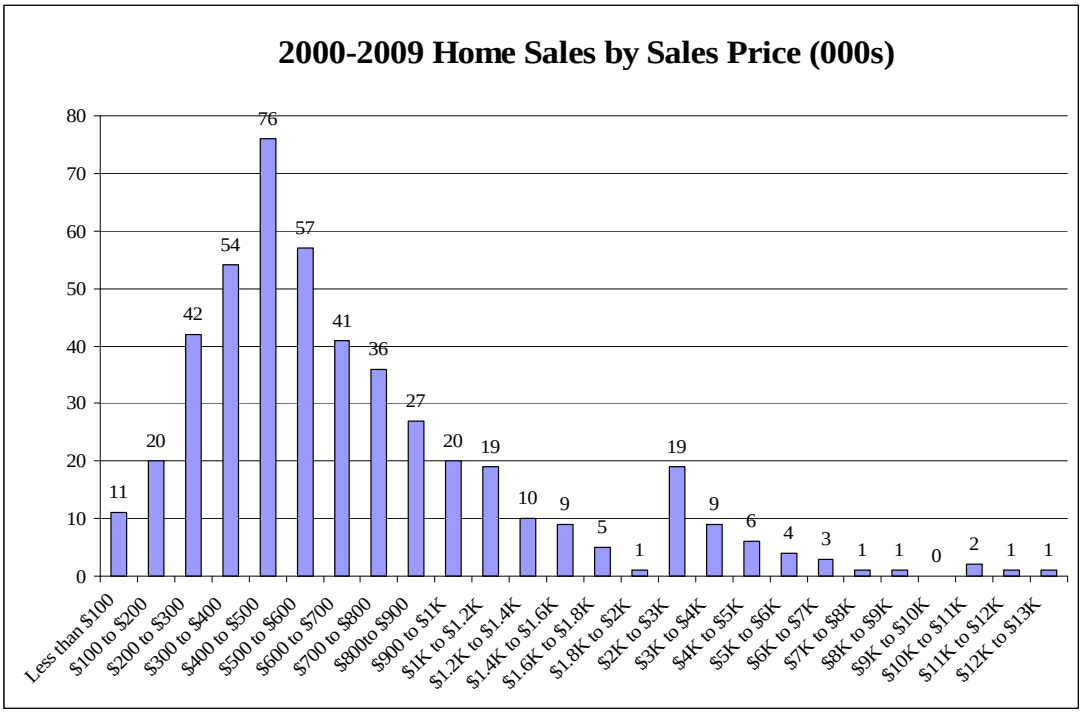
7.2 EXISTING PATTERN OF RESIDENTIAL DEVELOPMENT

The Town-wide survey indicated a trend of low homeowner turnover in North Salem, as the majority who responded have lived in North Salem for 20 or more years. Most residential development in North Salem took place prior to 1980; over 40 percent of the housing stock was constructed in 1949 or earlier. In 2000, the majority of North Salem's 1,979 housing units were single-family homes, representing 94.3 percent of the Town's housing stock. Small multi-family structures with two to six units comprised the balance (5.7 percent). In 2010, the Town contained 2,082 housing units.

Between 2000 and 2009, the Town issued an average of eight residential building permits annually, which is considerably lower than the level of housing production during the previous decade (between 1990 and 2000 about 20 building permits were added to the Town's housing stock per year).

According to the Multiple Listing Service over the past ten years, real estate trends show 475 sales of single-family houses in North Salem with the majority, or 54.7 percent, selling for less than $600,000. Chart 7.1 below provides data on listed residential real estate sales trends from 2000 to 2009 (for a complete analysis of the Town's housing stock and trends, see Appendix H).

Chart 7.1: North Salem Real Estate Sales, 2000-2009



Source: Westchester –Putnam MLS data, 2000-2009.

The Town lacks infrastructure and public water and sewerage services to support a higher level of residential density. The two hamlets, located along the I-684 and Route 22 Corridor, with access to public transportation, meet some criteria for more moderately dense housing; however, considering the existing land uses and with few undeveloped parcels, there is little opportunity for new development. The hamlets do provide, however, opportunities for some redevelopment, including accessory apartments, apartments above stores or multi-family dwellings. At the same time, open space or some other contribution to the continued well-being of these hamlets is needed.

7.2.1 Housing Density Considerations

The following factors should be considered with respect to residential density in the Town:

- The existing local and regional road system and its limitations to serve increased development without extensive improvement.
- The present and likely future availability of community facilities and utilities.
- The desire to maintain historic buildings and sites.
- The desire to preserve open space and provide more recreational opportunities for residents.
- The physical character of the area, both in terms of the limitations it would impose on development and the desirability of preserving natural features and ecological balance.
- The character of the existing residential development in the area, with particular reference to the prevailing density.

7.2.2 Housing Characteristic Considerations

<u>Single Family Homes:</u>

As mentioned in Chapter 4, Section 3.3 (Community Design), to maintain the prevailing character of the Town, the Planning Board should require proposed housing subdivisions, regardless of the number of lots, to adhere to design and layout standards:

- Wherever appropriate and possible, all open space within a proposed subdivision should be contiguous to neighboring undeveloped lands, nature preserves, parks or other designated open space.

- Lots should be designed in a manner that best suits the natural conditions of the property; homes and garages do not need to consistently face the street. Concepts such as zero lot line, radius building sites, variable lot size, positioning lots to be more responsive to sunlight, shade trees, windbreak trees, mixed housing types, and shared long driveways could be considered.

- Developers and residents planning new homes should site and orient buildings in a manner sensitive to the natural environment, encouraging architectural design and building materials that lead to a long term reduction in energy consumption.

Other Housing Styles:

Two or three-family dwelling units are currently not permitted in the Town. Consideration could be given to permitting such conversions in areas where a mixed single-family and multi-family residential character has already been established, such as in the hamlets, provided that there is a provision for moderate-income units. Such housing can make an important contribution toward meeting the need for a variety of housing stock and/or affordable housing.

Multi-family housing exists in North Salem, and the Town has zoned a few additional parcels for multi-family density; however, in light of the lack of infrastructure and the existing environmental constraints and existing environmental legislation at the local, State and regional level, no further multi-family zoning is being recommended at this time, except for projects currently under review. In the alternative, the Town could consider flexibility in the conversion of existing housing stock to address the needs for multi-family and affordable housing.

The development of smaller apartments and/or cottages as accessory to single-family dwellings is probably the most cost-effective way of providing alternative housing styles and lower cost housing in the Town. In the 1980s a study was conducted of the existing accessory apartments in North Salem. According to the North Salem Building Department, at least 74 apartments exist and new special permits for additional accessory housing structures are considered each year and more could be encouraged.

North Salem's zoning for accessory apartments is one of the broadest and most flexible in Westchester County. Its provisions

currently permit:

- accessory apartments within the primary residence
- accessory apartments within separate buildings, such as garages
- accessory apartments as separate structures, such as cottages
- two accessory apartments when sufficient land and infrastructure exists, and
- employee dwelling units for farm workers

North Salem's zoning code also allows apartments above stores and it should continue to support more accessory units in mixed commercial-residential areas. Further, this Plan encourages the Town to remain mindful of the balance in the hamlets between businesses and dwellings, and the positive role that accessory apartments play in maintaining the dominance of residences. For more information on the Plan's recommendations for accessory apartments, please see Section 3.4 (Recommendations) of this Chapter.

7.3 AFFORDABLE/MODERATE-INCOME HOUSING

According to the 2000 Census, the size of families and households in North Salem is decreasing while households with young adults and senior citizens have grown. These trends, coupled with the increase in real estate values, point to the increasing need for moderately-priced housing. The value of new and existing homes has grown faster than the financial ability of many local workers, including employees of the Town and school district, to pay property taxes or move into the Town. With this shortage has come the present and growing concern that senior citizens, young people, police, firefighters, municipal employees, tradespeople and teachers, among others, can no longer afford to live in North Salem. This has the potential to result in a loss of diversity and a reduction in available services.

It should be recognized that most of the demand for housing in the North Salem comes from sources outside the Town. Employment centers in other communities grow without a commensurate growth in housing in the host municipality. North Salem has a responsibility for some share of this regional need. As the region grows, the actual demand created by the Town is very small. Nevertheless, the Town's own needs still require some provisions for affordable housing.

7.3.1 What Has Worked

The Town has successfully heralded several projects that address its changing population and affordable housing needs. The conversion of summer, lake cottages to year-round residences, a zoning code that provides flexibility and opportunities for accessory apartments and employee units for farm workers, unit count bonuses for new developments that provide certain design or environmental protection standards, and conversion of single-family homes to multiple, affordable apartments are some examples as the list below indicates:

- Salem Chase – a conservation or cluster development with added bonus units for the provision of moderate-income housing and the preservation of open space

- Accessory Apartments - between 1990 and 2000, an average of 3.3 accessory apartments were approved annually; from 2000 to 2008 this average dropped to 1.7 accessory apartments each year

- Conversions of Existing Structures - Owensville and Odle Close are two examples of conversions of single-family homes to multiple apartments for moderate income families in a hamlet setting

- Elderly Housing Space - nursing home – neighboring land is zoned to provide an opportunity for assisted living or community care senior housing, with a requirement for moderate-income units

- Salem Hunt – a proposed townhouse development with thirteen moderate-income units recently received SEQRA approval.

7.3.2 Affordable Housing

A significant objective of the Comprehensive Plan is to assess the affordable housing need in North Salem. As set forth by Westchester County in its *Affordable Housing Needs Assessment* report of 2004 (Rutgers Report), the methodology for determining the need for new affordable housing in North Salem is based on the following factors:

1. Existing income constrained households living in physically deficient units	0
2. Existing income constrained households living in overcrowded units	5
3. Existing homeless households	0
4. Projected cost burdened households	21*
Total:	26

There is an *existing* affordable housing demand for 5 units. In 2000, there were no income-constrained households living in physically deficient units and 5 income-constrained households living in overcrowded[30] units. According to the Westchester County Department of Social Services (DSS), there were no homeless[31] households.

Based on the Town's annual building permit activity, the Town's household growth for the period from 2000 to 2008 was 79. Projecting that to 2015 results in 135[32] households. The estimated share of cost burdened households is 15.6 percent, or 21 households. Therefore, North Salem's total affordable housing goal is 26 additional units.

This affordable housing need estimate is based on 2000 Census data. Using 2010 Census data would result in a more conservative estimate. Section 3.0 of this Plan outlines demographic trends between 2000 and 2010. During this period, the population in North Salem declined 1.3 percent, and the minority population increased from 4.6 percent to 6.4 percent.

[30] An overcrowded unit is defined as a unit with more than one occupant per room, excluding bathrooms, kitchens, hallways and porches. Severely overcrowded units are those with more than 1.5 persons per room.

[31] Phone call with the Westchester County Department of Social Services, Housing Assistance Department on August 27, 2009. There may be homeless households in North Salem; however, the Town does not have any homeless shelters within its borders (which is the basis for how the DSS estimates the number of homeless households).

[32] According to building permit data, North Salem adds 8 to 10 households per year.

7.3.3 Challenges to Affordable Housing

The following considers various potential barriers that may impede the development of affordable housing in the Town. Barriers to providing affordable housing can include infrastructure costs or land use controls, among others.

- Limited availability of land for development

All but 3 percent of the Town's land base is within the New York City watershed and limited by extensive regulations. Exerting considerable influence on the Town's landscape, watershed and otherwise valuable environmental protection regulations restrict the amount of buildable land that is available for development. This effect raises the cost of the land that remains available for the development of new housing.

- Extensive wetlands and sensitive natural resources requiring protection

Although environmental protection is an important Town objective—essential to building a healthy and sustainable community—it can, in some instances, compete with the objective to provide affordable housing. To some extent, requirements and regulations for the protection of wetlands and natural resources have hindered residential development in North Salem. This is due to the widespread prevalence of sensitive environmental resources in the Town. The various layers of regulatory reviews and approval processes that proposed developments must undergo, plus additional mitigation requirements can, to some degree, prevent or inhibit the private sector from developing lower-cost housing alternatives.

- Land and Housing Costs

High land costs may increase the cost of development and limit construction of affordable housing. Barriers also include high construction costs (labor and materials) in the region, limited access to down-payment funds and closing costs, and lack of credit (inability to acquire mortgage loans). Rising energy costs may be part of housing-related expenses.

- Regional Factors

Under the Rutgers Report, the County projects a need for 10,768 units of which North Salem's unmet obligation is 148 units. The County has not grown as projected; North Salem has not grown as

projected. Factors beyond the control of local municipalities play a significant role, some of which include:

- The increased necessity to protect the Town's limited drinking water sources.
- New York City DEP Regulations designed to protect the City's watershed.
- The cost and restrictions of new regulations, such as NYS DEC stormwater rules.
- The growing inability to finance improvements for public transportation, water quality protection and other infrastructure to support existing and growing populations.

7.3.4 Recommendations

Across the nation, State and local governments and their partners are struggling to identify effective ways to provide affordable housing opportunities. Foreclosures are up nationwide, including in Westchester. Developers and investors are struggling to find financing in today's capital constrained environment; not to mention State and local budget shortfalls and declining revenues among some related Federal programs. In the past, affordable housing construction has been encouraged by allowing developers to shelter some profits in exchange for financing development of low and moderate income residences. However, amid the turmoil in today's economy, new home building has stagnated; developers no longer have profits to shelter, slowing down construction of affordable housing. Plus, with the upheaval in credit markets and the mortgage lending industry, low-income households are finding it especially difficult to obtain mortgages due to fewer low down-payment mortgage programs and piggyback loans, and high credit score requirements, among other factors.

Affordable home ownership opportunities may provide advantages and benefits to the Town; however, the single family housing meltdown suggests a renewed focus on affordable rental housing. In light of the current financial situation, and challenges in providing affordable home ownership programs, the Town must now explore new approaches to providing quality housing for lower-income families and individuals. Three initiatives are recommended to kick-start these affordable housing opportunities in North Salem:

First, the Town should adjust its formula for affordability (household income criteria) so that it is aligned with HUD income limits used by Westchester County. To qualify for housing

programs these limits are calculated with adjustments for family size and expressed as a percentage of Median Family Income (MFI).

Should the County develop and apply a Cost of Living Allowance (COLA) adjustment, the Town would be more amenable to accept these guidelines. Nevertheless, the Town is encouraged to adopt and utilize the County's income limits. Use of these standards will enable units created locally that meet the County's definition of affordable housing to be credited to the Town under Westchester County's *Housing Allocation Plan*.

Second, the Town needs to move to a model which, as a component of the program, increases support for affordable rental units. The Town currently has a dearth of rental properties; therefore increasing its supply of affordable rentals (in keeping with the scale and rate of growth of the Town), which can be managed and monitored by the Town, should be considered a key underpinning of the Town's affordable housing strategy. The Town should explore partnership opportunities with both for-profit and non-profit organizations to construct and rehabilitate affordable rental housing. Because affordable housing is at the core of their mission, non-profit community development corporations can be targeted for redirecting housing resources to low-income families and ensuring long-term affordability.

Third, the Town should work with Westchester County[33] to implement the recent fair housing settlement and facilitate affordable housing. Faced with the threat of losing a lawsuit filed by the Anti-Discrimination Center of Metro New York, as well as the possibility of being cut off from Federal housing aid, Westchester County agreed to build housing in communities with little or no minority populations, as part of a settlement with HUD. The settlement was based on HUD's new focus to ensure that all recipients of their funds implement methods to affirmatively further fair and affordable housing to ensure non-discrimination in its programs. Under the terms of the settlement, the County is required to spend $51.6 million to ensure that within seven years from 2009 750 new affordable housing units are built in

[33] The final *Westchester County Analysis of Impediments to Fair Housing* report, which is not yet available to the public, analyzes impediments (defined as existing actions, omissions or decisions) that have directly or indirectly restricted housing choice in Westchester County. The report reviews fair housing laws, policies and practices, and documents and analyzes impediments to fair housing choice, including how the County considered race as an impediment to fair housing. The strategy or recommended course of action to be followed identifies appropriate public and private actions to overcome the effects of any impediments.

Westchester municipalities and affirmatively marketed to minorities—the bulk of them in communities with populations less than three percent African-American and seven percent Hispanic. The Town of North Salem qualifies as an eligible community. The Town should work with Westchester County to implement the provisions of the fair housing settlement. Unlike previous units built with Westchester County and Federal funds, new units will have to be marketed widely. The ultimate effectiveness of the settlement will hinge on the extent to which the County, working with local municipalities, can implement the central purpose of the settlement: that is, not building affordable housing at random, but doing so in a way that opens the door to racial integration.

The Town should adopt the tenets of the proposed Westchester County Model Ordinance for Diversity Affordable Housing, which includes:

- Removing point structure for preferences for North Salem volunteers and County residents
- Moving to the County's medium income versus North Salem's income to align with the requirements of using HUD standards as set forth in "Westchester County Area AMI Sales and Rent Limits"
- Moving from point structure and lottery system to Fair and Affirmative Housing (FAH) Marketing Plan

Fourth, it is recommended that the Town Board fully explore policies that may be most effective in this new reality of a housing market.

Policy Considerations

The Town Board should consider the following actions:

- Liberalize regulations and incentivize the creation of accessory dwellings

The Town's current Zoning Ordinance provides for accessory apartment development, including mixed use structures (commercial and residential). The existing provisions include broad based accessory apartment development in hamlet areas and in more sparsely developed areas. Accessory apartments are permitted in almost all of the established residential and non-residential districts throughout the Town—as attached and detached structures, and as an interior part of a dwelling. Accessory apartments are also permitted above ground level

commercial establishments, and two accessory apartments may be developed on single-family lots that meet certain requirements. Pertinent supplemental requirements include Zoning Board of Approvals special permit approval; there is no requirement for site development plan approval (only a building permit is required).

To help meet demand for affordable housing, it is recommended that the Town amend its accessory apartment rules to permit affordable accessory units by right. This law could allow an affordable accessory unit, by right, for example, as long as the apartment does not increase the living area by more than 20 percent and the exterior of the house is not significantly altered. Affordable dwelling units would still be regulated according to the Town's Moderate Income Housing (MIH) regulations. These are governed by the Town Housing Board which screens tenants for income eligibility and monitors rents, in order for the units to count towards the Town's affordable inventory. This change would apply to accessory dwellings made available to a broad range of eligible tenants, in accordance with affordability requirements established by the Westchester County Division of Housing and Community Development.

The Town could develop a list of properties to be targeted for acquisition or structures which may be obsolete for their initial intended use and can potentially be adapted for accessory apartments. For example, in the hamlet of Croton Falls, upper level uses above ground level retail can be transformed into lower-priced multi-family units.

- Target existing housing – purchase/rent to lower income households

The Town can bring current non-luxury housing stock within reach of its moderate-income citizens by buying existing homes and renting them to moderate-income tenants—negotiating the purchase and/or taking as a vehicle to obtain title. Foreclosed properties would specifically be targeted, which could be renovated and made available to income constrained renters. This takes advantage of already-available housing served by existing infrastructure on residentially-zoned land, and it could be administered by a non-profit organization. This would make efficient use of the Town's existing housing stock, while embracing values inherent in both historic preservation and affordable housing preservation. Current Federal tax credit incentives for first time homebuyers could also be utilized in this process.

- Consider establishing an affordable housing trust fund

An affordable housing trust could be established by legislation, ordinance or resolution to receive public revenues that can only be spent on affordable housing. The trust fund could be funded in part through contributions from developers under the Town's inclusionary[34] zoning laws. It would generate a consistent stream of funds that can be used in a variety of ways to serve a variety of affordable housing initiatives—to leverage State, Federal and private sources and provide flexible financing for creation of new affordable housing opportunities. Trust funds can also be used to harness and leverage additional public and private resources to help address local housing needs.

[34] The viability of a buy-out alternative should be considered, which would allow a developer to pay a fee, build affordable housing in another location or donate land that can be used to build affordable housing, but is discouraged.

8.0 TRANSPORTATION

The purpose of this chapter is to provide guidance for transportation strategies and decisions to support an overall vision for North Salem's land use, preservation and growth. North Salem is a rural community that seeks to maintain quality of life for residents and reveres the character that attracts and retains its residents. The Town's rural transportation network is comprised of mainly two lane local roads which are rich in scenic beauty and wind through and around hills, woods and a major reservoir. The roads are not designed to carry large volumes of traffic at fast speeds. Some of the roads are dirt roads. The roadway geometric features (curves and narrow width) must be considered as land uses are evaluated for change or development. The existing infrastructure is a limiting factor, as many of the local roads cannot safely and efficiently accommodate significant two-way travel demand. These limitations are consistent with the Town's desired character and are not considered problems to fix. Roads are used by walkers/joggers and bicyclists, putting more demand on finding safer solutions or alternatives.

The objective for North Salem's transportation and mobility is framed by the following needs:

- To foster and reinforce North Salem's quality of life and character.
- To maintain existing roads and intersections and provide context sensitive safety enhancements.
- To manage congestion and discourage cut-through traffic resulting from breakdowns or poor service in the regional transportation system (I-684 and I-84).
- To better and more efficiently manage traffic generated by key land uses in and adjacent to North Salem (hamlets, schools, recreation uses, adjacent significant developments).
- To reduce the carbon footprint for North Salem by providing transportation choices, specifically for bicycles and pedestrians.
- To improve the public transit system (access to existing rail stations) to better serve the residents of North Salem.

