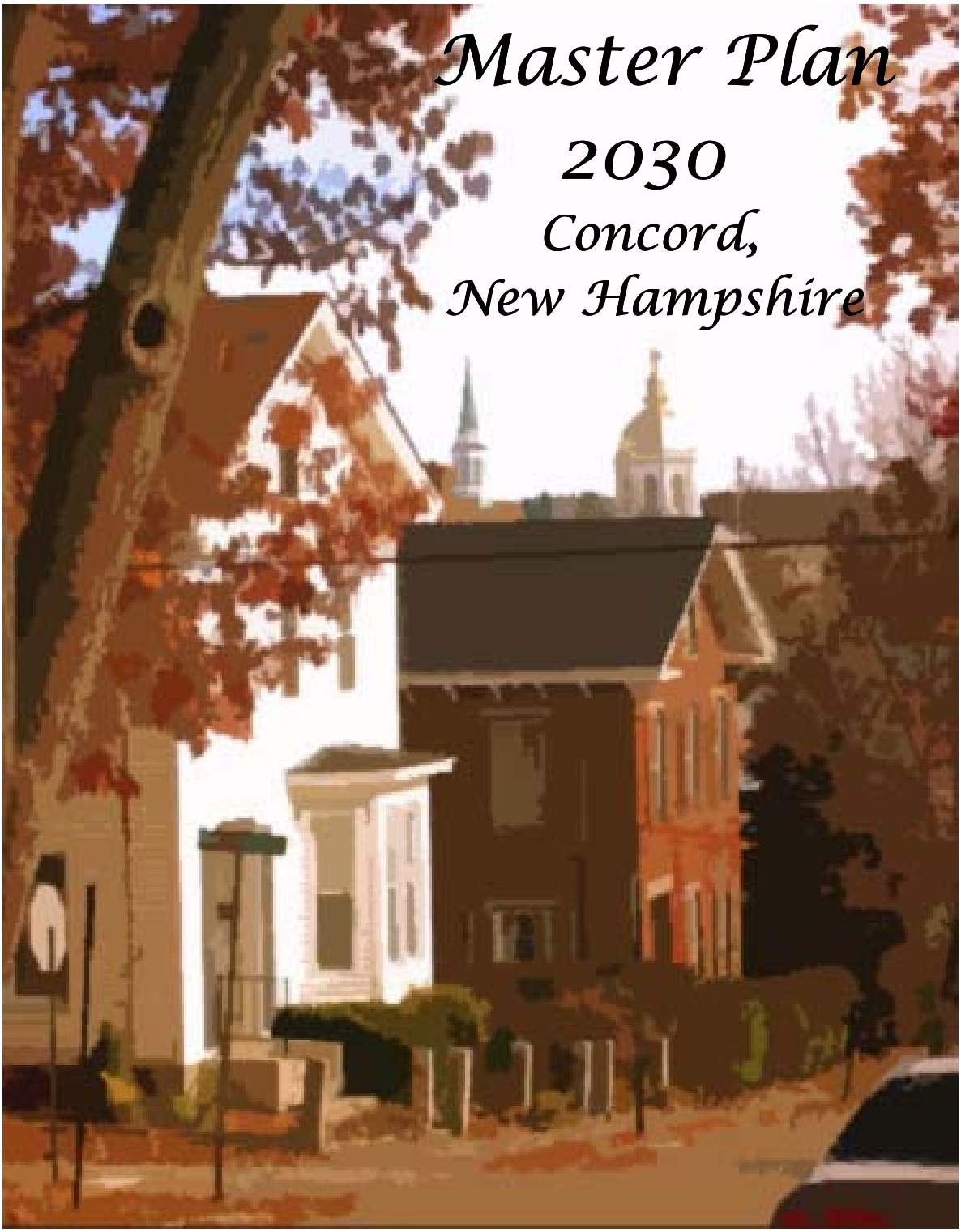

Master Plan 2030

Concord, New Hampshire

Prepared by the City Planning Board

June 18, 2008

Master Plan 2030
Concord, New Hampshire

City Planning Board

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June 18, 2008

CERTIFICATION

Pursuant to RSA 675:6 (III)

Master Plan 2030 was adopted on June 18, 2008, at a meeting of the City Planning Board, after duly advertised Public Hearings on January 23 and 24, 2008; the subsequent receipt of written communications; and consideration of the testimony and communications received. 7 members of the Board were present and voted 7-0 in favor of adopting Master Plan 2030 as the new master plan for the City. Master Plan 2030 shall take effect upon the filing of a copy of this certificate with the City Clerk.

Attest:

City Planning Board
City of Concord
New Hampshire

Gerald L. Drypolcher, Chair

John F. Swope, Vice-Chair

Stephen Shurtleff, City Councilor

Martin L. Gross, Member

Chiara Dolcino , Member

Carol R. Foss, Member

Susanne Smith Meyer, Member

William G. McGonagle, Member

Frank E. Kenison, Alternate Member

Gerard R. Blanchette, Alternate Member

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SECTION I. INTRODUCTION

A. PURPOSE AND INTENT

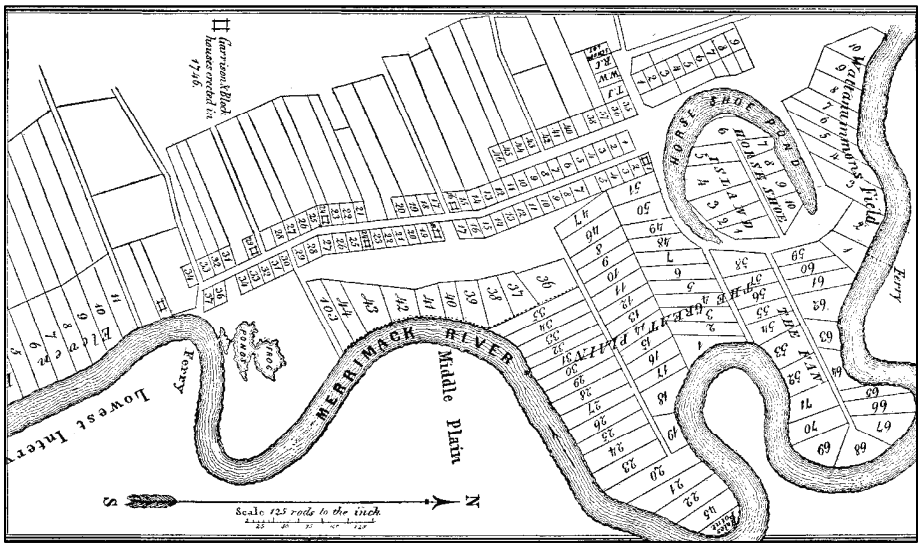
The City of Concord's Master Plan sets forth policies and recommendations for the orderly growth and development of the community; the preservation, conservation and use of natural and man-made resources; and the adequate and efficient provision of transportation, public and private utilities, recreation, and other community facilities and services. The overall goal of the plan is to promote and enhance the health, safety, and general welfare of the community. The Master Plan is made up of a series of coordinated sections, each of which addresses one specific component of the overall comprehensive master plan, such as land use, conservation and open space, transportation, housing, utilities, public facilities, etc. The Master Plan is supported by a number of planning, engineering and other statistical and scientific documents which are noted by reference throughout the plan. The Master Plan consists of articulated statements in the form of written goals, and policies, along with recommendations for the balanced growth and development of the community in both written and graphic form.

It is the intent of the City Planning Board to coordinate its planning and regulatory actions with those of the surrounding towns, the Central New Hampshire Region, and the State of New Hampshire. The City government including the City Council, City Manager and other administrative officers and departments of the City should utilize the recommendations contained within the Master Plan as a basis for discussions with the State of New Hampshire and the surrounding communities in regard to development and planning activities.

B. HISTORY OF CONCORD'S MASTER PLANNING

1. Settlement Plan

The first "master plan" for the City of Concord was developed in the spring and summer of 1726. In that year, surveyors were sent to this location on the Merrimack by the colony of Massachusetts. Their task was to determine a location for a new settlement on the river, but the floodplain and bluffs on the river presented hazards and obstacles. As a consequence, a settlement plan - or Concord's first master plan - had to be devised. The surveyor's notes of the first visit convey great difficulty in laying out a town because of the flooding of the river, but the problem of the flood plain, and the mountainous terrain on the east, was resolved by establishing house lots along a main street located on a flat plateau west of, and above, the Merrimack River flood plain. Tillage lots, associated with each house lot, were placed in the fertile flood plain. The main street, laid out in 1726, has not been relocated or bypassed; it is the same North/South Main Street that exists today (US Route 3). The northwest to southeast orientation of this main street formed the basis of the grid system which shaped the development of the City for its first century and a half. The tillage lots have been partially developed over the past two hundred and eighty years, but some still remain, notably at Horseshoe Pond. Concord is unusual in that it was formed and settled in accordance with a master plan which was influenced by the Merrimack River and other natural features. This influence has been inherent in the planning tradition of the City and remains a primary consideration in this Master Plan.



Badger's Plan of Proprietors' Lots, as laid out in 1726;
from the *History of Concord New Hampshire*, James O. Lyford, Editor

2. Chronological History of Concord City Planning from 1930 to 1993

1930 - Concord adopts its first Zoning Ordinance
1938 - Concord establishes a Planning Board
1938 - Gustaf H. Lehtinen hired as the City's first Planner. He continued to serve the City as Planning Director from 1938 to 1976.
1938 - The first Planning Study was completed entitled, "Storm Drainage in Concord, Flood and Gale of September, 1938.
1938-54 - Facility Planning Era - Focus on research and reports with an emphasis on Facility Planning.
1950 - The City Planning Board adopts the City's first Subdivision Regulations.
1956 - First citywide Land Use Plan prepared and adopted.
1963-72 - Urban Renewal Period - Federal requirements for Urban Renewal and Housing Programs required community-wide planning and code enforcement.
1963 - The City's first transportation plan, entitled, Major Thoroughfare Plan, was prepared and adopted.
1964 – The Land Use Plan was updated and revised Subdivision Regulations were adopted.
1965 - The City's first Community Facilities Plan adopted.
1967 - A new Zoning Ordinance was adopted which incorporated for the first time Site Plan Review (referred to as Large Scale Development) and Architectural Design Review, as well as the first local historic district.
1970 - The City's first comprehensive Transportation Plan was prepared and adopted.
1971 - The City establishes a Conservation Commission.
1971 - The City's first comprehensive Recreation Plan was adopted.
1972 - A Housing Needs Plan was prepared.
1974 - The City enacts a Floodway Overlay District for the Merrimack River as part of the Zoning Ordinance.
1974-75 - The Master Plan is updated. A "full disclosure" Land Use Plan is prepared and adopted which displays the full buildout of the City as opposed to a ten or twenty year increment of projected growth.
1975 - The City's first Water and Sewer System Master Plans were prepared and adopted.

1977 - A New Zoning Ordinance is adopted with strong linkages created between land use & facility planning, and subdivision and zoning regulations. A Floodplain Overlay District for the Merrimack River is adopted. The process was begun of incorporating environmental protection and hazard reduction measures into local land development regulations.

1976 - 1984 - The City engages in Downtown Redevelopment starting with the planning and construction of Bicentennial Square, and continuing with the Firehouse Block, Eagle Square, Durgin Block (Capital Plaza), and Depot Square.

1978 - The City's first Open Space Plan is adopted, "A Legacy for Future Generations - Open Space in Concord New Hampshire."

1982 - The Land Use Plan is updated.

1983 - NH Supreme Court upholds Planning Board's authority in Ehrenberg et al v. Concord.

1984 - The Transportation Plan is updated.

1984-1989 - Development boom of the 1980's. The City sustains its highest rate and volume of growth in population, housing and employment in over 100 years. Regulatory role of Planning Board and Planning Department pre-empts traditional master plan and facility planning roles.

1985 - Revised Subdivision Regulations were adopted, and the first Site Plan Review Regulations are adopted in the aftermath of a NH Supreme Court case, Eddy Plaza Associates v. Concord.

1986-89 - The Broken Ground Development Corporation proposal for the development of Broken Ground into housing and a golf course creates a clash between development interests, environmentalists, and neighborhoods.

1987 - The Land Use and Open Space Plans reaffirmed by Planning Board. The Planning Board in 1987 reviewed the Master Plan and reaffirmed a series of planning studies and reports as part of the Master Plan.

1988-91 - Steeplegate Mall Development begins and Gateway Commercial Area created. The Master Plan was amended, new zoning adopted, and facility plans prepared for roads, storm sewer, and municipal water and sewer services.

1990-93 - Recession after explosive growth of the 1980's in which the financial industry is restructured and property tax base devaluation precipitates a fiscal crisis.

1992 - Merrimack River Charrette, sponsored by the National Park Service, focused attention on the relationships among Downtown Concord, Interstate 93, and the Merrimack River.

1993 - The Year 2010 Master Plan Update is prepared and adopted which consolidates Planning Goals, Objectives and Policies; Land Use; Open Space; Transportation; and Economic Development Elements in one document, and establishes the Urban Growth Boundary.

1994 - The City establishes a Heritage Commission which assumes the powers of the Historic District Commission.

1996 - The Housing Chapter was adopted as an amendment to the Master Plan

1996 - The Garvins Falls Urban Reserve Area Development Feasibility Study adopted as an amendment to the Master Plan

1997 - The South Concord Redevelopment Area Study adopted as an amendment to the Master Plan

1999-2007 - The City returns to active involvement in Downtown Redevelopment with the Sears Block (Capital Commons) and initiates similar action in Downtown Penacook with the former tannery property.

2000-2001 - The Citizen initiated Vision 2020 process occurs.

2001 - An Impact Fee Ordinance is adopted providing funds for transportation, school, and recreational facilities needed as a result of growth and development of the City.

2001 - A new Zoning Ordinance is adopted which incorporates the recommendations of the 1993 Master Plan
2001-2003 - City prevails in NH Supreme Court in the case of Richmond Company v City, upholding the Planning Board's denial of a Site Plan application.
2002 - The City adopts a Demolition Delay Ordinance for historic buildings and structures.
2004 - The City issues a $5 million bond for open space acquisition to implement the Open Space Plan.
2007 - The City adopts a zoning amendment that mandates cluster development outside the Urban Growth Boundary.

C. CONSISTENCY OF GOALS, POLICIES, AND RECOMMENDATIONS

All goals and policies within each section are internally consistent and are consistent with the Vision Section, goals, and policies. Municipal comprehensive planning involves a balancing of competing and sometimes conflicting goals and endeavors, hence, each policy and recommendation has been reviewed within the overall context of the Master Plan.

D. LEGAL STATUS OF THE MASTER PLAN

The City of Concord Planning Board has adopted this Master Plan pursuant to the provisions and requirements of NH RSA 674:1 through 4, inclusive. The Master Plan provides the basis for regulations which direct development to the most appropriate locations, thereby limiting adverse impacts on the natural environment, financial capacity, and cultural heritage of the community. The Master Plan is not a regulatory document in and of itself; zoning, subdivision, site plan, and historic district regulations, among others, along with the Capital Improvement Program and Budget are the legal tools for implementing the Master Plan.

The New Hampshire Supreme Court, in decisions over the last three decades, has defined the role of the master plan in regard to land development regulations. In 1978, the NH Supreme Court stated: "(C)omprehensive planning with a solid, scientific and statistical basis is the key element in land use regulation in New Hampshire"[Patenaude v. Meredith, 118 NH 616 (1978)]. In the case of Stoney-Brook Development Corporation v. Town of Fremont, 124 NH 583 (1984), the Supreme Court invalidated the Town's growth management ordinance due to an inadequate master plan and capital improvement program. The NH Supreme Court ruled that the master plan is a general guide to aid planning boards in making zoning decisions, and it need not be particularly detailed in describing future land uses [Treisman v. Town of Bedford (1989) 132 NH 54, 563 A2d 786]. The master plan is the essential starting point for developing land use regulations and a capital improvement program. It should be used as a general guide; hence the master plan is neither as specific, nor as detailed, as the regulations which implement the master plan.

All amendments to this Master Plan will be adopted pursuant to the provisions and requirements of NH RSA 674:1 through 4, inclusive, as they exist or may be amended in the future. Within the state enabling legislation for master plans, (NH RSA 674:3 II.), planning boards are advised to review and revise, as necessary the master plan, at intervals of up to ten (10) years. Concord has traditionally made small revisions and adopted larger amendments as necessary, and undertaken comprehensive updates at intervals of 10 to 15 years.

E. INFORMATION PRESENTED FOR STANDARDIZED GEOGRAPHIC AREAS OF THE CITY

Data and information supporting this plan were compiled, prepared, and presented for the City as a whole as well as for certain standardized geographic sub-areas of the City, including the Urban Growth Boundary, the Village/Master Plan Districts, and the Traffic Analysis Zones (TAZ's).

1. Urban Growth Boundary

The 1993 Master Plan introduced the Urban Growth Boundary (UGB), an innovative anti-sprawl policy that has since guided the City's land use regulatory changes. The UGB defines the limits of urban development with the City such that the land inside the UGB is served by City water and sewer utilities, there is an extensive transportation network available, and the City will continue to focus its investment in such infrastructure in this area. The most intensive residential development as well as the vast majority of the City's economic development have occurred and are planned for the area inside the UGB.

In contrast, the area outside of the UGB is rural in nature, having no utility services and thereby making any development dependent on wells and subsurface disposal systems. The transportation infrastructure is much more limited in this area. The land outside the UGB also embraces most of the City's environmentally sensitive land including floodplains, wetlands, water resources, steep slopes, and prime farmlands. Low density residential development together with agricultural and recreational uses have occurred and are planned for the area outside the UGB. Section III, Land Use, of this Master Plan provides a more extensive discussion about the UGB.

2. Villages/Master Plan Districts

Concord has long had a number of discretely named subsections of the City with which the local residents identify. For the purposes of this Master Plan, these subsections will be referred to herein as "Villages/Master Plan Districts", and are comprised of one or more neighborhoods. The Villages/Master Plan Districts include Penacook, West Concord, East Concord, Concord Heights, and two areas around Downtown herein defined, one being the South End, which lies south and southwest of Downtown, and the other a combination of the areas to the west and to the north of Downtown, labeled herein as the North/West End. Table I-1 indicates the area of each District as well as the portion of each within and outside of the Urban Growth Boundary. The boundaries of the Villages/Master Plan Districts are displayed along with the Urban Growth Boundary on Exhibit I-1.

The Vision 20/20 employed the title of "villages" and generally used the same names as indicated above with the exception that the North/West End was referred to as "Downtown". The dividing lines between the villages were not clearly defined in the Vision 20/20 process, but for the Master Plan update, the dividing lines have been defined so that counts of population and housing units can be assigned to specific villages. Vision 20/20 also focused its attention on the development inside the Urban Growth Boundary (UGB); however, the analytical framework for the Master Plan embraces the entirety of the City, both inside and outside of the UGB, within the Villages/Master Plan Districts.

The area of Concord that is within the administrative jurisdiction of the Merrimack Valley School District (MVSD) is a primary defining characteristic of Penacook Village and its boundaries have been utilized for the Penacook Village/Master Plan District.

Within the area of Concord that is in the administrative jurisdiction of the Concord School District, the elementary school attendance areas, in tandem with the service areas of major recreational facilities and youth sports participation boundaries were viewed as a sort of social common denominator for defining the limits of each Village/Master Plan District, along with some adjustments in recognition of the limits of census tracts and blocks. The elementary school attendance areas cross the UGB so that families who live outside the UGB are connected to the families inside the UGB through the elementary school. Some Villages/Master Plan Districts embrace two elementary school attendance areas but the children and families are connected by virtue of sharing a gymnasium, a pool, and a community center, as well as common youth recreation participation boundaries.

3. Traffic Analysis Zones

A set of 151 Traffic Analysis Zones (TAZ's) were defined in conjunction with traffic modeling efforts for this Master Plan, providing an update from the modeling efforts that supported the 1993 Master Plan. The modeling program requires existing and projected housing and employment data for each TAZ. The numbers of existing housing units as well as existing jobs were allocated based on the 2000 Census Tracts and block data, the NH Department of Employment Security data, as well as the New Hampshire Economic and Labor Market Information Bureau's data for Merrimack County. Projections of dwelling units and employment were then made for the year 2030 for each TAZ. These characteristics – housing and employment are used in the model to represent trip generation and trip attraction and simulate the dynamics of transportation system of the City. The data from the TAZ's were assembled for each of the above referenced Villages/Master Plan Districts, and subtotaled for the areas both inside as well as outside the UGB in each Village/Master Plan District.

Table I-1. Villages/Master Plan Districts

Village/ Master Plan District	Area of Land and Water					
	Total Area		Area Inside UGB		Area Outside UGB	
	Sq. Mi.	% of City	Sq. Mi.	%	Sq. Mi.	%
East Concord	15.78	23.4%	4.51	21.8%	11.27	24.1%
Concord Heights	11.38	16.9%	6.21	30.0%	5.17	11.1%
South End	7.52	11.2%	2.21	10.7%	5.31	11.4%
North/West End	11.95	17.7%	3.35	16.2%	8.60	18.4%
West Concord	16.35	24.3%	2.17	10.5%	14.18	30.4%
Penacook	4.43	6.6%	2.24	10.8%	2.19	4.7%
Totals	67.41	100%	20.69	100%	46.72	100%
% of City	100%		30.7%		69.3%	

Exhibit I-1. Villages/Master Plan Districts

[insert 8 ½ x 11 graphic]

SECTION II. A VISION FOR CONCORD

A. INTRODUCTION

A "master plan" is intended to chart a course for managing the growth, development, and change that is likely to occur in the community in the future. As any sailor can explain, "charting the course" means knowing what the ship's destination is and then figuring out the best way to get it there taking into account the weather, the rocks, the tides, and the features of the vessel. But if there is no destination, any course will get there. The community's "Vision" is in essence a statement of where the community is trying to go – not in a geographic sense but in terms of what the community wants to be and what is important to the residents. The "Implementation Strategy" then lays out the actions or the course for moving the community in that direction.

This Vision or understanding of where Concord is trying to go and what it wants to be as it grows and changes is a key element in the master planning process. This section lays out a broad vision for what Concord should be in the future. It identifies the elements of the community that need to be respected as Concord grows and changes. It looks at how change can be consistent with Concord's values. The Vision is a statement of the community's key values on one hand and its hopes for the future on the other.

This Vision for Concord is an evolutionary rather than revolutionary view. It is firmly grounded in past efforts of thinking about the future of Concord and, in large part, is a refinement of those prior efforts. These include the City's 1993 master plan – the Year 2010 Master Plan – and Vision 20/20. The Vision also reflects the fact that most residents like Concord and think that it is a desirable place to live and work. Therefore, much of the Vision focuses on assuring that the positive elements of Concord are maintained and not compromised as the City continues to grow and change.

B. THE YEAR 2010 MASTER PLAN

The City's current master plan, the Year 2010 Master Plan, was adopted in 1993 and parts of the plan were revised in 1996. The 1993 plan was rooted in the City's 1987 Master Plan that had incorporated land use and open space plans that the City had done prior to that.

The Year 2010 Master Plan included the following key concepts:

- Encouraging economic and physical development in a way that maintains the character of Concord
- Maintaining a mix of uses
- Maintaining both urban and rural areas
- Providing a diversity of housing and neighborhoods
- Ensuring the vitality of downtown Concord and Penacook
- Providing parks and open spaces

A key element in the 1993 master plan was the recommendation to establish an Urban Growth Boundary (UGB) as a way of managing growth and development in the City. The idea of the UGB was to encourage a compact development pattern and avoid sprawl. In the part of the City

within the identified growth boundary, the plan recommended higher density development with infilling within developed areas and existing neighborhoods. Future economic growth was focused on the area within the UGB with an emphasis on the downtowns including Penacook. In the area of the City outside the UGB, the 1993 plan recommended lower density development that would be consistent with the rural character of this part of the community.

The Year 2010 Master Plan included a strong focus on preserving and enhancing the existing neighborhoods and villages in Concord with a goal of improving the livability of these areas so they would remain desirable places to live. The plan also included a focus on preserving and protecting open space.

The concepts of the Year 2010 Master Plan continue to form the basis of the City's long-range planning and have been embodied in the community's land use regulations. Many of these ideas continue to be relevant to the City's future and serve as the foundation for the current master planning effort.

C. VISION 20/20

Continuing growth in southern New Hampshire during the 1990s resulted in increased traffic on I-93 and led to proposals to widen and upgrade this key artery. This proposal generated concerns about how the widening project would impact Concord and whether it would fuel significant growth similar to what had been occurring in Nashua and Manchester. Out of this concern emerged the Vision 20/20 process, an independent consortium of local interests including the City of Concord, to develop a plan for managing future growth in the community. The Vision 20/20 effort was funded by a combination of state and local government grants and significant private fund raising.

The Vision 20/20 process resulted in a Vision for the future of the City based upon the concept of a "City of Villages". The Vision, published in 2001, set forth five principles that should shape the future of the City:

- A vibrant, livable downtown
- Neighborhoods served by walkable villages
- Preservation and access to the natural environment
- Economic vitality
- Transportation that serves the community

Vision 20/20 focused on channeling economic growth to the downtown and existing village centers and what it called "the opportunity corridor" – essentially the area between I-93 and Main Street including areas both north and south of downtown. Vision 20/20 proposed creating three interdependent development zones along the opportunity corridor:

- A Class A office district to the north that would create a downtown employment center that would support retail and entertainment establishments in the corridor
- A business park to the south to provide job opportunities and maintain a diverse economy in the downtown
- A mixed-use Downtown district at the center that provides expanded commercial as well as residential opportunities at densities similar to the existing downtown

In terms of residential growth and development, Vision 20/20 focused on concentrating future growth in the downtown and village centers including Penacook, West Concord, the Heights, East Concord, and the South End. The plan also envisioned the possibility of creating one or more new villages as a way to accommodate growth in a manner appropriate to Concord's character. Vision 20/20 proposed connecting the villages to each other, to open space, and to downtown with trails, paths, and bicycle lanes.

A key element of Vision 20/20 was a proposal to create a redevelopment entity to achieve the vision for economic vitality. This entity would be the primary vehicle to implement certain aspects of the vision especially development of the North Opportunity Corridor.

While the Vision 20/20 process and organization was independent of the City of Concord, the City was an active participant in the process. In 2001, the City Council passed a resolution formally endorsing the five principles of the Vision 2020, and these principles have subsequently guided the preparation of this Master Plan.

D. THE CONCORD COMMUNITY SURVEY

As an initial step in the process of updating the Master Plan, the City conducted a random mail survey of a sample of Concord households in May of 2004. The City's consultant mailed a questionnaire to 3,220 households. A reminder was mailed to the same households a week later. A total of 1,043 usable surveys were returned and tabulated for a response rate of 32.4%.

The key conclusions of the community survey include:

- There is a relatively strong desire to adopt additional regulations regarding historic preservation including limitations on the demolition of historic structures and design standards for new development in historic areas
- There is a desire to preserve open/undeveloped space with over 2/3's favoring increased City funding for this purpose
- The major concerns of respondents were transportation related including issues with excessive speed/traffic volumes on neighborhood streets, traffic congestion on major streets, and congestion in getting to Concord Hospital
- Affordable housing is a concern but there is no clear preferred approach for dealing with it
- Taxes are also a concern
- There is a desire to control the rate of growth with a strong desire to grow more slowly than the rate suggested by the population projections included in the questionnaire

In summary, the community survey found that most people feel that Concord is a good place to live and that the "City has done well".

E. THE MASTER PLAN PROCESS

The Master Plan process included a series of special studies prepared by consultants, together with input from a number of citizen committees designated by the Planning Board to focus on specific components of the Plan, as well as workshops and hearings for the general public to provide commentary.

Consultants were retained in the areas of transportation, recreation, economic development, historic resources, wetland identification, urban design, and demographic analysis. To work with these consultants on related areas of the Master Plan, the Planning Board enlisted the assistance of the Conservation Commission, the Heritage Commission, the Recreation and Parks Advisory Committee, and the Economic Development Advisory Committee. Special citizen advisory committees were appointed in the areas of transportation and housing, and the Planning Board itself focused on land use as well as the overall process and end product.

The use of a regional transportation model was shared with the NHDOT as part of an effort intended to coordinate the City's Master Plan with the State's planning process for the expansion of I-93 through Concord. However, differing needs for levels of specificity caused the City to refine the model with its own consultant assistance in order to obtain useful results at a cost to the City in terms of time and resources.