Transportation issues and needs are regional in nature—not local—and therefore often require regional solutions.

Westchester 2025 is a regional (Westchester County) comprehensive plan that strives to enhance coordination between local and County land use planning. It is another step in the continuum of County planning, and it updates it predecessor *Patterns*. The draft was revealed in early 2008 and includes much on "livable streets" issues. It points out that significant road expansion is unlikely to occur in the County, and that congestion solutions should focus on transit, traffic demand management, pedestrian and bicycle improvements and joint transportation-land use planning.

Westchester 2025 recommends the following transportation and mobility related policies for its municipalities:

- Channel development to centers where infrastructure and transportation can support growth.
- Enhance corridors considering their appropriate function (i.e. functional classification- local, collector, arterial). The quality of scenic routes should be protected. Traffic management, transit improvements and systematic maintenance should be implemented to reduce congestion, ease movement and ensure public safety.
- Support transportation alternatives that improve the mobility choices of workers, consumers and residents and that improve air quality by enhancing the efficiency and effectiveness of public transportation and reduce solo driving.

8.1 Coordination and Public Outreach

As part of the *North Salem Comprehensive Plan* preparation process the Comprehensive Plan Committee (CPC) reached out to several stakeholders, including the New York State Department of Transportation (NYSDOT), Westchester County Department of Transportation, neighboring communities (Somers and Lewisboro) and the residents of North Salem.

Meetings were conducted with NYSDOT and Westchester County DOT to discuss issues of common interest and to share short and long-term ideas and projects, both local and regional. The CPC shared or requested the following:

- Congestion of I-684 and I-84 is having adverse impacts (spillover) upon roads in North Salem.
- Provide additional capacity on I-684.
- Improve the I-684 northbound to I-84 eastbound movement/ramp.
- Improve access to IBM including providing an exit ramp at Waccabuc Road (Route 138, Golden's Bridge).
- Improve the Route 22 and Titicus Road intersections in Purdys.
- Improve traffic flow through Croton Falls including improving the parking situation for the Croton Falls train station (potential for park & ride lot at St. Joseph's).
- Improve the intersection of Cross River Road (Route 35) and I-684 to alleviate some traffic diversion to North Salem.
- Improve the intersection of Grant Road and Titicus Road (Route 116).
- Consider additional or improved commuter bus service from Mahopac and other areas north of Westchester County.

The Metropolitan Transportation Authority (MTA) is filing an application to improve the Danbury branch line. This could alleviate some cross town traffic by providing an alternative to the Croton Falls and Purdys train stations. The CPC suggested providing an exit ramp from 684 at Waccabuc Road to alleviate IBM traffic. The CPC also requested the consideration of additional commuter bus service by re-examining bus routes from Mahopac and other areas from north of Westchester County.

The Town of North Salem is coordinating with the Town of Somers and the New York State Department of Transportation to develop a solution to the parking and traffic congestion in Croton Falls. In concept, the Town supports a commuter parking lot at the St. Joseph's property and roadway improvements (possibly a roundabout) at the intersection of Croton Falls Road and Somerstown Turnpike (Route 202), both located in Somers. The Towns (North Salem and Somers) are coordinating with the NYSDOT to develop a master circulation plan for this area. The County will be designing and constructing a new bridge on the southern leg of this intersection. Improvements will need to be coordinated with this initiative as well.

Public Workshop- North Salem Residents

Residents were encouraged to share their thoughts and concerns on transportation at two group breakout sessions conducted at a public workshop on September 20, 2008. Approximately 50 residents attended.

Residents indicated that the main issues facing North Salem for transportation and mobility are:

- Improve Croton Falls traffic flow and congestion;
- Reduce speeding by changing the limits and increasing enforcement;
- Better accommodate pedestrian and bicycle travel on Mills Road and June Road. Consider wider shoulder/usage area;
- Maintain the character of the roadways through preserving scenic quality;
- Fix dangerous intersections;
- Prevent traffic diversion to local streets from I-684 (lobby for State highway improvements);
- Provide better and enhanced access to the train stations including improved parking via remote lots; and
- Protect and maintain dirt roads.

Town-wide Survey

The Town wide survey covered many topics including transportation. The survey results indicated that the following three items are very important:

- Road maintenance and safety;
- Travel speeds on local roads; and
- Travel demand on local roads.

The survey also indicated that the following was not important:

- Intermodal connections (park & ride lots); and
- Traffic congestion on I-684 (note: this is likely not considered to be the same as managing traffic overflow from I-684 when it becomes congested).

Interestingly, 55 percent of respondents indicated that traffic speeds are not a problem in Town. However approximately 80 responses indicated places of speed problems. Most common roads named include: Titicus Road, Peach Lake/Grant Road, Hardscrabble Road, Bloomer Road, June Road and Route 22.

Safety improvements were identified for the following locations:

- June Road at Titicus Road
- Route 22 at Titicus Road
- Titicus Road at Peach Lake Road – easterly junction near Vox
- Titicus Road at Grant Road – westerly junction

The survey also asked about how traffic could be improved at the schools and Mountain Lakes Camp. The results indicated that a traffic officer be considered to direct traffic at the schools and shuttle bus service, roadway repairs and a traffic officer be considered for the Town's Summer Camp at Mountain Lakes Park.

8.2 Current Conditions

The Town's transportation system is comprised mainly of streets. Many of the streets, including the State and County roads, are rural with narrow and winding alignments. Although these roads boast many scenic qualities, they are simply not suited for significant traffic at moderate speeds. Interstate 684 is located on the western edge of Town.

There is also a commuter rail line on the western edge that is serviced by two stations: Croton Falls and Purdys. Bicycle facilities and sidewalks are very limited throughout the Town. These modes of travel are accommodated by sharing the roadways.

In 2000, the average travel time to work for North Salem residents was 38 minutes. The following table summarizes how people traveled to work:

Table 8.1: Mode of Travel, North Salem and Westchester County, 2000

Mode of Travel	North Salem	Westchester County
Drive alone	73%	62%
Car pooled	8%	10%
Public transportation	12%	20%
Work at home	5%	4%
Other means	2%	4%

Source: Census 2000, Westchester County Planning Department, Fitzgerald & Halliday, Inc. 2009.

Seventy-three percent (73%) of the residents in North Salem drive alone to work. This is 11 percent higher than the County figure, likely attributed to the lack of transportation choices. In 2000, approximately 5 percent of the residents worked at home. We anticipate that this number has increased and could continue to increase with the addition of the enhanced communication networks (increased availability of high speed internet access).

The automobile is the primary means of travel for most of the residents. In 2000, 98.4 percent of North Salem residents had a vehicle available. Approximately 30 percent had three (3) or more vehicles and the average number of vehicles per household was 2.3.

The 2000 Census also revealed the following information for North Salem residents.

People living in North Salem were found to work in:

- Bedford – 5.2%
- Greenburgh – 3.3%
- Lewisboro- 2.5%
- Mount Kisco – 5.2%
- Mount Pleasant – 7.6%
- North Salem – 14.9%
- Pound Ridge – 1.5%
- Somers – 2.6%
- White Plains – 5.5%
- New York City – 17.4%
- Putnam County – 6.4%
- Connecticut – 10.8%
- Other locations – 17.1 %

People working in North Salem were found to live in:

- North Salem – 14.9%
- Dutchess County – 1.1%
- Putnam County – 1.1%
- All other locations <1.0%

Almost 15 percent of the population working in North Salem also lived in North Salem. The balance of the Town's workers was spread across various Westchester communities, with most having less than 1 percent total. This type of unconcentrated distribution does not lend itself to commuting/ridesharing to work destinations in North Salem.

8.2.1 Travel Corridors

A road network should provide for the safe and efficient movement of people and goods. A roadway circulation system consists of a hierarchy of road types, consistent with current and anticipated traffic conditions and surrounding land uses. The functional classification of roads in North Salem is shown on Map 8.1. There are four major classifications:

Limited Access Highways: includes interstate highways, which generally serve longer interregional trips at higher speeds. This includes I-684.

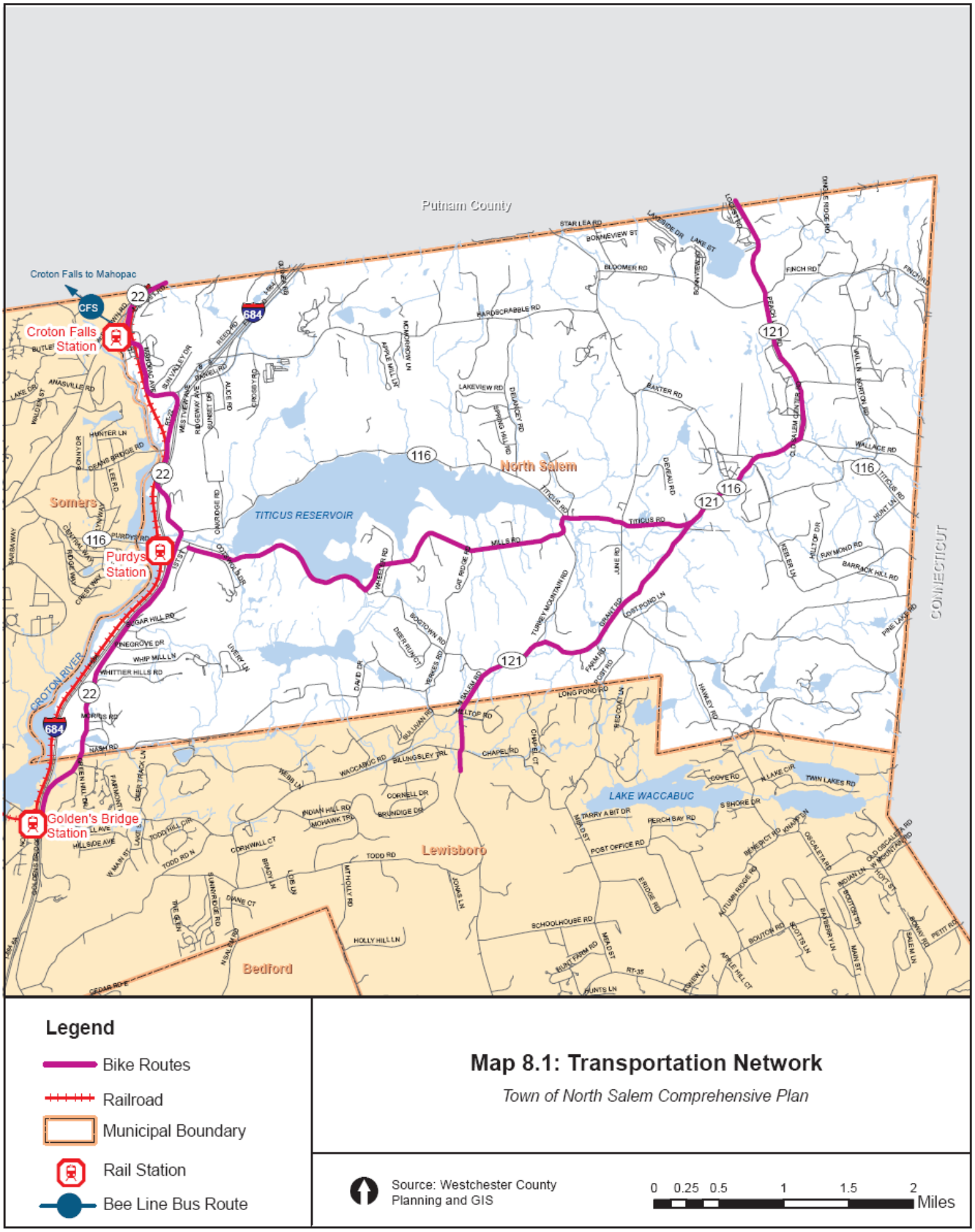
Major Roads: includes roads that facilitate the flow of traffic within town and link the town with surrounding communities. They connect collector roads to limited access highways. Direct connections to land use should be limited and carefully planned. This includes Route 22, Titicus Road, Grant Road/Peach Lake Road, June Road, Hardscrabble Road, Bloomer Road

and Mills Road. The CPC decided to nominate Mills Road to be classified as a Collector Road due to its function and geometric characteristics.

Collector Roads: These roads connect local roads to other roads in the circulation system but do not have the higher speed limits and travel demand as major roads. This includes Delancey Road, Bogtown Road, Nash Road and the neighborhood roads consisting of Daniel Road, Sunset Drive, Overlook and Oak Ridge Roads.

Local Roads: These roads provide direct access, at low speeds, to properties in residential and undeveloped areas. They are not designed for through traffic. Some of the local roads in North Salem are dirt roads.

Westchester 2025 defines corridors as historic paths of transportation movement and land use development. Westchester 2025 finds that focused attention is needed on 16 corridors within the County. None are located in North Salem, as most are located in areas with significant non-residential use. Corridors have different and sometimes conflicting functions. Many of the corridors (typically defined as major roads) in North Salem have scenic qualities that should be preserved. The transportation function of the corridor should be considered when zoning or developing adjacent land use. In addition to traffic flow, the use of bicycles and pedestrians and transit connections should be considered. For planning purposes, major roads in the Town should be defined as the corridors. While many of these are State or County roads, local input and desires are important especially as the County continues to turn over roads to local governments. According to *Westchester 2025*, between 1998 and 2007, County owned roads were reduced from 180 miles to 140 miles. The Town of North Salem is currently evaluating the potential advantages and impacts of taking over County roads including June Road, Hardscrabble Road and Bloomer Road. This will allow the Town to have authority over the maintenance and improvements and planning of these roads. It will also increase the Town's liability.


Putnam County
Croton Falls to Mahopac
CFS
Croton Falls Station
Somers
Purdys Station
Golden's Bridge Station
North Salem
TITICUS RESERVOIR
Lewisboro
Bedford
LAKE WACCABUC
CROTON RIVER
CONNECTICUT
22
116
121
684
Legend
Bike Routes
Railroad
Municipal Boundary
Rail Station
Bee Line Bus Route
Map 8.1: Transportation Network
Town of North Salem Comprehensive Plan
Source: Westchester County Planning and GIS
0 0.25 0.5 1 1.5 2
Miles

A scenic roadway designation is intended to protect and enhance the scenic value of a roadway by establishing limitations and guidelines. The following corridors have been identified as having scenic quality in the Open Space Report (2009) prepared for the Town of North Salem. [35]

- Baxter Road
- Bogtown Road
- Cat Ridge Road
- Delancey Road
- Grant Road
- Hardscrabble Road – Between Daniel Road and June Road
- Hunt Lane
- June Road
- Keeler Lane
- Mills Road
- Nash Road – the unpaved section
- Norton Road
- Titicus River Road
- Titicus Road – including its intersection with Route 22
- Turkey Hill
- Vail Lane
- Wallace Road

8.2.2 Traffic Volumes

An important metric in transportation planning is the measurement of traffic demand or traffic volumes. Traffic volumes are collected on roadways and summarized for a daily total and for peak hours, generally the AM and PM commuter hour. This information can be maintained over time to see how traffic levels are changing. Table 8.2 summarizes daily traffic for State routes. Traffic volumes were found to fluctuate at locations with some experiencing growth and some locations decline. For planning purposes in the transportation planning industry, traffic volumes are generally expected to grow at a rate of approximately one to three percent per year. Regional traffic volumes are illustrated on Map 8.2 and local traffic volumes are shown on Map 8.3.

In general, traffic is growing slightly, with some locations experiencing a loss. The economic conditions of 2008 and 2009 have stunted traffic growth in certain areas. Additional and more recent traffic volumes

[35] A recommendation to request the Open Space Committee to add Finch Road (east of Vail Lane) was made in Section 8.4 (Transportation Network).

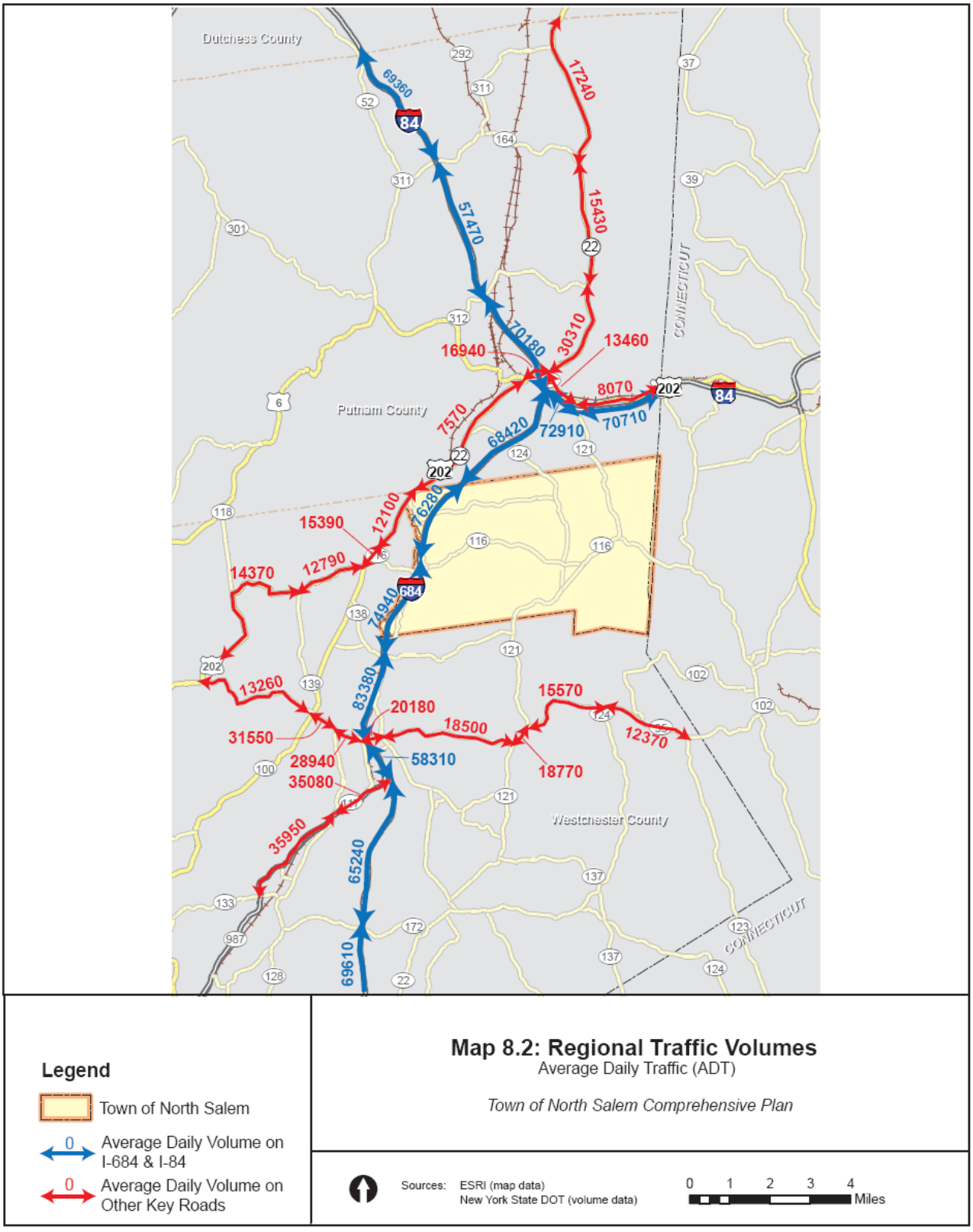
should be collected and summarized to see how traffic levels in North Salem have been affected.

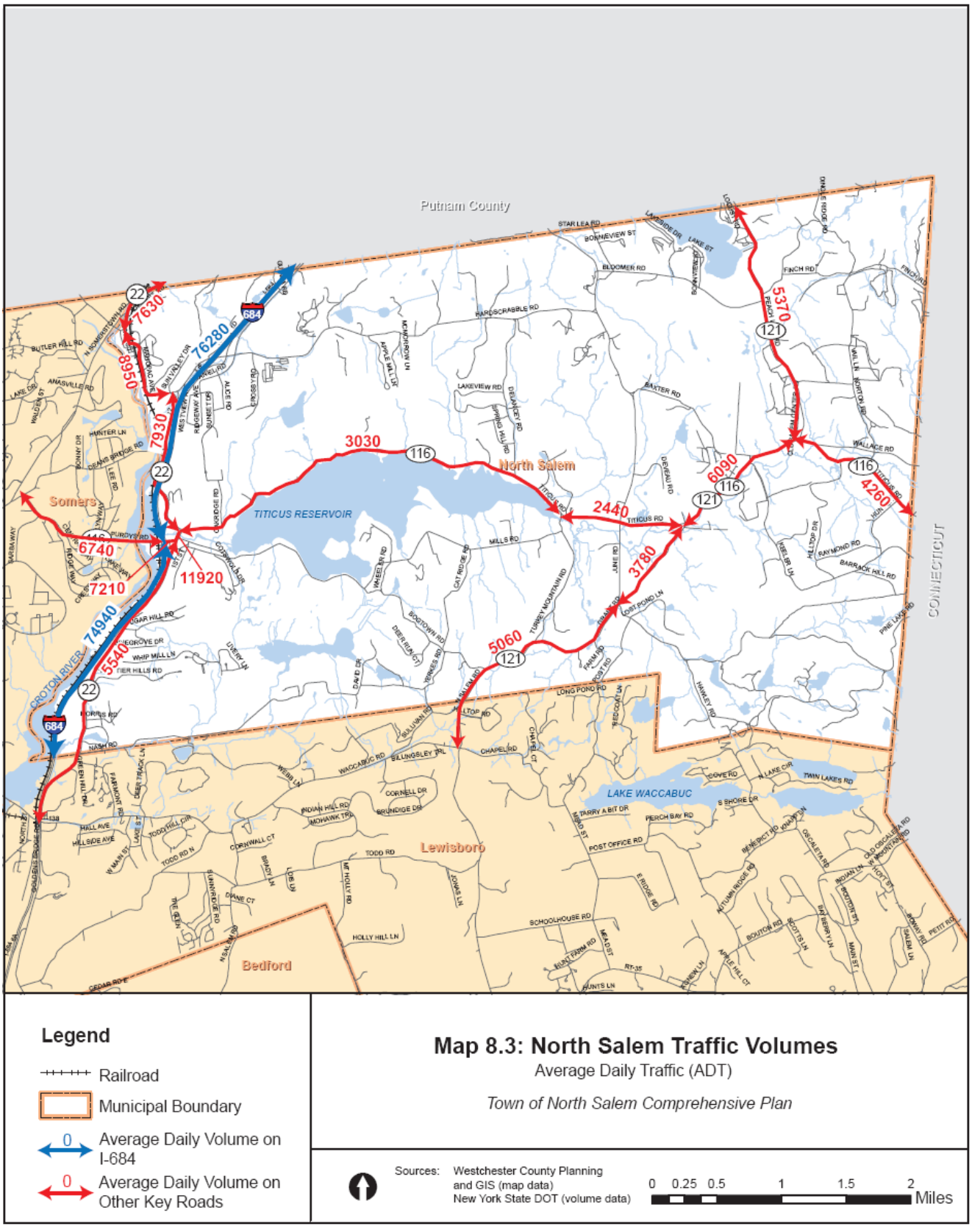
Route 22 is growing at a rate of about 4-6 percent per year. The section between Hardscrabble Road to the Somerstown Turnpike overlap has grown from 2001 (7,480 vehicles) to 2004 (8,680 vehicles) but has experienced a decline in traffic since a 1998 volume of 11,740. Sections between Route 116 and the Putnam County line carry approximately 9,000 vehicles per day. Interstate 84, although not located in North Salem, is experiencing total (both directions) volume increases in the 6-7 percent range west of Peach Lake Road. The section to the east of Peach Lake Road has remained steady (ADT@75,000) over the past few years.

Table 8.2: Average Annual Daily Traffic Volume

Route	Location	Year	AADT	Year	AADT	Year	AADT	% growth per year
22	Rt 138 to Rt 116 overlap	'99	4220	'02	4950	'05	5460	4.9
22	Rt 116 overlap	'98	9460	'01	10350	'04	11570	3.7
22	Rt 116 to Hardscrabble Rd	'97	6660	'00	7550	'03	9270	6.5
22	Hardscrabble Rd to Rt 202 overlap	'98	11740	'01	7480	'04	8680	(-4.3)
22	Rt 202 overlap to Putnam County line	'97	6260	'00	7980	'03	8810	6.8
I-84	Taconic Parkway to Putnam County line	'93	31080	'98	44010	'01	50320	7.7
I-84	Rt 312 to Rts 6/22/202/684	'95	4400	'98	46570	'01	61870	6.6
I-84	Rt 121 to Connecticut State line	'03	75770	'04	76270	'05	73960	(-1.2)
116	I-684 to Rt 22 overlap	'97	7680	'00	7420	'03	6910	(-1.7)
116	RT 22 overlap	'98	9460	'01	10350	'04	11570	3.7
116	Rt 22 to old Rt 124 Salem Center	'99	3300	'02	2790	'05	2990	(-1.6)
116	Old Rt 124 to Rt 121 overlap	'99	2260	'02	2200	'05	2410	1.1
116	Rt 121 overlap	'99	4510	'02	5000	'05	6010	5.5
116	Rt 121 overlap to Connecticut state line	'99	3490	'02	3550	'05	4200	3.4
121	Rt 35 overlap	'99	17330	'02	17010	'05	18510	1.1
121	Rt 35 to Rt 138	'99	5590	'02	5830	'05	5990	1.2
121	Rt 138 to June Road	'99	4100	'02	4310	'05	4990	3.6
121	June Rd to start of Rt 116 overlap	'99	2960	'02	3240	'05	3730	4.3
121	Rt 116 overlap	'99	4510	'02	5000	'05	6010	5.5
121	Rt 116 to Putnam County line	'99	3870	'02	4530	'05	5300	6.1
I-684	Saw Mill River Parkway to Rt 35	n/a	n/a	'97	50480	'00	56190	3.8
I-684	Rt 138 to Rt 116	'93	55320	'96	61630	'00	64550	3.4
I-684	Rt 116 to Putnam County line	'03	77290	'04	7890	'05	78690	0.9
I-684	Putnam County Line to 6/22/202	'97	69830	'99	69660	'00	58930	(-5.2)

Source: NYSDOT and Fitzgerald & Halliday, Inc., 2008.


Dutchess County
Putnam County
Westchester County
CONNECTICUT
CONNECTICUT
69360
57470
17240
15430
30310
13460
70180
16940
8070
70710
72910
68420
7570
76280
12100
15390
12790
14370
74940
83380
13260
20180
18500
15570
12370
31550
28940
35080
58310
18770
35950
65240
69610
Legend
Town of North Salem
0 Average Daily Volume on I-684 & I-84
0 Average Daily Volume on Other Key Roads
Map 8.2: Regional Traffic Volumes
Average Daily Traffic (ADT)
Town of North Salem Comprehensive Plan
Sources: ESRI (map data)
New York State DOT (volume data)
0 1 2 3 4
Miles


Putnam County
North Salem
Somers
Lewisboro
Bedford
TITICUS RESERVOIR
LAKE WACCABUC
CROTON RIVER
CONNECTICUT
7630
76280
69950
7930
6740
7210
74940
5540
11920
3030
2440
3780
5060
5370
6090
4260
22
116
121
684
Legend
Railroad
Municipal Boundary
0 Average Daily Volume on I-684
0 Average Daily Volume on Other Key Roads
Map 8.3: North Salem Traffic Volumes
Average Daily Traffic (ADT)
Town of North Salem Comprehensive Plan
Sources: Westchester County Planning and GIS (map data)
New York State DOT (volume data)
0 0.25 0.5 1 1.5 2 Miles

With the exception of the overlap sections (with Route 22 and Grant/Peach Lake Road), traffic on Titicus Road has grown at an average rate (approximately 2 percent per year) or even decreased slightly.

Traffic growth on Peach Lake Road has been greater in the northern sections near Titicus Road and lesser on Grant Road in the southern sections near Waccabuc Road and Cross River Road.

Traffic on I-684 has grown at an average rate south of Titicus Road and remained steady or decreased north of Titicus Road.

In addition to collecting traffic volumes from the Department of Transportation, the Town has also collected traffic data using the Town's speed trailer. Traffic volumes were collected at two locations: Route 121 (location not identified) and June Road (near Volunteers Park). These traffic counts included information on volumes and speed.

Route 121 (Grant/Peach Lake Road) – the traffic count was performed from 6 PM on Tuesday June 24, 2008 to 6 PM on Wednesday June 25, 2008. The daily traffic was recorded at 3,638. There was a sharp and distinct morning peak (7-8:30 AM) where volumes reached about 175 vehicles in a 15 minute period (8-8:15 AM). Traffic during the rest of the day was about 100-200 vehicles per hour. The speed limit on this section of road is 45 miles per hour (mph) and the recorded average speed was 36 mph. The 85th percentile speed was 42 mph. Speeds did not generally exceed 45 mph. This would indicate that speeding is not a problem on this road. However, an evaluation for possible speed limit reduction is recommended due to roadway geometrics.

June Road – the traffic count was performed by Volunteers Park for Sunday June 22, Monday June 23 and Tuesday June 24 in 2008. The total for the entire duration of the count was 6,972. Sharp peaks are noted on Monday and Tuesday morning, with the largest peak being a mid afternoon 15 minute period on Sunday (120 vehicles). The posted speed limit is 45 mph and the average speed was recorded at 29 mph. The 85th percentile speed was found to be 42 miles per hour. Approximately 300 cars were recorded as exceeding the speed limit. An evaluation for possible speed limit reduction is recommended including consideration for a school speed zone.

It is interesting to note that both counts had a distinct AM peak hour but not the same level during the PM peak hour. These data collection dates are not considered normal traffic during regular school session.

In addition to these volume counts, the Town collected speed data at key locations in 2008, which is summarized in Table 8.3.

Table 8.3: Traffic Speed

Location	Posted Speed (mph)	Average Speed (mph)	85th Percentile Speed (mph)
Titicus Road near Hunt Lane	45	39.19	45
June Road by Volunteers Park	45	29.39	42
June Road by PQ elementary school	40	36.88	43
Route 121	45	36	42
Hardscrabble Road	35	39.35	45
Wallace Road	30	26.10	32

Source: Town of North Salem and Fitzgerald & Halliday, Inc. (2008 and 2009).

Based on these data, speeding is noted to be a problem on Hardscrabble Road. Slight speed is also noted on June Road near the Pequenakonck Elementary School.

Concerns have been expressed regarding the speeds on June Road and especially near the elementary and middle/high schools. There is not an existing school speed zone (15, 20 or 25 mph) as is typical of many streets with schools. The overall speed limit on June Road should be considered for 35 mph with a school speed zone established. The Pequenakonck Elementary School area may also benefit from some traffic calming devices such as pole mounted radar signs.

Measures to reduce speeding on Hardscrabble should also be considered including additional enforcement and use of radar signs.

There is no posted speed limit on Bloomer Road except for 45 miles per hour at horizontal /vertical curves. Due to the proximity of the high school, a reduced speed limit (35 mph) should be considered.

The New York Metropolitan Transportation Council released a draft of its 2009 Congestion Management Process (CMP) in July 2009. The goal of the CMP is to manage congestion through integrated management and operation of the transportation system. The Federal government requires urbanized areas with a population of more than 200,000 to develop and implement a CMP. The status of the report/congestion is updated every four years. The CMP mainly considers State roads for an AM and PM peak hour for the existing year and a future planning year. Links are identified as congested (0.8 to 1.0 demand to capacity ratio) or extremely congested (>1.0 demand to capacity ratio). The report has identified the following links:

- I-684 (south of Titicus Road) – Congested – 2009 AM Peak Hour
- I-684 (entire length in North Salem) – Congested – 2035 AM and PM Peak hours

Further, the segment south of Cross River Road is expected to be severely congested in 2035 in the PM peak hour.

8.2.3 Safety

Another key metric for transportation planning is the evaluation of crash data at intersections and along roadway segments. Crash patterns can help target a transportation facility in need of a safety improvement.

Accident data for North Salem were collected by the Town from the New York State Department of Motor Vehicles. The following table provides a summary for the latest five years.

Table 8.4: Accident Data Summary

Date	Total Accidents	Fatal Accidents	At Intersections	Pedestrian & Bicycles	Accidents Resulting in injury
2/1/08-1/31/09	210	0	31	0	57
2/1/07-1/31/08	264	1	60	0	55
2/1/06-1/31/07	166	0	30	0	34
2/1/05-1/31/06	211	0	39	0	57
2/1/04-1/31/05	133	0	23	1	50

Source: New York State Department of Motor Vehicles & Fitzgerald & Halliday, Inc 2009.

The fatal accident occurred on Route 22 east of Sun Valley Heights Road. A southbound vehicle travelling at an unsafe speed and using a lane improperly collided head-on with a northbound vehicle. This section of Route 22 is on a curve and grade. No safety problem has been identified as a result.

A review of the latest three years of accident data revealed that:

- Approximately 50 percent of the total accidents occurred on I-684
- Between 25-30 percent of the total accidents involved hitting a fixed object (tree, deer, ditch, etc)
- Approximately 20 percent of the total accidents occurred at intersections
- None of the accidents involved a pedestrian or bicyclist

Accidents were also recorded on the following State and County roads: Titicus Road, Peach Lake Road/Grant Road, Hardscrabble Road, June Road and Bloomer Road.

The following four intersections have been identified as areas of safety concern by the CPC and results of the Town wide survey. A review of the accident data (latest three years) for these four locations revealed the following:

June Road at Titicus Road – there were seven accidents, all the result of an eastbound or westbound vehicle failing to grant right of way (from the stop sign). There was no predominant direction/approach. Two of the accidents occurred when the pavement was wet and/or slippery.

Route 22 at Titicus Road – there were 10 accidents, eight of which involved a southwest bound vehicle failing to grant right of way and colliding with a northbound vehicle.

Titicus Road at Peach Lake Road near Vox – there were two accidents reported at this location; one was attributed to a steering failure.

Titicus Road (Route 116) at Grant Road (Route 121) – there were four accidents reported at this location; two involved a northeast vehicle heading straight but disregarding the stop sign.

8.2.4 Centers

Westchester 2025 defines centers as the focal points in the County's pattern of development, the "downtowns" that create and sustain a sense of place and community. Centers, consisting of a commercial or mixed-use core and surrounding residential and industrial areas, generally have key services on which communities depend. Successful centers are compact and walkable, bicycle-friendly and pleasant environments with unfettered public access. *Westchester 2025* has identified one "center" in North Salem: Croton Falls. *Westchester 2025* also identifies "places", which are defined as being located outside of centers but in corridors or areas that have planning opportunities. Purdys is identified as a "place". North Salem refers to these and other areas in town as hamlets.

Croton Falls center is generally defined as the area around the Croton Falls rail station. It is the largest and most developed hamlet area in North Salem. It is located in the western part of town adjoining the Town of Somers. Land use is a mix of residential and commercial (General Business and Professional Office) and is home to the Croton Falls fire station. This hamlet is also the most congested area in North Salem.

Route 22 traverses the middle and is a narrow roadway with several horizontal and vertical curves. Local roads that intersect Route 22 do so at steep grades and at curves making access difficult. The width of Route 22 is also constrained by the railroad bridge. In recent years sidewalks have been replaced and added; however, a cohesive network is not in place. Parking for the train station occurs haphazardly with vehicles parked on shoulders or just off the travel way of Somerstown Turnpike and Croton Falls Road (in Somers). Existing traffic circulation and commuter parking should be addressed prior to any growth in this center.

Purdys has been identified as an area for planning opportunities. Similar to Croton Falls, the area is identified with the train station, although the commercial uses (post office and deli) are located east of Route 22. Both of these areas and the Route 22 corridor experience parking and traffic congestion problems. Development potential should be limited until existing circulation and parking issues are addressed. The Town previously considered additional development and planning opportunities for Purdys, but it was opposed by residents. There are infrastructure needs and issues (water and sewer) which limit development opportunities.

There are also three other "hamlet like" areas in town:

- Salem Center – located at the intersection of Titicus Road (Route 116) and June Road.
- Peach Lake Hamlet – located at the intersection of Peach Lake Road (Route 121) and Bloomer Road.
- North Salem – located near Baxter Road and Keeler Lane.

In general, these locations are not suited for additional development due to their lack of walkability and need for intersection safety improvements. The Peach Lake area also needs to consider environmental factors associated with the lake. A commercial development, however, is being considered for Peach Lake.

8.2.5 Public Transportation

The Town of North Salem and surrounding communities are served by MTA's Metro North Harlem Branch line via two train stations (Croton Falls and Purdys). The Croton Falls Station is approximately 48 miles to Grand Central and the average travel time is 1 hour and 16 minutes. Service is provided every 15-30 minutes during peak hours and approximately every hour during off-peak hours. It is located in the Zone 7 fare zone. The station is in the northwest corner of North Salem near the Putnam County line. Putnam runs a shuttle to the station. Coach USA operates the Croton Falls shuttle

which provides bus service between Mahopac and the train station on Monday through Friday. Service is provided based on the AM and PM commuter peak. However, Metro North offers a guaranteed ride home program (i.e. someone needing a ride home mid-day for emergency purposes when the service is not operating). All one-way fares are $1.00. There are nine trips from Mahopac to the railroad station (seven in the AM and two in the PM) and eight trips from the rail station to Mahopac (two in the AM and six in the PM). The Croton Falls station is farther from I-684 than the neighboring stations of Purdys and Golden's Bridge. The station itself is smaller than neighboring stations and only four train cars can platform at the station. There are 202 parking spaces provided and many commuters park on the shoulders or just off the travel way of Somerstown Turnpike and Croton Falls Road (in Somers), a short walk away. In 2006, the station served an average of 570 passengers on a weekday.

The Purdys Metro-North station is located in the Purdys hamlet area of North Salem. It is accessed from or near Route 22, I-684 and Route 116. The station is approximately 46 miles from Grand Central and the travel time is 1 hour and 12 minutes (4 minutes less than the travel time from Croton Falls) The station is also in the Zone 7 Metro-North fare zone and is the first/last station within this zone. There are 400 parking spaces provided, and in 2006, the station served an average of 613 passengers on a weekday. Adventure Northeast Transportation Service provides service between New York City and several ski resorts in Vermont. This service will also stop at the Purdys train station.

8.2.6 Bicycle and Pedestrian Facilities

The Town of North Salem has very limited bicycle and pedestrian facilities. There are no dedicated greenways or bicycle routes. There is tremendous recreational bicycling around the Titicus Reservoir (Titicus Road and Mills Road**).** The following roads are identified as part of Westchester County's Trail and Bike Route System. These are road corridors that have been mapped to provide a framework for future road improvements for providing bicycle travel. The following is the County's description:

- Mills Road – situated on the south side of Titicus Reservoir between Routes 22 and Peach Lake Road/ Grant Road (Route 121), this Town-recommended route follows local roads to connect the North Salem hamlets of Purdys and Salem Center: 4.3 miles in length

- Route 22 – from White Plains north to Putnam County, this central route through the north country links hamlets and is a popular route with organized groups: 27.7 miles

- Grant/Peach Lake Road – this north County route branches off from Route 22 in Bedford Village and continues north into Putnam County. It passes through a scenic semi rural landscape occupied by horse farms and low-density development: 13.9 miles

Sidewalks are limited and can be found in the Croton Falls station area. Sidewalk networks in the train station areas are not complete. There are also no sidewalks in the vicinity of the schools or parks (Volunteers and Joe Bohrdrum).

8.2.7 Traffic Generators

Traffic generators in North Salem include the train stations (Croton Falls and Purdys) the schools (Pequenakonck Elementary School, North Salem Middle/High School), and recreation facilities (Mountain Lakes Camp/Park, Joe Bohrdrum Park, Volunteers Park, Purdys Field). There are also generators in adjacent towns that affect traffic patterns in North Salem. The CPC has identified these land uses as opportunities to better manage traffic demand in and through the Town.

Train Stations – the CPC has noted that traffic is generated to these facilities from the east (Connecticut) and from towns to the North. To improve traffic circulation and enhance the station for residents of North Salem, the CPC would like to consider strategies to reduce this demand. The CPC is currently working with the NYSDOT to develop a better traffic and parking plan in Croton Falls.

Schools – the North Salem Central School District maintains two schools: the Pequenakonck Elementary School and the North Salem Middle/High School. Both of the school facilities are located on June Road. According to the North Salem Central School District, for the 2009-2010 school year there were 593 students enrolled in grades K-5 at Pequenakonck Elementary and 759 students in grades 6-12 at the Middle/High school. The CPC noted that there is congestion during the school arrival/departing hours especially at Pequenakonck. The CPC has indicated that many of the students do not use the Town school bus service but rather are driven to and from school or if old enough drive themselves. There are currently no sidewalks on June Road to support walking to school. The middle/high school operates on a nine class period (plus homeroom) system. The first period starts at 7:28AM and the ninth period ends at 2:10PM. The school hours for the Pequenakonck Elementary School are 8:25AM – 3:05PM. The CPC would like to consider strategies to reduce and/or better manage the school demand traffic.

Recreation Facilities – there are several parks/playing fields in Town and the Mountain Lakes Camp/Park. The CPC would like to consider strategies to reduce and/or better manage this demand.

8.3 Planned and Programmed Improvements

The New York Metropolitan Transportation Council manages the County's five year transportation improvement program listing. The following projects were identified on the 2008-2012 list:

- 875955 – Rehabilitation of June Road – repair existing drainage structures, resurface asphalt and replace guiderails. Total cost $3.27 million. Design (2008), Construction (2010)

- 876021 – Reconstruction and repaving of Keeler Lane from Hunt Lane to Route 121. It includes drainage work. Total cost $0.151 million. Design (2008), ROW and Construction (2009).

- 8T0409 – I-684, SMRP and Route 35 Interchange reconstruction – Scoping (2012) - not in North Salem

- 8T0496 – I-684/Muscoot Reservoir Outlet – General Bridge Rehabilitation – Total cost is $6.06 million Scoping (2009), Design and ROW (2010) and Construction (post 2012)

8.4 Needs and Major Recommendations and Strategies

The following identifies the strategies and recommendations for improving or altering the transportation system to meet the objectives identified in this Plan. Consistent with current planning practices and the County's planning strategies, North Salem is striving to be a sustainable community. The CPC has identified the following four key transportation strategies/improvements.

1. Maintain the existing transportation system and provide context sensitive solutions for safety enhancements.
2. Improve I-684 to minimize cut-through traffic in North Salem.
3. Improve traffic flow in Croton Falls.
4. Better manage traffic flow generated by key land uses and at key intersections.