The Vision 2020 organization initially provided financial support for facilitation of public workshops for the first portion of the process. A series of public workshops was initiated in the late fall of 2003 and continued through much of 2004, inclusive of a special bicycle/pedestrian workshop in May of 2004. Public workshops were suspended in late 2004 until the City could refine the transportation model in order to provide useful information for the City's planning needs.

The Opportunity Corridor planning process was the focus of a series of special public workshops in 2004 and 2005 concluding with a public hearing by the Planning Board in June of 2005. In the Summer and Fall of 2005, each of the Master Plan committees held its own workshops on the respective sections of the Plan on which the committee's efforts were focused. In the Fall of 2005, the Planning Board held a public workshop on alternative future growth scenarios which then led to a series of Planning Board work sessions where choices were made for policies and recommendations that were to be included in the draft Master Plan.

In 2006, the Master Plan committees finalized their efforts and submitted final reports on the respective sections of the draft Master Plan and in the Fall of 2006, the Planning Board held a public hearing on its final recommendations on land use. The Planning Board then spent much of 2007 refining the draft Master Plan that was published in the Fall of 2007. Public hearings were held on the draft in January 2008 prior to final adoption of this Master Plan.

F. THE VISION FOR CONCORD

This vision for Concord builds on the past work in thinking about the future of the City. This vision refines the goals from the 1993 Master Plan and incorporates many of the ideas that emerged from the 20/20 Vision and the Community Survey. The Vision lays out what is important to the community as the City grows and changes over the next twenty years. The Vision also establishes an image of what Concord will be in the future.

THE VISION FOR CONCORD

- ***Concord maintains its essential character that is valued by its residents while accommodating growth and development in a way that maintains and is consistent with that essential character.*** The essential character of Concord includes:

- a vibrant, economically viable downtown that is the social and cultural center of the community
- established neighborhoods and villages that provide a diversity of housing that meets the need of a variety of households
- opportunities for economic growth
- an extensive rural landscape including preserved open space, active agricultural lands, and working forests.

- ***New development maintains and reinforces the historical pattern of land use and development in Concord.*** Growth, development, and change occur in ways that reinforce the essential character of the City and do not undermine what residents value about the City. Most new development occurs within the built-up area of Concord and is of an "urban" character and density. Infill development that is sympathetic to established patterns occurs in existing neighborhoods and in the downtown areas. New "village-style" development occurs on the fringe of the existing built-up area. Older, underutilized areas near downtown are redeveloped into vibrant employment centers and mixed-use neighborhoods. The sprawl of development into the rural parts of the community is minimized and the rural landscape maintained. Much of the development that could have occurred in these rural areas is transferred to the urban core so that rural land owners are not financially disadvantaged. The development that does occur in the rural areas is "rural" not "suburban" in character, and does not adversely affect a working rural landscape. Rural development is clustered with much of the site preserved as open space. Areas with significant natural resource value are protected and substantial areas of open space are permanently preserved. Concord's historic pattern of development is reinforced.

- ***Concord continues to provide a diversity of housing to meet to needs of a wide range of households.*** Housing exists to meet the needs of a wide range of people – young families with children, the elderly, empty-nesters, young professionals, business owners and managers – in a range of urban and village settings. Households with a range of incomes are able to live in Concord. People who work in Concord – professionals, business owners, police officers, state employees – are able to live in Concord. Housing that is affordable for low and moderate income families is available both in the City itself and throughout the larger region. Older residential neighborhoods are maintained and their desirability and livability enhanced. New housing is located primarily within the existing built-up area of the City including the downtowns and the Opportunity Corridor, and offers a range of types of units and a range of prices. New housing is designed to reduce the impacts of the development on the community – they are energy efficient, are located where people can walk or bike for some of their travel needs, they consume less water and generate less wastes, and are environmental friendly.

- ***The City's historic buildings and districts are preserved and used as essential components of the community.*** Historic buildings are maintained and utilized. The City and the State cooperate on the management of historic properties owned by the state and they are preserved and utilized if feasible. Demolition of historic buildings occurs only when there is no realistic option for preserving them. The character of historic districts is maintained. New development in or adjacent to historic districts respects the character of the area and does not compromise the historic environment. Landscapes and vistas with historic relevance are protected from encroachment by development – the view of the Capitol dome is preserved.

- ***Concord has a vibrant, growing economy that provides both jobs and goods and services to residents of the City and the larger region.*** Concord continues to be the regional job and service center. The share of the property taxes paid by non-residential properties increases through economic growth and development including redevelopment of older, underutilized areas. Downtown Concord, and Downtown Penacook to a lesser extent, experience continued growth as retail, service, and entertainment centers. The Opportunity Corridor is the focus of Downtown-style redevelopment with a mix of uses including office, retail, service, institutional, high density residential, and lodging that expands the number of good quality jobs in the community, increases the tax base, and creates new housing. The Southern Opportunity Corridor develops as an urban village consisting of high density residential development with a supporting mix of small scale retail and service uses as well as a campus for educational use. New non-residential development is well designed, minimizes its impacts on the community, its neighbors, and the environment, and enhances the quality of life in Concord. Most new buildings are "green" and meet requirements for minimizing the impact on the environment.

- ***Residents are able to easily and safely move throughout the City by a variety of means while protecting the livability of neighborhoods.*** The City's street system functions appropriately – arterial streets and collectors carry commuter and destination traffic safely and efficiently, the movement of goods occurs on appropriate truck routes, streets in residential neighborhoods serve local traffic and are not used as short cuts; streets and sidewalks are designed to enhance walkability. Major improvements are made to the road system but only when or in ways that are consistent with the City's other objectives. New streets are designed to be interconnected and reinforce the "street network". Dead ends or cul-de-sacs are discouraged. The opportunities for moving around the City without having to use a car increase – opportunities for using public transportation expand, while neighborhoods, open spaces, and downtown are interconnected with sidewalks, trails, and bicycle lanes. The entire transportation system within the City becomes more attractive – more attractive to users and more attractive visually. Aesthetics are integrated into transportation improvements – the quality of the City's "streetscape" is enhanced.

- ***Areas within the City are protected and maintained as rural landscapes, active agricultural lands, and working forests.*** The rural areas of the City remain rural. Activities involving resource production or utilization remain and are economically viable. Residential and other uses that could adversely affect these traditional uses are managed to reduce their impact. Development that could have occurred in these areas is "transferred" to growth areas and the rural landowners are compensated for giving up their development potential. Substantial areas are acquired and set aside as permanent open space for the benefit of the entire community. Areas with significant natural or cultural resource value such as important wetlands, riparian corridors, floodplains, bluffs, and historic or archeological sites are protected from development, use, or alteration that would diminish their resource value. Protected open spaces and natural resource areas form interconnected networks allowing for environmental and habitat benefit as well as for trail linkages.

- ***Concord residents have access to a wide range of public recreational facilities and opportunities.*** The City's neighborhoods all have recreational facilities that enhance their desirability as residential areas. The City continues to provide parks, recreational facilities, and programming that perpetuate the community's long standing traditions of recreational activities and sports on a year-round basis. Access to the City's waterbodies including the

Merrimack River is expanded. The City's recreational and open space areas are well managed and maintained, and used cooperatively with the City's school districts, as well as local recreation leagues and organizations. A comprehensive system of recreational trails for walking, hiking, biking, cross-country skiing, and snowmobiling is maintained in cooperation with private organizations.

- ***The City's residents and businesses continue to be adequately served by municipal facilities and services, as well as public utilities***. Concord continues its tradition of providing excellent fire, police, public works, library, and administrative services to residents and taxpayers. The facilities that house and support these services are expanded, upgraded, and replaced as necessary to keep pace with the City's growing population and employment. Municipal utility systems are maintained, and expanded within the Urban Growth Boundary to ensure continuous delivery of an adequate supply of potable water together with sufficient capacity to suppress fires, and the collection and appropriate treatment of sanitary sewage. Other public utilities expand appropriately to provide adequate and uninterrupted delivery of electricity, natural gas, and telecommunications.

- ***Concord's natural resources are appropriately protected, and natural hazards are identified and addressed.*** The City continues to value its extensive natural resources including wildlife habitat, prime agricultural soils, and productive forest lands as well as water resources and related floodplains, aquifers, and wetlands. These natural resources will continue to provide potable water for both the public and individual water supplies, and to foster agricultural and silvicultural production. The City will continue to protect floodplains and wetlands to ensure that natural absorptive capacities will continue to be available, and will employ low impact design for drainage facilities to mitigate hazards from flooding and stormwater runoff.

G. SUMMARY

This Vision for Concord sets out what Concord will become looking ahead ten, twenty, even fifty years into the future, and provides direction as to how the City should grow and change, and how and where development should, and should not, occur. The Vision establishes the community's goals – what are the things that are really valued and desired to be part of this community in the future. It is the destination.

The following sections of the Master Plan address these topics in more detail and begin to look at what the City and the larger community will need to do to make sure that the Vision becomes reality. Finally, in the Implementation Section, a detailed action plan is set forth outlining what specific actions need to be taken by whom and in what time frame – this is the charting of the course part of the Master Plan.

H. SUPPORTING STUDIES

A 20/20 Vision for Concord, NH – Concord: City of Villages, The initiative for a 20/20 Vision for Concord, September 2001.

City of Concord Master Plan Year 2010 Update, Concord Planning Board & Concord Planning Department, Concord, NH, December 15, 1993.

Concord Master Plan Community Survey, prepared by The NorthMark Group, 2004.

SECTION III. LAND USE

A. INTRODUCTION

The Land Use Section consists of a review of existing land use and changes in land use that have occurred since the last Master Plan was adopted in December 1993. Land use goals are articulated, and applied to and interpreted upon the landscape of the City, and as displayed on maps that indicate how land in Concord should be either preserved or used and developed over time. Future land use categories are defined, and the application of the same is described for each of the village/master plan districts within the City. Policies and actions to guide the implementation of the Future Land Use Plan complete this Section of the Master Plan.

The Future Land Use Plan is intended to guide the protection of the City's natural resources and environment while promoting the appropriate and efficient use of land and water within the City of Concord in a manner consistent with the economic, physical, and social needs and desires of the citizens of Concord. In its capacity as New Hampshire's Capital City, Concord's land use planning necessarily requires cooperation with the State of New Hampshire, and as the center of the Central New Hampshire Region, there is a need to coordinate with the Regional Planning Commission as well as the neighboring communities.

B. LAND USE GOALS

The overall goal is to plan and provide for the continued growth and development of the City of Concord, consistent with the desires of its residents to preserve its quality of life, and in a manner which limits sprawl, concentrates residential development in neighborhoods and villages, fosters economic vitality and a vibrant Downtown, as well as maximizes the protection of open space and natural resources. The specific land use goals are to:

1. Retain the Urban Growth Boundary (UGB) as a policy guide for land use, open space, and utility and transportation infrastructure planning in the City, and to discourage sprawl by focusing future development and concentrating demand for services within the limits of the UGB.

2. Protect and conserve important open space, environmentally sensitive areas, and natural resources outside the UGB.

3. Prioritize and maximize the re-use and redevelopment of land and buildings particularly in the downtowns and the Opportunity Corridor, in preference to new development and Greenfield development.

4. Provide for land uses to support economic development which encompasses a broad range of economic activities that provide employment opportunities, facilitate necessary services, and make goods available to the citizenry, as well as expand the tax base of the City.

5. Provide for a variety of housing types and densities, as well as a fair share of the affordable housing needs of the region, to be located in neighborhood, villages, the Opportunity Corridor, and the downtowns.

6. Promote orderly transition among land uses and separate or buffer incompatible uses to the greatest extent possible in order to limit or minimize undesirable impacts to adjacent land uses.

7. Seek the cooperation of the State of New Hampshire and the federal and county governments to ensure that state, federal, and county facilities within the City are developed in a manner consistent with the Master Plan.

8. Coordinate the location, timing and intensity of future development with the availability and capacity of public facilities and utilities, and with the fiscal resources of the community.

9. Provide for the reservation of land area of adequate size and in appropriate location for public facilities and utilities that will serve the future land uses.

10. Coordinate land use planning with transportation planning to ensure that the land use does not overburden the capacity of, or exceed acceptable levels of service within, the City's transportation system, so that individual components of the transportation system are appropriately utilized, and so that the ability to expand the transportation system is preserved where necessary.

11. Protect surface and groundwater resources that could contribute to the City's public water supply, and ensure that the City's plans for growth and development do not exceed the capacity of the City's public water supply to serve the same.

12. Improve and enhance the overall appearance and aesthetics of the community inclusive of architectural features, streetscapes, landscapes, and signage.

13. Continue to recognize, respect, and protect the publicly accessible views of the Statehouse Dome which symbolizes the City's identity as the Capital of the State of New Hampshire.

14. Continue to preserve, respect, and enhance the City's historical resources inclusive of buildings, districts, streetscapes, and landscapes.

15. Provide for constant dynamic monitoring of the City's land use and development through the use of GIS and digital databases.

C. LAND CHARACTERISTICS AND EXISTING LAND USE

1. Land Characteristics

The City's total area is comprised as follows:

Total Land Area:	63.71 square miles
Total Water Area:	3.70 square miles
Total of Land & Water:	67.41 square miles

Much of Concord's land and its use are influenced by the City's extensive water resources. Concord is located in the watershed of the Merrimack River, and the City's other major rivers,

the Contoocook, Soucook, and Turkey Rivers, are all tributaries of the Merrimack. There are 14 Great Ponds (10 acres or more in size) within the City as well as several smaller private ponds and many brooks and streams.

In addition to surface waters, the City has substantial areas of wetlands, as well as vast acreages subject to flooding, and extensive aquifers underlie large areas of the City. A wetland delineation performed for this Master Plan by means of aerial photography interpretation indicates 6,678 acres of wetlands, slightly less than the wetland acreage identified from soil mapping for the 1993 Master Plan.

The City has a long documented history of flooding, primarily in relation to the Merrimack River which meanders from north to south on a broad floodplain that runs through the center of the City. The floodway and floodplain of the Merrimack were mapped by U.S. Army Corps of Engineers in 1966, while similar features were mapped for the Contoocook, Soucook, and Turkey Rivers by the U.S. Department of Housing and Urban Development in 1980, and the Federal Emergency Management Agency in 1999.

The maps of stratified drift formations in Concord as prepared by the U.S. Geological Survey, reveal that aquifers surround and follow the City's major rivers including the Merrimack, Contoocook, Soucook, and Turkey Rivers. The City's own studies have corroborated this and identified those areas where the City could develop the groundwater as a source for its municipal water supply.

With regard to the soils and surficial geology of the City, Concord has areas of steep terrain, underlain by both rock and sand. While each type of resource has historically been quarried or excavated for marketable materials including granite, sand and gravel, these formations also constrain land development due to accessibility, and erodibility. Though use of soil maps, the 1993 Master Plan identified 6,767 acres of slopes in excess of 15% in the City. The steep sandy bluffs that line the Merrimack and Soucook Rivers are unique and fragile examples of one type of formation, while Rattlesnake Hill that rises above West Concord continues to be a source of granite.

Another soil-based resource in Concord is prime agricultural soils, located along the Merrimack River floodplain, in the Turkey River watershed, and in upland locations in East and West Concord. These soils support an active agricultural industry ranging from dairy farming to orchards.

Other natural resources relate to the combination of land and water resources which have led to managed and productive forest resources as well as extensive wildlife habitat. A more detailed discussion of natural resources may be found in Section VII, Conservation and Open Space.

2. Existing Land Use

The City's historic development pattern followed the Merrimack River valley between the floodplains and the granite hills. The water transportation provided by the river in the 18th Century was supplanted in 1840 by the railroad which followed the river, and in the 20th Century by the Interstate Highway which followed the railroad, all of which have reinforced the historic development pattern. The growth of Concord Heights expanded the development area after World War II. The existing land use, transportation system, and utility infrastructure led to the definition in the 1993 Master Plan of an Urban Growth Boundary (UGB) which is discussed in Part D of this Section, below.

Table III-1 displays the areas devoted to existing land use categories for the land inside and outside of the UGB as well as for the City as a whole. An Existing Land Use Map (Exhibit III-1) has been prepared from which the acreage devoted to various land use categories has been quantified.

Table III-1. Existing Land Use, 2005

Land Use	Land Area Inside UGB		Land Area Outside UGB		Total City Land Area	
	acres	%	acres	%	acres	%
Single Family Dwelling	3,705.86		6,433.53		10,139.39	24.87
Two family Dwellings	335.16		86.01		421.17	1.03
Multifamily Dwellings	776.53		12.87		789.40	1.94
Mobile Homes	304.29		17.26		321.55	0.79
Mixed Use (Res/com)	51.26		56.74		108.00	0.26
Institutional	980.31		135.78		1,116.10	2.74
Offices	249.94		11.90		261.84	0.64
Medical	105.89		0.74		106.63	0.26
Commercial/service	682.58		37.78		720.36	1.77
Industrial	599.84		6.45		606.29	1.49
Parking	30.48		2.68		33.16	0.08
Transportation	312.05		13.20		325.25	0.79
Utilities	178.72		57.38		236.10	0.58
Parks and Recreation	505.10		265.17		770.27	1.89
Agriculture	165.64		1,825.32		1,990.96	4.88
Cemeteries	124.44		5.63		130.07	0.32
Excavation	63.08		228.82		291.91	0.71
Vacant/undeveloped	2,926.36		16,878.08		19,804.44	48.58
Land Use Subtotal	12,097.53		26,075.36		38,172.89	93.63
Road & Hwy ROWs					2,595.11	6.37
Total Land Area					40,768	100
Water					2368	100
Total land and water	13,241.60	30.7	29,894.4	69.3	43,136	100

D. Urban Growth Boundary

The Urban Growth Boundary (UGB) was established in the Master Plan in 1993 as a policy guide for land use, open space, and infrastructure planning, distinguishing those areas intended for urban development from those where development should remain rural in character. It is critical that the City focus its growth and development inside the UGB, maintaining and expanding vital Downtowns for both Concord and Penacook, utilizing present investment in buildings and infrastructure before breaking new ground, urging brown field development and infill before green field conversion. The effect of the UGB will be to limit sprawl, concentrating

Exhibit III-1. Existing Land Use Map

[Insert 11 x 17 graphic]

the demand for municipal services inside the UGB, resulting in efficiencies in providing these services.

The Urban Growth Boundary is intended to provide a clear and stable indication of the City's commitment to growing compactly in its traditional village and neighborhood format, to preserving open space, and to providing predictability of the future character of the City of Concord. The UGB is shaped by a number of factors including existing urban development, sensitive environmental areas, public and institutional ownership, and electric transmission line rights-of-way. However, the ability to provide both municipal sanitary sewer service as well as municipal water service within the limits of existing and planned treatment, storage, and distribution systems is the key variable in defining the UGB along with the provision of supporting transportation infrastructure.

The area outside the UGB is defined by what it is now and what it is intended to be, which is a large area of environmentally sensitive lands and protected open space with interspersed rural development. Dominated by water resources, wetlands, floodplains, steep terrain, prime farmland, and important wildlife habitat, the area outside the UGB is the focus of the Conservation and Open Space Section (ref. Section VII).

These criteria result in the geographic section of the City within the UGB as being a linear area along both sides of the Merrimack River, exclusive for the most part of its floodplains, and including the flat sandy plateau south of Broken Ground all the way the confluence of the Merrimack and Soucook Rivers. This area within the urban growth boundaries consists of approximately 20.7 square miles of land area out of the City's total area of 67.4 square miles, and a citywide land area of 63.7 square miles. As a point of comparison, the City of Portsmouth contains 15.6 square miles of land area and the City of Manchester contains 33.0 square miles. The 67.4-square mile area of Concord is large enough to fit both Manchester and Nashua within its borders, yet those two cities have a current combined population of about 200,000, while Concord's population is 42,000. Manchester had a larger population in 1890 than Concord does today, while Nashua has absorbed continuous growth since World War II such that little undeveloped land remains in either of these cities. In contrast, 93% of Concord's residents now live within the limits of the Urban Growth Boundary which comprises only 31% of the City's area. Substantial open space still remains in Concord, and its geography is quite different from that of the State's two largest cities.

E. NEW DIRECTIONS FOR THE CITY'S LAND USE

The Opportunity Corridor

- **Implement the type of economic development and mixed land use initiatives for the Opportunity Corridor that are presented and illustrated in the Opportunity Corridor Master Plan and the Southern Opportunity Corridor Plan.**

The Opportunity Corridor is the City's highest priority economic development effort with its focus on redevelopment and an intensive mix of land uses inclusive of office, retail, service, institutional, high density residential, and lodging. Low intensity and minimal tax productive uses such as open lot storage are not desired within the Opportunity Corridor nor are uses such as big box retailing with intensive trip generation characteristics and requirements for extensive parking fields. Addressed in three sections from north to south, the Opportunity Corridor lies between I-93 and Main Street, from Horseshoe Pond to the South End Marsh (ref. Exhibit III-2). South of the Water Street bridge, and west of the railroad tracks, the traffic, visual, historic, and

environmental impacts of future redevelopment of this area are of particular concern as the Opportunity Corridor directly abuts the South End neighborhood. The land use in the Opportunity Corridor is related to certain transportation system improvements planned in conjunction with NHDOT's efforts to improve safety and add capacity to I-93. An important feature of the transportation-land use interface is a connection over I-93 from the Opportunity Corridor to the banks of the Merrimack River between Exits 13 and 14 of I-93, thereby restoring the historic relationship between Downtown Concord and the river, making its recreational amenities available again to the citizenry.

Traditional Neighborhood Development

- **Promote the residential infill within the Urban Growth Boundary in existing villages and neighborhoods in traditional architectural forms and densities that mimic the traditional older neighborhoods of the City, containing mixtures of single family homes, duplexes, and structures with up to four dwelling units on variable sized lots to be developed in grid block patterns which promote connectivity with the neighborhood.**

As an option for infill and for using transferred development rights, residential development would be permitted in a traditional neighborhood format based on the architectural forms and densities of Concord's existing older neighborhoods which contain mixtures of single, duplex, three- and four-unit dwellings located in a grid street system that features connectivity within the neighborhood. The scale and massing of structures, as well the orientation of structures to the street are also key features of the traditional neighborhoods.

Mandatory Cluster Development Outside the UGB

- **Require cluster development for subdivisions outside of the Urban Growth Boundary both as a means of preserving more open space as well as preventing sprawl on the rural landscape.**

Mandating cluster subdivisions became an option under RSA 674:21, Innovative Land Use Controls, in 2004 when the language was modified from giving municipalities the right to allow cluster developments as an option, to granting municipalities the right to require cluster developments "when supported by the master plan". Essentially, standard or conventional subdivisions, wherein the entirety of the premises is divided into lots, would no longer be permitted, and cluster subdivisions, wherein a certain amount of open space is set aside and not divided into houselots, would be the only option available.

A comparative review was made of cluster vs. conventional subdivisions outside of the UGB that were developed over the five year period following the adoption of a new Zoning Ordinance in 2001 which revealed that the cluster subdivisions yielded substantial amounts of protected open space while at the same time providing a slightly greater number of lots than conventional subdivisions on a per acre basis. An observed qualitative benefit of the cluster subdivision was the limitation on the fragmentation of the land due to the requirement for common open space and contiguous portions thereof, thereby retaining open land in a format that is viable for agricultural operations and forest management, while preserving wildlife habitat. Other benefits of cluster development to be promoted are the potential linkages between individual cluster subdivisions and the City's open space system with its pedestrian and bicycle trails, and connections among cluster developments both in terms of the developed portions as well as the open space.

Exhibit III-2. The Opportunity Corridor

[insert 8 ½ x 11 graphic]

In March of 2007, the City adopted a mandatory cluster ordinance covering essentially all of the area outside of the UGB. The ordinance provided for options to allow for a standard subdivision as long as an amount of open space is protected that is commensurate with the requirements of the cluster regulations.

Density Reductions Outside of the UGB & Density Increases inside of the UGB

- **In order to limit sprawl, reduce residential development density outside of the UGB and balance any loss of potential dwelling units by providing options for increased residential density within the UGB**

Areas outside of the Urban Growth Boundary inclusive of important natural resources, environmentally sensitive areas, and lands that are generally difficult to develop, are included in a natural resource land use category that allows rural residential development at density not to exceed 0.25 dwelling units per acre. Rural residential development on the remaining land outside of the UGB would be allowed at density not to exceed 0.5 dwelling units per acre. As previously discussed, all residential development that does occur outside the UGB should be required to be in a cluster development format.

The density reductions outside the UGB and the resultant loss of potential dwelling units are to be balanced by density increases and absorption of dwelling units inside the UGB by several means including a potential transfer of development rights (TDR) program, Traditional Neighborhood Development standards, possible development of a new village, and inclusion of high density housing in redevelopment of the Opportunity Corridor and the Downtowns of Concord and Penacook.

With regard to a potential TDR program, transferring development rights involves an identified source or donor area from which the development rights are taken, and a recipient area or an area where to which rights are transferred. Mechanisms have to be defined for acquiring the development rights, valuing these rights, and for utilizing them, and the transfer system has to make sense within the overall Land Use Plan for the City. In this case, the transfer of rights would be from the area outside of the UGB, which would be the donor area. The mechanism for acquisition would simply be the purchase of an open space parcel or a contribution to the Conservation Fund on a per acre basis at a rate set annually by the City. In the latter case, the funds would then be available to the Conservation Commission to purchase land or rights in land to protect it in a manner consistent with the purposes of the Fund.

Transferring the development rights to areas inside the UGB requires choosing specific districts and types of developments wherein the transferred dwelling units can be utilized, and establishing maximum density limits over and above the standard limits. The largest amount of developable land is in the Medium Density Residential land use category which is limited to the some of the lowest densities in the area inside the UGB and is the least intensively utilized. It is in these areas that the transferred units could be most easily absorbed by raising the allowable densities. The increased densities could be integrated into higher density cluster developments or in Traditional Neighborhood Developments.

Village Policy

- **Protect and enhance existing villages, and provide the opportunity to consider a "new village" by defining a new village in terms of performance standards, and which may be implemented if the opportunity arises and the village is deemed appropriate under the performance standards.**

Existing villages should be protected and enhanced with infill of the high density residential neighborhoods and diversification of the mixed use commercial cores, to be served by appropriate public infrastructure and facilities including parks and schools.

The possibility of the development of a new village in Concord was suggested by the Vision 20/20 process. Including an integral mixed use core and surrounding residential development at higher densities, the Vision 20/20 plan displayed such a new village graphically in the southerly portion of Garvins Falls. During the development of the Master Plan, other possibilities were explored for new villages, one in East Concord, and one in West Concord. While these prototypical locations of "new villages" were not well received by the public, the Planning Board agreed to retain the concept of a new village to be included in the Master Plan in terms of performance standards. In the event an opportunity arises to consider a new village in a specific location, these standards would allow for evaluation of the same, and determination of the appropriateness and viability within the context of the overall Master Plan. The standards for consideration of a new village would include acceptable access, presence of municipal utilities and services, minimal environmental impacts, and compatibility with surrounding land uses.

Economic Development Initiatives other than Opportunity Corridor

- **Preserve the potential for the comprehensively planned economic development of Garvins Falls, and continue to develop other sites for office and industrial parks.**

While the development of Garvins Falls was always seen as requiring a staged approach over a number of years due to the scale and cost of the undertaking, there is a need for the City to continue to plan and implement in phases the necessary utility and transportation infrastructure to support the economic development. While past and current economic studies have focused attention on the potential for a high value office park, the infrastructure staging may take long enough that other economic initiatives may become more attractive over time. The key to the development of this area is that it be comprehensively planned as an entity, and that its value not be lost or diminished by piecemeal actions. Any comprehensive plan prepared for this area should recognize the value of open space within the context of appropriate economic development.

In the near term, the development of an office park between Manchester Street and Integra Drive, and office parks and industrial parks east of the Concord Airport and southerly along Whitney Road should continue.

Open Space Preservation and Environmental Protection

- **Provide for the protection of open space in accordance with the Conservation and Open Space Section; continue to provide for the regulatory protection of wetlands, floodplains, shorelands, bluffs and steep slopes, as well as the Penacook Lake watershed; and initiate actions to provide protective measure for the aquifers which underlie the City in recognition of their potential as sources of potable groundwater supplies.**

The priorities for open space protection have been identified in the Conservation and Open Space Section and these priorities may be accomplished by means of direct acquisition by the City or by other conservation organizations, as well as through the regulatory requirements of cluster developments in the area outside the UGB. The rezoning of 2001 incorporated past

recommendations of the Master Plan for regulatory measures addressing environmental and natural resource protection. While some measures, such as the floodplain and watershed restrictions, have been part of Concord's regulations for more than 30 years, others, such as the buffers to wetlands and bluffs were new features. This body of regulation should be perpetuated, and the protection of aquifers and the conservation of the City's groundwater resources should be codified and added to the Zoning Ordinance.