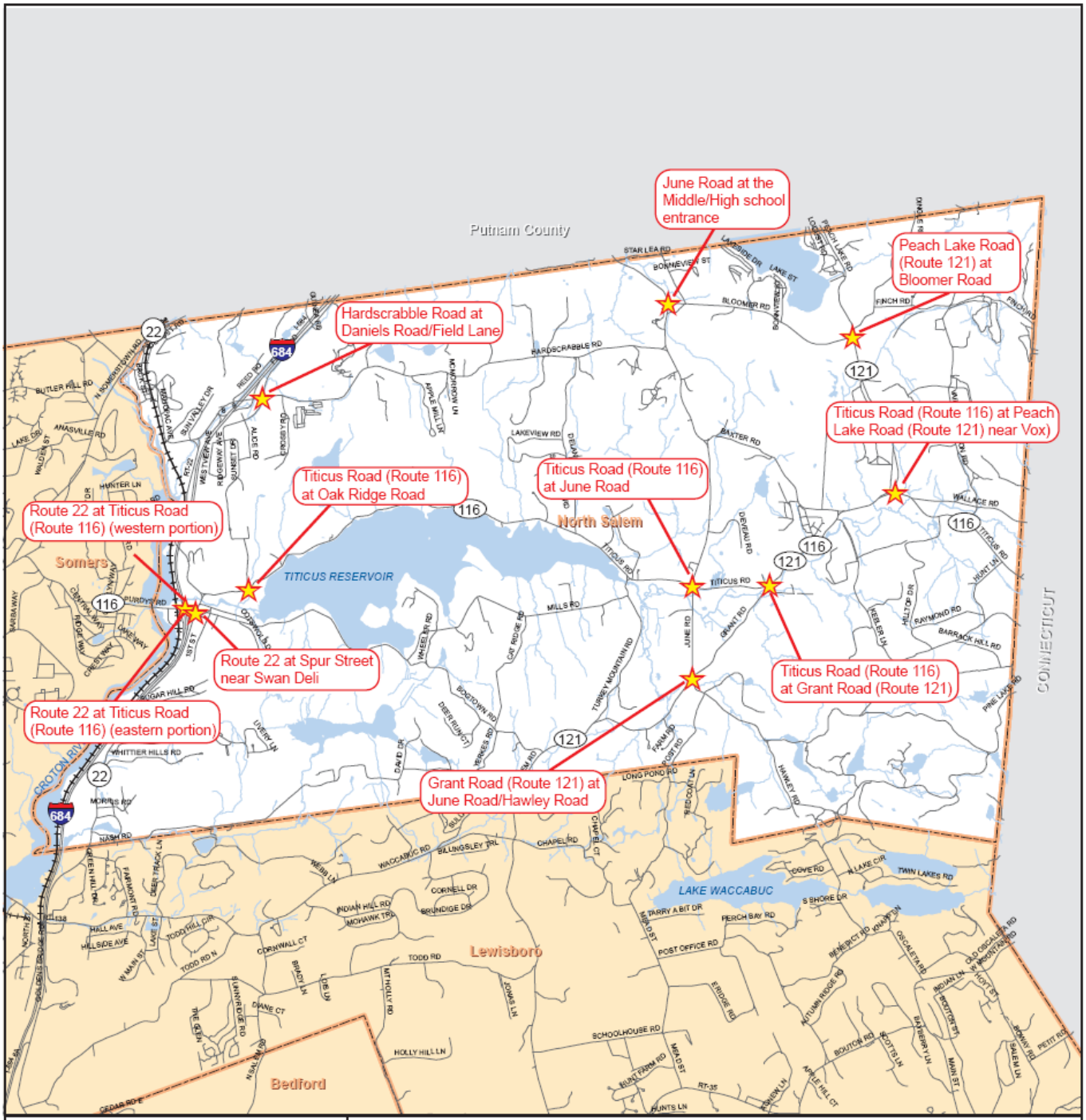
The following summarizes these as well as others identified through the planning process:

Maintain the existing transportation system and provide context sensitive solutions for safety enhancements.

Previous comprehensive plans, the Town-wide survey and residents at the Public Workshop in 2008 have identified intersections in need of improvement. Many of the improvements are safety related and involve improving site lines, horizontal or vertical curves and enhancing operations. Many of these intersections have been identified as needing improvements for the past several years. The Town should make an effort to prioritize the implementation. Many of the intersections involve State and/or County roads and will require their approval/funding. The Town should coordinate with the proper DOT agencies by writing a letter and requesting evaluation and or improvement of these intersections. The Town should consider a pro-active approach to partner with the DOTs by collecting turning movement count data and developing concept plans and cost estimates. Table 8.5 summarizes the identified locations and Map 8.4 shows all key intersections in Town.

Table 8.5: Intersection Improvements

Location	Problem or Improvement
Route 22 at Titicus Road (eastern portion)	Safety concerns identified. Explore alternatives for safety improvement.
Route 22 at Titicus Road (western portion)	A traffic signal was installed in 2005. Residents complained about long wait times in the morning for southbound flow. This should be evaluated. Concerns about running the light have been identified. North Salem should request a signal adjustment/evaluation from NYSDOT.
Titicus Road at Grant Road	Intersection has experienced a lot of traffic growth and can be confusing to motorists with respect to right of way and travel paths. Sight distance and alignment should be improved.
Titicus Road at Peach Lake Road near Vox	Need to reduce speed and better align intersection or travel paths.
Titicus Road at June Road	Safety improvements are needed. Rectify traffic sign clutter. Enhance pavement markings (stop bars). The DOT was to install flashing beacons on the stop signs in spring 2009. Consider interim or other treatment.
Titicus Road at Oak Ridge Road	Improvements to Titicus Road (Route 116) are needed to eliminate steep grades and sightline restrictions from Oak Ridge Road looking east. Additional signage.
Peach Lake Roadat Bloomer Road	Hamlet area improvement – potential for roundabout. At minimum, consider relocating stop sign on Bloomer Road to be more visible and add painted stop bar. Also provide painted stop bar on Bloomer Road at June Road
Grant Road at June Road/Hawley Road	Monitor intersection for future improvement – key intersection for Mountain Lakes Camp traffic
Route 22 at Spur Street near Swan Deli	Spur Street forms a Y-shaped intersection on a steep grade at Route 22. Access needs to be evaluated in conjunction with adjoining Deli property.
Hardscrabble Road at Daniels Road/Field Lane	Monitor intersection for future improvement –a key intersection for Fields Lane development.
June Road at the Middle/High school entrance	Comment at the public workshop – sightline problem.


June Road at the Middle/High school entrance
Peach Lake Road (Route 121) at Bloomer Road
Hardscrabble Road at Daniels Road/Field Lane
Titicus Road (Route 116) at Peach Lake Road (Route 121) near Vox)
Titicus Road (Route 116) at June Road
Titicus Road (Route 116) at Oak Ridge Road
Route 22 at Titicus Road (Route 116) (western portion)
Route 22 at Spur Street near Swan Deli
Titicus Road (Route 116) at Grant Road (Route 121)
Route 22 at Titicus Road (Route 116) (eastern portion)
Grant Road (Route 121) at June Road/Hawley Road
Putnam County
North Salem
Somers
Lewisboro
Bedford
TITICUS RESERVOIR
LAKE WACCABUC
CONNECTICUT
Legend
Key Intersections
Railroad
Municipal Boundary
Map 8.4: Key Intersections
Town of North Salem Comprehensive Plan
Source: Westchester County Planning and GIS
0 0.25 0.5 1 1.5 2 Miles

Improve I-684 to minimize cut-through traffic in North Salem.

The CPC believes that much of the cut through traffic is associated with congestion back up on I-684. Infratstructure projects that could improve operations on I-684 and I-84 include:

- Continuing the third lane south on I-684 (currently drops to two lanes) and reconfigure frontage access to improve traffic flow (south of the I-84 interchange);
- Improve the traffic movement from I-684 north to I-84 east; and
- Improve the interchange areas on I-684 including Hardscrabble Road, Route 22 and Route 35.

Many of the I-684 interchanges and their associated intersections are used to access IBM. While some of the transportation improvements required for this development have been made per the SEQRA Findings, others are forthcoming. North Salem should continue to coordinate with the adjacent communities on this and the NYSDOT for the larger infrastructure projects. Future stimulus packages could be a catalyst for some I-684 improvements.

Continue to lobby and support the NYSDOT for I-684 improvements including the I-84/684 interchange improvement. Existing traffic backs up on I-684 northbound from the exit ramp to I-84 eastbound causing congestion and encouraging traffic to exit sooner and cut through North Salem to access I-84.

Additionally, south of I-84 the I-684 mainline should be reconfigured to accommodate a third lane. It appears this can be accomplished without full widening and within the existing right of way.

Improve traffic flow in Croton Falls.

Congestion is evident especially in the AM and PM commuter periods along Route 22 from Hardscrabble Road to and beyond Route 202 in Somers. The signalized intersection of Route 22 and 202 is a key bottle neck area. Traffic flow at this intersection is impeded by the signal, the single lane approaches and the on-street parking that occurs for the train station. The Town of North Salem (including members of the CPC) met with the NYSDOT in February, November and December of 2009 to discuss potential solutions to this problem. Through a joint request of the Towns of North Salem and Somers, the NYSDOT has collected traffic volume data and analyzed improvement alternatives. While the analysis and review are on-going, it

appears that all parties (NYSDOT, Somers and North Salem) support the alternative of a roundabout at the intersection of Route 202 and Croton Falls Road. The Town of North Salem should continue to actively participate in developing intersection improvements at this location.

The Town of North Salem is also coordinating with the Town of Somers and St. Joseph's Church to potentially create a park and ride lot on the St. Joseph's property in Somers. The church is in the process of constructing a new place of worship elsewhere in Somers. Although this had been attempted previously without success, recent developments indicate potential for a solution that could remove the parked vehicles from the shoulder areas of these roadways.

The Westchester County DOT is in the design phase for a new bridge structure for Croton Falls Road over the East Branch of the Croton River. Coordination of the bridge with a Croton Falls traffic improvement project is essential.

Better management of traffic flow generated by key land uses and at key intersections.

Traffic demand is very noticeable on June Road in the vicinity of the North Salem schools at arrival and dismissal time. There is also a traffic demand for vehicles wishing to access the Town's Summer Camp at Mountain Lakes Park. The CPC would like to develop strategies to reduce the demand for these land uses by encouraging ride sharing and utilizing bus transportation more.

The Town should work with the County owned Mountain Lakes Park to develop a demand management system that incorporates satellite parking and shuttle bus service to reduce demand/congestion at and near the facility. Consider repair to Mountain Lakes and Hawley Roads and use of a traffic officer. On site camp traffic parking and circulation directors should also be considered as part of the solution.

The Town should evaluate options for better management of school demand traffic at the elementary and middle/high schools. Transportation demand management (TDM) strategies such as ridesharing and carpooling should be encouraged.

In addition to the four key transportation improvements, the following needs or strategies have also been identified.

Transportation network

- Speed limit evaluations and enforcement – Many of the residents at the public workshop expressed concerns about speeds on area roadways and requested that the Town step up enforcement. This may be accomplished with the recent police staff additions. Consideration should be given to lowering the speed limits on several roads including Titicus Road (there are multiple existing changes and the speed limit is confusing), June Road (create a school zone speed at both facilities) and Bloomer Road. Other tools include use of the Town trailer or radar speed signs. Requests to lower the speed limit should be made by the Town to the NYSDOT (Titicus Road) and Westchester County DOT (June Road and Bloomer Road).

- Route 22 Corridor Study– The Town should request the DOT to update the corridor study to consider master/long range planning for this key transportation corridor.

- Sign clutter – Too many signs can be confusing and distracting and can take away from the beauty of the natural environment. Sign reduction should be considered for Titicus Road.

- Pavement Markings – These can be an effective means of communicating to the motorists. Stop bars should be considered to supplement stop signs on Titicus Road at the intersection with June Road, Bloomer Road at its intersections with Peach Lake Road and June Road. Worn markings lose reflectivity and should re-striped on a regular basis to be effective. The Town should also consider the new bicycle symbol (share arrow) for bike routes in Town including Mills Road and Grant Road/Peach Lake Road.

- Alternatives to traffic signals – The New York State DOT has a policy of considering roundabouts before installing traffic signals. Locations that may at some point be considered for a roundabout are:

Peach Lake Road (Route 121 /Bloomer Road and Route 22 at Titicus Road (both eastern and western junctions) June Road/Bloomer Road.

- Access management – To preserve capacity and enhance safety, the Town should consider access management along key corridors. Zoning language and curb cut plans can help plan for the safe location and number of driveways.

- Congestion Management Process: Work with NYMTC to develop locally preferred actions to address future congestion on I-684.

- Planning Partners – The Town should continue to coordinate on transportation issues and land development proposals with adjacent communities and regional transportation planners.

- Scenic Quality – The Town's Open Space Committee should include Finch Road (east of Vail Lane) as a road with scenic quality, which should be considered for any future developments on the road.

Hamlet Areas

- Gateways – The Town should consider creating aesthetically pleasing gateways at the hamlets to alert drivers they are entering a special area. These gateways can also function as traffic calming techniques.

- Traffic circulation in Croton Falls – The Town should continue to work with the Town of Somers, the NYSDOT and the County to develop a master circulation plan for this area.

- Traffic circulation in Purdys – The Town should consider traffic calming in Purdys to reduce cut through traffic. Improved access to the commercial site on Route 22 (deli) should also be considered.

- Walkable community– Identify areas in need of sidewalks and pedestrian crossings.

Public Transportation

- Rail Station Parking – The Town should enhance access to rail stations for North Salem residents. Ideas to consider include resident permits and satellite location for Croton Falls station parking (St Joseph's in Somers). The Town of North Salem supports enhancing parking and traffic flow in Croton Falls and does not believe that parking improvements to the Purdys station will improve the parking

and congestion in Croton Falls. Rather, it will encourage more traffic through North Salem.

- Promote commuting - The Town should implement a Ride Share program/web site. Consider use of emerging social network technology.

- Shuttles to Croton Falls and/or Purdys stations – The Town should continue to support and seek ways to expand the existing shuttles.

- Park and Ride lots in other communities – In an effort to reduce demand in North Salem, the Town should support the development of park and ride lots in adjacent or nearby communities.

- Paratransit services – The Town should continue to provide transportation services for the elderly and disabled. Consider sharing services with neighboring towns. ALOFT for Westchester County attended the public workshop and is a resource. The feasibility of a jitney, a shuttle which can bring the elderly and the disabled from their homes to a supermarket or pharmacy, would be beneficial. Revenue for a jitney could be paid through potential advertising space on the vehicle.

- Meet and coordinate with the MTA to identify capital projects for the transportation improvement plans.

Pedestrian and Bicycle Facilities

- Bicycle facility improvements – The Town should prepare a bicycle and pedestrian master plan and identify routes suitable for bicycle travel and those that are not. The plan should also identify projects to enhance bicycling and walking in North Salem.

- Concerns have been raised about the safety of bicyclists sharing the road with vehicles on Titicus Road adjacent to the Titicus Reservoir. The Town should explore options to encourage bicycle traffic to use Mills Road. Residents have raised concern about groups of bicyclists traveling in packs.

- Bicycle safety education – The Town should provide a training course/video at the elementary school. Funding and programs may be available from Safe Route to School programs.

- Bike facilities at train stations – The Town should continue to request amenities at the train stations to promote bicycle access.

Development review

- Establish traffic impact guidelines and criteria – The Town should adopt formal impact guidelines to ensure that traffic studies will be prepared in a similar manner and to define for the Town commissions and developers what is considered to be an impact. This will help determine when mitigation is needed/appropriate.

- Continue to encourage developers to create private roads when developing new subdivisions.

Land Use and Zoning Recommendations

- Access management and parking standards should be considered when updating Town Zoning code.

Transportation Project Development Review

- The Town should continue to be active in identifying projects for programming and reviewing the County and State transportation improvement projects (TIP) lists. This includes coordination with the County, NYSDOT and New York Metropolitan Transportation Council (NYMTC).

- The Town should also continue to work with neighboring communities to address solutions to regional transportation issues.

Emerging Issues

- The MTA is currently evaluating improvements to the Danbury Branch Line. Changes to this corridor could reduce cross-town traffic accessing the Purdys and Croton Falls stations. The Town should remain involved in the project and provide comments during public meetings.

- Enhanced high speed internet access is coming to North Salem. This fiber optic system will greatly improve communication capability by enhancing access (speed and volume) to the internet. This could enhance the ability of commuters to work at home. While it may reduce peak hour commuter congestion, it could add more daytime travel demand to the street network. There is not a simple way to evaluate this or its impact. The Town should attempt to monitor

traffic volumes at key locations (i.e. residential streets and commercial areas).

- Over the past two years, fuel prices have risen dramatically and then reduced. The price of oil and gasoline affects the maintenance cost of roads and can alter people's travel behaviors. The cost of oil and the Town's carbon footprint should be monitored by the Town. The Town should also consider hybrid vehicles for its fleet especially as they come on line for replacement. The Town should also encourage public use of hybrid vehicles by considering hybrid priority spaces in parking areas.

9.0 PUBLIC FACILITIES AND SERVICES

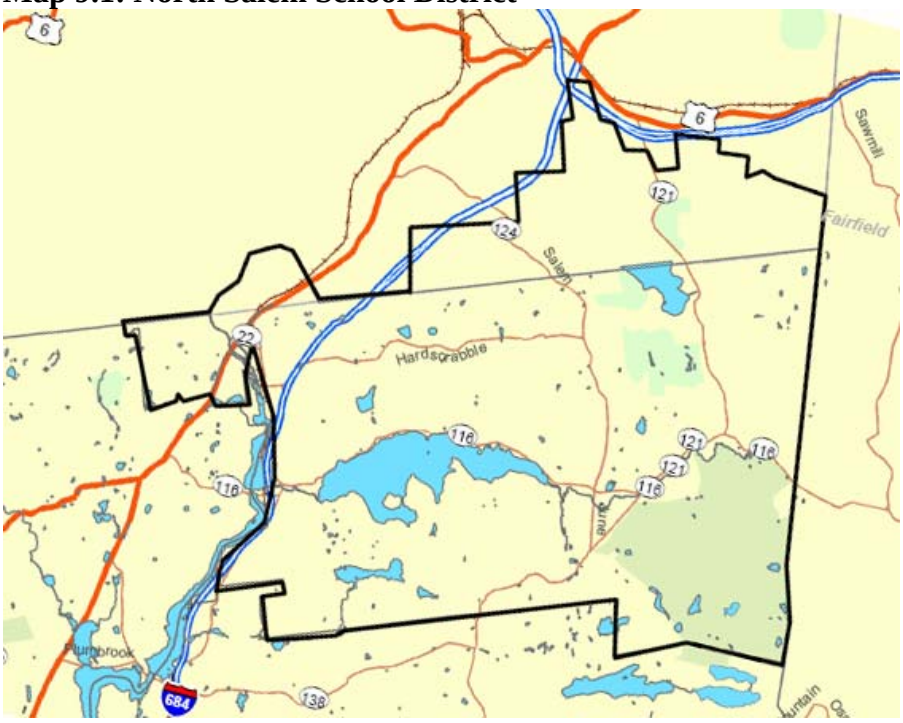
The community facilities and services described below are primarily administered by separate decision-making boards or commissions, which typically conduct assessments and studies depending on the planning needs of each organization. The following is an overview of the status of these facilities and services provided. Map 9.2 contains all community facilities in the Town.

9.1 Current Conditions

9.1.1 Educational Facilities

The Town of North Salem is currently served by two school districts. The North Salem Central School District (CSD) encompasses 32 square miles and serves most of North Salem (95 percent of the Town's land area) and portions of the following towns: Somers, Carmel, and Southeast (see Map 9.1). Of the 1,352 students enrolled in the North Salem CSD in the school year 2009-2010, 798 or 59 percent were school age children from the Town of North Salem.[36] Additionally, a number of North Salem's school age children attend private schools in the area or other locations in the region (see section on "Non-Public Schools" below).

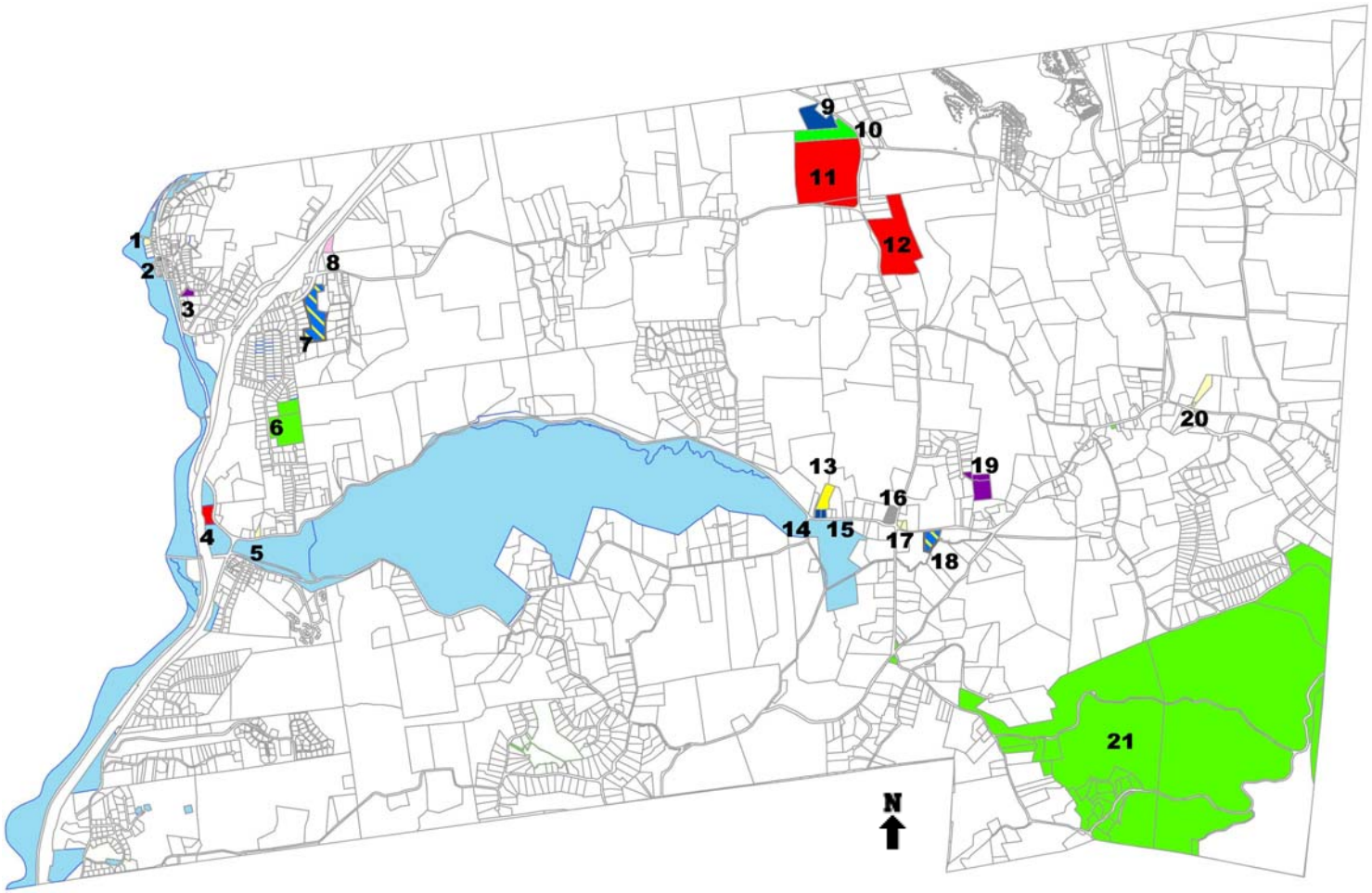
Map 9.1: North Salem School District



Source: USA Base map, Westchester County GIS Files

[36] Data provided by Rebecca Navarez via email (December 10, 2009).

Map 9.2: Community Facilities in North Salem



Source: Westchester County, GIS

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1. Croton Falls Baptist Church
2. Croton Falls Fire Station
3. School House Theater
4. Westchester Exceptional Children's School
5. Purdys United Methodist Church
6. Joe Bohrdrum Park
7. North Salem Volunteer Ambulance Headquarters
8. Community Based Services
9. North Salem Highway Department Salt Shed
10. Volunteers Park
11. North Salem Middle/High School
12. Pequenakonck Elementary School
13. Ruth Keeler Memorial Library
14. North Salem Town Administrative Building/Courthouse/Police Station
15. Town Hall
16. North Salem Highway Department Garage
17. St. James Episcopal Church
18. Salem Center Fire Station
19. Hammond Museum
20. Saint Johns Church
21. Mountain Lakes Park/Camp

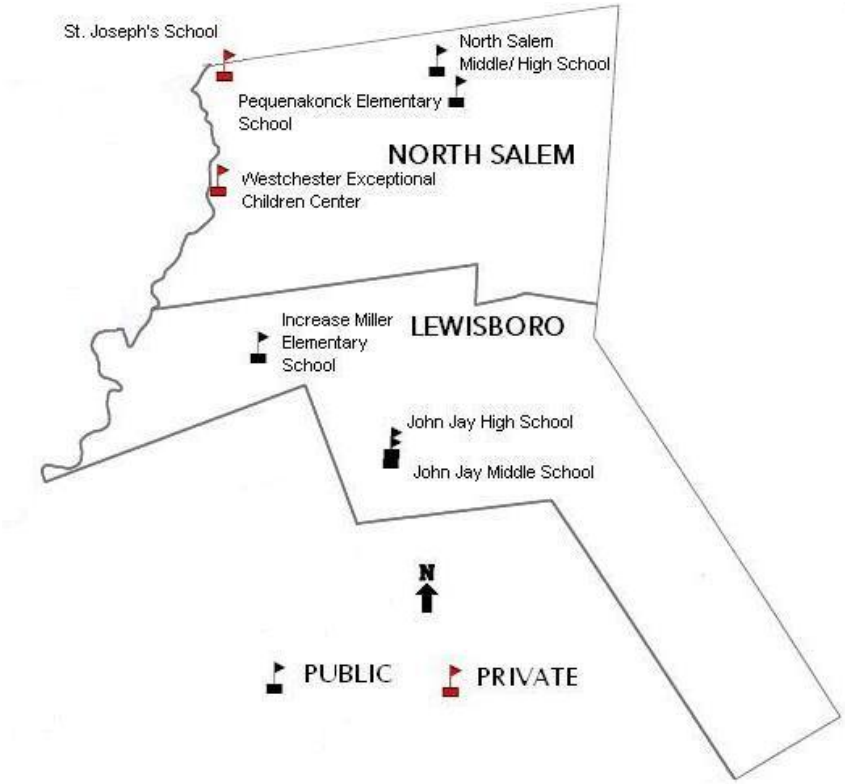
The Katonah-Lewisboro School District serves the southwestern corner of North Salem, all of Lewisboro, and portions of Bedford and Pound Ridge. The Katonah-Lewisboro School District does not have any facilities located in the Town of North Salem. Currently, the number of North Salem children attending Katonah-Lewisboro schools is 77.[37]

The facilities and enrollment in the respective districts are provided below based on 2009 – 2010 data.

North Salem Central School District (CSD)

The North Salem CSD maintains two school facilities: the Pequenakonck Elementary School, located on June Road just to the south of Hardscrabble Road and the North Salem Middle/High School also located on June Road just to the north of Hardscrabble Road. The elementary school serves grades K-5; the middle school serves grades 6-8; and the high school serves grades 9-12.

Map 9.3: Public and Private Schools Attended by North Salem students



The North Salem Central School District total enrollment for the 2009 –

[37] Telephone conversation on February 16, 2009 and December 3, 2009 with Maryann Carroll of the Katonah-Lewisboro Union Free School District.

2010 school year was 1,352 students. Enrollment in 2010-2011 slightly decreased to 1,321.

Table 9.1: North Salem Central School District, Enrollment for the 2007-2008 to 2009-2010 School Years, 2009

School	Grades	2007-2008 Enrollment	2008-2009 Enrollment		2009-2010 Enrollment		Change (2007/08 – 2009/10)
		#	#	Change	#	Change	
Pequenakonck Elementary School	K-5	689	601	(-88)	593	(-8)	(-96)
North Salem Middle/High School	6-12	660	744	+84	759	+15	+99
TOTAL		1,349	1,345	(-4)	1,352	+7	+3

Source: North Salem Central School District, 2009.

Enrollment for the North Salem Central School District increased by 7 students, or 0.5 percent, between the 2008-2009 and the 2009-2010 school years, including a 1.3 percent decrease in elementary school enrollment. The increase in the Middle and High Schools made up for the loss at Pequenakonck, with an increase of 15 students, or 2.0 percent. From the 2007-2008 school year to the 2009-2010 school year, the total school district enrollment increased by 3 students, or 0.2 percent, while Pequenakonck School decreased by 96 students or 16.2 percent and the Middle and High Schools increased by 13.0 percent. The decrease in students at Pequenakonck may be attributed to a leveling off of Town population with young children and a general slowing up of growth in the Town. Projections for the next ten years now show a small decline in enrollment of approximately 78 students over all.[38]

Katonah-Lewisboro Union Free School District

The Katonah-Lewisboro Union Free School District (hereinafter Katonah-Lewisboro UFSD) maintains three schools: Increase Miller Elementary School, the John Jay Middle School and the John Jay High School. In the 2008-2009 school year, enrollment for the Katonah-Lewisboro UFSD was 2,559 students, which represents a 0.2 percent decrease from the 2008-2009 total enrollment. Both Increase Miller Elementary School and John Jay Middle School show a decrease in enrollment from the 2008-2009 school year, while John Jay High School increased by 15 students or 1.2 percent. The 2009-2010 total enrollment represents an 18 percent decrease over the last fifteen years from 3,141 students in 1994. This represents an average annual decrease in total enrollment of 1.2 percent per year over the last fifteen years.

[38] Western Suffolk BOCES, Office of School Planning and Research, *Long Rnage Planning Study Update: North Salem Central School District*, December 2009.

Table 9.2: Katonah-Lewisboro U F SD, 2007-2008 to 2009-2010 Enrollments

School	Grades	2007-2008 Enrollment	2008-2009 Enrollment	2009-2010 Enrollment	Number of North Salem Students (2009-2010)
Increase Miller Elementary School	K-5	385	367	355	34
John Jay Middle School	6-8	931	937	928	21
John Jay High School	9-12	1,300	1,261	1,276	22
TOTAL		2,616	2,565	2,559	77

Source: Katonah-Lewisboro Union Free School District, 2009.

Non-Public Schools

A small portion of students living in North Salem attend private schools. In 2009, approximately 6.4 percent of the total student population for the North Salem Central School District attended non-public schools. The district's non-public school enrollment has decreased over the last five years and it is anticipated that non-public school enrollment will continue to decline in the next ten years due to demographic and economic factors.[39]

North Salem students attend the following private schools (see Map 9.2):

- St. Joseph's School, located in Croton Falls, serves students in grades K-8
- Westchester Exceptional Children Center, located in Purdys on Route 22.

North Salem CSD students also attend various other non-public schools in the region and beyond. Additionally, the North Salem Nursery School is located in the Hamlet of Salem Center on June Road. Approximately 56 pupils attended this private nursery school during the 2009-2010 school year. Children are transported by their parents or guardians to the nursery school. The nursery school can accommodate 92 nursery school age children. According to the New York State Office of Children and Family Services, the YMCA of Central and Northern Westchester (173 June Road) is the only licensed day care in the Town and has a capacity for 129 children.[40]

[39] Ibid., pg. 6.

[40] New York State Office of Children and Family Services Website (http://it.ocfs.ny.gov/ccfs_facilitysearch/) accessed on December 3, 2009.

The Westchester Exceptional Children, Inc. (WEC) school, which is a New York State approved, private, special education facility, is located in Purdys on NYS Route 22. The WEC provides year round special educational services to individuals with autism, multiple handicaps and children who are medically fragile from Westchester, Putnam, Orange and Rockland Counties and the Bronx. The WEC can accommodate 80 to 83 students.

9.1.2 The Ruth Keeler Library

The Ruth Keeler Library, built in 1980, is a single floor library with four computers, desks, reading areas and a meeting space. It is the only library that serves the Town of North Salem. According to the 2008 Annual Report, the Library has a collection of approximately 50,000 with printed materials comprising approximately 36,000 and other media comprising 14,000. In 2008, the Library had 3,057 card holders (North Salem residents and workers employed in North Salem can obtain library cards) and in 2009, approximately 4,500 attendees of all ages at its various events from January to October.[41]

The Library's Draft Long Range Plan for 2010-2015 has goals for improving the building and grounds, staff, collection, technology, community outreach, funding and governance.

9.1.3 Police Protection

Residents are happy with the Town's police protection; according to the Town-wide Survey results, the police ranked the highest among satisfaction with residents. The Town of North Salem Police Department and the New York State Police both provide police protection to the Town of North Salem. The State Police provides full-time police service to the Town of North Salem. The North Salem Police Department is available part-time and is used to supplement the State police patrols. The local police department is located in the Town Office buildings on Titicus Road (Route 116) in the Annex building behind where the Town Court and meeting room are located. The New York State Police are available 24 hours a day, and have barracks located in Somers and sub-stations located in Lewisboro and Pound Ridge.

[41] Interview with Carolyn Reznick, Library Director, on November 13, 2009 and the *Ruth Keeler Memorial Library 2008 Annual Report*. *The Ruth Keeler Memorial Library Long Range Plan* was completed in 2010 and copies are available at the Library.

The New York State Police barracks in Somers serves four towns (Lewisboro, North Salem, Pound Ridge and Somers) and Interstate 684. The State Police force serving North Salem and these three other towns has 3 sergeants, 34 uniform troopers, 5 investigators, 1 police canine and 12 vehicles. The Police Department headquarters has no indoor garage and all police vehicles are parked outside. The Town of North Salem Police Department has 15 part-time police officers, 1 part-time parking enforcement officer, 3 patrol cars, and 2 four-wheel drive vehicles available to supplement the State police patrols. The North Salem Police Department reports that residents of North Salem currently receive adequate police protection, and expansion of police services is not required at this time.

It should be noted that North Salem Police Department coverage improved with changes made in September 2008, which included increases in departmental personnel and more patrol hours. The Police Department hired more part time officers and the department put on an additional full tour, for a schedule of two half tours and one full tour. The tours are primarily focused on traffic control, such as addressing speeders and being on hand for vehicular accidents.[42]

9.1.4 Fire Protection Services

The Croton Falls Fire District (CFFD) provides fire protection and emergency services to most of the Town of North Salem and small areas of Brewster, Carmel and Southeast. The CFFD is different from the Croton Falls Fire Department. The Fire District is a taxing authority independent of Town government which funds the Fire Department for facilities, training and equipment. The Fire Department provides residents with fire protection.

The CFFD has a range of 60 to 80 volunteer fire fighters (40 to 50 being active), many of whom work in North Salem and are therefore able to respond to fire alarms. The CFFD also has approximately 20 EMTDs (Emergency Medical Technicians with Defibrillator training), 1 paramedic and also several first responders who are trained in various types of first aid. From 2006 to 2009, the Fire Department has responded to an annual average of 570 calls.[43]

The CFFD has stations in Croton Falls (1 Front Street) and in Salem

[42] Telephone conversation on February 5, 2009 with Sergeant Andrew Brown of the Town of North Salem Police Department.

[43] Telephone conversation on December 9, 2009 with Marianne Faulk, CFFD secretary.

Center (301 Titicus Road) available to respond to service calls. The station located in Salem Center has recently expanded, providing additional office, meeting and training space and two additional bays for equipment and trucks. The CFFD has 8 pieces of equipment and trucks available including:

- 4 pumper trucks with 750-gallon to 2,750-gallon water capacity;
- 2 combination mini-attack pumpers/rescue vehicles (each holding approximately 250 gallons or more of water); and
- A rescue vehicle and a utility truck.

State law mandates that the CFFD also have the following equipment: 3 Chief cars, 2 motorized boats and one all-terrain vehicle (ATV). The pumper trucks all have ladders at least 35 feet long. In the last few years, there has been more demand for emergency services in terms of EMS (Emergency Medical Service) calls. There has been a slight decrease in fire calls in relation to improved building codes. The Fire Department provides continuous safety and emergency training.

Water supply is a one of the biggest issues in providing local fire protection. Since the Town has no fire hydrants, the CFFD is equipped with four pumper trucks to carry water, as well as ice augers to replenish water supply in the winter. When a developer proposes a new subdivision, the Planning Board and Fire District work together to ensure that the development has access to a water supply (the developer may have to install underground water storage tanks, if needed).

The location of the Croton Falls Department is another issue. It has been noted that congestion on nearby roads (Route 22, Somerstown Turnpike and Croton Falls Road) delays response time out of the station.[44]

A small section of North Salem, including residences located on Valeria Circle and along Nash Road, are served by the Golden's Bridge Fire Department (GBFD), which is one of three volunteer fire departments that serve the Town of Lewisboro. The GBFD also serves a portion of I-684 and the Metro North Railroad. The GBFD has approximately 70 volunteer fire fighters, including paramedics and EMTs who can respond to the North Salem area from their department in Lewisboro within 5-8 minutes.[45] Some of the GBFD's volunteers are trained for advanced firefighting, rescue operations, hazardous materials, pump operations and arson awareness. Equipment available at the Fire Department includes: 2 "Class A" pump trucks, 1 mini-attack pumper, a 3,300 gallon tanker, a

[44] Jeff Dackery, Drew Outhouse and John Schumacher, at a Community Facilities meeting on February 20, 2009.

[45] Telephone conversation on February 3, 2009 with John Winter, a member of the Golden's Bridge Fire Department.

large rescue vehicle and 2 rescue vehicles.

9.1.5 Emergency Services

The North Salem Volunteer Ambulance Corps (NSVAC) provides emergency medical services in the Town of North Salem and in parts of the Towns of Southeast and Carmel. Also, as part of a mutual aid agreement, the NSVAC responds to calls from other communities in the area whenever there are calls for assistance. It is entirely run by volunteers, most of whom are North Salem residents. The Ambulance Corps has approximately 15 volunteer EMTDs (Emergency Medical Technicians with Defibrillator training) and first responders who are trained in various types of first aid. A number of members are CPR trained and some volunteers who are ambulance drivers.

The NSVAC responds to approximately 365 calls per year and is equipped to handle 400-plus calls per year not counting multi-casualty incidents (MCIs). The number of calls varies from no calls to possibly 5 calls in any given day. The NSVAC and local ambulance companies from surrounding communities respond to calls in neighboring communities as part of a mutual aid program, as described above. Since each of the local volunteer ambulance companies is not equipped to handle large accidents, each community's ambulance service supplements the services of adjoining communities as part of the mutual aid program.

Additionally, North Salem is part of an emergency medical service consortium, which involves 8 communities. Under this consortium, North Salem contracts for advanced life support services (ALS paramedics respond along with the NSVAC).

The NSVAC recently relocated its facilities to a newly constructed, larger building on Daniel Road, in Croton Falls, to provide adequate facilities for volunteers serving shifts, office, meeting and training space and 4 bays for ambulances. The NSVAC has 3 ambulances and a County-owned MCI trailer, equipped to provide care for 50 people. The current facilities generally serve the community’s needs.

Points for improvement for the NSVAC include a funding plan for future years, increase in professionally trained volunteers and better response time. Like the CFFD, the NSVAC experienced a decrease in public donations at their fund drive and expects less money from the Town and their third funding source. A funding plan would be beneficial to maintain

quality service during this economic downturn. The NSVAC is also in need of volunteers. A third problem area is response time, which can be up to 18 minutes for an Advanced Life Support (ALS) Vehicle, or swing car, which is stationed in Somers.[46]

9.1.6 Emergency Management

The Town of North Salem has created a team of Emergency Management coordinators to address emergency planning and preparedness along with coordination of Town safety policies and procedures. This team is comprised of a director, a secretary, one representative from the NSVAC, one representative from the North Salem Highway Department, one representative from the CFFD and one representative from the Police Department. The Emergency Management team develops and implements a plan of emergency resource identification and management and coordinates local emergency service providers. This team and the resulting plan involve interaction with residents and various officials in local, County, Regional, State and Federal governments. Programs to safeguard Town employees in accordance with the mandates of New York State and Federal safety programs have also been developed and coordinated.

9.1.7 Recreational Facilities

Residents in the Town of North Salem currently have access to several parks, open lands, and other recreational facilities for active and passive recreation use. There are 1,300 acres of publicly owned land set aside for public recreation uses with an additional 747 acres under the management of the North Salem Open Land Foundation (a private, non-profit group). Numerous developed recreational facilities are available in the Town of North Salem and are both publicly and privately owned. Most of these facilities are available to all North Salem residents; however some require membership dues and additional fees such as private golf clubs and private horse trails. Table 9.3 lists the recreation lands and facilities located in North Salem.

Historically, there has been a great demand for use of active recreation facilities in North Salem. The *Parks and Recreation Plan* (1994) acknowledges that the existing supply of recreation facilities and recreation land meets national and State recreation standards, but the Plan further states there is a need for additional recreation facilities and recreation land so as to maintain the high standards established locally and to address potential population growth. Since the preparation of the *Parks and Recreation Plan,* a new Town park known as Volunteers Park was created on June Road. The *Parks and Recreation Plan* is currently being

[46] Beth Sanger and Kurt Guldar, at a Community Facilities meeting, February 20, 2009; telephone conversation with Edith Ritchie on December 2, 2009.

updated. Map 9.4 below details North Salem's recreational space.