Coordination of Land Use and Transportation Planning

- **Expand and improve the regulatory standards for access management while continuing to plan land use patterns in recognition of the capacity and levels of service of the existing and planned transportation infrastructure, and in a manner that promotes connectivity, and fosters the use of transit, preserves the potential for rail transportation, and enhances pedestrian and bicycle mobility.**

The City's land use regulations have for some time incorporated standards relating to access management which are intended to enhance safety and preserve the capacity of adjacent streets. There is a linkage between intensive land uses, particularly those of high density and those focused on economic development, and the adequacy of the capacity of the adjacent transportation infrastructure. A new direction in coordination between land use and transportation lies in identifying the areas where traffic is not desired and to be discouraged, specifically by not adding capacity but by focusing on safety improvements, and by designing street systems to promote connectivity and transit ridership as well as pedestrian and bicycle mobility. While the potential for rail transportation may not be realized during the life of this plan, land use planning must recognize and preserve the capacity for the eventuality of rail service in the future.

F. FUTURE LAND USE CATEGORIES DEFINED

The following land use categories are defined to clarify the intent of the Future Land Use Plan, and to establish a clear linkage between the Future Land Use Plan and the land use regulations that will be prepared to implement the Plan. The Urban Growth Boundary (UGB) provides the basic division between the areas of rural development and open space, and the area of and for urban development. The majority of the land inside the UGB should be devoted to residential and non-residential uses, while outside the UGB, the majority of the land area should be maintained in some form of open space or natural resource related use such as agriculture, forestry, or low impact recreational activities. The boundaries between land use categories are established consistent with the above-referenced goals and policy recommendations.

<u>Outside The Urban Growth Boundary</u>

Rural/Open Space Land Use Categories

Residential development in the area outside the UGB should only occur in cluster subdivisions in order to maximize the area devoted to open space and minimize the area converted to development. Building heights should be consistent with the prevailing height of existing structures in rural open space land use categories. Agricultural, forestry, and outdoor recreational uses should be allowed but other non-residential uses generally allowed in urban residential categories, such as schools, churches, child care facilities, should not be permitted because of the lack of municipal utilities and transportation infrastructure, and the difficulty of providing life safety services to the same.

1. (RR) – Rural Residential. This category encompasses land areas where there have been previous patterns of low density residential development together with agricultural, forestry, and outdoor recreational uses. In the future, residential development supported by individual wells and septic systems and at a density not to exceed 0.5 dwelling units per acre, would be allowed only in the form of cluster developments. The maximum lot coverage or impervious surface area (ISA) should not exceed ten (10) percent. The RR Land Use Category could be a donor area for a potential Transfer of Development Rights (TDR) program.

2. (NRP) Natural Resource Protection. This category includes areas of the City natural resources consisting of wetlands, floodways, undeveloped floodplains, water resources, streambanks and shoreline buffer areas, steep and erodible slopes, prime agricultural soils, productive forest lands, aquifers used for water supplies, and wildlife habitat. While much of this land would be deemed environmentally sensitive, it is also difficult to develop due to the presence of physical features such as wetlands, floodplains, and steep and erodible slopes. There is some low density residential development included within these areas and it should be allowed to continue supported by individual wells and septic systems, at a density not to exceed 0.25 dwelling units per acre, and only in the form of cluster developments. The maximum lot coverage (impervious surface area) should not exceed five (5) percent. Agricultural, forestry, and recreational uses would also be encouraged within the physical constraints of the land. The NRP Land Use Category could also be a donor area for a potential Transfer of Development Rights (TDR) program.

Inside The Urban Growth Boundary

Residential Land Use Categories

Building heights should be consistent with the prevailing height of existing structures in residential land use categories. A range of non-residential uses should be allowed in residential land use categories inside the UGB including schools, churches, child care facilities, and parks and recreational facilities subject to appropriate design and performance standards that address impacts to the neighborhoods from traffic, parking, noise, odor, and light. Uses ancillary to residences should also be allowed in these residential land use categories such as home occupations and provision of child care, subject to appropriate design and performance standards that address potentially negative impacts to the neighborhoods.

3. (RL) - Low Density Residential. Certain areas within the UGB do not presently have municipal utilities but have been identified as areas which a capable of being serviced. Single-family housing on moderate sized lots have been allowed and continue to be envisioned as the primary use within this category until such time as the utilities are available to support higher densities and a more diverse range of residential uses. The density should not exceed one (1) dwelling unit per acre, and the maximum lot coverage or impervious surface area (ISA) should not exceed twenty (20) percent. Clustering of dwelling units should be encouraged. If utilities are extended to these areas, then such portions of the RL Land Use Category should be deemed to have been converted to the Medium Density Residential (RM) Land Use Category.

4. (RM) - Medium Density Residential. In this area of the UGB, single family dwellings, two-family dwellings, cluster developments, planned unit developments, as well as multi-family for the elderly have been developed and future residential development should include a similar range of residential uses with the inclusion of a new category of “traditional neighborhood development (TND)”. The RM Land Use Category could be a recipient area for a potential Transfer of Development Rights (TDR) program. The base density for non-elderly housing in this area would be a maximum of three (3) units per acre with the ability to increase the density

to a maximum of five (5) units per acre by using transferred development rights. Housing for the elderly would have a base density of a maximum of six (6) units per acre with the ability to increase to a maximum density of ten (10) units per acre by using transferred development rights. Municipal water and sewer is required to support development at these densities. Maximum lot coverage or impervious surface area (ISA) should not exceed forty (40) percent.

5. (RU) - Urban Residential. This area of the UGB encompasses the substantially developed urban neighborhoods and village centers consisting of single family dwellings, two-family dwellings, attached dwellings, as well as multi-family for the elderly, and future residential development should include a similar range of residential uses with the inclusion of a new category of "traditional neighborhood development (TND)". The maximum density for non-elderly housing in this area would be ten (10) while the maximum density for housing for the elderly would be fourteen (14) units per acre. Municipal water and sewer is required to support development at these densities. Maximum lot coverage or impervious surface area (ISA) should not exceed sixty (60) percent.

6. (RH) - High Density Residential. This area of the UGB incorporates the fully developed neighborhoods of mixed residential uses including mobile home parks, in locations surrounding the downtowns of Concord and Penacook, as well as along some of the City's major collector roads. Densities should not exceed fourteen (14) units per acre with full municipal utility services. Maximum lot coverage or impervious surface area (ISA) should not exceed sixty (60) percent.

Mixed (Residential and Non-residential) Land Use Categories

Residential land uses will be permitted in each of these land use categories at densities related to the intensity of other land uses within the category and to the proximity of these category to other residential land use categories. The residential uses are part of a mix of compatible and related land uses that include office, retail, service, lodging, restaurant, and entertainment which while part of the City's economic development, are also intended to provide service and employment to the local residents.

7. (UT) Urban Transitional. - This mixed use category recognizes areas of mixed use between established residential neighborhoods and existing commercial and industrial development. In the UT land use category, existing buildings and lots will be allowed to be converted to office, personal service, and high density residential uses, in a manner which will buffer and otherwise insulate the residential neighborhood from the traffic, visual, light, noise, and other impacts associated with the commercial development. A new category of "traditional neighborhood development (TND)" would also be allowed. Maximum lot coverage or impervious surface area (ISA) would not exceed seventy-five (75) percent and building heights should be consistent with the prevailing height of existing structures in the UT land use category.

8. (CN) - Neighborhood Commercial. Neighborhood commercial areas are characterized by their small scale, generally two to five acres in size, their compactness, and their location within established and developing residential areas. A range of residential uses should be permitted together with small scale convenience retail and personal service uses intended to serve a surrounding residential neighborhood. The non-residential uses in the CN Category are not intended to impose impacts of excessive traffic, noise, or light upon the surrounding neighborhood, and are intended to be compatible in scale and appearance with adjacent residential uses. Maximum lot coverage or impervious surface area (ISA) should not exceed eighty (80) percent and building heights should be consistent with the prevailing height of existing structures in the CN land use category. Buildings should be oriented to the street with

parking placed to the side and rear, and buffering and screening for adjacent neighborhoods are of concern for development in this land use category.

9. (CG) - General Commercial. The general commercial category includes general retail sales and services, professional and business offices, restaurants, and personal service establishments, as well as multi-family residential uses at densities not exceeding fourteen (14) units per acre. Located along some of the City's major collector roads, the general commercial category requires good vehicular access as the non-residential uses may serve a citywide market. This category is not intended to accommodate motor vehicle sales and repairs, heavy vehicular sales and service, wholesaling, warehousing, manufacturing and uses requiring extensive outside storage, or other types of activities which may generate nuisance impacts of noise, dust, fumes, and light. Maximum lot coverage or impervious surface area (ISA) should not exceed eighty (80) percent, while building heights should be consistent with the prevailing height of existing structures in the CG land use category. Buildings should be oriented to the street with parking placed to the side and rear, attention given to pedestrian access, and buffering and screening for adjacent neighborhoods are of concern for development in this land use category.

10. (CD) – Downtown Commercial. The downtown commercial category includes the traditional downtowns of Concord and Penacook, incorporating a wide range of uses including retail, restaurant, service, entertainment, cultural, lodging, office, governmental, and high density residential uses as well as mixed use, high intensity developments. The majority of uses in the urban core are housed within architecturally significant 19th century structures in a pedestrian-oriented area, with little or no on-site parking, and parking is generally provided in structures and on the street.

North and south of older downtown core within Concord and south of downtown in Penacook, the range of uses should be similar but on-site parking is a necessity. Lot coverage (ISA) should not exceed eighty (80) percent and building heights should be consistent with the prevailing height of existing structures.

11. (OC) Opportunity Corridor – The Opportunity Corridor is an area designated for redevelopment into high intensity uses including office, institutional, governmental, small and medium size retail and service uses, and lodging, as well as high density residential uses to be located in the area between I-93 and Downtown Concord from Horseshoe Pond on the north to Exit 13 on the south, and then continuing southerly between Hall Street and South Main Street as far south as the South End Marsh. Development design standards for buildings and signs in the District should improve the visual character of the City as seen from the highway, provide an inviting entryway to the City's historic Downtown, and incorporate screening for adjacent neighborhoods

In the area south of the Water Street Bridge, north of the South End Marsh, and westerly of the railroad tracks, retail and services uses should be limited to those allowed in a neighborhood commercial category, and non-residential land uses should not exceed 30% percent of the total floor area. The area south of the Water Street Bridge and easterly of the railroad tracks is in the floodplain and as such, is not appropriate for residential development. This area, between the tracks and the backs of the properties fronting on Hall Steer is included in an Office Park category to facilitate a campus style development.

12. (IS) Institutional. The institutional category identifies large scale governmental, educational, healthcare, and cultural facilities together with medical and professional offices and high density residential uses supported by full municipal utility services and with access to the City's collector and arterial street system. Maximum lot coverage or impervious surface area (ISA) should not

exceed seventy-five (75) percent, while building heights should be consistent with the prevailing height of existing structures in the IS land use category.

Non-Residential Land Use Categories

These land use categories are intended to accommodate uses related primarily to the City's economic development. No residential land uses are envisioned in these land use categories other than caretaker units for certain primary non-residential uses, in part to limit any undesirable impacts from non-residential development on residential development from traffic, noise, odor, glare, and dust, as well as visual impacts, as well as the lack of connectivity of these area to neighborhood facilities that support residential land uses. The restriction of residential uses in these areas is also intended to maximize the opportunity for return to the City's tax base from the development of non-residential uses in these categories.

13. (CR) Regional Commercial -

The regional commercial category includes well designed, large scale commercial development along arterial and major collector streets at entrances to the City. Permitted uses include both individual and mixed use developments of retail, restaurant, service, and office uses intended to serve a citywide and/or regional market. Fully serviced by municipal utilities, the uses developed within this land use category are expected to adhere to high standards for appearance in order to ensure that the gateways to the City are attractive and functional. Buffering and screening for adjacent neighborhoods are of concern for development at the edges of this land use category. Maximum lot coverage or impervious surface area (ISA) should not exceed eighty (80) percent, while building heights should be consistent with the prevailing height of existing structures in the CR land use category.

14. (CH) Highway Commercial - The highway commercial category includes general retail sales and services, professional and business offices, restaurants, and personal service establishments, as well as motor vehicle sales and repair uses. Located along arterial and major collector roads, the highway commercial category requires good vehicular access as the uses may serve a citywide and/or regional market. Maximum lot coverage or impervious surface area (ISA) should not exceed eighty (80) percent, while building heights should be consistent with the prevailing height of existing structures in the CH land use category.

15. (IN) - Industrial. The industrial category is designed for industrial development that includes offices, manufacturing, and research and development facilities, warehousing wholesaling, and vehicular maintenance and services, wherein the primary use of property is located within buildings and structures, and any outside sale and storage of materials, bulk material processing and storage is ancillary to the primary use and limited in area in relation to the floor area of primary structures. These areas should not be located close to environmentally sensitive areas or to residential neighborhoods unless adequate screening is provided for such adjacent neighborhoods. Full municipal utility services should be available as should access to the City's collector and arterial streets. Access may also be available to rail and air transportation services. Architectural and site design, noise, and emissions should be carefully regulated. Lot coverage (ISA) should not exceed eighty (80) percent and building heights should be consistent with the prevailing height of existing structures in the IN land use category.

16. (OP) Office Park – This category provide for large scale, integrated developments of professional offices, research and development, and educational facilities together with supporting uses including lodging, conference, health and fitness, as well as outdoor recreational uses. No outside storage should be allowed. Design standards should provide for

a unified plan of development as an office park or campus-style setting. There should be an emphasis on the quality of architectural design of buildings which are to be compatible with their natural surroundings and adequately screened from any adjacent neighborhoods. Full municipal utility services and access to the City's collector and arterial streets are essential characteristics. Lot coverage (ISA) should not exceed sixty (60) percent for Greenfield development, and seventy-five (75) for redevelopment areas. Building heights should be consistent with the prevailing height of existing structures in the OP land use category.

SPECIAL LAND USE FEATURES

(PR) - Parks and Recreation Sites. This category includes existing and proposed public or private recreational facilities, golf courses or other intensely managed outdoor recreational uses requiring extensive areas of land.

(PS) - Public and Private Schools. This category includes existing and planned public elementary and secondary school sites, along with the existing private schools (K-12).

(TU) - Transportation and Utilities. This category refers to private and public utility facilities such as sewage treatment plants, water treatment plants and storage tanks, electric substations, natural gas facilities, telecommunications substations, and the steam heating plant. This category also refers to airports, heliports, bus, and train stations. Highways, electrical transmission lines, and natural gas transmission mains are not specifically noted on the land use maps but are included within this classification. Parking lots and facilities as principal land uses are included within the various non-residential and mixed use categories.

(CM) – Cemeteries. This category includes the public and private cemeteries located in the City.

G. THE FUTURE LAND USE PLAN

The Future Land Use Plan reflects general City policy for the future use of land and conservation of resources. The Future Land Use Plan has been prepared in conformity with the overall goals and policies articulated in this section. The Future Land Use Plan is supported by population, housing and employment forecasts; is influenced and constrained by existing land uses, natural features, state and federal regulations, and the desire to conserve natural resources; is influenced and constrained by the availability of public facilities and utilities and the ability to provide public facilities and services in a cost-effective manner; is influenced by the desire of the citizens to preserve and enhance their quality of life; and is influenced by the desire to strengthen and expand the economy and tax base in a sustainable fashion. The Future Land Use Plan is displayed on Exhibit III-3.

1. Future Land Use for each Village or Master Plan District

Each Village or Master Plan District possesses unique characteristics which require special attention in the Future Land Use Plan. In some instances there are preconditions associated with the development of land uses shown on the maps, or a clarification in regard to the range of uses recommended for a site, or special recommendations for how a particular area should be developed.

a. Penacook Village – Residential development inside the UGB in Penacook will be mostly infill on scattered sites of modest size throughout the Medium Density and Urban Residential land use area of Penacook Village as the majority of large lots have been developed or have already received approvals for development. The pending redevelopment of the former Allied Tannery site in the Downtown Commercial area should lead to other high density residential redevelopment activity in the downtown and the High Density Residential area around it. Other residential development may occur as part of mixed use development in an Urban Transitional land use category along Village Street between downtown Penacook and the General Commercial node at the intersection with Fisherville, Borough, and Manor Roads, as well as along Fisherville Road southerly of this intersection.

Economic development will be diversified with commercial and mixed use development including retail, offices, and restaurants centered in the Downtown Commercial area and the General Commercial at the intersection of Village Street with Fisherville, Borough, and Manor Roads. Land along the existing Whitney Road will continue to be Industrial with a Neighborhood Commercial category on a site at the entry from Route 4 to facilitate support services to the employees of the industrial land uses as well as residents in the Hoit Road area. Land between the Merrimack River and I-93, north of Sewalls Falls Road on the future extension of Whitney Road should become an Office Park in order to take advantage of the views of the river while limiting environmental impacts to, and visual impacts from the river and its bluffs and floodplains. The existing Hoyt Electrical Instruments on Meter Street and Beede Electric on Village Street are long standing light industrial uses with all operations and storage activities occurring indoors, and as such are included in the Industrial category. However, due to their respective locations, with the former in downtown Penacook and the latter surrounded by the Merrimack Valley Schools, if these industrial uses are discontinued as such, then the land use plan should be amended to designate the Hoyt site for High Density Residential or Institutional and Beede as Institutional.

Outside of the UGB, there is very little developable land remaining to accommodate new dwelling units. Areas to be designated Rural Residential include land along Elm Street and River Road. Perpetuation of the agricultural activities in the Merrimack and Contoocook River floodplains, as well as protection of the wetlands of the Great Bog are to be fostered as part of the City's conservation and open space preservation activities (ref. Section VII.) and these areas are to be included in the Natural Resource Protection category.

b. West Concord - Residential development inside the UGB in West Concord will include infill on scattered sites of modest size throughout the Medium Density, Urban, and High Density Residential land use areas. Areas of Low Density Residential development should occur north of Hutchins Street and westerly of North State Street, as well as at the westerly edge of existing development between Bog and Borough Roads. In the former instance, a new water tank will be needed to provide the necessary water pressure for the expansion of the municipal water system to serve this area, and in the latter case, the expansion of municipal utilities and the identification of wetlands are critical to defining the extent of this category. Once the utility expansions and extensions are completed and the wetlands identified, then these areas should be shifted to the Medium Density Residential category.

Economic development in West Concord consists of mixed use in the Urban Transitional land use category along Fisherville Road with several nodes of General Commercial, and a Neighborhood Commercial category at the intersection of Knight and North State Streets. There are two Industrial areas, one on the west side of North State Street at the entry to the granite quarry on Rattlesnake Hill, and the other on the east side of North State Street opposite the City's General Services headquarters.

Outside of the UGB, while the majority of the area will be in the Natural Resource Protection category, areas designated Rural Residential include land along West Parish Road, Broad Cove Drive, Carter Hill Road northerly of West Parish, River Road, Horse Hill Road, and Elm Street. Perpetuation of the agricultural activities in the Merrimack and Contoocook River floodplains, as well as protection of the Penacook Lake Watershed and the wetlands related to the Great Bog on both sides of Bog Road, and conservation of the Broad Cove-Mast Yard-Horse Hill area and the Pine Hill-District #5 area, are to be fostered as part of the City's conservation and open space preservation activities (ref. Section VII); therefore, these areas are included in the Natural Resource Protection category. Large areas in this category are already in City ownership or under conservation easement to the City, while other lands are held by the State including a conservation easement on Rossview Farm, and a conservation easement held by Five Rivers Conservation Trust on the Carter Hill Orchard.

c. East Concord Village - Residential development inside the UGB in East Concord will include infill on scattered sites of modest size throughout the Medium Density Residential land use areas both north and south of the village center, and in the Urban Residential area in and around the village. The remaining large parcels in the Low Density category west of Exit 17 of I-93 which extends southerly past Sewalls Falls Road will continue to develop at this density unless and until municipal utilities are extended under I-93 to serve this area and transform it to a Medium Density area.

Economic development areas include the Neighborhood Commercial category in the village on Eastman Street at East Side Drive, the currently redeveloping Office Park area on the site of the former Eastman Foundry, as well as the Industrial area on Locke Road, which has few remaining lots and no longer has the capability to expand to the north.

Outside of the UGB, areas designated Rural Residential include land along Hoit, Graham, Snow Pond, and Shaker Road. The Natural Resource Protection category will encompass the Hoit Road Marsh as well as adjacent land along the City's northern boundary with Canterbury, the environs of Hot Hole Pond, Oak Hill, and Broken Ground, as well as the Merrimack River floodplain where agricultural activities should be perpetuated.

d. Concord Heights – Inside the UGB, areas of the High and Medium Density Residential land use category lie north and south of a mixed use corridor along Loudon Road. Land northerly of Old Loudon Road has municipal water available with sewer readily extendable such that this area should be included in the High Density Residential land use category. Two areas of Medium Density Residential land use lie west of Airport Road, one just south of Loudon Road, and the other southerly of Terrill Park Drive. Land northerly of the commercial strip along Manchester Street as well as northerly of Old Suncook Road is included in the High Density Residential category. The Low Density Residential category along Garvins Falls Road will remain in this category until the sanitary sewer system is extended southerly to encompass this area.

Extensive areas of existing as well as future economic development are located on the Heights, including areas for mixed use, commercial development, industrial development, and office parks. The easterly end of Loudon Road and northeasterly end of Route 106 southerly of I-393 is included in the Regional Commercial category, southerly from Old Loudon Road, and easterly from Branch Turnpike and Pembroke Roads including Triangle Park Drive. At the westerly end of Loudon Road, the southerly side in the area of Gully Hill Road is also in the Regional Commercial category, while the northerly side is included in the Institutional category along with the State office park on Hazen Drive. A General Commercial category encompasses most of the frontage along Loudon Road between Airport Road and Branch Turnpike and Old Loudon Road, with some frontage in the High Density Residential and Institutional.

Exhibit III-3. Future Land Use Plan

[Insert 11 x 17 graphic]

Manchester Street is designated as Highway Commercial from Garvins Falls Road easterly to Airport Road, while the west end of Manchester Street between Garvins Falls Road and Old Turnpike Road is included in the Regional Commercial category.

The NH National Guard Reservation at the corner of Airport and Loudon Roads is included in an Institutional area together with the land immediately to the east which is being acquired for runway buffering north of the airport. The land along the east side of Airport Road that directly abuts the municipal airport is also included in an Institutional category.

Industrial areas on the Heights include a triangular-shaped land area on Terrill Park Drive, Old Turnpike Road, and Airport Road; land south of Pembroke Road on Route 106, Industrial Park Drive, the east end of Regional Drive, and portions of Chenell Drive. Integra Drive is also included in an Industrial category.

Office park areas lie south of Pembroke Road between Canterbury Road and land on the east side of Chenell Drive, with another area to the north of Pembroke Road just east of the powerlines, and a third southerly of Chenell from the end of the airport property easterly across Route 106. An area reserved for future Office Park development lies south of Manchester Street westerly of Integra Drive. Southerly of this, the developable plateau between the Soucook and Merrimack Rivers referred to as the Garvins Falls area, will require utility and transportation infrastructure in order to maximize its true capability for economic development, and was the focus of a special Master Plan study and amendment in 1996. Recent economic studies continue to indicate that Office Park is an appropriate designation; however, as previously discussed in this Section, the development of this area will likely progress in stages over a long period of time, so that the most important aspect of the future land use is that it be the outcome of a comprehensive plan for the entirety of the Garvins Falls area, aimed at maximizing the economic benefits to the City while recognizing the open space values of the area.

Outside of the UGB, areas designated Rural Residential include land at the easterly edge of existing development along Portsmouth Street northerly of I-393 and at the westerly edge of Broken Ground, as well as land along Josiah Bartlett Road together with the area of Asby and Old Dover Roads easterly of Route 106. Broken Ground itself is included in the Natural Resource Protection category along with the floodplains of the Merrimack and Soucook Rivers, and the Karner Blue preserve on Chenell Drive. There are some lands in this category that are in City and State ownership as well as under easement thereto.

e. Downtown Concord and the Opportunity Corridor

North and South Main Streets have traditionally been the focal point of Downtown Concord which encompasses land from Storrs Street on the east to North State, South State, and Green Streets on the west, and from I-393 on the north to Kelley Square on the South. The Downtown has three distinct components foremost of which is the central business district between Centre Street and Theatre Street, wherein there is mixed land use in multi-story buildings which rise at the back of the sidewalks, and where parking is on street in metered spaces or off street in parking garages. To the north and south of the central business district are more mixed land uses but at a lesser intensity and with some on-site parking. To the west of the central business district is a civic district, classified as Institutional, and which includes local, county, state, and federal governmental offices, courts, and libraries together with a mixture of offices, churches, and residential structures. The civic area runs from Washington Street on the north to Wall Street on the south, and follows Pleasant Street westerly to South Spring Street.

The Opportunity Corridor has been recognized to include the land between Storrs Street and I-93 from Horseshoe Pond on the north to the South End Marsh on the south. Much like the Downtown, the Opportunity Corridor has three distinct components: the north end which lies northerly of Loudon Road, the central area between Loudon Road and Water Street, and the south end, southerly of Water Street to the South End Marsh, and westerly of Hall Street. This area was the focus of two special planning efforts during the preparation of this Master Plan, one that set forth recommendations for high density, mixed land use in the three subareas. A second plan, which focused attention on the South End, proposed a high density urban village west of the railroad and an office or educational campus east of the tracks, which is to be included in an Office Park category (ref. Exhibit III-4).

f. The North and West Ends

Inside the UGB, areas of High Density and Urban Residential lie between Downtown and Auburn Street, from Pleasant to Penacook Streets, including the northerly end of North Main Street at Horseshoe Pond Lane which is also the City's only local Historic District. Auburn Street and areas to its west are in the Medium Density Residential category as is the neighborhood around Redington Road and a section of Pleasant Street between St. Paul's School and the medical complex adjacent to Concord Hospital..

In addition to the portions of the Downtown and Opportunity Corridor described above, economic development areas in the North and West Ends include Institutional areas opposite the State Office Park South on Pleasant Street, and the section of Pleasant Street heading westerly from Concord High School including the campus of Concord Hospital and the adjacent medical offices, as well as the campus of St. Paul's School. Other Institutional areas in the North and West Ends include the intersection of North State and Bouton Streets, the west side of North State Street from Penacook Street to Palm Street, and the land south of Maguire Street easterly of the former rail line. The land along of North State Street north of Rumford Street up to Maguire Street, not otherwise included in the Institutional area, is classified as Urban Transitional.

Neighborhood Commercial areas include the intersection of South Fruit, Pleasant, and Warren Streets, as well as Washington and Rumford Streets, and Penacook at North State Streets.

Outside of the UGB, areas designated Rural Residential include land along Hopkinton Road from Loop Road westerly to Shenandoah Drive, and Currier Road from Hopkinton Road to Shenandoah Drive. The Natural Resource Protection category will include the Penacook Lake watershed, land northerly of Pleasant Street and Hopkinton Road along Fisk and Long Pond Roads, Jerry Hill, the upper reaches of the Ash Brook watershed along the Hopkinton townline, Dimond Hill, Little Turkey Pond, the Turkey River, and the agricultural land and wetlands east of the Turkey River, as well as portions of the floodplain of the Merrimack River. St. Paul's School, the State, and the City are major land owners in this area with conservation easements on certain parcels held by the Society for the Protection of New Hampshire Forests, Five Rivers Conservation Trust and the Nature Conservancy.

g. The South End

Inside the UGB, areas of High Density and Urban Residential lie between Downtown and the State's Office Park South, from Pleasant Street southerly to Rollins Park. Medium Density Residential abuts these higher density areas to the west and south between Clinton Street and the Bow Town line. An area of Low Density Residential lies west of Birch Street, southerly of Clinton Street, and bounded on the west by the Turkey River.

Exhibit III-4. Southern Opportunity Corridor

Insert 8 ½ x 11

Economic development areas include the Neighborhood Commercial category at McKee Square; mixed used Urban Transitional areas along South State Street and continuing southerly along South Main Street; a Highway Commercial area on Route 3A southerly of I-93; and three Institutional areas with the first being at the southerly end of Donovan Street adjacent to I-93, another along Clinton Street from South Fruit Street westerly, and the last west of South Main Street in the area of Pillsbury and Maitland Streets. Some of the economic development areas of the South End are addressed within the Downtown and Opportunity Corridor as noted above. As previously noted, the southern Opportunity Corridor was the focus of a special study that proposed a high density urban village west of the railroad and an office or educational campus east of the tracks. Hall Street is another part of the South End devoted exclusively to economic development. The Hall and Water Street intersection is in a General Commercial category continuing southerly down Hall Street to just north of Hammond Street, south of which the land is included in an Office Park category, excluding Elmwood Avenue just north the I-93 overpass which remains in an Industrial category. The land southerly of I-93 to the Bow townline and westerly of Hall Street also remains in an Industrial category. The east side of Hall Street north of the wastewater treatment plant including all of Basin Street should be the focus of Brownfield remediation efforts, and when such is accomplished, be redeveloped as an Office Park in light of its location on the banks of the Merrimack River.

Outside of the UGB, areas designated Rural Residential include land along Silk Farm Road southerly on Clinton Street as well as land along Birchdale Road and Hooksett Turnpike. The Natural Resource Protection category will encompass Great Turkey Pond, the Turkey River, Turee Brook and its associated wetlands, and the South End Marsh, as well as portions of the Merrimack River floodplain. A substantial amount of this land area is owned by St. Paul's School, with other lands under the protective domain of the State Department of Resources and Economic Development, the City, and the Audubon Society of New Hampshire.

2. The Future Land Use Plan for areas of special concern relative to environmental protection and historic preservation

There are a number of environmental features as well as historic sites that have been mapped and should continue to be accorded protection through land use regulatory measures. More detail is provided on these respective feature and site in Section VII, Conservation and Open Space, and Section VIII, Historic Resources. Of particular concern are the floodplain and floodway, shoreland protection for surface water resources, and watershed protection for Penacook Lake as the City's public water supply. These features have all been mapped and have been the focus of special zoning overlay districts and should continue to be in terms of the restriction of certain land uses and special permits required for certain types of development therein. To this group of environmental protection measures should be added the mapping and protection of the aquifers that underlie large parts of the City, as recommended in the 2006 Water Master Plan.

With regard to historic resources and districts, as noted in the discussion of the North and West Ends above, there is only one local historic district that has been identified, acknowledged, and codified for the past 40 years, and it should continue to be so recognized. As noted in the Historical Resources Section, there are other National Register Districts in existence in the City as well as areas identified as being eligible for similar designation, and these may be worthy of consideration for local recognition and designation.

H. LAND USE POLICIES AND RECOMMENDATIONS FOR FURTHER LAND USE PLANNING

1. Land Use Policies

Policies related to Land Use Regulations

a. Revise and amend existing land use regulations to implement and effectuate the Future Land Use Plan as contained in this Master Plan inclusive of new and revised zoning districts; use regulations; dimensional, density, and design standards; development formats; requirements for buffers and mitigation related to adverse visual aesthetic impacts as well as impacts due to intrusive noise, light, and traffic; and regulations to preserve and protect sensitive and important natural and environmental resources.

b. Revise and amend existing development regulations to protect the health and safety of residents; to manage nuisances; and to protect against hazards to life and property from natural and man-made disasters.

c. Utilize the physical characteristics of the land as a principal determinant of its ultimate use and intensity of development; such physical characteristics to include the following: current and historical land uses; soil characteristics; flooding potential; wetlands, surface waters, and associated shorelines and buffer areas; agricultural and silvicultural production potential; aquifer protection and recharge requirements; historical structures, significant views and environmental amenities; and wildlife habitat potential.

d. Revise and amend existing development regulations to promote the orderly transition of land uses and to buffer incompatible uses wherever possible.

Residential Land Use Policies

e. Allocate land resources for residential development based on the following considerations: historical settlement patterns; preservation and enhancement of existing residential neighborhoods; traffic generation, access to, and impact on transportation facilities; compatibility with and impact on abutting land uses; land suitability, environmental impacts, and avoidance of significant environmental features; impact on existing and planned public facilities and utilities; and demand and absorption rate for various types of housing in varied price ranges.

f. Consider the development and implementation of a Transfer of Development Rights (TDR) program that will provide for the transfer of residential development capacity from land outside of the Urban Growth Boundary to land inside of the Urban Growth Boundary, both as a means of preserving more open space outside the UGB as well as a means of providing additional housing opportunities inside the UGB.

g. Develop and implement standards and provisions for Traditional Neighborhood Developments (TND) both as a means of utilizing residential development rights that may be transferred under a TDR program, as well as to allow for infill development. The standards for architectural design, dwelling unit type, density, and grid pattern blocks should be based on the characteristics of traditional neighborhoods that have existed in Concord since before World War II.

h. Consider the establishment of a new village if the opportunity presents itself and the proposed location is within the Urban Growth Boundary, can be served with municipal utilities, can be provided with reasonable access to the City's collector and arterial road system, has minimal impact on the City's natural resources, and is compatible with adjacent land uses.

i. Develop and implement standards and provisions for mandatory cluster subdivision in the area outside the Urban Growth Boundary in order to protect open space and provide more efficient opportunity for rural residential development.

j. Develop and implement provisions for high density residential development within the northern and central sections of the Opportunity Corridor as well as the urban residential village in the south end of the Corridor, westerly of the railroad tracks.

k. Prevent the intrusion by inappropriate non-residential uses into residential neighborhoods.

Mixed (Residential and Non-residential) Land Use Policies

l. Develop and implement standards and provisions for high intensity mixed use development in the northern and central sections of the Opportunity Corridor, as well as the small scale mixed use development to support the residential uses in the south end of the Corridor, westerly of the railroad tracks.

m. Provide for a mixture of residential and non-residential land uses of a type, and at a scale and density appropriate to and compatible with the surrounding land uses, in the Downtowns, along Loudon Road and portions of Fisherville Road, as well as in areas of transition between residential neighborhoods and non-residential development.

n. Continue to encourage and support public and private development and redevelopment in Downtown Concord and Penacook, and within the Opportunity Corridor.

Non-Residential Land Use Policies

o. Allocate land resources for commercial and industrial development based on the following considerations: traffic generation, access to, and impact on, transportation facilities; location and site requirements based on specific needs of prospective industrial and commercial uses, their market area, and anticipated employee and floor area requirements; compatibility with and impact on neighborhoods and abutting land uses; land suitability, environmental impacts, and avoidance of significant environmental; and impact on existing and planned public facilities and utilities.

p. Provide land for industrial parks, office parks, and areas of intensive and extensive commercial activity that will support the City's economic development as well as expand the tax base of the City.

q. Foster the economic development of the Garvins Falls area based on a comprehensive plan, including the appropriately staged implementation of utility and transportation infrastructure.

r. Develop and implement standards and provisions for an office or educational campus in the southeasterly section of the Opportunity Corridor.

Policies related to Facilities, Infrastructure, and Fiscal Capacity

s. Provide new development and redevelopment areas within the Urban Growth Boundary (UGB) with municipal sanitary and potable water service, private utility services, and transportation infrastructure in a timely manner, and to prohibit utility expansions outside of the UGB.

t. Coordinate the location, timing and intensity of future residential and nonresidential development with the availability of public facilities and utilities and with the physical and fiscal resources of the community.

u. Establish and maintain an early acquisition program for right-of-way corridors and sites for parks, schools, and other land extensive public facilities in advance of need.

v. Evaluate the fiscal impacts of development on the City's tax base and utilize impact fees and exactions to mitigate the adverse fiscal impacts of new development, while providing impact fee credits as an incentive for strategic redevelopment areas.

Environmental and Natural Resource-related Land Use Policies

w. Provide for the protection of the City's natural and environmental resources including wetlands, floodplains and floodways, surface waters, groundwater and aquifers, shorelands, bluffs and erodible slopes, prime agricultural lands, productive forest lands, and unique wildlife habitat.

Transportation-related Land Use Policies

x. Facilitate access management, connectivity, and pedestrian and bicycle mobility in the implementation of the land use plan.

y. Ensure the retention of land for rights-of-way or the expansion of existing rights-of-way that will provide capacity for transportation improvements where necessary and appropriate to support the land use plan.

z. Retain the capacity for future rail service to and through the City by protecting rail corridors, restricting any diminution of the transportation capacity of these corridors, and promoting compatible adjacent land uses.

Historical Resources-related Land Use Policies

aa. Continue to identify historical resources throughout the City and endeavor to preserve, protect, and promote the re-use of these resources as appropriate.

Land Use Policies related to design, aesthetics, and community appearance

bb. Improve and enhance the overall community appearance by continuing to foster a uniform design review process, and by preserving and enhancing significant historical sites and buildings, as well as scenic vistas and natural amenities.

cc. Promote and promulgate high standards and provisions for architectural and landscape architectural design, site planning, and sign design, and the implementation of the same, within residential, non-residential, and mixed use development throughout the City, as well as in all developments fostered within the community by the City, County, State, or Federal governments as well as the Concord and Merrimack Valley School Districts.

dd. Review existing architectural and appearance guidelines for buildings and sites, and to develop specific guidelines for non-residential and mixed use areas, which are tailored to the particular character of these areas, and address the level of incompatibility between prospective adjacent land uses and the need for appropriate buffering.

ee. Ensure that Downtown Concord and Penacook are attractive, livable, workable, and walkable.

Policies related to County, State, and Federal Facilities within the City

ff. Obtain the cooperation of Merrimack County, the State of New Hampshire and the federal government in an attempt to ensure that county, state and federal facilities are sited and developed in a manner consistent with the Master Plan.

gg. Encourage the State Legislature to adopt, and implement, plans for the use of State land and facilities consistent with the City's Master Plan, and to encourage the City, and the New Hampshire State Legislature and Executive Branch to develop processes which allow coordination between the City and State in regard to development or redevelopment on State lands.

2. Recommendations for Further Land Use Planning

a. Village/neighborhood Plans

The Master Plan Statute (RSA 674:2) provides for a "neighborhood plan section which focuses on a specific geographical area of local government that includes substantial residential development. This section is a part of the local master plan and shall be consistent with it. No neighborhood plan shall be adopted until a local master plan is adopted."

The City had embarked on such an effort with the Neighborhood Planning Program which was begun in 2001 and was terminated in 2006. The area of the South End surrounding Rumford School, which came to be referred to as the Abbott Downing Neighborhood, was the focus of the first neighborhood planning project which resulted in the preparation of a neighborhood plan, the establishment of a neighborhood organization, the provision of grants and loans for housing rehabilitation, and a coordinated effort by the City for the improvement of infrastructure, installation of traffic calming and pedestrian safety measures, and enhancement of the streetscape.

A second neighborhood planning effort was underway in the North End between White Park and North Main Street when the program came to an end. Once again, the effort involved the provision of grants and loans for housing rehabilitation, and a coordinated effort by the City for the improvement of infrastructure, installation of traffic calming and pedestrian safety measures, and enhancement of the streetscape. Other such efforts had been envisioned for the Heights and Penacook.

The City should renew its efforts to implement neighborhood planning efforts within each of the Village/Master Plan Districts, with a goal of accomplishing one plan each year. Consultant assistance can supplant the role played by the Neighborhood Planner to facilitate the same kind of coordinated effort that has been played out in the South and North Ends.

b. Basin Street Brownfield Redevelopment Plan

A planning effort should be initiated to evaluate the environmental cleanup requirements for the properties along Basin Street. The access to the area from the interstate is good, and the location adjacent to I-93 and on the banks of the Merrimack River should be a viable one for a higher use than the automobile recycling yards that occupy the land. A market evaluation should also be made to review the then current conditions and to ensure that a redevelopment will provide a contribution to the City's tax base. The location is in the floodplain which rules out residential uses, but an office park type use appears to be appropriate and viable, and the area is represented as such in the future land use plan.

c. Re-evaluation of the Merrimack River flood limits

Seek the cooperation of the NH Office of Energy and Planning (NHOEP) and Federal Emergency Management Agency (FEMA) in the re-evaluation of the floodplain and floodway limits along the Merrimack River, particularly in light of the storm and related flood events of the last few years as well as the failure of the 1999 FEMA mapping to include historically major storm events in its computer modeling efforts.

I. SUPPORTING STUDIES

Airport Master Plan Update, Concord Municipal Airport, Concord NH, prepared for the City of Concord, NH by Hoyle, Tanner Associates, Inc., May 2006.

An Economic Development Strategy, City of Concord, NH, Northern Economic Planners and LandUse, Inc., January, 1993.

City of Concord Master Plan Year 2010 Update, Concord Planning Board & Concord Planning Department, Concord, NH, December 15, 1993.

Concord Master Plan Community Survey, prepared by The NorthMark Group, 2004.

Concord, NH Southern Opportunity Corridor, Terrence DeWan & Associates, December 19, 2006.

Concord Opportunity Corridor Master Plan, prepared for the City of Concord by the Cecil Group, Inc., with Rizzo Associates, Bluestone Planning Group, and Bonz and Company, March 2006.

Concord Wetland Mapping Study, prepared by James W. Sewall Company, 2004.

Economic Development and Tax Base Expansion Plan for the City of Concord, NH, prepared by Bonz and Company, Inc., 2005

Growth and Change: An Analysis of Concord, NH, prepared by Planning Decisions Inc., 2004.

Planning Study Report 1974, Concord, NH, prepared for the City Planning Board by Community Planning Services, September 27, 1974, together with Land Use Plan map as modified in 1982.

Zoning Ordinance for the City of Concord, New Hampshire. Adopted November 29, 2001 with zoning map and revisions through January 2007.

SECTION IV. HOUSING

A. INTRODUCTION

The Housing Section provides an overview of the current and future housing supply and demand, and housing related issues, particularly as relates to housing as an element of the City's economic development strategy as well as the City's fair share of affordable housing identified in the regional housing needs assessment. Information is provided about the City's current population and the social and economic characteristics of its households as well as the needs of this population for housing commensurate with these characteristics. Projections are also included of both population and housing through 2030 with an indication of the trends in household characteristics. Goals and policies together with recommendations are set forth pertaining to the supply and availability of housing within the City of Concord.

The State statutes provide guidance with regard to addressing housing within a community. In RSA 672:1 III-e, the Legislature indicates that, "…establishment of housing which is decent, safe, sanitary and affordable to low and moderate income persons and families is in the best interests of each community and the State of New Hampshire, and serves a vital public need. Opportunity for development of such housing, including so-called cluster development and the development of multi-family structures, should not be prohibited or discouraged by use of municipal planning and zoning powers…".

RSA 674:32 I. specifies that, "municipalities shall afford reasonable opportunities for the siting of manufactured housing, and a municipality shall not exclude manufactured housing completely from the municipality by regulation, zoning ordinance or by any other police power."

The provision of affordable housing as a regional issue is addressed by the Legislature in RSA 36:47 II which requires that, "each regional planning commission shall compile a regional housing needs assessment, which shall include an assessment of the regional need for housing for persons and families of all levels of income. The regional housing needs assessment shall be updated every 5 years and made available to all municipalities in the planning region."

Municipalities are not required to address housing in a master plan, but if they do, RSA 674:2 III (l) notes that a master plan may include, "… a housing section which assesses local housing conditions and projects future housing needs of residents of all levels of income and ages in the municipality and the region as identified in the regional housing needs assessment performed by the regional planning commission pursuant to RSA 36:47, II, and which integrates the availability of human services with other planning undertaken by the community." The human services planning component is not included herein, and will be undertaken as a separate effort.

B. HOUSING GOALS

The overall goal of the Housing Section of the Master Plan is to provide for a diverse housing supply that meets the needs of existing and future residents of the City. The specific housing goals are to:

1. To promote access by all citizens to basic shelter which is decent, safe, and sanitary through the adoption, administration, and regular updating of regulatory codes related to health, building, housing, and life safety.

2. To encourage the maintenance of the existing housing stock and the expansion of the housing supply to meet the housing requirements of all ages, incomes and varied life-styles through a) the adoption, administration, and continuous updating of land development regulations which allow for a variety of housing types and densities, and b) the capital expenditures, redevelopment efforts, grants, and loans by the City which support the upgrading and expansion of the City's housing supply.

3. To promote the maintenance and enhancement of existing and developing residential neighborhoods, and to protect existing and developing residential areas from blighting influences and negative impacts that detract from their livability, quality, and aesthetics.

4. To continue to strive to provide within the City a reasonable and fair share of the affordable housing within the region as identified by the Central New Hampshire Regional Planning Commission (CNHRPC); to assist non-profit and for-profit organizations in preserving and adding to the supply of permanently affordable housing units within the City, and to advocate that all other communities in the region provide their respective fair share of the region's affordable housing.

5. To promote and facilitate housing as part of the City's economic development strategy in providing for residences for the workforce of the City's employers, and in providing certain types of housing as a component of the City's tax base expansion.

6. To promote the energy conservation and efficiency of the housing stock including the use of new technology; the reduction of the average household demand for heating fuel, electricity, and potable water; the reduction of the average household generation rate for sanitary and solid wastes; and the development of residential sites in a manner which minimizes adverse impacts on the environment.

C. CONCORD'S POPULATION & HOUSING IN 2000

1. Overview

In 2000, Concord was the third largest city in New Hampshire with 40,687 residents (Table 1). A relatively large number of these residents (8% or 3,267 residents) live in group quarters (nursing homes, dormitories, correctional institutions, etc).

The remaining 37,420 residents lived in the 16,281 households in Concord (an additional 500 housing units were not occupied when the census was taken) (Table 2). Single people living alone occupied one-third of these households, while another 60% were occupied by families (two or more related people living together). The remaining 8% were occupied by non-family households.

On average, each household had 2.30 persons. Households in outlying areas of the city tended to be larger than those in the denser city center, largely because family households (who averaged 2.95 persons per household) were more likely to be living in outlying areas.

A large number of households in Concord were renters in 2000 – nearly one-half (49%) of the occupied housing units were occupied by renters. These renter households were more common in the city center.

The median age of the city's residents was 37.0 years in 2000. Nearly one-quarter of the city's population was under 18 years old and another 14% were 65 years or older. Concord tended to have fewer young residents (under 18), more young adults (18 - 40), and more elderly (75 years and over) than the State as a whole.

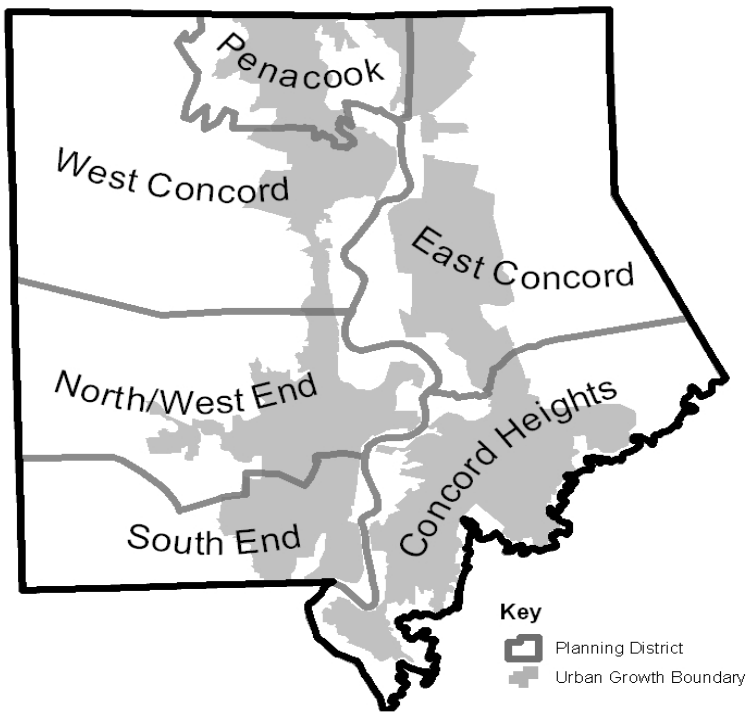
Concord residents were on average better educated than the State as a whole, but earned less per year than the State as a whole. In 2000, nearly 90% of the city's residents (older than 25 years) had graduated high school, and nearly 40% had at least a college degree. The median household income was $42,447, which was only 86% of the State's median household income.

2. Profiles of Villages/Master Plan Districts

These city-wide statistics hide some of the subtle differences among the city's villages/ Master Plan Districts (refer to Exhibit IV-1). A more detailed understanding of the differences among Master Plan Districts is important when planning for the community's future (refer to Tables IV-1 and IV-2).

The **North/West End** was the Master Planning District with the largest population. In 2000, more than one-quarter of the city's population (or 10,479 residents) lived in this district. Of these, nearly 2,500 lived in group quarters – most of these at the New Hampshire State Prison. The remaining household population lived in 3,737 housing units. Household size averaged 2.14 persons, and family size averaged 2.93 persons. More than half of the households were renters (57%).

Exhibit IV - 1. Villages/Master Plan Districts



The North/West End had relatively few young children and few elderly. This was in part due to the large inmate population (the bulk of whom were between 20 and 40 years old) and in part due to the large number of rental housing units (40% of the households in this district were 1-person households). Interestingly, family households in the North/West End were on average the same size as those citywide.

Concord Heights was the second largest Master Plan District by population, but because of its low group quarters population (residents of dormitories and institutions), it had the largest household population in the city (8,286 household residents). These residents lived in 3,917 households (approximately 150 vacant housing units). Household size averaged 2.12 persons, and family size averaged 2.78 persons – both the lowest of the six planning districts. More than half of the households were renters. Concord Heights residents tend to be older than the city as a whole.

Like the North/West End, Concord Heights' large number of renter households (58% of all households) in large part explains its small household size, as does the large number of 1 person households. Concord Heights had the smallest average family size (2.78 persons) of any of the planning districts.

The **South End** is the third largest Master Plan District with 8,286 residents (500 of these lived in group quarters). These residents lived in 3,311 households (115 vacant housing units). Household size averaged 2.35 persons and family size averaged 2.98 persons. Nearly 25% of the population was under 18 and 13% was 65 years or over. More than half (52%) of the housing units were owner-occupied.

The South End mirrored the city as a whole. While the age profile was slightly younger than the city, the percent of the households that were renters, one-person, family, and non-family matched the city as a whole. South End household/family sizes were slightly larger than the city.

The three smallest planning districts by population – West Concord, Penacook, and East Concord – had similar profiles.

West Concord had 5,949 residents in 2000. All of these residents lived in 2,326 households (70 vacant units). Household size averaged 2.56 persons and family size averaged 3.05 persons. Nearly 28% of the population was under 18, and only 9% was 65 years and over. Nearly two-thirds of the households were owners.

West Concord was significantly different from the denser North/West End and Concord Heights planning districts. West Concord residents were significantly younger (28% under 18 versus 18% in North/West End). Only 9% of the residents were 65 years or over (versus 17% in Concord Heights). Two-thirds of the households were owners (versus 51% citywide) and two-thirds of the households were families (versus 59% citywide). As a result, household and family sizes were larger than the city.

Penacook had 4,244 residents in 2000. All of these residents lived in 1,746 households (75 vacant housing units). Household size averaged 2.43 persons and family size averaged 3.00 persons. Nearly 26% of the residents were under 18 and 10% were 65 years and older. Nearly 58% of the households were owners, and 63% were families. Penacook, like West Concord,

tended to have a larger percentage of families, more owner-occupied housing, and a larger share of younger residents than the city as a whole.

East Concord had 3,184 residents in 2000 (11 of these lived in group quarters). These residents lived in 1,244 households (approximately 35 vacant housing units). Household size averaged 2.55 persons and family size averaged 3.04 persons. Nearly 27% of the residents were under 18, and 18% of the residents were 65 years and over. Three out of every four of the housing units were owner-occupied.

East Concord had the largest percent of housing occupied by owners (73%) and the largest percent of family households (72%) in the city. Large percentages of the population were both under 18 (27% versus 23% for the city) and 65 years and over (18% versus 14% for the city). Average household and family sizes were larger than the city as a whole.

All of the planning districts were more heavily developed within the **Urban Growth Boundary** (see Land Use Section). More than 90% of the population in 2000 lived within this area. Residents within the urban growth boundary tended to be more likely to rent, less likely to be a family, and to have fewer people in each unit.

Table IV - 1. Population by Planning District, 2000

Master Plan District	Total Population					Household Population	Group Quarters Population
	Total	Under 18 yrs	% under 18 yrs	65 yrs and over	% 65 yrs and over		
East Concord	**3,184**	**853**	**26.8%**	**573**	**18.0%**	**3,173**	**11**
Concord Heights	**8,545**	**1,862**	**21.8%**	**1,441**	**16.9%**	**8,286**	**259**
South End	**8,286**	**2,055**	**24.8%**	**1,098**	**13.3%**	**7,772**	**514**
North/West End	**10,479**	**1,892**	**18.1%**	**1,483**	**14.2%**	**7,996**	**2,483**
West Concord	**5,949**	**1,638**	**27.5%**	**526**	**8.8%**	**5,949**	**0**
Penacook	**4,244**	**1,095**	**25.8%**	**443**	**10.4%**	**4,244**	**0**
Total	**40,687**	**9,395**	**23.1%**	**5,564**	**13.7%**	**37,420**	**3,267**
Inside Urban Growth Boundary	**37,920**	**8,747**	**23.1%**	**5,163**	**13.6%**	**34,885**	**3,035**
Outside Urban Growth Boundary	**2,767**	**648**	**23.4%**	**401**	**14.5%**	**2,535**	**232**
Total	**40,687**	**9,395**	**23.1%**	**5,564**	**13.7%**	**37,420**	**3,267**

Source: 2000 US Census

Table IV - 2. Household Data by Planning District, 2000

Master Plan District	Total Housing Units*	Occu-pancy Rate	Occupied Housing Units/Households					Average House-hold Size	Average Family Size
			Total	% owner occupied	% 1-person	% family	% non-family		
East Concord	1,279	97.3%	1,244	73.3%	23.6%	72.3%	4.0%	2.55	3.04
Concord Heights	4,062	96.4%	3,917	41.9%	37.4%	55.0%	7.6%	2.12	2.78
South End	3,426	96.6%	3,311	51.9%	32.0%	60.9%	7.1%	2.35	2.98
North/ West End	3,889	96.1%	3,737	42.5%	39.7%	51.2%	9.1%	2.14	2.93
West Concord	2,395	97.1%	2,326	64.6%	22.8%	66.5%	10.7%	2.56	3.05
Penacook	1,823	95.8%	1,746	57.9%	29.0%	63.1%	8.9%	2.43	3.00
Total	16,874	96.5%	16,281	51.4%	32.7%	59.1%	8.2%	2.30	2.95
Inside UGB	15,812	96.6%	15,270	50.8%	33.2%	58.5%	8.3%	2.28	2.94
Outside UGB	1,062	95.2%	1,011	61.6%	24.9%	68.4%	6.6%	2.51	3.02
Total	16,874	96.5%	16,281	51.4%	32.7%	59.1%	8.2%	2.30	2.95

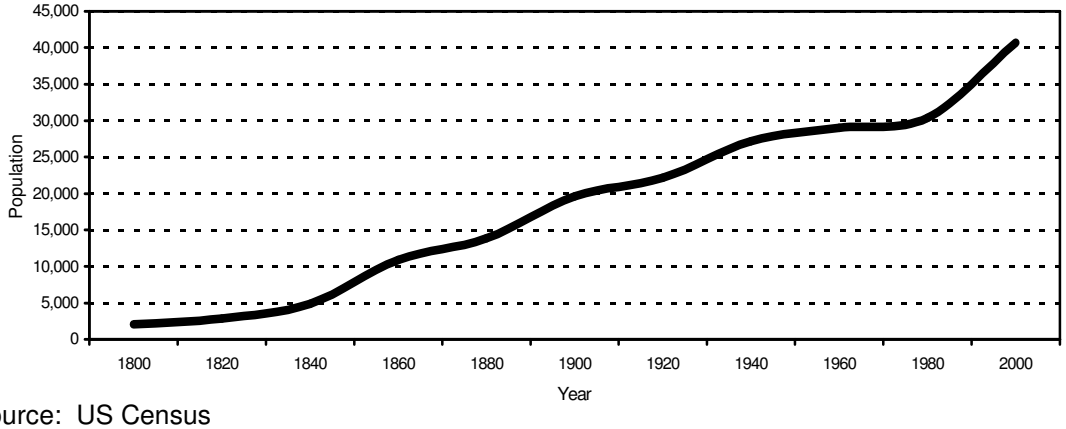
Source: 2000 US Census
* difference from 16,881 due to 7 units not included in school district blocks

D. POPULATION & HOUSING TRENDS

1. Concord's population reached 40,687 residents in 2000.

In the last 50 years, population growth has fluctuated from moderate to rapid. From 1950 to 1980, the city expanded by fewer than 2,500 people. But between 1980 and 2000, the city's population grew by more than 25%, or 10,000 residents (Figure IV-1).