Map 9.4: Recreational Space in North Salem

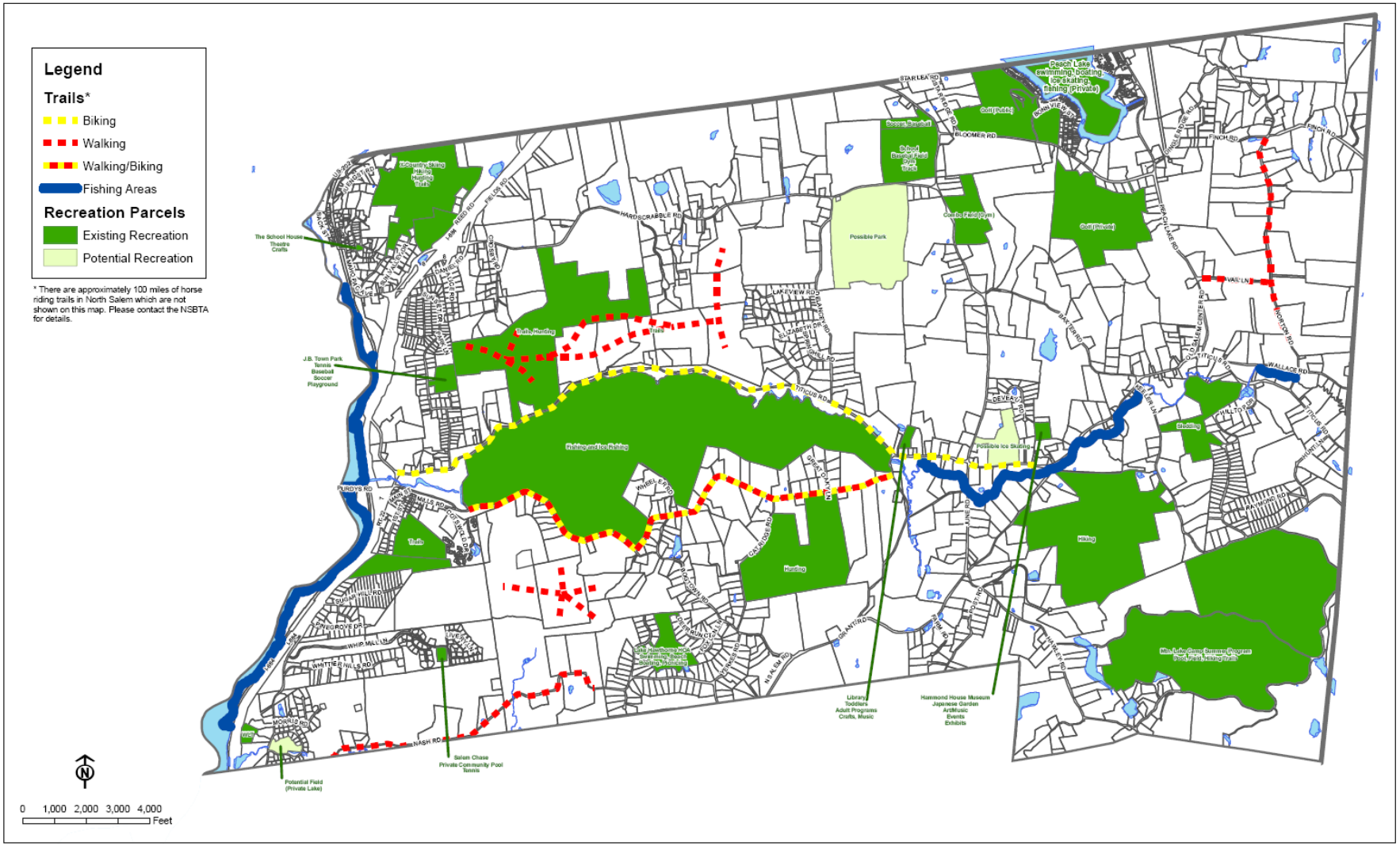


Table 9.3: North Salem Recreational Facilities and Amenities	
Name of Park or Facility	**Recreational Amenities**
Town-Owned Recreational Facilities	
Joe Bohrdrum Park	20.0 acres; two youth baseball fields; one soccer field (may be expanded); two tennis courts; two basketball courts; and a children's play area
Volunteers Park	13 acres; one soccer field; one baseball field, one basketball court; and children's play area
North Salem High School and Middle School	One varsity soccer field; one additional soccer field; running track; field hockey field; one baseball field; cross-country course; and one gymnasium
Pequenakonck Elementary School	One soccer field; two children's play areas; and one gymnasium
Town and Not-for-Profit-Owned Easements	
Town Owned	45 parcels
North Salem Open Land Foundation	13 parcels (747 acres)
Westchester Land Trust	5 parcels (607 acres)
School-Leased Recreational Facilities	
Purdy's Field	3.0 acres; one softball/youth baseball and soccer field
Westchester County-Owned Park	
Mountain Lakes Camp/Park	1,000 acres; ice skating; cross-country ski trails; hiking and jogging trails; and summer camp facilities: swimming pool and hall)
New York City Department of Environmental Protection (NYCDEP) Lands	
Titicus Reservoir	3 miles long, usage by permit: fishing; and non-motorized boating
Croton River	Fishing
Titicus River	Fishing
Privately-Owned Facilities and Lands	
Salem Center Fire House	One youth baseball field
Audubon Society	200 acres; horse trails and permitting hiking
North Salem Open Land Foundation	446 acres on various sites; permitting hiking, cross-country skiing and horseback riding
Pequenakonck Country Club and Bloomerside Club	Large enclosed pavilion and 9-hole golf course
Lakeside Field Club	Eight tennis courts; swimming pool complex; beach; children's play area; and platform tennis
North Salem Bridal Trails Association	Horse Trails
Salem Golf Club	165 acres; 18 hole golf course

Source: Town of North Salem, *Parks and Recreation Master Plan (1994).* Extrapolated by Ferrandino & Associates Inc.

9.1.8 Public Utilities

There are three public water supply systems in the Town of North Salem and there are no public sewage treatment systems in the Town. The three municipal water districts (see Map 9.5) are governed by the regulations for their operation and administration contained in the Code of the Town of North Salem, Chapter 230, Water and Westchester County Department of Health regulations. The public water districts include the following:

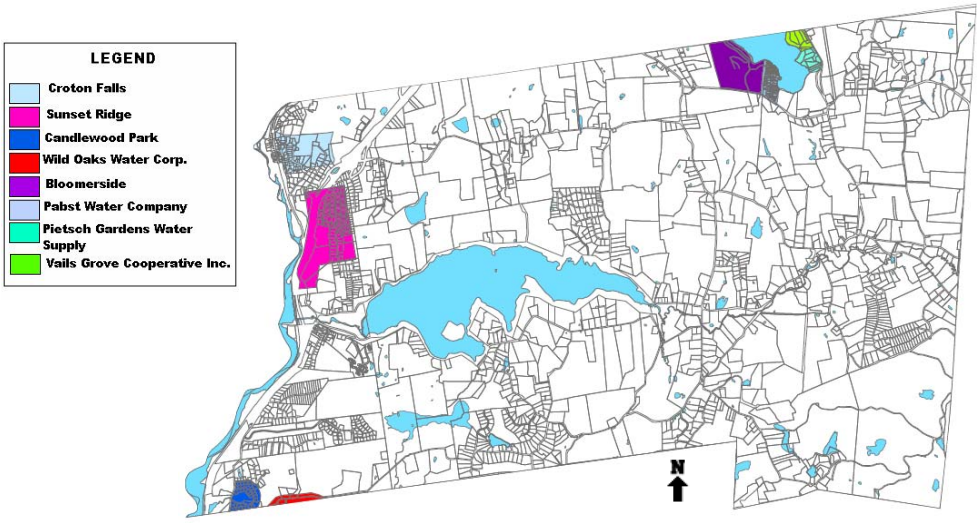
- Croton Falls Water District
- Candlewood Park Water District
- Sunset Ridge Water District

Currently, improvements are being planned for the Croton Falls Water District and the Sunset Ridge Water District due to issues of water quality.

In 2008, the Town Board approved the Peach Lake Sewer District. In November 2009, $7 million in Federal funding was received and construction of the sewer system was scheduled to begin in summer of 2010.

The Candlewood Park District (CPD) was formed in 2005 to dredge the lake in this neighborhood, rebuild the dam and maintain the surrounding area. Although the lake has been dredged, the dam has not yet been rebuilt.

Map 9.5: North Salem Water Districts[47]



Source: Westchester County GIS Data

[47] Map 9.5 was created with Westchester County GIS Data, which only have the larger privately owned water districts. There are many, smaller privately owned water districts in Town.

9.2 Recommendations

The task of improving community facilities and services, while containing taxes, is increasingly difficult in the current economic climate. Representatives from all community services gathered for a meeting on February 20, 2009 wherein they discussed limited funding, underlining the fact that improvements must be reviewed with an eye on cost.

Schools

- Recognizing that school funding and administration are not Town functions, and responding to residents' concerns, it was recommended that a public committee, comprised of representatives from the School District, Town government and residents, be created to study the sharing of services.

Fire and Emergency Services

- Maintain and support tax incentives for volunteers in the Croton Falls Fire Department and the North Salem Volunteer Ambulance Corps.

Emergency Management

- Research funding and grants availability to allow all schools to become emergency shelters.

Recreational Facilities

- Preserve Town-owned parks, and consider instituting a program of capital infrastructure maintenance for recreational facilities.
- Explore the feasibility of providing a swimming pool and support facilities at Mountain Lakes Park that is run by the Town under a license agreement with the County of Westchester.
- Update the 1994 Town Recreation Master Plan.

10.0 CAPITAL PLAN

A capital plan is intended to assist the Town in making choices about which capital projects should be implemented, how they should be financed and when. It is helpful to establish funding of high-priority projects in a timely and cost-effective way. The plan identifies and describes capital projects, the years in which funding each project is to occur and the method of funding. While a capital improvement plan may be designed to forecast any period of time, it generally covers a three to five year time frame. Some of the recommendations in this Comprehensive Plan should be implemented via the capital budgeting process.

The capital planning process generally involves the following steps:

- Inventory Assets

This will rely on department heads and consultants to assess the condition of capital assets already owned, controlled or maintained by the Town (e.g. buildings, properties, roads, etc.). Information derived through the inventory process should include a description of the capital asset being inventoried, the name of the department controlling the asset, the location of the asset, purpose or use of the asset, when the asset was acquired or constructed, the expected life of the asset, a description and date of any major renovations, and a description of the condition of the asset. The description should include a discussion of any renovations or upgrades that will be required over the period covered by the capital plan and the year that the asset should be replaced. The Town has begun to compile this inventory.

- Establish Priority Ranking Criteria

The challenge that North Salem faces is how to prioritize needs that can be met with available resources. Criteria should be established that can be used as a guideline for prioritizing project funding. The criteria established should facilitate ranking projects on a high, medium or low priority basis.

High priority projects may include those that are (i) required by law or specific court order, (ii) required by contract, (iii) improve public safety, (iv) reduce current operating, maintenance or contractual expenses, (v) increase revenues, (vi) contribute to job retention or (vii) benefit all or a majority of the residents.

Medium priority projects may include those that (i) prevent deterioration of assets, (ii) improve delivery of services to the public, (iii) contribute to job creation, or (iv) are non-essential but have a high degree of public support.

Low priority projects may include those that (i) support delivery of a service for which there is a declining demand, (ii) enable the provision of a new service not currently provided, or (iii) improve the quality of life but are non-essential.

Each party involved in the capital planning process should be informed of the criteria.

- Prepare Financial Forecasts

Projects are made to determine the funding that will be available and the level of capital expenditures that the Town can make over the period covered by the capital plan.

- Prepare Project Requests

Project requests represent a "wish list" of desirable projects, typically completed by each department within the Town. This involves preparing forms to request capital funding for the repair, renovation, upgrading or replacement of assets identified through the inventory process, or for the construction or acquisition of new capital assets.

The information included in the requests should facilitate the prioritizing of projects. Accordingly, the requests should include the following:

  - Project Description: a description of the proposed construction project or equipment to be acquired.
  - Existing Condition: a description of the existing condition to be improved by the project.
  - Goals and Benefits: the goals and benefits to be derived through the construction or acquisition project.
  - Funding Schedule: the estimated cost of the project and timing for funding.
  - Project Funding: the Town resources that will be used to fund the project.
- Prioritize projects

The planning process makes it possible to evaluate needs by ranking them in priority order after all relevant information has been gathered. The plan may also account for the impact of selecting a project on the overall budget, including operation or maintenance costs, or additional staffing when a new service is involved, or other consequences. Deciding which projects to undertake requires an assessment of these consequences so that options can be compared.

Finally, a preliminary capital plan can be approved. It is important to review and monitor the plan and update it as needed.

Recommendation: The Town should undertake the above steps for its capital planning process that prioritizes projects, sets timing goals and sets forth funding options.

The benefits of a capital plan include the following:

- Improves project planning and timing sequence, rather than an ad hoc policy of allocating resources to capital projects without regard to long-term impacts on the Town's available resources.
- Assures that the most important projects are funded, and the most appropriate method of funding.
- Integrates budgeting for Town services with budgeting for capital improvements, to ensure that construction and acquisition needs are addressed.

DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT

Town of North Salem, New York
C O M P R E H E N S I V E P L A N

Prepared by:

FERRANDINO & ASSOCIATES INC.
Planning and Development Consultants
Elmsford, NY

On behalf of North Salem Town Board
North Salem, NY

May 2011

Name of Action:
Town of North Salem 2011 Comprehensive Plan

SEQRA Classification:
Type I Action

Location of Proposed Action:
Town of North Salem, New York

Lead Agency:
Town of North Salem Town Board

Lead Agency Contact:
Veronica C. Howley, Town Clerk
266 Titicus Road, North Salem, New York 10560
914-669-5577
vhowley@northsalemny.org

DGEIS Accepted as Complete:
May 11, 2011

DGEIS Public Hearing:
June 14, 2011

Comment Deadline:
June 24, 2011

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1.0 INTRODUCTION

In February 2011, the draft Comprehensive Plan (an update intended to replace the Town's 1985 Master Plan), hereinafter referred to as "the Plan," was completed. The Plan contemplates long-range planning strategies and actions for managing development in North Salem.

1.1 Purpose of Environmental Impact Assessment

Adoption of the Plan is classified as a Type I Action according to SEQR regulations and requires an environmental impact assessment as prescribed by 6 NYCRR §617 State Environmental Quality Review (SEQR). A generic environmental impact statement (GEIS) assesses a broad-based action or a group of related actions and is more conceptual in nature than a site-specific environmental impact statement (EIS). The GEIS does not replace the need for separate and distinct site-specific EISs in connection with any future development proposals. Each specific proposal for any site is independently subject to SEQR.

The Draft Generic Environmental Impact Statement (DGEIS) public scoping document (adopted by the Town Board on February 22, 2011) determined the elements to be evaluated in the DGEIS. This DGEIS addresses recommendations set forth in the Plan and examines potential town-wide environmental impacts that may result from the Plan including, but not limited to, the potential land use changes and/or other actions required to implement the Plan. In compliance with the requirements of SEQR, this DGEIS includes the following:

- Description of the Proposed Action and its purpose and benefits;
- Assessment of existing conditions;
- Evaluation of potential environmental impacts of the Proposed Action and
- Alternatives (in some cases, analyses are based on conceptual information due to the comprehensive and prospective nature of the Proposed Action and its component parts);
- Identification of any necessary mitigation measures to minimize potential significant adverse environmental impacts;
- Identification of any significant adverse environmental impacts that cannot be avoided if the Proposed Action is implemented; and
- Identification and brief discussion of any irreversible and irretrievable commitment of resources that would be involved in implementation of the Proposed Action.

1.2 Description of the Proposed Action

The Proposed Action involves adoption of the proposed 2011 Comprehensive Plan by the Town of North Salem Town Board. The Plan provides a blueprint of the Town's planning strategies and actions that are proposed for implementation over the next decade in North Salem. It will replace the 1985 Master Plan. As stated in the Plan, the Town's vision involves maintaining and enhancing its rural residential character and identity. In pursuit of this vision, the Plan's guiding principles are to:

1. Preserve and protect the Town's natural resources, including open space, wooded hills, water bodies, wetlands, wildlife habitat and scenic views.
2. Preserve and protect the Town's historic and cultural resources, including buildings, landmarks and artifacts.
3. Expand open space and recreational opportunities for all residents.
4. Provide a variety of housing choices that enables residents to remain in the community.
5. Reduce the Town's carbon footprint and proactively adapt to climate change.
6. Provide public facilities and services in a fiscally responsible manner and at levels adequate to ensure the health, safety and general welfare of residents.
7. Support a safe and efficient multi-modal transportation network.
8. Encourage agricultural uses as a source of the Town's economic vitality.
9. Limit non-residential development, in keeping with the rural character of the Town, to what is necessary to provide North Salem residents with adequate services.

The Comprehensive Plan includes a number of recommendations to address the needs and priorities of the Town. Some key recommendations are summarized below.

<u>Community Character and Design:</u>

- Preserve Rural Character
    - Maintain and enhance the overall rural appearance of the Town through the site plan and permitting processes.
    - Adopt a "disturbing the peace" noise ordinance for residential areas to regulate the hours of operation for heavy, noisy machinery (construction and landscaping equipment, such as leaf blowers), and establish appropriate decibel limits and a complete set of general noise standards.

- Create and adopt a local dark sky policy to help reduce nightly use of outdoor lighting and energy consumption.
- Preserve and enhance scenic landscapes of the Town's rural areas.
- Incorporate new development into the Town's natural landforms.
- Strengthen the historic identity of the Town.

Land Use and Zoning:

- Preserve Town Character through Zoning
  - Maintain all existing residential densities (R-4, R-2, R-1, R-1/2 and R-1/4) with the exception of rezoning two areas in the general vicinity of Turkey Hill Road and east of Cat Ridge Road from R-2 to R-4, consistent with its current development, and limiting the PD-CCRC district to its current location.
  - Modestly expand the RO zone on Fields Lane and add flex-type mixed uses and service businesses under special permit to the list of permitted uses to allow flexibility in the types of businesses permitted.
  - In areas of the Town that are environmentally fragile, explore the implementation of "performance zoning" regulations to regulate the intensity of development that is acceptable based upon soils, topographic and additional natural resources data rather than traditional zoning.

- Protect Environmental Resources
  - Amend the current tree preservation ordinance to simplify the approval process for homeowners and add provisions for the harvesting of trees.
  - Adopt legislation for steep slopes to better protect the Town's environmentally sensitive areas, water resources and wetlands and to preserve viewsheds.
  - Preserve environmentally-sensitive undeveloped land to avert sprawl, reduce carbon footprint and protect natural ecosystems, including wetlands and forests.
  - Explore and encourage the use of tools for open space preservation, including outright purchase of land, purchase of development rights or acceptance of conservation easements, with funding through bonds or the establishment of a community preservation fund. In addition the Town supports the basic provisions of New York State's Agricultural and Markets' Article 25AA and the County's agricultural districts.

- Preserve and Enhance Open Space Resources
  - Preserve visible/scenic land and landscapes.
  - Preserve ecologically significant land.
  - Connect important open space areas.
  - Enhance existing open space areas.

Environmental Resources

- Protect Water Quality
    - Support and facilitate domestic well and public well testing.
    - Reduce road salt application rates during winter.
    - Adopt an ordinance to protect local aquifers.

- Promote Environmentally-Friendly Provisions
    - Promote solar, geothermal and other renewable energy sources for new development.
    - Promote land planning that accommodates motor and public transportation but places greater importance on pedestrians.
    - Promote affordable housing near workplaces and mass transit.
    - Adopt and implement a Climate Action Plan

Housing:

- Promote Affordable Housing Initiatives
    - Increase support for affordable rental units by exploring partnership opportunities with both for-profit and non-profit organizations to construct and rehabilitate affordable rental housing.
    - Work with Westchester County to implement the fair housing settlement and facilitate fair and affordable housing.
    - Consider other policies: liberalizing regulations and incentivizing the creation of accessory dwellings, encouraging accessory dwelling owners to include accessory dwellings in the Moderate Income Housing (MIH) stock, establishing an affordable housing trust fund, and buying existing homes (negotiating the purchase and/or taking as a vehicle to obtain title) and renting them to income constrained tenants.

Transportation:

- Support Transportation Improvements on State and Local Roads
    - Advocate for NYSDOT improvements to major thoroughfares I-684 and I-84 from Brewster to the Connecticut boundary, including I-684 northbound off ramp to I-84 capacity and safety improvements.
    - Advocate NYSDOT to increase capacity of I-684 (widening from 2 to 3 lanes at the Route 35 interchange).
    - Support improvements at the intersection of Route 202 and Croton Falls Road.
    - Continue to coordinate with the Town of Somers and the NYSDOT in developing a solution to the parking and traffic congestion problem in Croton Falls.
- Promote Safe Transportation

  - Encourage slower travel speeds through more vigorous enforcement and speed limit reductions [June, Titicus (Route 116) and Bloomer Roads].
  - Provide context sensitive solutions for safety enhancements at key intersections.
- Manage Traffic Demand at Key Land Uses
  - Develop traffic demand management programs for the schools and the Town's Summer Camp at Mountain Lakes Park.
- Encourage Transportation Related Actions that Promote Energy Conservation
  - Encourage ride-sharing for energy conservation.
  - Encourage ways to reduce fuel consumption.
  - Encourage use of hybrid vehicles or non-fossil fuels in motor vehicles.
  - Conduct a bicycle study to determine the best routes and facilities for accommodating bicycle travel.

Public Facilities and Services:

- Enhance Public Facilities and Services
  - Form a committee comprised of representatives from the School District, Town government and residents to study the sharing of services.
  - Maintain and support tax incentives for volunteers in the Croton Falls Fire Department and the North Salem Volunteer Ambulance Corps.
  - Research funding and grant availability to allow all schools to become emergency shelters.
- Enhance Recreational Facilities
  - Preserve Town-owned parks and consider instituting a program of capital infrastructure maintenance for recreational facilities.
  - Explore the feasibility of providing a swimming pool and support facilities at Mountain Lakes Park that is run by the Town under a license agreement with the County of Westchester.
  - Update the 1994 Town Recreation Master Plan.

The Comprehensive Plan can be viewed as a mitigation measure against the prospective impact of development on environmental resources in North Salem. It strives to guide development in a manner that will protect and enhance the natural resources, community character and quality of life, while improving the Town's economic viability. Adoption of the Comprehensive Plan is needed to implement the Town's vision and goals.

Capital Plan

The Plan recommends implementation of the recommendations via a capital planning process that would assist the Town in making choices about which capital projects should be implemented, how they should be financed and when. This will be helpful to

establish funding of high-priority projects in a timely and cost effective manner.

2.0 ENVIRONMENTAL ANALYSES

The following evaluates the proposed 2011 Comprehensive Plan, including a discussion of existing conditions and of potential adverse environmental impacts, as well as any necessary mitigation.

2.1 Land Use, Zoning and Public Policy

This section describes the existing land use, zoning and public policy within the Town of North Salem and evaluates any potential impacts associated with the 2011 Comprehensive Plan. This evaluation considers consistency with the Town's local planning objectives, as well as regional plans such as *Westchester 2025*, Watershed Plans and the Greenway Community Compact.

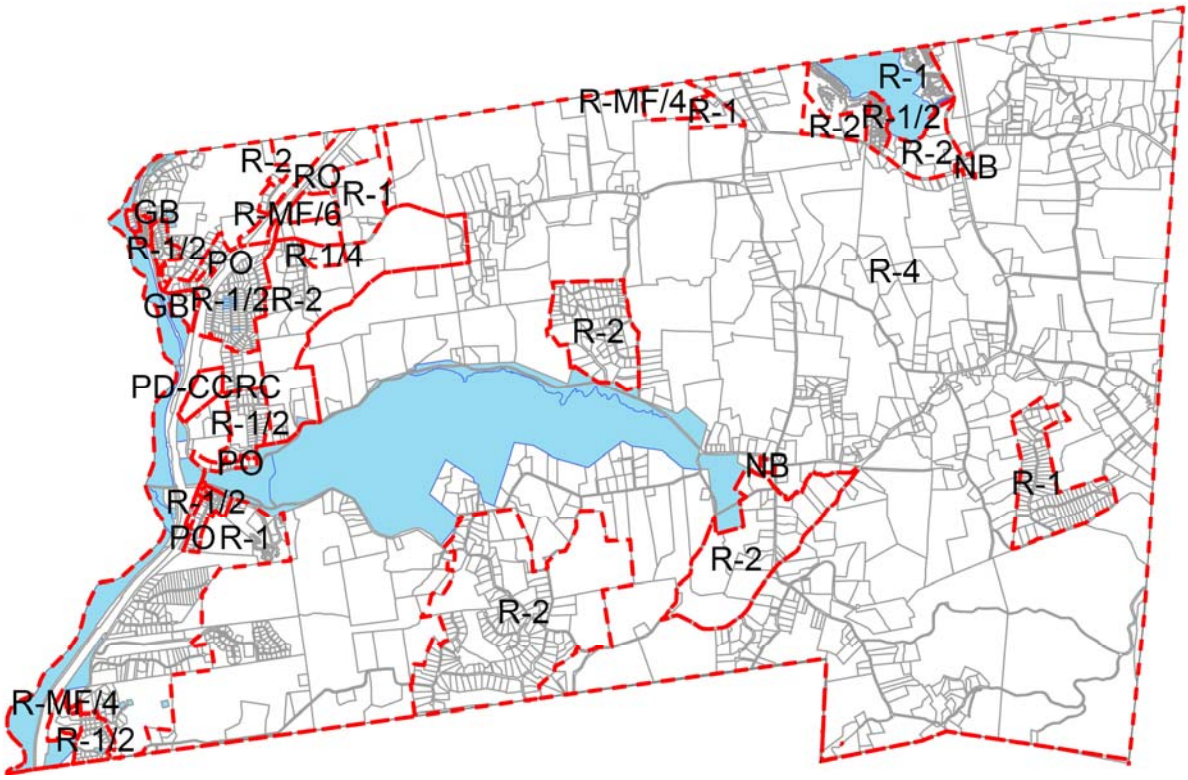
2.1.1 Existing Conditions

Zoning

The current zoning ordinance for the Town was adopted in 1987. At that time, the bulk of Town land was rezoned to R-4 (Rural Density Residential District) and to R-2 (Low Density Residential District), which permit a single-family dwelling per four and two acres, respectively. The zoning ordinance was amended in 2000 to include new multi-family sites and a new zoning district, the Planned Development - Continuing Care Retirement Community District. Since 1987, four parcels in the Town were rezoned to medium to high-density residential zoning districts (R-MF/6 and R-MF/4 districts) with inclusionary requirements in 2000 and 2001. This was intended to increase opportunities for the creation of affordable housing choices in the Town.

The zoning ordinance currently consists of 13 zoning districts **(Figure 1)**, which include eight residential (five single-family, two multifamily and one planned development-continuing care retirement community), four commercial (two business and two office) and one planned development district.

Figure 1: Generalized Zoning



Land Use

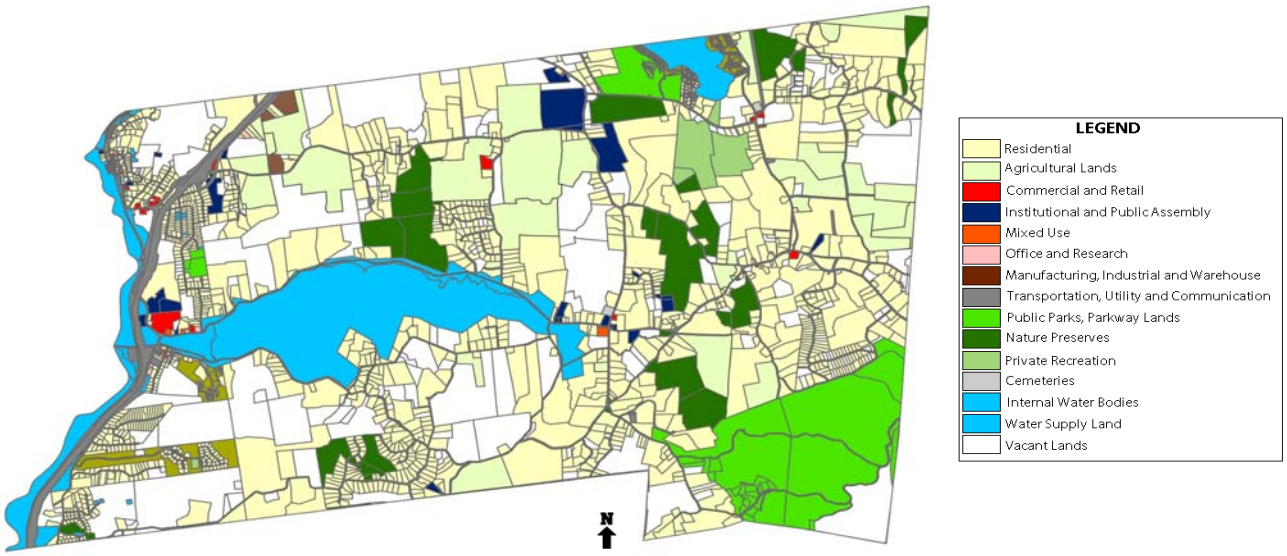
North Salem is characterized by the predominance of its residential land, which totaled 5,771.1 acres or 38.8 percent of Town land in 2007 (**Figure 2**). Undeveloped and vacant land, another primary land use, occupied 3,299.3 acres or 22.2 percent of Town land area in 2007. Other predominant land uses include agricultural land at 1,372.5 acres or 9.2 percent of Town land area, New York City water supply lands at 1,270.9 acres or 8.5 percent, and park land at 1,052.67 acres or 7.1 percent.

Approximately 130 acres of land are located in business zoning districts; however, only about 95 acres are used as businesses. The proportion of land in the Town that is zoned for and occupied by business uses is slightly less than 1 percent. However, business use is predominant throughout the agricultural land (9.2% noted above), used as horse

farms, orchards, etc.

Similarly, while residential zoning districts occupy 88 percent of the Town's land area, residential land uses occupy only 30 percent. There are two small hamlets, Purdys and Croton Falls, where housing co-exists with small, locally oriented businesses. Most residential development in North Salem took place prior to 1980; over 40 percent of the housing stock was constructed in 1949 or earlier. In 2000, the majority of North Salem's 1,979 housing units were single-family homes, representing 94.3 percent of the Town's housing stock, with small multi-family structures of two to six units comprising the balance. Between 2000 and 2009, the Town issued a low average of eight (8) residential building permits annually.

Figure 2: Land Use Map



Public Policy

In general, the Town's land use and zoning practices and policies are consistent with other regional plans. *Westchester 2025* is a regional (Westchester County) comprehensive plan that is currently underway, and it updates its predecessor *Patterns*. *Westchester 2025* indicates that development of "greenfields" is a shrinking component of new construction in the County, and that the future lies in redevelopment of residential, commercial and industrial space with most new construction located in downtowns and centers, especially those with access to a rail station.

The Town of North Salem is a *Greenway Compact Community*, which encourages regional cooperation to further Greenway criteria of natural and cultural resource protection, regional planning, economic development, public access, and heritage and environmental education.

The Town of North Salem, along with nine local municipalities, Westchester County and the NYC Department of Environmental Protection participated in developing the *Comprehensive Croton Watershed Water Quality Protection Plan (the Croton Plan)* in 2007. It assesses watershed conditions, identifies water quality impacts and sets forth strategies to reduce those impacts and prevent water quality degradation while enhancing valued community character.

2.1.2 Potential Impacts

The implementation of the Comprehensive Plan is expected to preserve the Town's existing patterns of development as well as its natural environment by directing development into the areas most characteristic of those patterns. The Plan has been designed to promote limited commercial activities in the existing hamlets of Croton Falls, Purdys, Peach Lake and Salem Center, and to reduce land-consumptive development in the rural sections of the Town. In areas of the Town that are environmentally fragile, the Plan recommends evaluating the implementation of performance zoning regulations to regulate the intensity of development that is acceptable based upon soils, topographic and additional natural resources data rather than traditional zoning. The Plan will reduce land development impacts when compared with the Town's future development under existing land use regulations.

No changes were recommended in the Plan to existing residential zones (R-4, R-2, R-1, R-1/2 and R-1/4) with the exception of rezoning two areas in the general vicinity of Turkey Hill Road from R-2 to R-4. This zoning recommendation (R-2 to R-4) will result in a reduction of density. The Plan recommends that any action affecting residential density should take into consideration the limitations of Town's existing transportation system, the present and future availability of community facilities and utilities, maintenance of the Town's historic buildings and sites, preservation of open space and natural features and the character and prevailing density of the existing residential development in the area.

The Plan recommends that the Town consider permitting two or three family dwelling units that are currently not permitted in areas where mixed single-family and multi-family residential character has already been established, such as in the hamlets, to contribute toward housing stock variety and/or affordable housing. These areas meet some criteria for more moderately dense housing and provide opportunities for some

redevelopment. The Plan also recommends continued support of accessory apartments and residential units above retail in mixed commercial-residential areas. By promoting residences above commercial uses in designated hamlet areas, which offer access to transportation services and water and sewerage services, the Plan encourages a range of residential densities and diversity of housing types while also considering the Town's environmental constraints and infrastructure limitations.

The Plan's recommended policies to consider in support of affordable housing include: liberalizing regulations and incentivizing the creation of accessory dwellings, encouraging accessory dwelling owners to include accessory dwellings in the Moderate Income Housing (MIH) stock, establishing an affordable housing trust fund, buying existing homes and renting them to income constrained tenants and increasing support for affordable rental units by exploring partnership opportunities with both for-profit and non-profit organizations to construct and rehabilitate affordable rental housing. Further, the Plan recommends working with Westchester County to implement the fair housing settlement and facilitating fair and affordable housing.

The Plan recommends a modest expansion of the RO zone on Fields Lane and to add flex-type mixed uses and service businesses under special permit to the list of permitted uses to allow flexibility in the types of businesses permitted. This RO zone expansion may lead to new business development; however, it would be consistent with development patterns in the area and helps address the Town's non-residential development needs for tax rateables.

The Plan recommends the preservation of environmentally sensitive undeveloped land to avert sprawl, reduce carbon footprint and protect natural ecosystems including wetlands and forests. It encourages cluster development where appropriate to preserve open space. Legislation for steep slopes was recommended to better protect the Town's environmentally sensitive areas, water resources and wetlands and to preserve viewsheds. It is recommended that a Town-wide trail system be evaluated, along with collection of appropriate recreation fees-in-lieu of payments. It also recommends that the current tree preservation ordinance be amended to simplify the approval process for homeowners and to add provisions for the harvesting of trees. Tools recommended for open space preservation include consideration of a Purchase of Development Rights (PDR) program that would raise funds for acquiring land or conservation easements, the establishment of a community preservation fund and the adoption of the basic provisions of New York State's Agricultural and Markets' Article 25AA, and continued support of the County's agricultural districts.

The Plan's land use, open space protection and natural resource conservation recommendations are consistent with major findings of regional planning initiatives including the *Westchester 2025, Greenway Community Compact* and the Comprehensive *Croton Watershed Water Quality Protection Plan*.

2.1.3 Mitigation Measures

The adoption and implementation of the Comprehensive Plan by the Town of North Salem will not in and of itself impact land because it does not directly authorize any particular development project. Future land development applications will be required to comply with the Town's land use and environmental regulations and SEQRA. The Plan encourages increased density in areas where such a character is established and in hamlets to accommodate the Town's housing and economic development needs. Additionally, the Plan's recommendations encouraging cluster development and protection of the Town's environmental resources and open space will help achieve growth that is consistent with the vision and goals of the Town, as well as other regional plans. No mitigation is necessary.

2.2 Historic Resources

This section evaluates the components of the 2011 Comprehensive Plan that serve to protect or enhance the existing historic resources within the Town and the Town's character and design.

2.2.1 Existing Conditions

In 1984, the Town created a Historic Preservation Commission, an administrative and advisory board for the Town's Landmark and Historic Preservation law and Historic Roads law, which regulates historic landmarks and local roads of North Salem.[1] Since 1986, the Town has designated twenty-five local landmarks, three (the Purdy Homestead, Union Hall and Delancey Hall) of which are on the State and National Register of Historic Landmarks. The most well known landmark is the Balanced Rock on Titicus Road. Of the twenty-five local landmarks (refer to Table 1), fifteen are residences, four are community facilities, two are mixed use (commercial and residential), one is a commercial property, one is infrastructure, one is a stone structure and one is a natural site. Baxter Road is the only designated historic local road.

Although there are no historic districts currently in Town, residents of Purdys are beginning the process of forming an historic district. According to the Town's historian, there are eight other possible areas that are candidates for historic districts, but they have not begun the process.

Since the preparation of the Comprehensive Plan, four additional landmarks were designated by the Town and are now included in the description above and the table below.

[1] A historic landmark is any building, structure, object, ruins, cemetery or natural object, configuration, geological formation or feature or parcel of land which has historic significance or is identified with historic personages or important historic events. A historic road is "any road of historical value or aesthetic interest by reason of its antiquity as a cultural or heritage resource."

Table 1: Local Historic Landmarks, Roads and Districts, North Salem		
Title	Address	Property Type
Landmarks		
Thaddeus Crane House	2 Baxter Road	Residence
Keeler Homestead	85 Keeler Lane	Residence
Purdy Homestead	102 Titicus Road	Mixed Use
Mills House	425 Mills Road	Residence
Samuel Wallace House	1 Wallace Road	Residence
John June House	71 June Road	Residence
Delancey Hall	266 Titicus Road	Community Facility (Town Hall)
Uriah Wallace House	264 Titicus Road	Residence
Stebbins Baxter Quick House	669 Titicus Road	Residence
Union Hall	673 Titicus Road	Commercial
Old Methodist Church	687 Titicus Road	Residence
Charles Decker House	8 Juengstville Road	Residence
Crow's Nest	9 Juengst Raod	Residence
Purdys Hotel	2 Main Street	Multi-Family Residence
McKeel's Market	8 Main Street	Mixed Use
Keeler Lane Bridge	Keeler Lane	Infrastructure
Quick Barn	667 Titicus Road	Community Facility (Storage Barn)
The Balanced Rock	667 Titicus Road	Natural
The White Elephant	81 Keeler Lane	Community Facility (Historic Society Headquarters)
The D.D. Smith House	Titicus Road	Residence
The Margaret M. Mahoney House	12 Main Street	Residence
Spur Street Cottage	3 Spur Street	Residence
Purdy's Schoolhouse	6 Old Schoolhouse Road	Residence
Central High School	520 Route 22	Community Facility (School)
Purdy Homestead Stone Chamber	100 Titicus Road	Structure
Roads		
Baxter Road	Baxter Road	Historic Road
Districts		
Pending	Purdys Hamlet area	Mixed Use District

Source: Town of North Salem web site, Historic Preservation Landmarks Page, supplemented by the Planning Board Chair.
* Shaded cells indicate landmarks on a National or State Register.

2.2.2 Potential Impacts

The Plan recommends strengthening the historic identity of the Town by encouraging new projects to be located and designed to complement the Town's historic settlement patterns, rural character, established architecture and traditional streetscape scale. The

adoption of the Comprehensive Plan will support the protection of existing historic resources in the Town and will further encourage designation and protection of new historic projects, roads and districts.

2.2.3 Mitigation Measures

The recommendations of the Plan will result in a positive impact on historic resources in the Town. Other recommended actions of the Plan (related to noise control, lighting and energy consumption, among others) are specifically designed to enhance the Town's visual and community character, and to affect positive impacts on the community. Therefore, no mitigation is necessary.

2.3 Natural Resources

This section generically documents the existing conditions and describes how recommendations of the 2011 Comprehensive Plan may have potential impacts upon natural resources within the Town. The analysis includes the following natural resource categories: geology, soils and topography; surface waters and wetlands, groundwater resources; and vegetation and wildlife.

2.3.1 Existing Conditions

Groundwater

Bedrock aquifers underlie all parts of North Salem and generally provide the sole source of potable water for residents and businesses. Less than three percent of total groundwater recharge is estimated to be removed from aquifers by wells. By this measure, substantial groundwater potential remains in the Town. Groundwater resources can nevertheless be overtaxed locally by concentrated pumping that exceeds groundwater recharge in particular areas. In upland areas, most wells, including most domestic wells, have sustainable yields on the order of 3 to 10 gallons per minute.

Due to the widely distributed settlement pattern in North Salem, large quantities of domestic wastewater are returned to the Town's aquifers from septic systems. This may warrant point of use water treatment systems or installation of community water or sewer districts in some areas. North Salem also has some bedrock formations containing radioactive minerals that slowly decay and release radiological constituents into well water.

North Salem's Planning Board currently requires project applicants to take a hard look at all new water demands proposed in the Town. For larger projects, the Planning Board frequently retains a professional hydrogeologist to help review proposed pumping test protocols, review water budgets, assess wastewater loading impacts on Town aquifers, and review the proposed project "water budget" impact on the new site and on adjacent existing wells, streams and wetlands.

According to a recent Town survey, nearly 300 of the 443 participants use domestic wells for their daily water needs, while the rest live in areas where water is provided from one of North Salem's central community well systems. Among those on domestic wells, nearly 200 have sampled their wells for bacteria and over 100 have tested their wells for radiological compounds. Opinions vary on whether the Town should support sampling or whether sampling should simply be recommended; a narrow majority believed sampling should remain a personal responsibility.

Geology, Soils and Topography

The Town of North Salem lies within the New England Uplands/Hudson Highlands physiographic province. Generally the topography of the Town consists of many small, steep hills and ridges bisected by streams and narrow river valleys, with elevations ranging from approximately 1,000 to 200 feet above sea level. Steep hills tend to decrease in height from east to west and slope down from the north and the south toward the Titicus River and Titicus Reservoir, which form a narrow-to-broad east-west valley across the approximate center of the Town.

The Town Planning Board is currently working on draft legislation for steep slopes that has been submitted to the Town Board for review and adoption. Adopting local environmental controls on steep slopes will help to minimize disturbance to these fragile environmental features and excessive soil erosion.

Surface Waters and Wetlands

The Town's network of streams, rivers and lakes (including Croton River and Titicus River and Reservoir), combined with the numerous wetlands throughout the Town, form a vital component of the Town's rural character. The Town's wetlands are a critical element in the Town's ecological reserve, providing not only water quality filtration but also areas of high ecological diversity and productivity that provide habitat and foraging grounds for a wide variety of species.

Vegetation and Wildlife

An Eastern Westchester Biotic Corridor (EWBC) Study released in 2002 identified that the Town of North Salem contributes to the biodiversity of the region in the form of grassland habitat associated with agricultural lands. Within this habitat several avian (bird) species were identified that use the grasslands for breeding. In addition, two clusters of amphibian and reptile biodiversity were identified: 1) the Crook Brook wetlands and Turkey Hill, and 2) the area south of Peach Lake.

The EWBC encompasses much of the eastern portion of the Town; however, potentially viable habitats also exist in many other portions of the Town, particularly north and south of Titicus Reservoir. The lands south of the Titicus Reservoir are contiguous with the "Titicus Greenway" of Lewisboro, which represents an opportunity for inter-municipal conservation efforts.

In 2009, the Town extended its study area to the central section of Town to include property north and south of the Titicus Reservoir. In 2010 the Town further extended its study to include lands along the Putnam

County border. The Town is currently working with other partner communities to develop specific zoning mechanisms that recognize the biodiversity value of the EWBC.