Figure IV-1. Concord Population Growth, 1800 – 2000



Source: US Census

This more recent growth was not unique to Concord. Both Merrimack County and the State grew significantly between 1980 and 2000. Merrimack County grew by 14% and 22% in each of the last two decades, while the State grew by 11% and 25%.

2. Population growth has been much greater in outlying areas versus the urban center

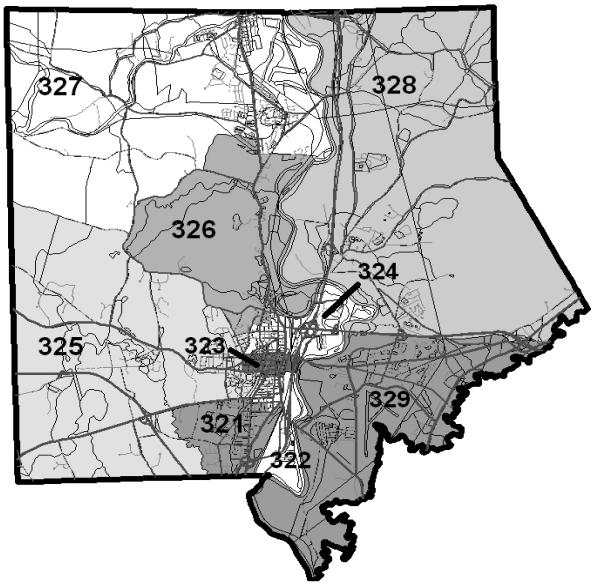
Concord's population growth has not been consistent across the city – the denser urban areas grew very little in the last two decades while outlying areas grew significantly (Table IV-3). Approximately one-third of the population lives in the denser urban area, which includes Census Tracts 321, 322, 323, and 324 (refer to Exhibit IV-2). In 2000, these denser neighborhoods averaged 0.8 acres per person. In the past two decades, the population in this urban area grew by only 0.4% (or 59 residents) from 12,332 to 12,391 residents.

Table IV - 3. Population Growth by Census Tract, 1980 – 2000

Census Tract	1980 Population	2000 Population	% Change 1980 – 2000
321	3,735	4,017	7.6%
322	3,133	3,026	-3.4%
323	1,989	1,928	-3.1%
324	3,475	3,420	-1.6%
325	3,289	3,712	12.9%
326	2,814	4,154	47.6%
327	4,600	8,685	88.8%
328	2,182	4,407	102.0%
329	5,163	7,338	41.6%
Total	30,400	40,687	33.8%

Source: US Census

Exhibit IV - 2. Concord Census Tracts, 1980 – 2000



Outlying areas in Concord (Census Tracts 325 through 329) accounted for approximately two-thirds of the city's residents. Population densities in these outlying areas were significantly less – an average of 4.5 acres per person. Between 1980 and 2000, the population in these areas grew by more than 57% (or 10,248 residents) from 18,048 to 28,296 residents.

3. Concord has a large and growing group quarters population.

Not all residents live in housing units. Cities and towns typically have small populations that live in what the US Census Bureau calls group quarters – for example, college dormitories, correctional institutions, nursing homes, and military barracks.

Concord's group quarters population is relatively large. In 2000, more than 8% of the city's population lived in group quarters (3,267 residents), a rate that is twice the average in Merrimack County and the State as a whole.

In 2000, approximately half of the 3,267 group quarters residents lived in the New Hampshire State Prison (approximately 1,675 residents) (Table IV-4). Another 20% (684 residents) lived in nursing homes, and another 15% lived in other institutions. The remaining 15% of the population lived in college dormitories and other non-institutional quarters.

Finally, the presence of large group quarters populations makes projecting a community's future growth and changes difficult in the best circumstances. Political and managerial decisions have more influence on growth and change of these populations. Projections for group quarters populations depend less on larger-scale trends that affect the rest of the community.

Concord's group quarters population has expanded by nearly 30% in each of the last two decades. Note – excluding Concord's group quarters population, Concord's household population grew by 17% in the 1980s and 11% in the 1990s (versus 18% and 13% respectively when including the group quarters population).

Table IV - 4. Concord Group Quarters Population, 2000

	Number of Residents	Percent of Total
Correctional Institutions	1,675	51%
Nursing Homes	684	21%
Other Institutional	460	14%
Dormitories	246	8%
Other Non-institutional	202	6%

Source: US Census

4. Housing unit growth has been much greater in outlying areas than in the urban center.

By 2000, Concord had a total of 16,881 housing units (refer to Table IV-5). In the past two decades, more than 4,750 housing units were added to the city's housing stock, a growth rate of 40% (the same rate as the county and State).

As with population change, the rate of change varied depending on whether it was located in the

denser urban area or the outlying areas. Between 1980 and 2000, housing units grew significantly in outlying areas while urban areas were relatively stagnant. Housing in urban areas grew by 9% (or 470 housing units) while outlying areas grew by 62% (or 4,285 housing units).

5. Nearly 30% of the city's housing units were built since 1980 and more than 35% of housing was built before 1940.

Concord's housing stock is older than the State's as a whole (refer to Figure IV-2). Older houses tend to be smaller than newer construction (median number of rooms in Concord housing units is 5.0 whereas for the State it is 5.5) and tend not to have as many amenities as newer housing. These units are generally less expensive than newer units. Communities with old housing stocks generally have large renter-occupied housing stocks.

In 2000, the median home value of a housing unit in Concord was $112,500. This was an increase from $48,000 in 1980 ($104,750 after adjusting for inflation using the CPI-northeast urban). Despite this increase, the relative price of the median Concord home compared with the median New Hampshire home has steadily declined from 89% in 1980 to 84% in 2000.

Nearly half of all housing units in Concord were in duplexes or multi-unit structures (refer to Figure IV-3). The other half were single family units and mobile homes. Concord had significantly smaller percentage of single family homes than the State, and significantly more duplexes and multi-unit homes.

Table IV - 5. Population by Census Tract, 2000

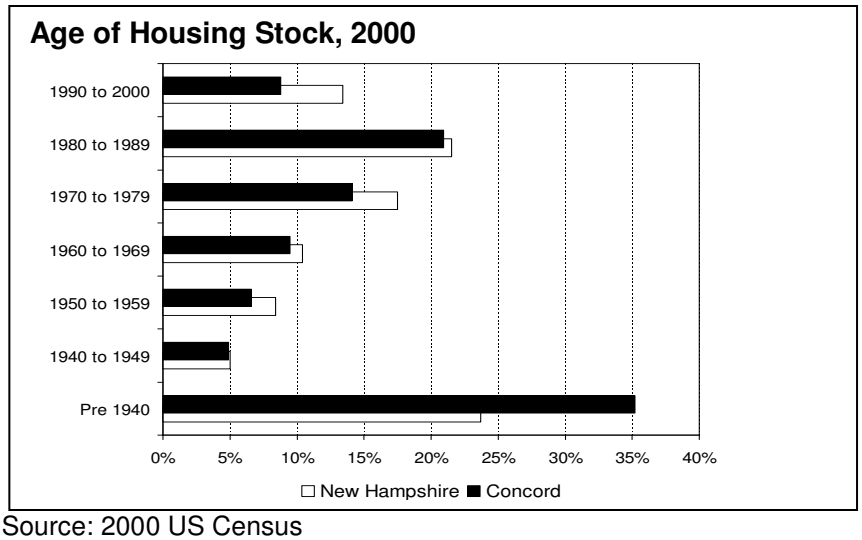
Census Tract	1980 Housing Units	2000 Housing Units	Change 1980 - 2000	% Change 1980 – 2000
321	1,270	1,565	295	23%
322	1,365	1,449	84	6%
323	1,006	1,050	44	4%
324	1,614	1,661	47	3%
325	890	1,178	288	32%
326	1,032	1,052	20	2%
327	1,892	3,572	1,680	89%
328	732	1,779	1,047	143%
329	2,325	3,575	1,250	54%
Total	12,126	16,881	4,755	39%

Source: 2000 US Census

6. Average household sizes have steadily decreased to 2.29 persons per household.

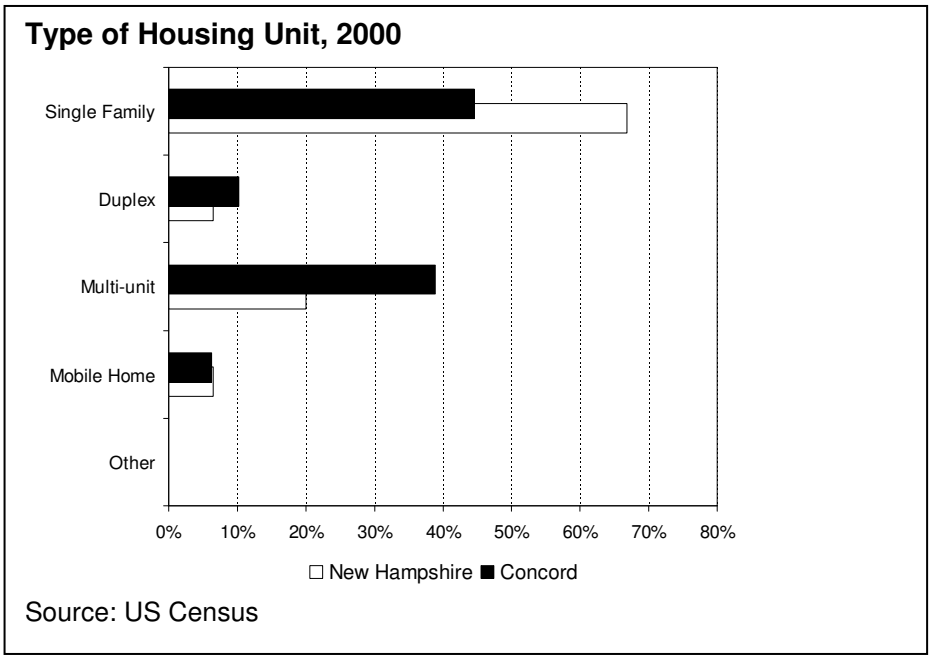
In 1980, Concord households averaged 2.48 persons. By 2000, this number had decreased to 2.29 persons per household (refer to Figure IV-4). These decreasing household sizes follow national trends towards smaller households due to longer life expectancies, more single-parent and one-person households, younger couples postponing childbearing, and fewer children in each family than there were decades ago.

Figure IV - 2.



Source: 2000 US Census

Figure IV - 3.



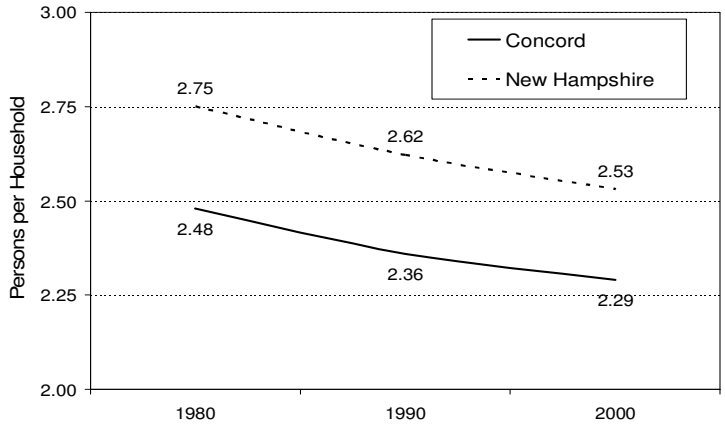
The greatest impact of decreasing household size is on the number of housing units that must be added in order to house the same population. To accommodate Concord's population growth between 1980 and 2000 (approximately 9,000 household residents), nearly 4,750 new housing units had to be added to the city's housing stock.

The decreasing trend of the national average household size for the past several decades will continue to push down Concord's average household size (Figure IV-4). In addition, the large number of rental units in Concord and the aging population will continue to hold the average household size down.

Average household sizes in Concord are smaller than the State as a whole:

Figure IV - 4.

Average Household Size, 1980 – 2000



Source: US Census

- Concord has a larger share of one-person households. In 2000, nearly one-third of all Concord households were one-person households, compared with 25% for the State.

- Concord has a large amount of rental housing, which attracts smaller households than owner-occupied housing. In 2000, more than half of the city's housing units were renter-occupied, and these averaged 1.92 persons per household versus 2.66 persons per household for owner-occupied housing.

- Concord's role as a retirement center attracts a large population of older residents, especially those who are 80 years and over. These residents tend to live in smaller households.

- The city's rental housing stock, role as a regional service center, and relatively low housing costs attract a large population of younger adults. Nearly 17% of the city's households were renters that were under 35 years of age, compared with 12% for the State as a whole.

Households in the outlying areas of Concord were larger on average than those in the more urban areas (2.38 persons per household versus 2.14 persons per household).

7. The land use implications of decreasing household sizes can be dramatic for a city the size of Concord.

If Concord's average household size were to decrease to 2.18 persons by 2010 (a 5% decline in 10 years), an additional 900+ occupied housing units would have to be built to house the city's 2000 household population of 37,420.

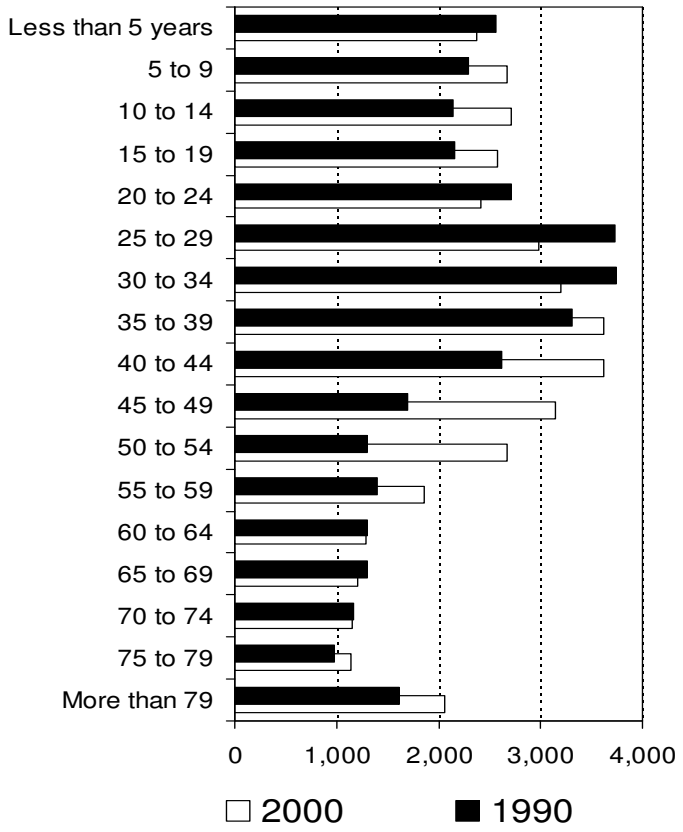
8. Concord residents are growing older.

The city's median age increased from 30.0 years in 1980 to 37.0 in 2000 (this mirrored the state-wide median age increase). The aging of the baby boom generation, coupled with lower birth rates among younger couples and increased life expectancies combine to increase median ages.

The baby boom generation includes those born between 1950 and 1965. In 1990, this generation was between 25 and 40 years old and accounted for approximately one-third of the city's population. By 2000, this generation had moved into their mid-30s and 40s and accounted for one-quarter of the city's population. The aging baby boom generation in particular is going to impact the city's demographics, and by extension, the type and manner in which services are provided to the city's residents.

Figure IV - 5.

Change in Age Distribution, 1990 - 2000



Source: US Census

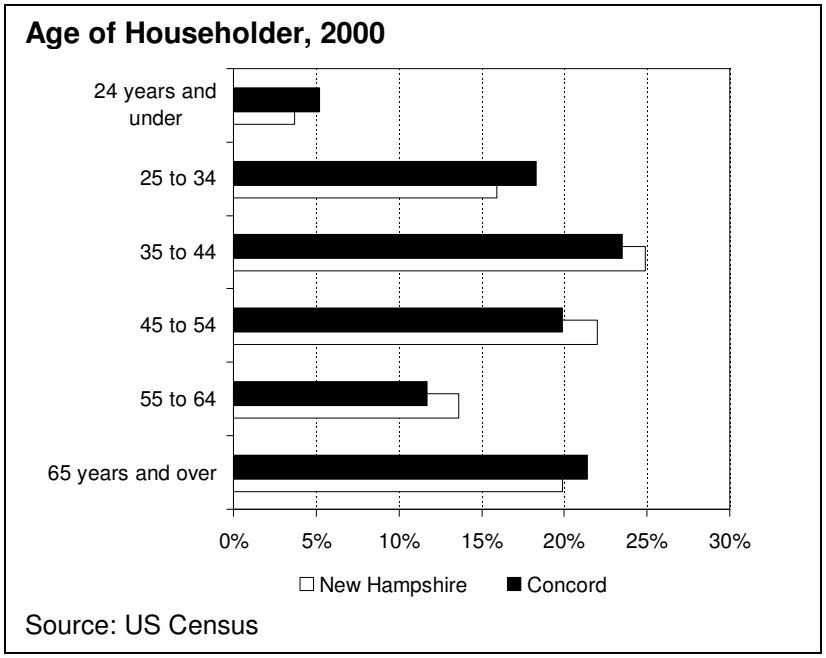
9. Concord had a larger share of young adults and elderly than the State as a whole (refer to Figure IV-6).

This is largely due to the relatively low cost of housing and availability of housing options. Concord has a large number of rental housing units (approximately half of all households), and the median home value is lower than the county and State. In addition, the city's role as a regional employment, service, and health care center attract younger and older households.

Rental housing also creates a more mobile population. Renters move more often than homeowners. Less than half (48%) of Concord residents lived in the same house in 2000 as they did in 1995. This compares with 55% of those statewide that lived in the same location in 1995. More than 10% of Concord residents had moved to Concord from other locations in New Hampshire, and 12% had moved to Concord from another state.

The large population of young adults in Concord also can be attributed to the New Hampshire State Prison, whose inmates are typically between the ages of 20 and 40.

Figure IV - 6.



10. As a result of the aging population, the number of fertile females (those between 18 and 44) is decreasing.

The decrease in this population, coupled with the trend towards young families waiting longer to raise children, will suppress the number of births within the city. In the last fifteen years, the number of births to Concord residents has decreased from between 550 and 600 per year to between 450 and 500 per year (refer to Figure IV-7). This could have an impact on the number of children enrolled in the school system and local recreation programs.

11. School enrollments in the Concord School District peaked at 6,825 students in the late 1990s – their all-time high.

According to the US Census, enrollments in 1970 reached a peak before declining by more than 1,000 students to 5,180 in 1980. The passing baby boom generation explains the majority of this decline. By 1990, enrollments had begun to increase again as the city expanded and the baby boom echo (the children of the baby boom generation) started to show up in the schools. Enrollments reached 5,328 in 1990. By 2000, the number of Concord residents enrolled in school reached 6,825 (refer to Figure IV-8).

Figure IV - 7.

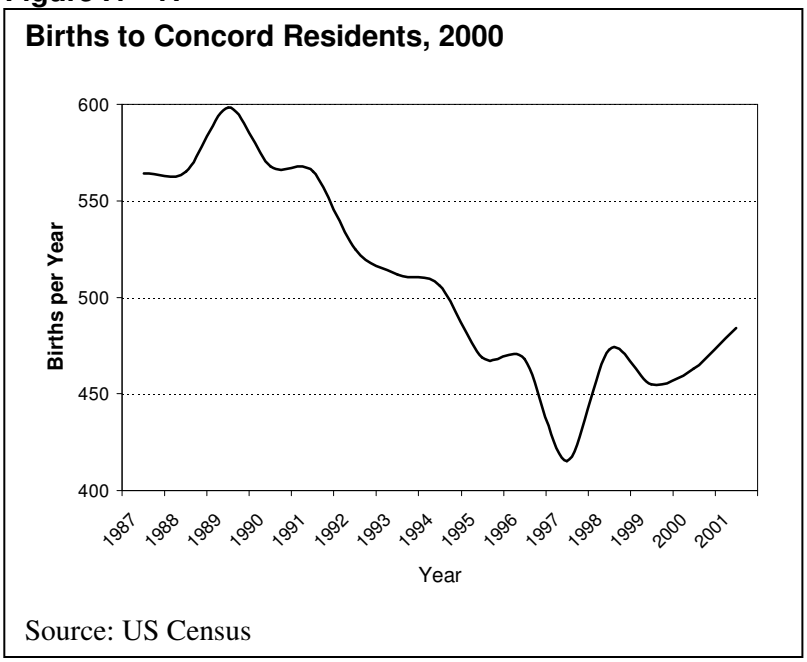
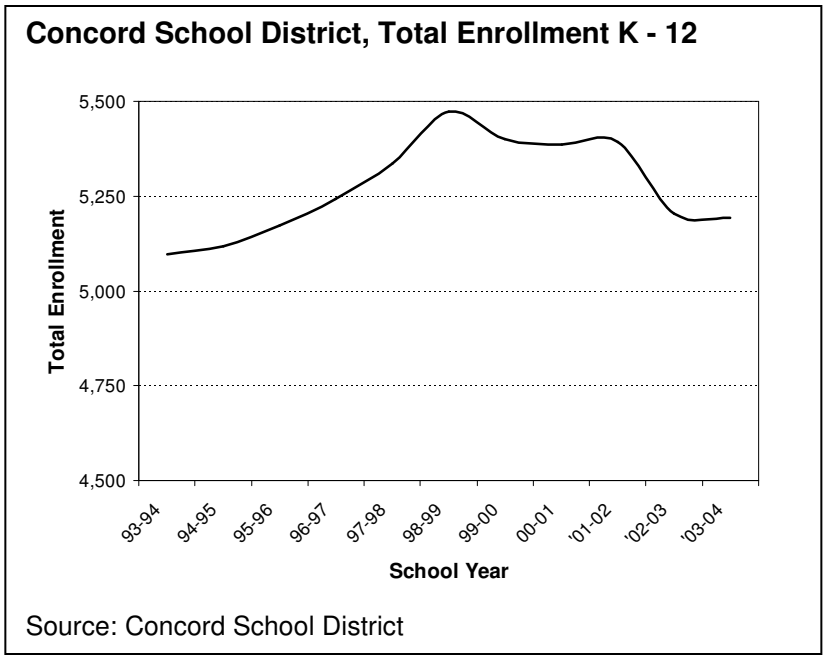


Figure IV - 8.



12. Class size in the upper grades will decrease as the smaller classes in grades K-5 move through the Concord School District.

The Concord School District experienced a slight increase in total K-12 enrollment between 1994-95 and 2003-04. However, while total K-12 enrollment increased slightly, on average, an increase in 9-12 enrollment was mostly offset by a decline in K-5 enrollment. It is important to

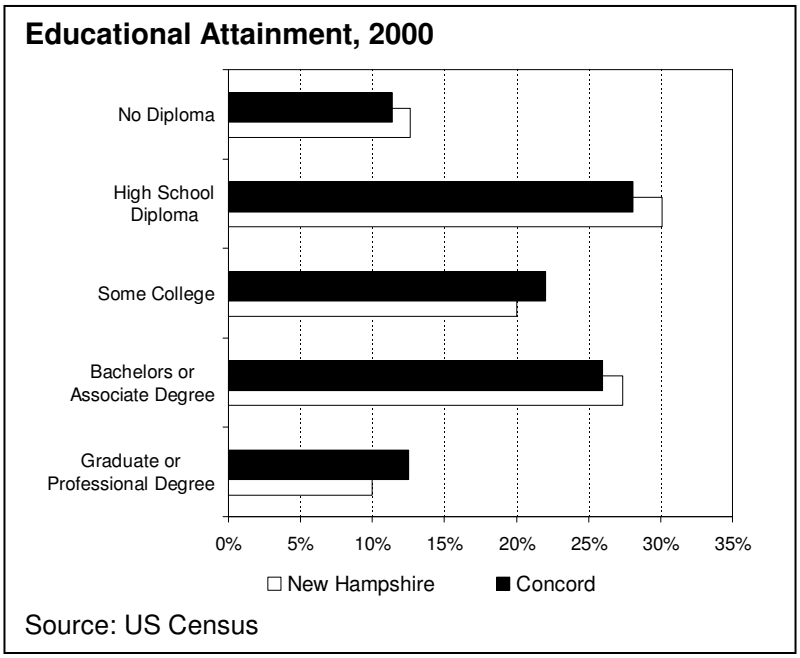
note that the larger class sizes now in grades 9-12 will eventually decline as the smaller class sizes seen in grades K-5 move through the school system.

13. Concord residents are becoming better educated.

Between 1980 and 2000, there was a large increase in the number of residents that are high school graduates – from 77% in 1980 to 89% in 2000. The percentage of residents with a college degree increased from 22% in 1980 to 39% in 2000 (refer to Figure IV-9).

Concord's adult population is well educated. Compared with the State as a whole, Concord residents are more likely to have a high school diploma and an advanced degree. Well-educated residents tend to have higher expectations for their children's education, which could affect the level of service residents' demand from the local school system

Figure IV - 9.



14. Concord household incomes are increasing, but not as quickly as incomes in the State as a whole.

Concord's median household income increased from $15,955 in 1980 to $42,447 in 2000 (Table IV-6). Adjusted for inflation, incomes rose more than 20% from $34,773 to $42,447. Much of this increase occurred during the rapidly changing economic conditions during the 1980s. In fact, from 1990 to 2000, Concord's median household income decreased by $600 after adjusting for inflation.

Despite increases in real income between 1980 and 2000, Concord's median household income has been declining relative to the State's median household income. What was once 94% of the State's median household income in 1980 has fallen to 86% in 2000. Median family incomes and per capita incomes are also losing ground relative to the State.

Concord's role as a regional center for government in part explains the decreasing median income ratio between the city and the State. Governmental work, and the large number of nonprofit organizations, often require a higher level of education for salaries that are lower than jobs that require a similar amount of training in the private sector of the economy.

Table IV - 6. Median Income for Concord

		1980	1990	2000
Median Household Income		$15,933	$32,733	$42,447
	% of State	93.7%	90.1%	85.8%
	Adj. for Inflation*	$34,773	$43,083	$42,447
Median Family Income		$19,676	$39,351	$52,418
	% of State	99.8%	94.5%	91.0%
Per Capita Income		$7,119	$12,158	$21,045
	% of State	102.2%	95.7%	89.7%

Source: US Census; *using CPI-northeast urban

E. POPULATION & HOUSING PROJECTIONS

Planning Decisions Inc. projected that Concord's total population (household population plus group quarters population) will reach 47,357 by 2015, a growth rate of 16% between 2000 and 2015 (refer to Table IV-7). Concord's total population is projected to reach 53,577 by 2030, a growth rate of 13% between 2015 and 2030. The City Planning Division projected that the total population will reach 56,258 by the time the City reaches buildout, which is the point at which all developable land has been developed under the land use assumptions contained within this Plan. It is estimated that buildout would be approached prior to 2040 and the rate of growth would gradually decline. There is no finite or ultimate population of the City that can be predicted as Concord citizens may change their attitudes toward high rise structures and allow for redevelopment opportunities not contemplated in this Plan. However, it is reasonable to assume that the bulk of the City's growth will have occurred by 2040 and that subsequent growth will be incremental.

Housing unit growth is projected to remain strong through 2015 before slowing moderately through 2030, largely due to the decreasing supply of developable land in the City as it approaches build-out. The amount of land available for development and how that land is able to be developed depends in large part on the whether the land use regulations promulgated by the City are in accord with the land use policies and recommendations of this plan.

Household population and housing units will remain predominantly within the Urban Growth Boundary (over 90%) under the land use and open space assumptions of this Plan (Tables IV-8 & IV-9). The North/West Master Plan District will grow the most and become the City's largest of the six districts in terms of both housing and population largely due to the plans for redevelopment of the Opportunity Corridor to include high density housing. Penacook will grow the least and become the smallest of the six in terms of both housing and population due to the geographical limits of the district.

Table IV - 7. Summary of Population & Housing Projections

	2000	% Change	2015	% Change	2030	% Change	Buildout
Group Quarters Population	**3,267**	**30%**	**4,250**	**30%**	**5,525**	**20%**	**6,630**
Household Population	**37,420**	**15%**	**43,107**	**11%**	**48,052**	**3%**	**49,628**
Total Population	**40,687**	**16%**	**47,357**	**13%**	**53,577**	**5%**	**56,258**
Total Housing Units	**16,881**	**18%**	**19,881**	**13%**	**22,506**	**4%**	**23,498**

Source: Planning Decisions, Inc & City Planning Division

Table IV - 8. Household Population Projections

	2000			Increases from 2000 to Buildout			Buildout		
Master Plan Districts	**Total**	**Inside UGB**	**Outside UGB**	**Total**	**Inside UGB**	**Outside UGB**	**Total**	**Inside UGB**	**Outside UGB**
East Concord	**3,173**	**2,855**	**318**	**2,542**	**1,967**	**575**	**5,715**	**4,822**	**893**
Concord Heights	**8,286**	**8,182**	**104**	**1,907**	**1,863**	**44**	**10,193**	**10,045**	**148**
South End	**7,772**	**6,895**	**877**	**1,198**	**1,061**	**137**	**8,970**	**7,956**	**1,014**
North/West End	**7,996**	**7,341**	**655**	**3,056**	**2,596**	**460**	**11,052**	**9,937**	**1,115**
West Concord	**5,949**	**5,183**	**766**	**2,383**	**1,736**	**647**	**8,332**	**6,919**	**1,413**
Penacook	**4,244**	**4,197**	**47**	**1,123**	**1,077**	**46**	**5,367**	**5,274**	**93**
Total	**37,420**	**34,653**	**2,767**	**12,209**	**10,300**	**1,909**	**49,629**	**44,953**	**4,676**
	100%	**92.6%**	**7.4%**	**100%**	**84.4%**	**15.6%**	**100%**	**90.6%**	**9.4%**

Source: Planning Decisions, Inc & City Planning Division

F. THE ROLE OF HOUSING IN THE CITY'S ECONOMIC DEVELOPMENT STRATEGY

Housing has a dual role in the City's economic development strategy: a direct role as element of tax base expansion, and a supporting role of providing residences for the workforce of the City's employers.

1. Housing as a component of Tax Base Expansion

An update of the Economic Development Strategy was prepared in 1998 with a focus on the City's tax base. Housing issues were addressed within the context of the City's overall

Table IV - 9. Housing Projections

Master Plan Districts	2000			Increases 2000 to Buildout			Buildout		
	Housing Units	Inside UGB	Outside UGB	Housing Units	Inside UGB	Outside UGB	Housing Units	Inside UGB	Outside UGB
East Concord	1,356	1176	180	1,350	1,107	243	2,706	2,283	423
Concord Heights	4,051	4011	40	775	745	30	4826	4756	70
South End	3,364	3034	330	883	733	150	4347	3767	480
North/ West End	3,947	3694	253	1286	1011	275	5233	4705	528
West Concord	2,499	2192	307	1446	1084	362	3945	3276	669
Penacook	1,826	1808	18	715	689	26	2541	2497	44
Total	17,043	15,915	1,128	6,455	5,369	1,086	23,498	21,284	2,214
	100%	93.4%	6.6%	100%	83.2%	16.8%	100%	90.6%	9.4%

Source: Central NH Regional Planning Commission & Concord City Planning Division

economy and the plan had a number of findings relevant to the housing as relates to the City's economy, as follows:

- "Housing affordability" was cited as a "competitive asset" associated with marketing Concord to prospective companies; a "tight labor force availability" was cited as a "development constraint". The report went on to elaborate that "relatively speaking, Concord's housing stock is more affordable than in other New Hampshire cities of similar or greater population."

- "Neighborhood Revitalization needs to be given a long term priority" was a major finding which raised the following issues:
    - The existence of land use conflicts in certain neighborhoods.
    - The encroachment of the Downtown into residential areas.
    - The amount of low income housing relative to the total housing supply.
    - The potential benefits of higher end housing and/or retirement housing.
    - The feasibility or relocating mobile home parks in key commercial locations to areas more appropriate for residential use.

- The report contained the following housing related recommendations:
    - *Initiate a neighborhood revitalization strategy in the older neighborhoods*.
    - *Review the need for affordable housing* (as the City was considered to have 150% of its fair share of the region's affordable housing while other communities in the region needed to provide more, and there could be negative effects on the tax base from the City providing more than its fair share).
    - *Attract high end housing* (as the City was losing this part of the housing market to its neighboring communities and the City's housing supply was "not in balance").
    - *Encourage elderly/retirement housing*.

The City heeded the advice of this report, initiating a neighborhood revitalization program although the program was subsequently terminated by budget concerns in 2006. There was a focus in this program on rehabilitation of the older affordable housing stock in the

neighborhoods. In a City where more than 40% of the housing was built before 1950, this program filled a void that no other agency is addressing as the NH Housing Finance Authority does not provide funding for rehabilitation of existing dwellings.

In effort to attract the high end housing that was escaping to the suburbs, extensive areas of the City were rezoned to single family residential districts and the market did respond with the construction of large, new, single family homes at the upper end of the housing market. The 2001 rezoning also opened all residential districts to housing for the elderly, although the response has been limited with one new market level project and one new rent assisted development for the City's senior citizens.

The City has never closed its doors to affordable housing, despite calls for consideration of growth management ordinances as the communities encircling Concord adopted such restrictions. Concord welcomed and collaborated with the Concord Area Trust for Community Housing (CATCH) and as noted, fostered its own housing rehabilitation program as part of the neighborhood planning program.

While the City did not avail itself of the opportunity to include new Downtown residential development in the redevelopment of the former Sears Block, now known as Capital Commons, it has committed to such housing in the redevelopment of the former Tannery in Penacook which is undergoing conversion to 45 condominium dwelling units.

As part of this Master Plan update, an Economic Development and Tax Base Expansion Plan was prepared by Bonz and Company in 2005 which again looked at housing in the context of the City's overall economy. The Plan recommends that *"…the City should invest in new amenities to create desirable housing development sites, particularly in its core areas. The Opportunity Corridor – with its proximity to the Merrimack River, downtown Concord, I-93 and retail concentrations -- represents possibly the best location for public investments to create unique and prime development sites. This policy would encourage the development of higher-end, market-rate housing rather than affordable housing. This policy derives its support from the following:*

- *Apparent demand in the higher-tier rental apartment market remains unaddressed (limiting the availability of apartments in the middle tiers of the market), and projections anticipate that demographic and employment growth will focus increasingly on higher income households.*

- *The construction of new high-end apartments and condominiums would provide fiscal gains and meet market demand through private rather than scarce public sector resources.*

The City's Economic Development Advisory Committee (EDAC) endorsed this Plan, noting that high-end residential development and multi-family residential development were the 5th and 7th highest priorities for the most fiscally productive forms of new development for the City to pursue in terms of tax base expansion.

2. Workforce Housing

The 2005 Economic Development and Tax Base Expansion Plan did not find a pressing need to address workforce housing, noting that workforce housing is "most pertinent in relation to workers in viable industries [and] in Concord, these industries employ highly skilled and well-

compensated workers". The plan went on to indicate that "growth in these industries also relies on the availability of administrative, sales, support, and maintenance staff" but that any concern over workforce housing has not "constrained business growth…even in retail categories, where substantial growth continues despite relatively low wage levels". Workforce housing was viewed as a regional issue which "might well take on greater urgency over the next ten years" but the Plan cautioned that "proactive efforts to address this issue might simply …address another community's work force housing issues while failing to address Concord's." The Plan recommends that the City "assume a role of regional leadership" focusing on "regionally coordinated housing goals, policies and regulatory schemes".

In July 2006, the Greater Concord Chamber of Commerce (GCCC) released a report of its Workforce Housing Committee which focused on housing for employees of local area businesses and industries. While the term "workforce housing" was not defined in the report, the implication was that it differed from affordable housing in that it was not subsidized but was a part of the market that was not being adequately served. The report advocated the creation of a City Housing Commission as a City advisory committee; contained suggestions for modifications to the City's Land Use Regulations in regard to the encouragement of housing; advocated the creation of a redevelopment authority; and suggested the creation of advocacy groups to foster regional cooperation and action on the issue of workforce housing.

Subsequent to the receipt of the GCCC report, the City Council voted to establish a Municipal Housing Commission, indicating that it is the policy of the City to encourage "a diverse housing supply so that persons … of all ages and incomes may reside in … affordable housing within the community", and that such housing should be "provided in a variety of architectural styles and densities". The Commission was set up as an advisory committee, charged with being an advocate for housing as well as a resource for information on housing. The appointment of the Municipal Housing Commission in 2007 in response to the Chamber's advocacy for the same fulfills the earlier prediction that workforce housing might become an issue of greater urgency to be addressed at both the local and regional levels.

G. AFFORDABLE HOUSING

1. Definitions

According to the US Department of Housing and Urban Development (HUD), housing is affordable if monthly shelter costs (including taxes, insurance, and utilities) do not exceed one-third of an individual's or family's income. Affordable housing is that which is decent, safe, and sanitary.

For renters, affordable housing is defined to be for low and moderate income households earning less than eighty (80) percent of the area's median income with rents below the Fair Market Rent levels established by HUD.

For home buyers, affordable housing is for families or individuals whose income is insufficient to qualify for a conventional or FHA mortgage for either a median priced home or a modestly priced home within the market area.

A modestly priced home is one priced such that twenty five (25) percent of all homes in the market area are below this value and seventy five (75) percent above this value. While median priced housing is often used to determine affordability, it is reasonable to assume that many

buyers, particularly first time home buyers, would seek homes below the median price. For this reason, the Census Bureau focuses on the ability of families to afford a modestly priced home as well as a median priced home.

2. Affordable Housing Supply

The "Directory of Assisted Housing" prepared by the New Hampshire Housing Finance Authority, as updated through April of 2007, indicated that there are 1278 rent assisted units in Concord. These rent assisted units represent 7.1% of all housing units in the City in 2005 and 16.2% of the occupied rental housing units in 2000. Rental assisted units are provided through a number of organizations the largest of which are the Concord Housing Authority with 266 public housing units, and CATCH with 227 units including Friedman Court II which is under construction.

The rent assisted units are divided among those for the elderly, for families, for a mix of family and elderly, as well as those for persons with special needs. In Concord, the 1278 rental assisted units are divided as follows:

- 566 units for the elderly
- 634 units for families
- 51 units for families and elderly
- 27 special needs units

Rental assistance is also provided to individuals and families through the Section 8 tenant voucher program which provides assistance to 183 households in Concord. As a measure of demand for affordable rental units, the waiting list for Section 8 tenant vouchers has 311 households as of the spring of 2007.

The NHHFA also provides below market rate single family mortgages targeted for first time home buyers. The NHHFA approves loans for both new and existing homes and for condominiums.

3. Regional Distribution of Assisted Rental Housing

The NH Housing Finance Authority's Directory of Assisted Housing lists individual projects by community and type of project, grouped by county. Merrimack County has 2385 assisted units comprised of 1227 units of elderly, 1031 units for families, 80 for elderly or families, and 47 for special needs.

In 2005, Concord had 29% of all of the housing in Merrimack County but has more than 53% of the assisted housing. Respectively, Concord's proportions of the Merrimack County totals are as follows: 46% of the elderly housing, 61% of the family housing, 63% of the elderly/family housing, and 57% of the special needs housing. Twelve of the 27 communities have no assisted housing. Table 10 displays information relative to assisted housing units in Merrimack County.

The aforementioned Economic Development and Tax Base Expansion Plan prepared in 2005 focuses on the need for regional attention to affordable housing. The report notes that unilateral efforts by Concord to address this issue *"might simply attract larger numbers of lower- and moderate income tenants from throughout southern and central New Hampshire. Such tenants will not necessarily work in Concord; such solutions may address another community's work*

force housing issues while failing to address Concord's. Planning solutions should address the issue as a regional issue.

The report continues on to indicate that *"….all growing communities must monitor housing conditions. In Concord itself, … housing costs force many households into overcrowded -- and in some cases substandard -- living conditions. Much of this involves an issue of social policy rather than of economic development policy. Nonetheless, at some point affordable housing may emerge as an economic development constraint. From an economic development perspective, the major barrier to action stems from the general recognition that affordable housing presents a regional*
rather than a local issue (and individual communities typically resist rather than promote efforts to create affordable housing). In facing this barrier, the City – as a regional economic center – should assume a role of regional leadership. Without setting forth specific agendas, this role might involve:

- *Initiation of regional discussions,*
- *Appointment of a regional task force,*
- *Creation of regionally coordinated housing goals, policies and regulatory schemes (e.g., regional transfer of development rights, density bonus mechanisms, etc.) and*
- *Initiation of intergovernmental discussions regarding the impacts of various policies on land costs and affordable housing."*

4. Regional Assessment of Affordable Housing Needs

The last regional assessment was prepared in 2000. It provides 1998 data on the number of households by community in the region with 80% of median income, the theoretical share of the region's affordable housing that the community should have, the credits towards the regional share based on numbers of multi-family units and manufactured homes in the community, and an assignment of a future planning goal to achieve the regional fair share. There is a general assumption that multi-family and manufactured units are affordable, and the report notes that some communities discourage both, which creates a barrier to affordable housing.

Concord was identified as having 6,751 households with 80% of median income; and was assigned a fair share of 6,152 affordable housing units, and given a credit for 8,849 existing multi-family units and manufactured homes. Concord had no future goal for achieving a fair share as it exceeded the identified fair share. Of the 21 towns in the Central New Hampshire Region, nine towns other than Concord were deemed to have met their fair share of affordable, but 11 had not met their fair share including Concord's immediate neighbors of Canterbury, Loudon, Hopkinton, Webster, and Bow.

Notably, all of the municipalities with which Concord shares a boundary have adopted growth management ordinances, generally restricting the number of building permits issued to residential development each year. Some of these ordinances are fairly recent while others have been in place for many years, and the trend has spilled over to the next tier of neighboring communities including Chichester, Epsom, Henniker, and Hillsborough.

In accordance with the requirements of RSA 36:47 II, an updated regional housing needs assessment should be prepared in order to establish an objective means to measure the regional housing needs and Concord's reasonable fair share of responsibility for the same. To that end, NH Housing Finance Authority should allocate some of its funding for affordable housing to the rehabilitation of existing housing stock, which would be of assistance to

communities like Concord with a large older housing stock, much of which is affordable but which is also in need of very basic maintenance and improvements.

Table IV - 10. Assisted Housing in Merrimack County Communities

Community	Assisted Housing Units[1]					Total[2] Housing units	Assisted Units as a % of Total Units
	Total Assisted Units	Elderly	Family	Elderly / family	Special needs		
Concord	1278	566	634	51	27	17889	7.1
Allenstown	81	60	9	12		2073	3.9
Andover	0					1121	0
Boscawen	73	24	32		17	1399	5.2
Bow	78	78				2678	1.8
Bradford	0					848	0
Canterbury	15	15				972	1.5
Chichester	0					968	0
Danbury	0					670	0
Dunbarton	0					1003	0
Epsom	50	50				1860	2.7
Franklin	315	151	144	17	3	3901	8.1
Henniker	77	40	37			1835	4.2
Hill	0					486	0
Hooksett	167	70	97			4946	3.4
Hopkinton	30	30				2351	1.3
Loudon	0					1946	0
Newbury	0					1555	0
New London	32	32				2244	1.4
Northfield	36	36				2044	1.8
Pembroke	54		54			2959	1.8
Pittsfield	64	40	24			1766	3.6
Salisbury	0					588	0
Sutton	0					980	0
Warner	35	35				1349	2.6
Webster	0					776	0
Wilmot	0					610	0
Merrimack County Totals	2385	1227	1031	80	47	61817	3.9

[1] *Directory of Assisted Housing*; NH Housing Finance Authority, 2007
[2] *Current Estimates & Trends in NH's Housing Supply*; NH Office of Energy & Planning, 2005

H. HOUSING POLICIES & RECOMMENDATIONS

1. Housing Policies

Housing policies are statements which form the framework for developing and implementing the Housing Section of the Master Plan.

a. Encourage routine updates of the Health, Building, Housing and Life Safety Codes in order to incorporate new technologies and practices as well as changes in the standard Health, Building, Housing and Life Safety Codes that respond to evolving energy and resource conservation practices; to address handicapped accessibility issues; to require all new development to conform with the Health, Building, Housing and Life Safety Codes; and to systematically redress code deficiencies in existing housing.

b. Continue to support efforts to create as well as rehabilitate low and moderate income housing; to assist both non-profit and for-profit organizations in providing permanently affordable housing; and to continue to participate in the Community Development Block Grant Program and any other similar grant and loan programs for the establishment and rehabilitation of affordable housing units for all segments of the City's low and moderate income population including, but not limited to, first time home buyers, the working poor, families in crisis and transition, single heads of households, the elderly, the physically and mentally handicapped, and the homeless and destitute.

c. Promote the re-establishment of a regular inspection program for rental multifamily housing designed to insure compliance with Life Safety and Health Codes.

d. Promote a broad range of housing types and densities within the Urban Growth Boundary including conventional and cluster single family housing, duplexes, townhouses, multifamily dwellings, congregate dwellings, group homes or other residential institutions; and to allow for a variety of options for rental as well as ownership of the same, including condominiums and cooperatives.

e. Support rural residential development outside the Urban Growth Boundary by requiring it to occur in a cluster development format as a means of protecting open space and reducing the cost of sprawl.

f. Encourage the appropriate mixture of residential and nonresidential uses as well as the introduction of market rate housing in both Downtown Concord and Penacook, and within the Opportunity Corridor.

g. Support the adaptive reuse of older buildings for residential use, and to discourage the conversion of residential buildings to nonresidential uses except where residential uses are not otherwise permitted.

h. Prevent the intrusion of inappropriate non-residential uses into residential neighborhoods. and to protect neighborhoods from negative influences of adjacent non-residential uses, such as noise, light, traffic, and visual blight through regulation as well as the retention or installation of buffers between non-residential and residential uses.

i. Promote the regular updating of the impact fee system to assist the City in meeting the fiscal impacts of new housing on City services.

j. Continue to meet the City's fair share of the affordable housing needs within the region as well as to support efforts to encourage other communities in the region to provide their respective fair share of the region's affordable housing needs.

k. Encourage the maintenance and expansion of existing mobile home parks where such are located outside of the regulatory flood plain, and the relocation of those parks that are presently located in the regulatory flood plain.

l. Evaluate each tax deeded property, whether vacant or containing existing residential structure(s), to determine its suitability for conversion to, or redevelopment as, permanently affordable housing.

m. Maintain and enforce land use regulatory provisions which prohibit new residential development in the floodplains and floodways, on steep erodible slopes, shorelands, or wetlands, and to cooperate with State and federal regulatory agencies to protect residential areas from exposure to risk from toxic, explosive or other hazardous materials.

2. Recommendations

a. Reinstitute the Neighborhood Planning Program with its focus on rehabilitation of existing housing

The City embarked on a Neighborhood Planning Program in 2001 but it was terminated in 2006. The area of the South End surrounding Rumford School, which came to be referred to as the Abbott Downing Neighborhood, was the focus of the first neighborhood planning project which resulted in the preparation of a neighborhood plan, the establishment of a neighborhood organization, a coordinated effort by the City for the improvement of infrastructure, installation of traffic calming and pedestrian safety measures, and enhancement of the streetscape, and most notably the provision of grants and loans for housing rehabilitation which resulted in forty-seven dwelling units in 29 residential structures that were improved or rehabbed.

A second neighborhood planning project was in the North End between White Park and North Main Street, an effort which was nearing completion when the program came to an end. Once again, grants and loans were provided for housing rehabilitation, and renovation work was conducted proceeding on 29 dwelling units. Other such efforts had been envisioned for the Heights and Penacook.

No other housing organization is addressing the rehabilitation of existing housing in Concord with the exception of the CATCH affordable condominium conversion program, which has only produced a small number of units. The primary reason for this is that the NH Housing Finance Authority will not fund such efforts, preferring to concentrate exclusively on new housing units. With the extensive inventory of existing housing stock over 50 years old, the City should renew its efforts to implement neighborhood planning program with a focus on rehabilitation of existing housing.

b. Re-institute a rental housing inspection program

In the late 1980's, the City had pursued a rental housing inspection program aimed at regular inspection of all rental units in the City. At present the inspections now being performed are done so on a complaint basis. With the extensive inventory of rental housing in the City, a comprehensive, proactive housing inspection program would be an important step in achieving the goal of ensuring access by all citizens to basic shelter which is decent, safe, and sanitary

c. Maximize the inclusion of housing in City redevelopment projects in the Downtowns of Concord and Penacook as well as in the Opportunity Corridor

The City's recent venture into the redevelopment of the former tannery in Penacook for residential condominiums is the first time the City has included housing as an element of a municipal redevelopment project since the Firehouse Block project in 1980. More of this type of direct action by the City will not only add to the housing supply but will support the redevelopment goals for the Downtowns and the Opportunity Corridor as set forth in the Land Use Section.

d. Assist the Central New Hampshire Regional Planning Commission in updating the regional housing needs assessment

In accordance with the requirements of RSA 36:47 II, the preparation of an updated regional housing needs assessment is essential to the establishment of an objective measurement of the regional housing needs and Concord's reasonable fair share of responsibility for the same. The City should request that the CNHRPC complete such an update and offer its assistance in that effort. The City should also request that the NH Housing Finance Authority allocate some of its funding for affordable housing to the rehabilitation of existing housing stock, which would be of assistance to communities like Concord with a large older housing stock, much of which is affordable but which is also in need of very basic maintenance and improvements.

I. SUPPORTING STUDIES

Affordable Housing Needs Assessment for the Central New Hampshire Region – Year 2000 Update, Central New Hampshire Regional Planning Commission, May 11, 2000.

City of Concord Master Plan Year 2010 Update, Concord Planning Board & Concord Planning Department, Concord, NH; December 15, 1993.

Concord New Hampshire Planning Study Report, Community Planning Services for the City Planning Board, Concord, NH; September, 27, 1974.

Current Estimates and Trends in New Hampshire's Housing Supply Update :2005, NH Office of Energy and Planning; November 2006

Directory of Assisted Housing, NH Housing Finance Authority, April 17, 2007

Economic Development and Tax Base Expansion Plan for the City of Concord, NH, prepared by Bonz and Company, Inc., 2005

Economic Development Strategy and Implementation Plan for the City of Concord, NH, RKG Associates; Durham NH; 1998.

Growth and Change: an Analysis of Concord, NH, prepared by Planning Decisions Inc., 2004.

Housing and Community Development Plan - City of Concord, Community Development Office, City of Concord, NH, adopted December 2004.

Housing Needs, City Planning Board, Concord, New Hampshire; 1972.

Ordinance #2664 to Establish a Municipal Housing Commission, City of Concord, February 12, 2007.

Recommendations to the Concord City Council and Planning Board relative to the creation of Workforce Housing in this Community, Greater Concord Chamber of Commerce Task Force, not dated.

SECTION V. ECONOMIC DEVELOPMENT

A. INTRODUCTION

The Economic Development Section provides an overview of the current and future employment, as well as economic development related issues, particularly as relates to the expansion of the tax base as an element of the City's economic development strategy. Information is provided about the City's employment and unemployment characteristics as well as the City's fiscal and economic conditions. Projections of employment are provided through 2030. Goals and policies together with recommendations are set forth pertaining to economic development within the City of Concord.

B. ECONOMIC DEVELOPMENT GOALS

The overall goal of the Economic Development Section of the Master Plan is to provide the infrastructure, programs, financial support, and regulations to foster business expansion and attraction that will enhance the City's tax base, as well as provide employment, amenities, goods, and services that meet the needs of citizens of Concord and the residents of, and visitors to, the Central New Hampshire Region. The specific economic development goals are to:

1. Enhance the property tax base, either through strategic new development where appropriate, redevelopment, or a combination of the two.

2. Conserve the tax base by discouraging sprawl and the attendant inefficient dispersal of City services.

3. Retain, and encourage the expansion of, existing local businesses.

4. Promote the City's quality of life amenities which play an important role in attracting highly-skilled labor and professional businesses.

5. Focus the City's economic development efforts primarily on redevelopment of previously developed areas.

6. Maintain the City's historically low unemployment rate.

7. Address the issue of workforce housing as part of a cooperative regional effort.

8. To promote energy conservation and efficiency for economic development including the use of new technology; the reduction of the demand for heating fuel, electricity, and potable water; the reduction of the generation rate for sanitary and solid wastes; and the development of sites in a manner which minimizes adverse impacts on the environment.

C. CONCORD'S EMPLOYMENT IN 2000

1. Employment Has Been Increasing Faster Than Housing & Population

In 2000, the United States Bureau of Economic Analysis (BEA) estimated there were 42,104 jobs in Concord (Table V-1). At the same time, the US Census reported 20,337 employed Concord residents, which means there were more than 2.07 jobs in Concord for each employed Concord resident. By comparison, Merrimack County had 1.08 jobs for each employed resident and the State as a whole had 0.99 jobs per employed resident.

The number of jobs available in the City has been growing. While Concord's population grew by 34% between 1980 and 2000 and its housing stock grew by 39%, the BEA estimates the number of jobs in Concord increased by 52% in the same period of time. However, this growth in the number of jobs has been slightly lower than for Merrimack County (65%) and the State (57%).

Table V-1. Jobs per Employed Resident

Area and Year	Jobs Reported, BEA**	Jobs Reported, DOL *	Employed Residents	Jobs per Employed Resident (BEA)	Jobs per Employed Resident (DOL)
Concord					
2000	42,104	38,075	20,337	2.07	1.87
1990	34,559	29,276	17,890	1.93	1.64
1980	27,651	20,945	14,789	1.87	1.42
Merrimack County					
2000	76,482	69,164	70,851	1.08	0.98
1990	60,466	51,223	61,201	0.99	0.84
1980	46,248	35,031	46,810	0.99	0.75
New Hampshire					
2000	645,863	606,604	650,871	0.99	0.93
1990	532,066	471,978	574,237	0.93	0.82
1980	411,385	340,239	432,622	0.95	0.79

Sources: NH Department of Labor (DOL), US Bureau of Economic Analysis (BEA); US Census; Planning Decisions, Inc.

**NH DOL data includes all businesses reporting unemployment insurance payments, therefore excluding those that are self-employed*

***BEA data includes estimates of those that are self-employed*

2. Employment Profile

In 2000, service oriented jobs (for example health, legal, education, and business services) accounted for nearly 15,000 of the 39,028 estimated jobs in the city (or 37%) (Table V-2). Retail and government jobs each accounted for one-fifth of the city's employment, while finance/insurance/real estate (F.I.R.E.) accounted for 9%. Manufacturing (6%), wholesale (5%),

construction (3%), transportation/construction/utilities (2%), and agriculture/forestry/fishing accounted for the rest of the city's jobs.

Compared with the State as a whole, Concord's employment profile was more heavily weighted towards the traditionally white-collar jobs (services, government, F.I.R.E.) with less emphasis on the blue-collar jobs (construction, manufacturing, transportation/communication/utilities).

Table V-2. Employment by Type for Concord & the State, 2000

	Concord		New Hampshire	
	#	%	#	%
Ag, Forestry, Fishing	191	0.5%	5,729	0.9%
Construction	1,250	3.2%	26,849	4.4%
Manufacturing	2,129	5.5%	106,376	17.6%
Trans, Comm, Util	932	2.4%	25,595	4.2%
Wholesale	1,745	4.5%	33,178	5.5%
Retail	7,505	19.2%	132,073	21.8%
F.I.R.E	3,440	8.8%	31,878	5.3%
Services	14,485	37.1%	213,814	35.3%
Government	7,351	18.8%	30,391	5.0%
Total	39,028	100.0%	605,883	100.0%

Source: NH Department of Labor, Planning Decisions, Inc.
Note: data excludes businesses whose employment data was suppressed for privacy
F.I.R.E. = finance, insurance and real estate

3. Concord as the Region's Job Center

Concord is the employment center of Merrimack County. More than half of the estimated jobs in the county in 2000 were in the city of Concord (Table V-3). The vast majority of the government jobs in the county were in Concord (85%), and the city had the majority of the county's F.I.R.E. jobs (71%), as well as retail and service jobs (60% each).

Concord's role as the employment center for the region means that a significant number of employees must commute into the city for work. According to the 2000 US Census, 35,887 commuted to Concord for work[1]. Of these, nearly 13,000 live in Concord, and the rest commute from surrounding communities. Of those commuting to Concord for work, Manchester, Bow, Pembroke, Hopkinton, and Loudon had the most residents (each sent more than 1,000 employees to Concord). Boscawen, Epsom, and Franklin each had more than 700 employees commuting to Concord (Figure V-1). Generally, the further the community is from Concord, the fewer residents commuted to Concord for employment. As Concord's role as an employment center strengthens, it is expected that commuters will fill a large share of the new jobs, thereby creating more demand on the local and regional transportation networks.