2.3.2 Potential Impacts

The Plan recommends specific measures to protect the quality of groundwater in the Town. The Plan recommends improving the Town's yield test protocols for new domestic and community wells. Use of decentralized wastewater treatment is encouraged in appropriate residential development. The Plan also recommends limiting the amount of road salt and replacing it with brine during winter.

The Plan encourages the Town to explore possible measures to preserve and enhance onsite groundwater recharge, and to consider adopting an ordinance to protect local aquifers. The Plan recommends domestic well and public well testing for radiological exposure, and it recommends that new wells be sufficiently spaced over wide areas. The Plan also encourages the Town to undertake detailed mapping of potentially high-yield aquifers for future development, and to improve tracking of current consumption levels against groundwater capacity to better manage aquifer development and allocation.

The Plan recommends adopting legislation for steep slope protection. In areas of the Town that are environmentally fragile, the Plan recommends considering "performance zoning" regulations that would regulate the intensity of development that is acceptable based upon soils, topographic and additional natural resources data.

2.3.3 Mitigation Measures

To mitigate any adverse impacts of development, the Plan recommends several measures to protect the Town's groundwater resources and improve water quality. These include improved yield tests, smaller wastewater treatment facilities, enhancing onsite groundwater recharge and increasing aquifer protection. The Plan also supports adopting regulations that protect ecologically significant/sensitive lands such as steep slopes and wetlands, which can generate a positive impact in the community.

2.4 Infrastructure

This section focuses on the Town's water supply and wastewater infrastructure. The assessment provides an overview of existing conditions within the Town and an analysis of the infrastructure impacts associated with the 2011 Comprehensive Plan.

2.4.1 Existing Conditions

There are three public water supply systems in North Salem but no public sewage treatment systems. The three municipal water districts include: 1) Croton Falls Water District, 2) Candlewood Park Water District and 3) Sunset Ridge Water District. Improvements to address water quality are currently underway in the Croton Falls Water District and in the planning stage for the Sunset Ridge Water District. The Town Board approved the Peach Lake Sewer District in 2008. Construction is underway and completion is expected for the end of 2011, hookups in 2012 and operation of the system is expected to commence in 2012.

2.4.2 Potential Impacts

The Plan recommends that the Town consider point of use water treatment systems or installation of community water or sewer districts in some areas.

North Salem's Planning Board currently requires project applicants to thoroughly evaluate all new water demands proposed in the Town. For larger projects, the Planning Board frequently retains a professional hydrogeologist to help review proposed pumping test protocols, review water budgets, assess wastewater loading impacts on Town aquifers, and review the proposed project "water budget" impact on the new site and on adjacent existing wells, streams and wetlands.

2.4.3 Mitigation Measures

The recommendations of the Plan concerning groundwater recharge and protection, combined with the Town's development review process, will help mitigate adverse impacts of development on the Town's water supply systems.

2.5 Transportation

This section evaluates the 2011 Comprehensive Plan for any potential effects on the local road network, specifically regarding any proposed zoning district changes, safety considerations and changes occasioned by regional influences. It provides estimates of potential traffic from development that would be generated by changes in the 2011 Comprehensive Plan.

2.5.1 Existing Conditions

In 2000, the average travel time to work for North Salem residents was 38 minutes. Seventy-three percent of residents drove alone to work. The automobile was the primary means of travel for most of the residents. In 2000, 98.4 percent of residents had a vehicle available. Approximately 30 percent had three (3) or more vehicles, and the average number of vehicles per household was 2.3.

Travel Corridors

The Town has one *Limited Access Highway*: I-684, and six *Major Roads*: Route 22, Titicus Road, Grant Road/Peach Lake Road, June Road, Hardscrabble Road and Bloomer Road. The Town is currently evaluating potential advantages and impacts of taking over County roads including June Road, Hardscrabble Road and Bloomer Road to have authority over their maintenance, improvements and planning. In addition, the Town has identified several corridors for consideration as scenic roadways.

Traffic Volumes

Traffic volumes in the Town were found to fluctuate at locations with some experiencing growth and some decline. Route 22 was found growing at a rate of about 4-6 percent per year. Traffic on I-684 has grown steadily south of Titicus Road and remained steady or decreased north of Titicus Road.

The New York Metropolitan Transportation Council's draft 2009 Congestion Management Process (CMP) identified congestion along the following roads:

- I-684 (south of Titicus Road) – congested – 2009 AM Peak Hour
- I-684 (entire length in North Salem) – congested – 2035 AM and PM Peak hours
- Segment south of Cross River Road expected to be severely congested in 2035 in PM peak hours.

Public Transportation

The Town of North Salem and surrounding communities are served by MTA's Metro North Harlem Branch line via two train stations (Croton Falls and Purdys). The Croton

Falls Station is approximately 48 miles to Grand Central and the average travel time is 1 hour and 16 minutes. Service is provided every 15-30 minutes during peak hours and approximately every hour during off-peak hours. There are two shuttles which provide bus service to the station. In 2006, the station served an average of 570 passengers on a weekday.

The Purdys Metro-North station is located in the Purdys hamlet area of North Salem. The station is approximately 46 miles from Grand Central and the travel time is 1 hour and 12 minutes (4 minutes less than the travel time from Croton Falls). In 2006, the station served an average of 613 passengers on a weekday.

Bicycle and Pedestrian Facilities

The Town has limited bicycle and pedestrian facilities. There are no dedicated greenways or bicycle routes. There is tremendous recreational bicycling around the Titicus Reservoir (Titicus Road and Mills Road). The following roads are identified as part of Westchester County's Trail and Bike Route System for future road improvements for providing bicycle travel:

- Mills Road – situated on the south side of Titicus Reservoir between Routes 22 and Peach Lake Road/ Grant Road (Route 121), this Town-recommended route follows local roads to connect the North Salem hamlets of Purdys and Salem Center: 4.3 miles in length
- Route 22 – from White Plains north to Putnam County, this central route through the north country links hamlets and is a popular route with organized groups: 27.7 miles
- Grant/Peach Lake Road – this north County route branches off from Route 22 in Bedford Village and continues north into Putnam County. It passes through a scenic semi rural landscape occupied by horse farms and low-density development: 13.9 miles

Sidewalks are limited in the Town and can be found in the Croton Falls station area. Sidewalk networks in the train station areas are not complete. There are also no sidewalks in the vicinity of schools or parks.

2.5.2 Potential Impacts

Several intersections in North Salem are identified in the Plan where context sensitive solutions are needed for safety enhancements, and action in partnership with DOT is recommended. The Plan also recommends improvements on I-684 to minimize cut-

through traffic in the Town, including continuing three lanes to the south, improving traffic movement from I-684 north to I-84 east, and improving interchange areas including Hardscrabble Road, Route 22 and Route 35.

The Plan recommends improving traffic flow in Croton Falls, particularly at the intersection of Route 202 and Croton Falls Road. Continued coordination with the Town of Somers and the NYSDOT in developing solutions to the parking and traffic congestion problems in Croton Falls is also recommended.

The Plan recommends better management of traffic flow generated by key land uses and at key intersections, for example, near schools and the Town's Summer Camp at Mountain Lakes Park, and by encouraging use of Transportation Demand Strategies such as ride sharing and carpooling.

For safety, the Plan encourages speed limit evaluations and better enforcement, as well as slower travel speeds through more vigorous enforcement and speed limit reductions [June Road, Titicus Road (Route 116) and Bloomer Road]. In addition, the Plan recommends evaluating strategies for reducing sign clutter, improving pavement markings, considering alternatives to traffic signals, access management along key corridors, congestion management for I-684, partnering with adjacent communities and regional transportation planners, and considering designating roads with scenic quality. [Finch Road has been added to the Plan's list of potential scenic roads (Open Space section).]

The Plan encourages transportation related actions that promote energy conservation such as ride-sharing, reducing fuel consumption, using hybrid vehicles or non-fossil fuels in motor vehicles, and accommodating bicycle travel. For improved pedestrian and bicycle facilities, the Plan recommends preparing a bicycle and pedestrian master plan, identifying routes, projects and safety.

The Plan recommends enhancing the parking and traffic flow for rail stations in the Town, and encourages the use of shuttles, ride share program and development of park and ride facilities in adjacent communities.

The Plan recommends establishing traffic impact guidelines and criteria for traffic studies to help in development review. Consideration of access management and parking standards is recommended when updating the Town zoning code. The Plan also encourages continued coordination with the County and NYSDOT, the New York Metropolitan Transportation Council (NYMTC) and with neighboring communities.

The adoption and future implementation of the Plan will not negatively impact transportation systems in the Town. Although the inclusion of additional commercially

zoned parcels on Fields Lane may generate additional vehicle trips to the area and to the surrounding road network, this increase will be offset by residential density controls recommended in the Plan. If recommendations of the Plan are adopted, improved transportation management will result.

2.5.3 Mitigation Measures

To address current and potential transportation system issues, the Plan identifies recommendations for improved traffic management, safety, parking and energy conservation measures. The adoption of the Plan and recommended actions, in collaboration with State and regional entities, will result in system-wide improvements.

2.6 Community Character and Visual Resources

There are a number of scenic viewsheds and road corridors within the Town. This section evaluates the potential impacts of the 2011 Comprehensive Plan on the visual resources and community character of the Town.

2.6.1 Existing Conditions

Historically, North Salem was an agricultural community, and the character of the Town continues to reflect its rural past. Since 1964, North Salem has evolved from a farming community to a low-density suburb with a rural character. Although there are many working farms in the Town, more land is occupied by single-family houses. The hamlets of Purdys and Croton Falls grew around the train stations and I-684. One of the more notable transformations includes Peach Lake, which has become an area of relatively dense single family housing as a result of conversions from seasonal, vacation homes and a strong demand from vacationers for lakeside property. Other developed areas include the subdivisions on Hilltop Drive (off of Titicus Road), along the Route 22 corridor, west of Delancey Road and south of the Titicus Reservoir toward the Lewisboro border. Residents are continually drawn to the Town because of its high quality of life, open spaces and rural character.

2.6.2 Potential Impacts

The Plan identifies potential open spaces for preservation based on a comprehensive inventory of existing designated open spaces and scenic viewsheds, combined with an inventory of environmental features, agricultural properties and historic resources. The objectives for the Town's open space include preserving visible/scenic land and landscapes, preserving ecologically significant land, connecting important open space areas and enhancing existing open space areas.

The impact on community character will be positive. The intent of the Comprehensive Plan is to protect those factors that make North Salem an attractive place to live and work. The Plan achieves this through a balanced approach that focuses development in specific locations while conserving open space resources and protecting community character. In addition, by focusing development that is appropriately scaled and designed in the hamlet areas, for example, the Town can expand its economic base while maintaining the character of its less developed areas.

2.6.3 Mitigation

The Plan recommends maintaining and enhancing the overall rural appearance of the Town through the site plan and permitting process. It encourages preserving and enhancing scenic landscapes of the Town's rural areas, including the viewsheds along scenic roadways, and incorporating new development into the Town's natural landforms. The Plan recommends creating and adopting a local "dark sky" policy, which would help reduce nightly use of outdoor lighting and energy consumption. The Plan also recommends conservation of public lighting usage through installation of motion detectors on streetlights and undertaking a cost-benefit analysis of illuminated municipal buildings. Adoption of a "disturbing the peace" ordinance is also recommended, as well as a noise ordinance to regulate the hours of operation for heavy, noisy machinery, and to establish appropriate decibel limits and a complete set of general noise standards.

2.6 Public Services

This section describes community services that are currently available to Town residents, focusing on police protection, fire protection and emergency services, utilities, recreation and schools.

2.6.1 Existing Conditions

Police

The North Salem Police Department and the New York State Police both provide police protection in the Town. The North Salem Police Department is available part-time. The local police department is located in the Town Office buildings on Titicus Road (Route 116) in the Annex building behind the Town Court and meeting room. The New York State Police are available 24 hours a day, with barracks located in Somers and sub-stations in Lewisboro and Pound Ridge. The State Police force serving North Salem has 3 sergeants, 34 uniform troopers, 5 investigators, 1 police canine and 12 vehicles. The North Salem Police Department has 15 part-time police officers, 1 parking enforcement officer, 4 patrol cars, and 2 four-wheel drive vehicles available to supplement the State police patrols.

The North Salem Police Department reports that residents of North Salem currently receive adequate police protection, and expansion of police services is not required at this time. Coverage improved with changes made in September 2008, which included increases in departmental personnel and more patrol hours. The Police Department hired more part time officers and the department put on

an additional full tour, for a schedule of two half tours and one full tour (primarily focused on traffic control).

Fire

The Croton Falls Fire District (CFFD) provides fire protection and emergency services to most of the Town of North Salem. The CFFD is a taxing authority independent of Town government that funds the Fire Department (facilities/equipment and protection services). The CFFD has a range of 60 to 80 volunteer fire fighters (40 to 50 active), about 20 EMTDs (Emergency Medical Technicians with Defibrillator training), 1 paramedic and several first responders who are trained in various types of first aid.

The CFFD has stations in Croton Falls and in Salem Center available to respond to service calls. The station located in Salem Center has recently expanded, providing additional office, meeting and training space and two additional bays for equipment and trucks. The CFFD has 8 pieces of equipment and trucks available including: 4 pumper trucks with 750-gallon to 2,750-gallon water capacity, 2 combination mini-attack pumpers/rescue vehicles (each holding approximately 250 gallons or more of water), and a rescue vehicle and a utility truck.

Water supply is a one of the biggest issues in providing local fire protection. Since the Town has no fire hydrants, the CFFD is equipped with four pumper trucks to carry water, as well as ice augers to replenish water supply in the winter. The location of the Croton Falls Department is another issue: congestion on nearby roads (Route 22, Somerstown Turnpike and Croton Falls Road) delays response time out of the station.

A small part of North Salem, including residences located on Valeria Circle and along Nash Road, are served by the Golden's Bridge Fire Department (GBFD), which is one of three volunteer fire departments that serve the Town of Lewisboro. The GBFD has approximately 70 volunteer fire fighters, including paramedics and EMTs who can respond to the North Salem area from their department in Lewisboro within 5-8 minutes. Equipment available at the Fire Department includes: 2 "Class A" pump trucks, 1 mini-attack pumper, a 3,300 gallon tanker, a large rescue vehicle and 2 rescue vehicles.

Between 2006 and 2009, the Fire Department responded to an annual average of 570 calls. In the last few years, there has been more demand for emergency services in terms of EMS (Emergency Medical Service) calls.

EMS

The North Salem Volunteer Ambulance Corps (NSVAC) provides emergency medical services in the Town of North Salem. Consisting of 15 volunteer EMTDs and first responders, the NSVAC responds to approximately 365 calls per year and is equipped to handle 400-plus calls per year (excluding multi-casualty incidents). The number of calls typically varies between 0 and 5 calls in any given day. The NSVAC and local ambulance companies from surrounding communities respond to calls in neighboring communities as part of a mutual aid program. Since each of the local volunteer ambulance companies is not equipped to handle large accidents, each community's ambulance service supplements the services of adjoining communities. Additionally, North Salem is part of an emergency medical service consortium (which involves 8 communities) under which North Salem contracts for advanced life support services (ALS paramedics respond along with the NSVAC).

The NSVAC recently relocated its facilities to a newly constructed, larger building on Daniel Road, in Croton Falls, to provide adequate facilities for volunteers serving shifts, office, meeting and training space and 4 bays for ambulances. The NSVAC has 3 ambulances and a County-owned MCI trailer, equipped to provide care for 50 people. The current facilities generally serve the community's needs. Points for improvement for the NSVAC include additional professionally trained volunteers.

2.6.2 Potential Impacts

The Plan supports the Town's existing resources and recommends maintaining and supporting tax incentives for volunteers in the Croton Falls Fire Department and the North Salem Volunteer Ambulance Corps.

2.6.3 Mitigation Measures

No significant actions are proposed in the Plan concerning community services, and no mitigation measures are necessary.

2.7 Socioeconomics

This section examines the socioeconomic impacts of the recommendations of the 2011 Comprehensive Plan.

2.7.1 Existing Conditions

Demographics

The Town of North Salem covers an area of 23.2 square miles, with a population density of 241.5 persons per square mile in 2000. The Town had a total population of 5,225 in 2007, and is one of the smallest Towns in Westchester County. The County's most recent population projections show slow population growth rates in North Salem for 2005 through 2015 (1 percent or less per 5-year period) and slow rates of decrease from 2015 through 2030 (-0.5 percent to -1.5 percent per 5-year period). During the same period, the County's population is projected to continue to increase slowly (at rates of 0.8 percent to 1.2 percent). The Town is experiencing a gradual shift toward an older population, with a median age of 37.6 in 2000. North Salem lacks significant ethnic and racial diversity, with the minority population (all races except white) making up only 8 percent of total population.

Employment

Residents of the Town are employed primarily in management, professional, service and office occupations. The majority of residents work outside of Town: 57.6 percent work within Westchester County. The Town had a low unemployment rate of 3.1 percent as of 2000. Local employers include offices, stores, restaurants, institutions, schools and other businesses and services in the Town's hamlet areas, along NYS Route 22 and in the area of Hardscrabble Road and Fields Lane. Two other sources of jobs in North Salem are farms and estate homes, which frequently employ service workers. Horse farms also employ grooms, trainers and other animal care and farm workers.

2.7.2 Potential Impacts

Adoption of the Plan recommendations is expected to result in an overall decrease in the future residential build-out of the Town and therefore a reduction in future population and associated impacts.

2.7.3 Mitigation Measures

Since the adoption of the Plan will potentially reduce future population, and additional Plan recommendations provide measures for land and resource conservation, no mitigation measures are necessary.

3.0 ALTERNATIVES

This section identifies and evaluates a No Action alternative to the proposed 2011 Comprehensive Plan.

A. No Action

Under the No Action Alternative, land use development would continue to be regulated by the existing zoning, site plan, subdivision and other land use regulations governing the physical development of North Salem. This alternative would not further the Town's goals and would prevent the Town from achieving its vision for the future. Without the adoption and implementation of the Comprehensive Plan, many of the public benefits identified would not be realized. While the existing regulations may be sufficient to protect natural resources, the benefit of the Plan is that it suggests a manner in which the Town can accommodate growth while enhancing community character and protecting the Town's valuable resources. The proposals in the Plan will generate positive impacts, such as preservation and expansion of open space, greater flexibility in zoning and the concomitant benefits, including lower traffic generation, water consumption, wastewater generation and reduced disturbance to the natural environment. Alternatively, development under the current zoning may potentially exacerbate usage levels and demand for public facilities and services. Increases in traffic volumes and congestion may impair the Town's environmental resources. Further, economic development potential in hamlet areas could be limited. The absence of the Plan will place the Town in a position of reacting to development instead of being proactive in its efforts.

B. Adoption of the Comprehensive Plan

The vision, goals and strategies contained in the Comprehensive Plan represent public preferences as expressed by residents, land and business owners and other interested parties who were afforded significant opportunities for input through a community-wide survey and other public forums. The goals and objectives respond to the identified needs of the Town.

4.0 GROWTH-INDUCING IMPACTS

This section describes any potential that the Proposed Action may have for triggering further development in terms of significant increases in local population, increasing the demand for support facilities, and increasing Town-wide development potential.

Implementation of the recommendations in the Comprehensive Plan is expected to

result in an overall decrease in the potential full residential build-out under present zoning regulations and therefore a potential reduction in population and associated impacts. The greatest concentration of future potential development is expected to occur within and around hamlet areas of existing development, and this development will be minimal.

5.0 UNAVOIDABLE ADVERSE IMPACTS

No unmitigated adverse environmental impacts have been identified that may result from implementation of the 2011 Comprehensive Plan recommendations. The Plan itself is a guidance document and has no direct unavoidable environmental impacts. It may lead to increased development and potential population growth. Redevelopment will likely replace existing vacant and underutilized buildings with new uses that correspond to market conditions and Town needs.

6.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

This section identifies and evaluates the extent to which the Proposed Action may cause a loss of environmental resources, both in the immediate future and in the long term, addressing generic components.

Under the Proposed Action, some areas of existing undeveloped land (in the RO zone on Fields Lane) will be committed to development of businesses. There would be irreversible loss of energy resources due to construction under the Proposed Action. To the extent that specific development or redevelopment is encouraged by the Comprehensive Plan, certain resources will be committed, including for example construction, labor and energy resources. In addition, the demand for municipal water, sanitary sewage and solid waste disposal, and services such as police and fire protection, may also increase from any new housing constructed (in the hamlet areas of Croton Falls, Purdys and Peach Lake) under the Proposed Action. At the same time, a major objective of the Comprehensive Plan is to accommodate future growth in a manner that respects the Town's environmental resources. Therefore, some existing natural resources, including wetlands and forest areas, will be preserved. The Comprehensive Plan, in general, proposes a decreased level of development, thereby decreasing the Town's commitment of resources. In conclusion, the irreversible and irretrievable commitment of resources would not adversely impact the future development of the Town.

7.0 EFFECTS ON USE AND CONSERVATION OF ENERGY RESOURCES

This section generically evaluates the effects and aspects of the Proposed Action pertaining to the use and conservation of energy resources.

Overall, the 2011 Plan is expected to result in reduced demand for future energy resources within the Town in comparison to what may be necessary under present development policies. As the Town considers "green" oriented changes to development regulations—including, for example, reducing development in environmentally sensitive areas and connecting parks and open spaces—it will encourage reductions in energy demand.

8.0 APPENDIX

The Appendix will include SEQRA documentation (Positive Declaration, DEIS Scope, Notices, Town Board Resolutions)