[1] Note that commuting data comes from a different source (US Census) from much of the employment data used in this report (New Hampshire Department of Labor). It is common to have the number of commuters be significantly lower than total employment figures derived elsewhere. Planning Decisions, Inc. found through other studies that the percentage of commuters, as opposed to the absolute number of commuters, is accurate between the two sets of data.

Table V-3. Employment by Type for Concord & Merrimack County, 2000

	Concord	Merrimack County	% of County Jobs in Concord
Ag, Forestry, Fishing	191	793	24.1%
Construction	1,250	4,169	30.0%
Manufacturing	2,129	8,135	26.2%
Trans, Comm, Util	932	2,254	41.3%
Wholesale	1,745	3,749	46.5%
Retail	7,505	12,607	59.5%
F.I.R.E	3,440	4,852	70.9%
Services	14,485	24,004	60.3%
Government	7,351	8,601	85.4%
Total	39,028	69,164	56.4%

Source: NH Department of Labor, Planning Decisions, Inc.
Note: data excludes businesses whose employment data was suppressed for privacy
F.I.R.E. = finance, insurance and real estate

4. Trades and Service Sectors of the City's economy

Of the 29,357 jobs in Trades and Services sectors of City's economy in 2000, approximately 5,250 were in the health services (Table V-4). Another 2,650 were in educational services and 2,100 were in eating and drinking establishments. Other large sectors of the trade and services sectors include social services, wholesale trades, insurance carriers, and various retail establishments (general merchandise, food stores, and miscellaneous retail).

Location Quotients (LQ) compare the relative strength of a sector (measured by its percent of the city's employment) with New Hampshire as a whole. A LQ of 1.0 means that a sector in Concord has the same proportion of jobs as it does in the State as a whole. A LQ greater than 1.0 indicates that there is a higher percentage of jobs in that employment center compared with the State as a whole, while a LQ less than 1.0 indicates that there is a lower percentage of jobs in that employment center compared with the State as a whole (see Table V-4 for an overview of Concord's location quotients).

5. Manufacturing and Public Administration Sectors of the City's economy

Two important sectors of Concord's economy that are not included in the above analysis are manufacturing and public administration. As is true for New Hampshire as a whole, Concord has experienced a dramatic decline in the number of manufacturing jobs in the local economy (Table V-5). Between 1980 and 2000, the share of manufacturing jobs declined from 22% of the City's jobs to 6% although there was some growth during the 1990s. This mirrors the drop at the State level. At the same time, jobs in public administration increased from 15% of the City's jobs to 19%.

For the period 1991 to 2000, the City's manufacturing sector was relatively strong primarily because increases in the metals, machinery and electronic equipment sectors offset losses in the printing/publishing and instruments sectors. Concord exceeded the State average growth in

Figure V-1.

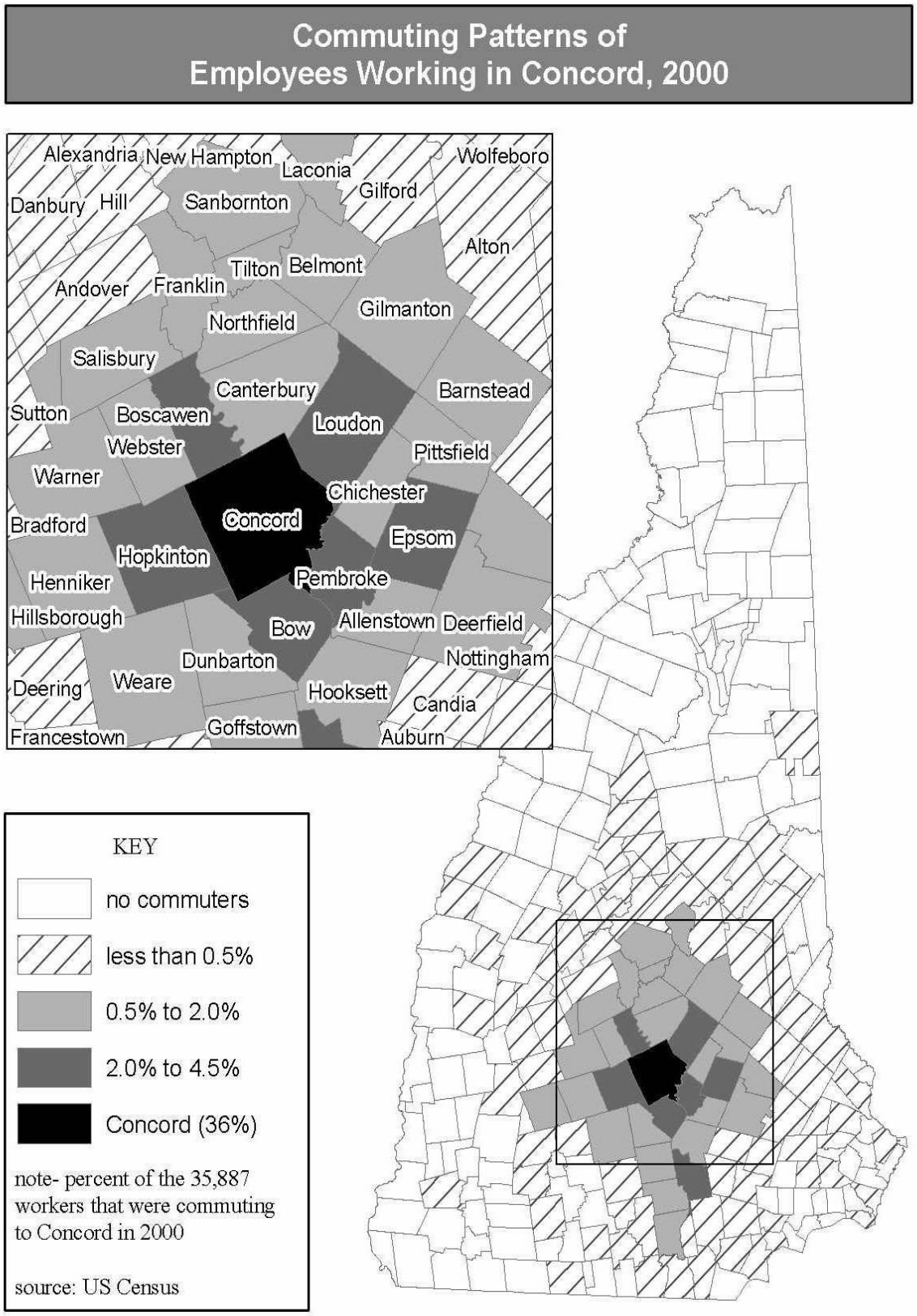

Commuting Patterns of
Employees Working in Concord, 2000
Alexandria
New Hampton
Laconia
Wolfeboro
Danbury
Hill
Sanbornton
Gilford
Alton
Tilton
Belmont
Andover
Franklin
Gilmanton
Northfield
Salisbury
Canterbury
Barnstead
Sutton
Boscawen
Loudon
Webster
Pittsfield
Warner
Chichester
Bradford
Concord
Epsom
Hopkinton
Henniker
Pembroke
Hillsborough
Bow
Allenstown
Deerfield
Dunbarton
Nottingham
Deering
Weare
Hooksett
Candia
Goffstown
Francestown
Auburn
KEY
no commuters
less than 0.5%
0.5% to 2.0%
2.0% to 4.5%
Concord (36%)
note- percent of the 35,887 workers that were commuting to Concord in 2000
source: US Census

Table V-4. Concord Service Sector Location Quotient, 2000

	Jobs	Location Quotient
Transport'n/Communicat'ns/ Utilities	932	0.6
Wholesale Trade	1,745	0.8
General Building Contractors	115	0.3
Heavy Construction, Ex. Bldg	***838***	***3.2***
Special Trade Contractors	297	0.3
Bldg Materials & Garden Supplies	350	0.9
General Merchandise Stores	1,291	1.2
Food Stores	1,078	0.8
Auto Dealers/Service Stations	862	1.0
Apparel and Accessory Stores	286	0.8
Furniture and Home furnishings	310	0.8
Eating and Drinking Places	2,118	0.9
Miscellaneous Retail	1,210	0.9
Depository Institutions	689	1.6
Nondepository Institutions	181	1.8
Security & Commodity Brokers	96	0.3
Insurance Carriers	***1,403***	***2.5***
Insurance Agents/Brokers	395	1.6
Real Estate	603	1.8
Holding & Other Investment Offices	73	1.7
Hotels and Other Lodging Places	188	0.3
Personal Services	326	0.8
Business Services	901	0.4
Auto Repair/Services, & Parking	213	0.6
Miscellaneous Repair Services	***	
Motion Pictures	89	0.8
Amusement & Recreation Services	297	0.4
Health Services	5,249	1.6
Legal Services	***738***	***2.8***
Educational Services	2,644	0.8
Social Services	1,901	1.9
Museums/Art Gallery, Botanic/Zoo	***111***	***3.3***
Membership Organizations	***625***	***2.6***
Engineer/Accounting/Research	1,161	1.5
Private Households	42	0.7
Services, NEC	***	
Nonclassifiable Establishments	***	
Total Trade & Service Employment	29,357	

Source: NH Bureau of Employment Security ES 202 Covered Employment, Planning Decisions, Inc.

****represents data that cannot be disclosed because there are fewer than three firms in the sector or because one firm accounts for 80% or more of total sector output*

Table V-5. Manufacturing & Public Administration Employment

	Jobs in Concord			
	Manufacturing		Public Administration	
	#	%	#	%
Concord				
2000	2,129	6.0%	7,351	19.3%
1991	1,607	5.0%	5,085	17.2%
1980	4,689	22.0%	3,142	15.0%
Merrimack County				
2000	8,135	12.0%	8,569	12.4%
1991	7,057	14.0%	6,027	11.8%
1980	10,353	30.0%	4,204	12.0%
New Hampshire				
2000	106,379	18.0%	29,545	4.9%
1991	98,637	21.0%	24,250	5.1%
1980	116,595	34.0%	17,011	5.0%

Sources: NH Department of Labor (DOL), Planning Decisions, Inc.

Table V-6. Concord's Government Sector, 2000

	Establish.	Employment	Avg. Wage
Total Gov't	176	7,354	$659
Federal	23	528	$831
State	147	5,812	$651
Local	6	1,014	$616

Sources: NH Bureau of Employment Security ES 202
Covered Employment; Planning Decisions, Inc.

number of firms and total employment in the manufacturing sector over this period, but lagged the State average in growth of average wage in manufacturing. The City's government sector is over three times the size of its manufacturing sector, and added over 2,200 jobs over the period from 1991 and 2000. The bulk of the City's government sector is State government (Table V-6).

6. The City has a Low Unemployment Rate

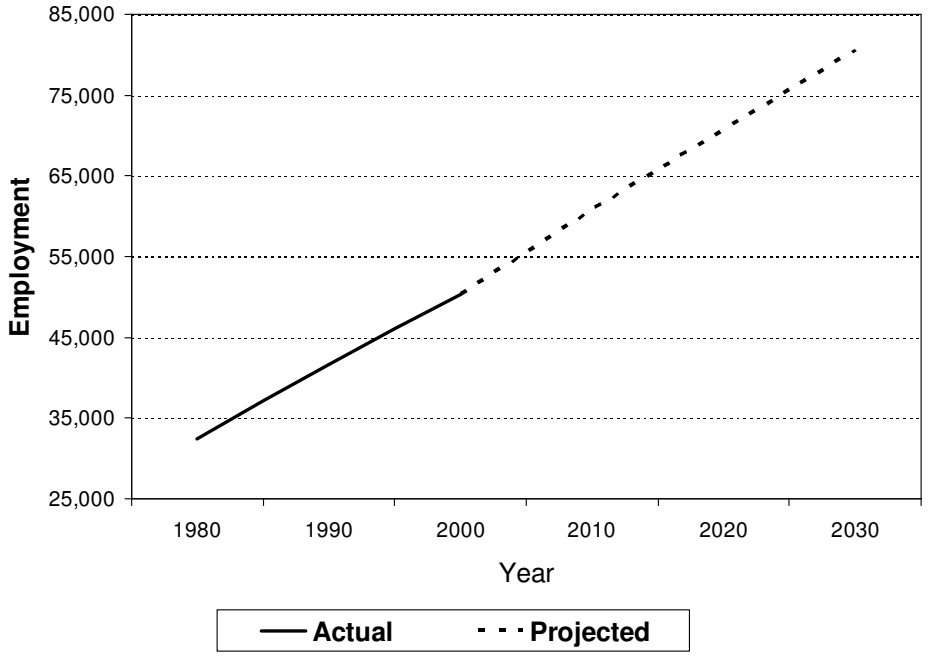
Historically, Merrimack County has maintained unemployment rates below those in neighboring Hillsborough and Rockingham counties as well as the overall State and nation. As shown in Table V-7, over a ten-year span, Merrimack County's unemployment has typically fallen roughly 1.5 to 2.5 points below corresponding rates in nearby counties, New Hampshire, and the nation. This range of disparity narrowed only in the late 1990s, when the booming national and regional economies lowered unemployment throughout the State and nation.

Table V-7. Unemployment Rates for Selected Areas: 1994-2003

	City of Concord	NH Counties Merrimack	Hillsborough	Rockingham	NH	US
1994	3.2%	3.3%	5.0%	5.7%	4.6%	6.1%
1995	2.6%	2.8%	4.2%	4.7%	4.0%	5.6%
1996	2.8%	3.0%	3.9%	5.0%	4.2%	5.4%
1997	2.4%	2.5%	2.8%	3.8%	3.1%	4.9%
1998	2.3%	2.4%	2.7%	3.6%	2.9%	4.5%
1999	2.0%	2.1%	2.7%	3.2%	2.7%	4.2%
2000	2.0%	2.2%	2.6%	3.4%	2.8%	4.0%
2001	2.4%	2.6%	3.8%	4.5%	3.5%	4.8%
2002	2.7%	3.1%	5.3%	6.1%	4.7%	5.8%
2003	2.9%	3.1%	4.8%	5.6%	4.3%	6.0%

Sources: U.S. Bureau of Labor Statistics; NH Dept. of Employment Security, Bonz and Company, Inc..

Figure V-2. Employment in Concord, 1980 - 2030



Sources: NH Econ. and Labor Market Infor. Bureau; Bureau of Economic Analysis; Planning Decisions, Inc.

At this time, unemployment remains at a comparatively low rate of 3.1 percent, as compared to 4.9 and 5.3 percent in Hillsborough and Rockingham counties, respectively, and 4.3 percent and 6 percent in New Hampshire and the United States.

While Merrimack County's comparatively low unemployment reflects a healthy economic situation, its consistently tight condition also reflects an unfavorable labor market for large-scale employers seeking high volumes of low-cost labor.

D. EMPLOYMENT PROJECTIONS

By 2030, it is projected that the total number of jobs in Concord will reach 80,560. This represents an increase of more than 30,000 jobs between 2000 and 2030.

This projection is based on several trends:

- The migration of jobs from southern New Hampshire and Massachusetts will continue to grow. If the Interstate-93 widening from Salem to Manchester occurs, this migration of jobs towards central New Hampshire could expand at an even faster pace.

- Despite the rapid increase in Merrimack County's population between 1980 and 2000, the number of jobs available in the county has grown at a faster rate. The employment-to-population ratio has increased from 0.55 in 1980 to 0.66 in 2000 (Table V-8).

It is projected that the employment-to-population ratio will continue to grow, but at a slower rate. By 2030, this ratio will reach 0.79 as demographic changes allow more people to join the workforce and more employees commute into Merrimack County from towns to the north, east, and west for work.

Based on this trend, it is projected that the number of jobs available in Merrimack County will grow by more than 55,000 between 2000 and 2030.

- Concord will remain the employment center for Merrimack County, although its share of the county's total jobs will decline as surrounding communities become more attractive to employers and as the available space in Concord to locate new jobs becomes more limited. In 1980, the City of Concord accounted for 60% of the county's total jobs. By 2000, this had fallen to 56%.

Table V-8. Population and Employment for Merrimack County, 1980 - 2030

Year	Population	Employment	Employment-Population Ratio
1980	98,302	54,142	0.55
1990	120,005	72,930	0.61
2000	136,225	90,234	0.66
2010	155,300	110,600	0.71
2020	173,800	131,000	0.76
2030	192,500	152,000	0.79

Sources: NH Econ. and Labor Market Information Bureau, Bureau of Economic Analysis, Planning Decisions, Inc.

It is projected that this number will continue to decline in the future to 53%. Despite this decline, the number of jobs in Concord will increase by more than 60% between 2000 and 2030

Even though the share of the county's jobs in Concord will be declining, the number of jobs available in Concord is projected to grow at a faster rate than the city's population. The employment-to-population ratio increased from 1.06 in 1980 to 1.24 in 2000. By 2030, this ratio is projected to reach 1.50.

Table V-9. Population and Employment Projections for Concord

Year	Population	Employment	Employment-Population Ratio
1980	30,400	32,370	1.06
1990	36,006	41,680	1.16
2000	40,687	50,276	1.24
2010	45,134	60,830	1.35
2020	49,430	70,740	1.43
2030	53,577	80,560	1.50

Sources: NH Econ. and Labor Market Information Bureau, Bureau of Economic Analysis, Planning Decisions, Inc.

Employment projections for Concord are made more difficult by:

- Regional changes in job growth. This could affect the number of jobs available in Concord. The widening of Interstate-93 under consideration could increase the number of jobs available in the city.

- The difficulty of estimating the number of self-employed. This creates a challenge when determining a starting point for the projections. The Bureau of Economic and Labor Market Information estimates the number of self-employed for Merrimack County, but not for Concord. These estimates exclude several categories of employment that are could be common in Concord. The number of self-employed in Concord was allocated based on statistics provided by the Bureau of Economic Analysis at the US Department of Labor (Table V-10). The BEA statistics create a much more comprehensive picture of self-employment.

Table V-10. Measures of Concord's Self-employment

	Merrimack County	City of Concord
Covered Private Employment	60,834	30,955
Government Employment	15,648	11,652
Self-Employment (estimate)	13,752	7,669
Total Employment	90,234	50,276

Source: Labor Market Information Services, Bureau of Economic Analysis, Planning Decisions, Inc

- The lack of long term employment projections in New Hampshire. The longest projections for Merrimack County extend to 2010. Planning Decisions relies on projections of county,

State, and national employment patterns as well as population projections to create its job growth projections.

The traffic modeling program for the Transportation Section (Section VI) required existing and projected employment data for each of 151 geographically defined Traffic Analysis Zones (TAZ's). The model input requirements call for existing and projected employment in each of six non-residential land use categories. The New Hampshire Economic and Labor Market Information Bureau's growth projections for Merrimack County were used to determine the amount of change likely for each of these land use categories, revealing that not all jobs in Concord are projected to grow at the same pace.

Based on these projections, the Low and High Commercial land use categories are projected to grow the most. Both of these land use categories are projected to nearly double and add more than 15,500 jobs to the community (Table V-11). The Industrial land use category is projected to grow the least, although 30% growth in this land use category still translates to nearly 5,000 additional jobs by 2030. Institutional jobs are projected to grow by 51% and add more than 6,000 jobs by 2030. Retail and hotel/motel jobs are projected to grow by more than 80%.

Table V-11. Employment Projections for Concord by Land Use Category

Land Use Category	2000	2010	2020	2030	% Change, '00 - '30
Low Commercial[1]	11,696	15,205	18,582	22,060	89%
Industrial	15,785	17,648	19,289	20,733	30%
Institutional	12,103	14,307	16,354	18,339	51%
High Commercial[2]	5,934	7,700	9,396	11,144	88%
Retail	4,521	5,668	6,753	7,856	74%
Hotel/Motel	237	302	366	428	81%
Total	50,276	60,830	70,740	80,560	60%

[1] Includes wholesaling, automotive sales, laundries, and drycleaning.
[2] Includes department stores, grocery stores, sporting goods, and commercial banking.
Source: Planning Decisions, Inc.

E. PROPERTY TAX BASE

1. Tax Revenues and Fiscal Condition

Property taxes typically account for 70 to 75 percent of the City's total revenues. Total tax revenues have increased from approximately $21 million in 1993 to $27.9 million in 2003; this represents an annualized growth rate of 2.9 percent annually.

General government expenditures have grown more rapidly than local tax revenues. During the same period that tax revenues grew by 2.9 percent annually, city expenditures have grown from $24 million to $37.4 million, increasing at an annual rate of 4.5 percent.

It should be noted that the City – by drawing upon other sources of revenue such as fees, charges for services, and intergovernmental transfers -- has consistently maintained total revenues in excess of total expenditures, and restrains its expenditures to fall within the limits of

received revenues. Also, while tax revenues have grown at a 2.9 percent annual rate, the estimated actual value of the City's property tax base has increased at a much faster rate of 6.8 percent annually ($1.474 billion to $2.855 billion);[2] the City has lowered its levies so as to relieve existing taxpayers of undue increases in their tax burdens. Recent expense increases are attributable primarily to the following:

- General fund wages, which typically increase by roughly 5 to 6 percent annually, allowing for merit increases, staff additions (which have focused primarily on public safety positions), and cost-of-living increases;
- Health benefits, which have increased by as much as 25 percent in recent years; and
- Pension contributions, which have increased in recent years as pension portfolios have underperformed their obligations.

While the latter two expense categories may not continue to sustain recent rates of increase, other costs – capital costs and debt service obligations – may present future increases in the City's cost burdens.

Overall, while the City has demonstrated its ability to keep expenditures below its revenues, where cost increases consistently outpace property tax revenues, the City may have to rely on either tax rate increases or increased streams of non-tax revenues such as intergovernmental transfers, service charges, investment income and license and permit fees. In order to strengthen its ability to independently fund substantial public projects or meet other future cost increases, the City should take steps to enhance its property tax base. This will most likely require public measures designed to encourage new investments in property improvements.

2. Tax Base by Property Type

The City's property tax base (which excludes public, nonprofit and other tax-exempt properties) in 2004 amounted to approximately $3.4 billion in total assessed value (Table V-12). Residential uses account for 60 percent of this tax base; commercial/industrial uses account for 37 percent. This allocation is roughly consistent with other communities. New Hampshire cities such as Derry, Dover, Manchester, Nashua, Rochester and Salem all rely on residential properties for at least this share (60 to 75 percent) of their tax bases.

Table V-12. City of Concord Property Tax Base

	Value	% of Gross Valuation
Residential	$2,055,075,900	60.2%
Land	$640,151,200	18.7%
Buildings	$1,414,924,700	41.4%
Commercial/Industrial	$1,252,139,500	36.7%
Land	$388,714,900	11.4%
Buildings	$863,424,600	25.3%
Other (utilities, current use, etc.)	$107,876,300	3.2%
Total Gross Valuation	$3,415,091,700	100%

Sources: New Hampshire Dept. of Revenue, City of Concord 2004 Form MS-1; Bonz and Company, Inc.

[2] City of Concord Comprehensive Annual Financial Reports, 2002 and 2003, Statistical Section, Tables 6 and 14.

3. Net Revenue Gains: Residential vs. Commercial/Industrial

New single-family residential development typically fails to provide net revenue gains for the City. While residential development generates new tax revenues, these gains are usually offset by increased residential demands for infrastructure, education, public safety, recreation, and other public services. With Concord's exceptionally large land area, the infrastructure and service demands associated with sprawl could place excessive fiscal strain on the City. A summary of recent "cost of community service" studies in various New Hampshire communities illustrates that residential property taxes typically support less than 100 percent of their associated costs.[3] It should be noted however, that not all residential developments produce net fiscal losses. For example, some households – those without children living at home and those with children enrolled in private schools – do not require school services. Also, for sufficiently high-value homes, revenues can offset service costs even where residents include school-age children.

In order to enhance the City's net revenues – and its ability to fund its ongoing and increasing needs – the City must be able to attract either:

- Higher-priced residential development; and/or
- Multi-family residential development targeting senior households, empty-nester households, or other households with no school-age children; and/or
- Commercial/industrial development which is dependent on the City's ability to attract and retain businesses.

4. Commercial/Industrial Breakdown

Among commercial/industrial uses, the Tax Assessor's data show that office properties comprise the largest portion -- 15 percent -- of Concord's overall base.[4] This is followed by retail properties, which generate nearly 8 percent of the tax base. Among individual properties, retail properties represent the City's single largest tax payer as well as three of the ten most valuable properties: the City's Comprehensive Annual Financial Report (2003) shows that the Steeplegate Mall, WalMart, and Fort Eddy Plaza respectively comprise 2.46 percent, 1.13 percent, and .61 percent of the City's assessed value. Miscellaneous uses account for 4.3 percent of the tax base; industrial properties account for only 4.2 percent.

F. SUMMARY OF FISCAL AND ECONOMIC CONDITIONS

The following summarizes the key findings regarding Concord's prevailing economic and real estate conditions, and its overall competitive economic position.

1. Fiscal Conditions

Concord's general fund expenses have been increasing more rapidly than its real estate tax revenues. If this trend continues, the City will have to rely on increasingly burdened resident households and businesses and non-tax revenues (intergovernmental transfers, service charges, investment income, and license and permit fees). As an alternative, the City may seek new investments that expand its property tax base and therefore increase the community's wealth and the range and volume of its future investment options. Without an enhancement of the property tax base, attempts to enhance property tax revenues through tax rate increases

would (1) compromise Concord's competitiveness as a business location, (2) raise the local cost of living, and (3) potentially discourage investments in residential developments and improvements. Thus, the City should seek to enhance its property tax base, either through new development, redevelopment, or a combination of the two.

Table V-13. Non-Residential Tax Revenues by Property Type

Use	% of total
Retail	7.8%
Office	15.0%
R&D	0.1%
Recreational	1.2%
Hotel	1.0%
Automotive	1.2%
Mixed-Use	2.8%
Miscellaneous[1]	4.3%
Industrial	4.2%
Transportation/Utility[2]	0.3%
TOTAL	38.3%

[1]Includes funeral homes, nursing homes, homes for the aged, clubs/lodges, country clubs, auditoriums.
[2]Includes truck terminals, airport uses, telecommunications facilities.
Sources: City of Concord Assessor's Office; Bonz and Company, Inc

2. Economic Conditions

The City of Concord and Merrimack County have achieved healthy employment growth over both short- and long-term time frames. This growth has increasingly shifted the local economy from a manufacturing-based economy to an increasingly professional, service-oriented economy. State government, finance/insurance, education and health services, and arts/entertainment/recreational services represent significant areas of employment concentration and potential growth. These sectors – along with retail trade -- continue to represent Concord's strengths, and its primary engines for future growth.

3. Employment

The City has consistently maintained a low unemployment rate. Therefore, while some communities focus on new job creation as their primary objectives, this need not be the primary objective in Concord. Moreover, in seeking to recruit large employers, Concord's low labor availability would place it at a comparative disadvantage to other communities.

4. Niches and Recruitment

While Concord does feature concentrations in some industry niches (health care, printing, retail), no specific private industry niche presents an historical, "natural" or emerging target for business recruitment. The City's existing educational resources, however, may be able to develop programs (including jointly administered programs) and other specific or general resources that could enhance the City's business recruitment prospects.

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[3] From the American Farmland Trust, as cited by Bonz and Company, Inc
[4] The office uses listed in the Assessor files may include some State and other tax-exempt properties

5. Specialized Niches

Specialized industry niches such as high technology (electronic) or biotechnology may offer growth potential, but while Concord may attract small companies, the City's labor market and location (disadvantaged relative to Manchester, Portsmouth and Nashua) limits its ability to attract large-scale manufacturing facilities. At the same time, Concord does not offer access to the academic or research institutions that offer the preferred locations for technological research-oriented developments.

6. Real Estate Markets

In the short-term future, retail development offers the strongest area of opportunity for new real estate development or redevelopment. Medical offices and other health care-related developments offer additional opportunities. Aside from medical niches, office markets are currently weak and of limited depth, but should offer opportunities in the future. Industrial markets may offer opportunities as existing companies grow, but this sector offers only limited opportunities for large-scale development over long-term as well as the short-term time frames.

7. Economic Climate Factors

Concord maintains important assets, including its strategic location, its quality-of-life amenities and its highly skilled labor force. At the same time, it faces challenges involving competition with nearby communities offering larger and more manufacturing-based labor forces. Concord also faces internal issues regarding its commercial/industrial supply as well as its regulatory environment.

The economic future of the City is envisioned as one that rests upon:

- Concord's strongest assets, which are derived from its strategic location, its highly educated demographic profile, and its open space, cultural, recreational and other quality of life amenities *rather than* factors involving costs of business, financial incentives, or access to large labor pools -- in which other nearby communities maintain competitive advantages.

- A diverse range of educated and creative businesses, workers and residents that share common interests in Concord's increasing array of community recreational and cultural amenities *rather than* narrowly defined industry niches for which Concord offers no clear advantage, and which may not be compatible with the City's existing profile.

- Nurturing, growth and accommodation of businesses that originated in or sought locations in Concord, and which attract individual workers seeking high-quality working and living environments, *rather than* the recruitment of large-scale employers, many of which will seek financial incentives, inexpensive land, inexpensive (production-oriented rather than professional service-oriented) labor, investments in job training and labor development programs, and other such public investments.

- The efficient use and reuse of underutilized urban areas, re-oriented to accommodate current economic opportunities, *rather than* the ongoing development of increasingly finite and remote open land areas.

- The maintenance of communications with post-secondary educational institutions in Concord and in the Concord region, as these represent the City's strongest prospects for the substantial expansion and/or creation of programs, enrollment, and facilities, or for the relocation of an existing institution to a new location in the City.

G. ECONOMIC DEVELOPMENT POLICIES & RECOMMENDATIONS

1. Policies

a. Promote the redevelopment of the Opportunity Corridor and the Downtowns of Concord and Penacook as the highest priority economic development initiative with the greatest potential return to the tax base of the City.

b. Maintain Concord's position as the regional center for jobs, goods and services, as well as culture and amenities.

c. Focus the City's business development efforts on business retention and the nurturing of growing local businesses, instead of on large-scale corporate recruitment.

d. Creation of new jobs is not a primary objective for the City's economic development, as the City has consistently maintained a low unemployment rate.

e. Enhance the property tax base, through the most fiscally productive forms of new development and redevelopment.

f. Build organizational capacity including the use of public-private partnerships to leverage Concord's investments in economic development.

g. Create and expand quality of life amenities for both the economic as well as cultural benefits to the City.

h. Cultivate reserve areas for new land development for future economic development purposes, with particular attention to Garvins Falls, which should be the focus of a unified, comprehensively planned development that maximizes its economic and tax base benefits to the City.

i. Improve the regional transportation network, including expansion of opportunities for alternative transportation modes, by working with the Central New Hampshire Regional Planning Commission and the New Hampshire Department of Transportation to ensure that access to the jobs, goods, services, and amenities in Concord remain accessible to the rest of the region.

j. Provide appropriate land use planning to support economic development, encompassing a broad range of economic activities that provide employment opportunities, facilitate necessary services, and make goods available to the citizenry, as well as expand the tax base of the City.

k. Ensure consistency of land development and redevelopment for economic purposes with the goals and policies of other sections of this Master Plan including the Land Use, Conservation and Open Space, and Historic Resources Sections.

l. Assume a leadership role in initiating regional discussions, forming cooperative arrangements, and ultimately fostering creative solutions to the regional issue of promoting appropriate workforce housing.

m. Review existing architectural and appearance guidelines for buildings and sites, and to develop specific guidelines for non-residential and mixed use areas, which are tailored to the particular character of these areas, and address the level of incompatibility between prospective adjacent land uses and the need for appropriate buffering.

n. Improve the appearance and the quality of development at the entrances to the City from the Interstate Highways and major arterial roadways.

2. Recommendations

a. Expansion of the Tax Base

Seek the most fiscally productive forms of redevelopment and new development including the following:

- Commercial/industrial development
- Professional services (legal, accounting, and similar occupations)
- Medical/health care development
- Appropriately scaled retail development for downtown Concord and Penacook
- High-end residential development
- County, State, and Federal Government employment development
- Multi-family residential development
- Telecommunications / internet / fiber optics / video conferencing

b. Quality of Life

Pursue quality of life amenities whereas these play an important role in attracting highly-skilled labor and professional businesses, thus driving high-quality development and redevelopment opportunities and enhancing the City's tax base. To that end, the City should pursue the following:

i. Trail Linkages: Continue to create linked trail systems and greenways for recreation and wildlife, thereby creating a community amenity that would be accessible for and recognized by residents, visitors, and businesses. Of particular interest are pedestrian and bicycle linkages between Downtown and the Merrimack River, as well as between rural open space areas and neighborhoods.

ii. Cultural/Arts Plan: Pursue a community arts and cultural plan. Improved arts and cultural programming and promotions could enhance Concord's overall quality of life, and the City's ability to incorporate such programs and amenities can help it attract and retain creative individuals, businesses and visitors. Plan components would emphasize (1) a public articulation of the community's embrace of its cultural identify, (2) broader participation among potential as well as existing participants in cultural activities by enhancing public

access and awareness for arts/cultural activities; and (3) assistance (possibly through a small business assistance program) to local arts/culturally-oriented nonprofit organizations.

c. Redevelopment

i. Direct the City's primary economic development focus toward redevelopment of previously developed areas. Investments should focus on the reuse and upgrading of older, developed properties without incurring the higher costs for infrastructure extensions.

ii. Give the highest priority to the redevelopment of the Opportunity Corridor and Downtown for reinvestment in the City's tax base. The City should:

- Create incentives for redevelopment activities.

- After exploring prospective sources of capital and other issues necessary for successful implementation of its purposes, create an independent Redevelopment Authority designated to facilitate property assembly and redevelopment activities in the Opportunity Corridor and possibly other geographic areas. Any newly created Redevelopment Authority should act as facilitator to help create partnerships between conservation and development interests in "smart growth" projects.

- "Land bank" properties for future redevelopment opportunities.

d. Business Incubator/Assistance Program

In pursuing internal business growth, designate a local public office or partner with a (nonprofit) agency to serve as (1) a business incubator and (2) a resource center for local small businesses (or larger businesses embarking on new ventures).[5] For many prospective businesses, business assistance services rather than real estate facilities often address a critical need. Such a new agency should extend its service programs to encompass nonprofit agencies as well as real estate developers/investors.

e. Regulatory Changes

i. Provide proactive developer guidance through business assistance programs or existing agencies, to help developers to understand and prepare for the City's regulatory processes.

ii. Provide incentives for redevelopment, as opposed to new development, including relief from fees, density bonuses, and other forms of relief.

iii. Vary architectural and design regulations by neighborhood, as each neighborhood has its own distinct characteristics and development history.

iv. Adopt the International Building Code. This national code has built-in allowances and trade-offs to encourage the reuse of existing structures while still meeting the intent of the overall code.

v. In order to encourage reinvestment rather than disinvestment in older industrial buildings with declining prospects for industrial tenants, revise the required minimum development standards for office uses in industrial zones. The City should continue to require that new

office buildings in industrial areas be built as two story buildings, while allowing existing buildings to be converted to office use without having to add additional stories.

vi. Re-evaluate the City's building height limitations in Downtown Concord and Opportunity Concord by performing a "viewshed" analysis, employing computer modeling to determine what building heights could be achieved on new structures without conflicting with the truly valued views of the State House Dome within the "Opportunity Corridor" and along I-93.

vii. Re-evaluate the City's parking requirements for various land uses to determine if a lesser standard can be employed, thereby creating opportunity for more taxable development. Explore alternatives to automobile usage that will curtail expansion of parking demand and need for parking facilities such as ride sharing programs, mass transit, park and ride facilities.

f. Cultivate Alternative Locations for High-Value Business Park Development

Notwithstanding the primary focus on redevelopment rather than new development, prepare to accommodate new high-end office development that may seek locations outside of the Opportunity Corridor's urban setting.

i. In seeking underdeveloped land areas offering visibility and access to infrastructure, target land areas such as those near I-393 and near I-93 in the Penacook area.

ii. Continue to plan for the development of Garvins Falls in a comprehensive manner including the creation of improved access to the Garvins Falls and preemptive regulatory actions to maintain the area's future high-end capacity for such time as the new access become available.

g. Educational Initiatives

i. Attract or promote the creation of a four year college with a residential campus and designate appropriate land areas for the development of the same.

ii. Encourage local secondary educational facilities to tailor curriculum and programs which are oriented to serve local businesses and industries.

h. Visual Improvements to Gateways

Invest in quality visual improvements and perpetual maintenance that enhance the visitor's experience at the major gateway entries to the City including the areas adjacent to the exits from Interstate 93 and 89 into the City.

[5] Such agency would assist only local, Concord-based businesses and would supplement – and provide information relevant to – the existing State and federal programs providing various forms of assistance to small businesses.

H. SUPPORTING STUDIES

An Economic Development Strategy, City of Concord, NH, Northern Economic Planners and LandUse, Inc., January, 1993.

City of Concord Master Plan Year 2010 Update, Concord Planning Board & Concord Planning Department, Concord, NH; December 15, 1993.

Concord Master Plan Community Survey, prepared by The NorthMark Group, 2004.

Concord, N.H. Southern Opportunity Corridor, Terrence DeWan & Associates, December 19, 2006.

Concord Opportunity Corridor Master Plan, prepared for the City of Concord by the Cecil Group, Inc., with Rizzo Associates, Bluestone Planning Group, and Bonz and Company, March 2006.

Economic Development and Tax Base Expansion Plan for the City of Concord, NH, prepared by Bonz and Company, Inc., 2005

Economic Development Strategy and Implementation Plan for the City of Concord, NH, RKG Associates; Durham NH; 1998.

Garvins Falls Urban Reserve Area Development Feasibility Study, Northern Economic Planners, 1996.

Growth and Change: an Analysis of Concord, NH, prepared by Planning Decisions Inc., 2004.

SECTION VI. TRANSPORTATION

A. INTRODUCTION

The City's transportation system consists of several components including; roadways, sidewalks, bikeways, mass transit (bus and rail) and the municipal airport. To be effective, the Master Plan must be comprehensive in that it considers and values each of these transportation modes. Similarly, the City's roadway system consists of various elements, each of which is dependent on each other to operate safely and efficiently. Consideration must be given to how various roadways function, how they connect to each other, how access is managed, and how roadways operate.

This Transportation Section encompasses consideration of the full range of modes of transportation including; air, rail, transit, pedestrian, bicycle, and the City's roadway system. Transportation goals are articulated within this Section relating to the modes of transportation. With regard to the City's roadway system, this Section provides a discussion on the functional classification system, roadway connectivity, traffic calming, access management, and traffic operations. This Section also includes detailed proposals for the enhancement of pedestrian and bicycle mobility, discussion on both intra-city as well as intercity bus service, consideration of future rail service, as well as reference to the findings and recommendations from the recent Airport Master Plan

Policies and recommendations to guide the implementation of the transportation improvements complete this Section of the Master. The recommended actions include discussion on the transportation-related improvements for the Opportunity Corridor, as well as which roadways need to be designed to process vehicular traffic and which roadways should be designed to discourage through traffic.

B. TRANSPORTATION GOALS

The overall goal is to plan and promote the development, and maintenance of a comprehensive transportation system serving the community, inclusive of residents of the City of Concord as well as employees who work within the City, and visitors with destinations in the City. Transportation planning should be carried out in a manner consistent with the City's anticipated future needs and resources, coordinated with State and regional plans, and inclusive of plans for highways, bikeways, sidewalks and pedestrian ways, as well as mass transit, bus, rail, and the municipal airport. The specific transportation goals, not in priority order, are:

1. Promote a roadway system that encourages the appropriate use of the City's street system reducing traffic volumes and travel speeds on local streets and within residential neighborhoods, and relieving congestion on some of the City's major travel routes.

2. Establish a multi-modal approach to the City's transportation system, inclusive of bus, rail, and air travel, as well as pedestrian and bicycle travel, in order to assist in the reduction of dependence on automobiles for travel, and thereby reducing the need to increase the capacity of the roadway system.

3. Plan, develop, and maintain a system of bicycle and pedestrian ways serving the residents of the City, including linkages among neighborhoods, between neighborhoods and the open space trail network, and with bus and future rail transportation.

4. Provide for interconnectivity among transportation modes.

5. Coordinate land use planning with transportation planning to ensure that the land use does not overburden the capacity of, or exceed acceptable levels of service within, the City's transportation system, so that land development and related transportation improvements are coordinated as to timing, so that individual components of the transportation system are appropriately utilized, and so that the ability to expand the transportation system is preserved where necessary.

6. Promote the implementation of the major highway and transportation improvements as proposed within this Transportation Section of the Master Plan.

7. Provide for the enhancement of the aesthetics associated with any planned transportation infrastructure improvements.

8. Provide for the safety of all motorists, pedestrians, bicyclists, and travelers on and within the City's transportation system through the adoption and implementation of appropriate design standards for transportation improvements.

9. Promote the management of traffic operations on the roadway system by maintaining acceptable overall and peak hour levels of service on the arterial and collector streets, by improving the efficiency of the existing roadway system, and by the timely implementation of traffic operational improvements

10. Seek the cooperation of the New Hampshire Department of Transportation and the Central New Hampshire Regional Planning Commission in monitoring and evaluating traffic flow and safety problems on State and federal highways, and in coordinating transportation planning within the City of Concord.

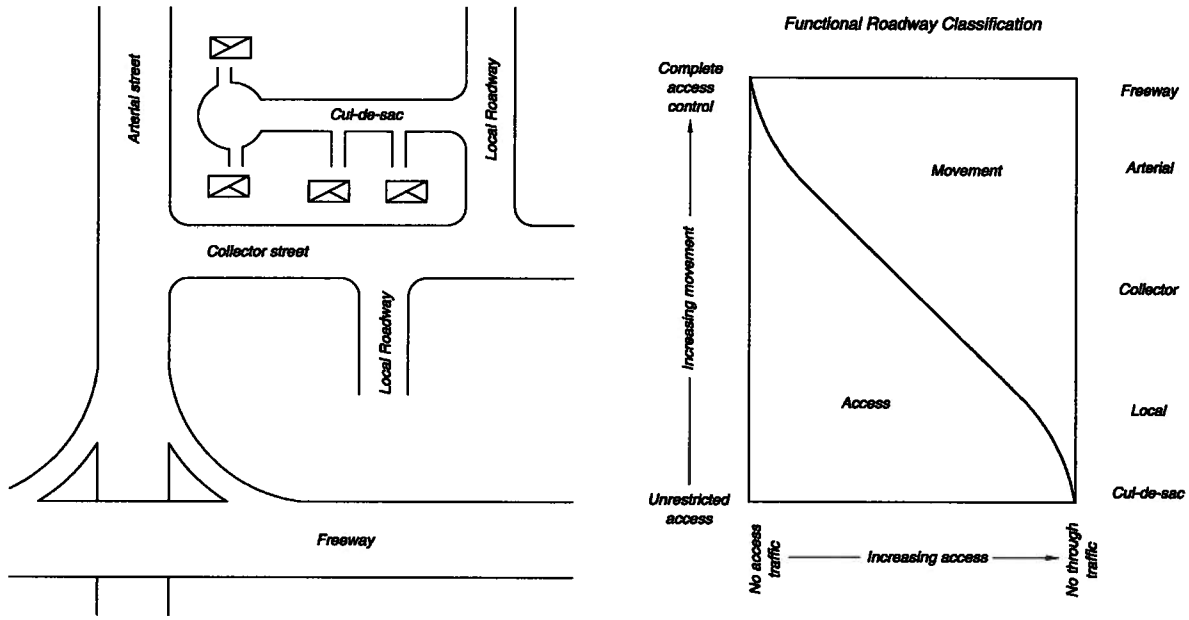
11. Seek adequate funding from public and private sources including through grants, fees, and exactions to support the expansion, improvement, operation, and maintenance of the transportation system.

C. STREET AND HIGHWAY FUNCTIONAL CLASSIFICATION

As depicted in Figure VI-1 below, the typical roadway functional classification system is comprised of a hierarchy of roadway types. This hierarchy includes local streets, collector streets, arterial roadways, and highways. Each type of facility provides various levels of access and traffic movement. Highways and arterial roadways are designed to process high volumes of traffic while access to adjacent land use is often limited. On the other hand, local roadways are designed to accommodate low traffic volumes and low travel speeds with a primary function of providing access. A collector roadway, as the name suggests, collects traffic from local streets and distributes it to the arterial system.

Therefore, local streets should only intersect collector streets or other local streets. Collector streets intersect local streets and arterials, while arterials intersect collector streets or highways. To accommodate the safe and efficient movement of traffic intersecting roadways should not differ by more than one functional class, meaning that local roadways should not intersect with arterial roadways or highways. The graphic provided on the following page shows the relationship between access and movement for the different functional classifications.

Figure VI-1. Functional Roadway Classification



Source: Vanasse Hangen Brustlin, Inc. (VHB)

Streets are functionally classified based on a number of variables including the origin or destination of the traffic on the street, traffic volumes, speed, abutting land use and access requirements, as well as physical design features. Two key variables are through versus local traffic, and the amount of access provided to abutting land uses. An interstate highway, the principal purpose of which is to carry through traffic, is at one end of the continuum, while at the opposite end of the continuum is the local street, the principal purpose of which is to provide access to abutting land uses.

1. Functional Classification System Components

The functional classification system components for Concord are defined as follows:

a. **Interstate Highways** - These are controlled access, divided highways with at least four travel lanes, and all intersections are grade-separated interchanges with on and off ramps. Average daily traffic volumes (ADT) may exceed 70,000 trips per day. Posted speed limits are generally between 55 and 65 miles per hour.

b. **Major Arterials** - A major arterial generally will have a minimum of four travel lanes with traffic volumes ranging from 16,000 to 30,000 ADT. Posted speed limits should range between 35-50 mph. The principal function of a major arterial is to carry cross town and

regional traffic. Access from abutting land uses should be strictly controlled and on-street parking should be prohibited.

c. **Minor Arterials** - Minor arterials generally carry traffic volumes between 8,000 and 16,000 ADT at operating speeds of 30 to 50 mph. They will usually consist of two travel lanes, that may be increased to three or four lanes to handle locally heavy traffic. Their principal purpose is to provide intra-city connections between neighborhoods and commercial areas, and to provide access to the regional traffic network. Access to these streets is controlled to maintain adequate levels of service and safe operating conditions. On-street parking should be allowed only in limited circumstances in older urban areas without adequate off-street parking.

d. **Major Collectors** - Major collectors typically carry between 2,500 to 12,000 ADT on two lanes of travel way. The purpose of the major collectors is to provide access from significant areas of residential, commercial and industrial activity to the arterial network. Access to these streets should be controlled to maintain adequate levels of service and safe operating conditions. On-street parking should be discouraged.

e. **Minor Collectors** - These are two lane roads similar in nature to urban and rural collectors. However, these roads generally carry more traffic than would be expected for rural collectors, but trip lengths are generally longer than found on the typical urban collector. These roads generally carry a higher percentage of intercity and cross town trips than would normally be expected on a roadway of this type and volume. On-street parking should be discouraged.

f. **Urban Collectors** - These are two lane roads designed to move traffic through and out of dense residential, commercial or industrial areas. Average daily traffic volumes should not exceed 2,500 vehicles in residential areas, and 10,000 vehicles in commercial or industrial areas. The design and location of driveways should be regulated in order to ensure safe operating conditions. Posted speed limits on these streets range from 25 to 35 mph. On street parking is commonly found on these streets.

g. **Rural Collectors** - These streets are designed to serve as feeder roads to large areas of existing and proposed low density agricultural and residential development. Average daily traffic volumes should range between 1500 to 2500 vehicles on two travel lanes. The design and the location of driveways should be regulated in order to ensure safe operating conditions. Posted speed limits will usually range between 45 to 50 mph.

h. **Local Streets** - These streets should carry fewer than 1,500 vehicles per day. The purpose of these streets is to provide access to abutting land uses at operating speeds of 30 mph or less in urban areas, and 45 mph or less in rural areas.

2. Functional Classification of the Existing Street and Highway System

The existing streets and highways of the City as well as State roads and private streets within the City are classified as interstate highway, arterial, collector, or local streets, as contained in Table VI-1 and portrayed on Exhibit VI-1.

Table VI-1. Functional Classification of the Existing Street & Highway System

Functional Classification	Total Miles	Street Name	All or partial	From	To
INTERSTATE HWY	17				
		I-93	Partial	Bow TL	Canterbury TL
		I-393	Partial	I-93 Exit 15	Pembroke TL
		I-89	Partial	I-93 Exit 11	Hopkinton TL
ARTERIAL STS					
Major	25				
		Clinton Street	All		
		Loudon Road	All		
		Hoit Road	Partial	I-93 Exit 17	Canterbury TL
		NH Route 3[1]	All	Manchester St	Village Street
		NH Route 106	All		
		Pleasant Street	Partial	Main Street	Langley Parkway
		South Street	Partial	Clinton Street	Pleasant Street
Minor	9	East Side Drive	Partial	Loudon Road	I-393
		East Street	All		
		Langley Parkway	All		
		Pleasant Street / Hopkinton Road	Partial	Langley Parkway	Hopkinton TL
		South Main St/Rt 3A	Partial	West Street	Bow TL
COLLECTOR STS					
Major	20				
		Airport Road	All		
		Auburn Street	All		
		Broadway	All		
		Centre Street	Partial	Liberty Street	North Main St
		D'Amante Drive	All		
		East Side Drive	Partial	I-393	I-93 Exit 16
		Ft. Eddy Road	All		
		Hazen Drive [State]	All		
		Hall Street	All		
		Integra Drive	All		
		Liberty Street	Partial	Centre Street	Warren Street
		Mountain Road	Partial	I-93 Exit 16	Shaker Rd
		Old Turnpike Road	All		
		Regional Drive	All		
		South Street	Partial	Clinton Street	Bow TL
		South Fruit Street	All		
		Warren Street	Partial	Pleasant Street	Liberty Street
Minor	26				
		Abbott Road	Partial	Manor Road	Sewalls Falls Rd
		Bog Road	All		
		Carter Hill Road	All		
		Green Street	All		
		Hoit Road	Partial	I-93 Exit 17	Loudon TL

Functional Classification	Total Miles	Street Name	All or partial	From	To
Minor Collectors		Horse Hill Road	All		
(continued)		Lake View Drive	Partial	Carter Hill Rd	Little Pond Road
		Little Pond Road	All		
		Manor Road	All		
		Mountain Road	Partial	Shaker Road	Canterbury TL
		North State Street	Partial	Pleasant Street	Bouton Street
		Sewalls Falls Road	All		
		Shaker Road	All		
		South State Street	All		
		Warner Road	All		
Urban	20				
		Allison Street	All		
		Borough Road	All		
		College & Institute Drives [State]	All		
		Commercial Street	Partial	I-393	Delta Drive
		Constitution Ave	All		
		Delta Drive	All		
		Downing Street	All		
		Elm Street	Partial	Chandler St	Village Street
		Franklin Street	Partial	Auburn Street	North Main St
		Hutchins Street	All		
		Liberty Street	Partial	Centre Street	Rumford Street
		Locke Road	All		
		Oak Hill Road	Partial	Appleton St	Irving Drive
		Old Loudon Road	All		
		Perley Street	Partial	South State St	South Main St
		Pembroke Road	All		
		Penacook Street	All		
		Portsmouth Street	Partial	East Side Dr	Old Loudon Rd
		Rockingham Street	All		
		Rumford Street	Partial	Liberty Street	North State St
		Shawmut Street	All		
		Storrs Street	All		
		Washington Street	All		
		Washington St, Pen	All		
		W. Washington St	Partial	Liberty Street	Warren Street
		West Street	All		
		Whitney Road	All		
Rural	8				
		Blackwater Road	All		
		Elm Street	Partial	Chandler St	Horse Hill Rd
		Fisk Road	All		
		Long Pond Road	All		
		Oak Hill Road	Partial	Irving Drive	Loudon TL
		Silk Farm Road	All		
LOCAL STS	128				
PRIVATE STS	38				

[1] NH Rt 3 includes Manchester, S. Main, N. Main, Bouton, & N State Streets, Fisherville Road, & Village Street.

Exhibit VI-1. Functional Classification of the Existing Street and Highway System

[Insert: 11 x 17 graphic]

3. Modifications to the Functional Classification System

a. The following streets are proposed to be re-classified as follows if re-constructed in accordance with the recommendations of this Master Plan prior to 2030:

   i. **Loudon Road** - Once modified from a four-lane to three-lane section from Airport Road/Hazen Drive to D'Amante Drive, the functional classification of this segment of Loudon Road shall be revised from Major Arterial to Major Collector.

   ii. **Route 3 North (North State Street/Fisherville Road/Village Street)** - Once the corridor long conversion to a two- or three-lane section is implemented from Bouton Street north through Penacook Village, the functional classification of this segment of Route 3 North shall be revised from Major Arterial to Major Collector.

   iii. **Route 3A (South Main Street) & Hall Street** – If and when approved by NHDOT, Hall Street from Exit 13 southerly to the intersection at Route 3A in the Town of Bow would become part of Route 3A, and South Main Street from Kelley Square southerly to Exit 12 of I-93 would no longer be designated as such. In that event, the functional classification of Hall Street in Concord shall be revised from Major Collector Street to Minor Arterial Street, and the functional classification of South Main Street shall be revised from Minor Arterial Street to Urban Collector Street from West Street to Broadway.

b. The following new streets are proposed to be classified as follows if constructed in accordance with the recommendations of this Master Plan prior to 2030:

   i. **Langley Parkway North** - Once upgraded from Pleasant Street northerly on the Concord Hospital campus, and constructed further northerly from Concord Hospital to Rumford Street, with improvements to **Penacook Street** from Rumford to North State Street, Langley Parkway North shall be classified as a Minor Arterial Street. **Rumford Street** between Langley Parkway and North State Street shall be classified as a Minor Arterial Street.

   ii. **Storrs Street Extensions, North & South** – When constructed northerly and southerly from the current termini, Storrs Street Extensions shall be classified as Urban Collectors.

   iii. **Old Suncook Road Extension** – When constructed southerly from Manchester Street to intersect with Integra Drive and a connector from Route 106, Old Suncook Road Extension shall be classified as a Minor Arterial Street.

   iv. **Route 106 Connector** - When constructed between Route 106 and either Hall Street or Interstate 93, shall be classified as a Minor or Major Arterial Street, respectively, depending on the westerly terminus.

   v. **Fort Eddy Road Connector** – When constructed between North Main/Storrs Streets and Fort Eddy Road, the new connector shall be classified as a Minor Arterial Street.

D. CONNECTIVITY

Establishing and adopting the functional roadway classification system provides an organized hierarchy to the City's roadway system. However, for the roadway system to be effective, efficient, and to serve to maintain a sense of community, the roadway system needs to exhibit a sense of connectivity. Roadway connectivity refers to a street system that provides multiple routes and connections to the same origins and destinations.

One of the difficulties that the City of Concord, like other municipalities, faces is development projects that come before the Planning Board exhibiting poor connectivity. This can often be seen with residential subdivisions, where the subdivisions are designed as a series of cul-de-sacs. Although the residents who live on these types of streets generally prefer this type of disconnected street system because of the resulting low volume of traffic in front of their own home, the impact to the community as a whole can be detrimental.

A well connected street system provides motorists, pedestrians, and bicyclists better, more direct and shorter travel routes to schools, shopping, and other neighborhoods. A well connected street system not only provides shorter and more efficient connections, but also serves to reduce traffic congestion along the major arterial roadways. The result is a more efficient roadway system with less need to be continually adding capacity to the City's major streets. A well connected street system also improves emergency response times for firefighters, police, and ambulance services. In addition to the traffic operational benefits, a well connected street system also serves to create a sense of community as opposed to a sense of isolation that cul-de-sacs often introduce. This is not to say that cul-de-sacs should be prohibited in the City, but a well planned connected street system should be a key element in the City's transportation master plan.

E. TRAFFIC CALMING

As important as it is that the City's roadway system can accommodate future traffic growth, it is more important that the City is able to manage the flow of traffic. One way to effectively manage the flow of vehicular traffic is through the implementation of traffic calming techniques. The concept of traffic calming stems from the idea that roadways are shared by many users, including pedestrians and bicyclists, and that roadways can be designed to safely accommodate and encourage pedestrian movements rather than simply being designed to process vehicular traffic. Traffic calming involves the implementation of physical modifications to the roadway in an effort to not only reduce vehicle speeds, but to decrease the dominance of vehicular traffic.

The primary effect of traffic calming is to change the look and the feel of a roadway in such a way that motorists will expect pedestrian activity and therefore will drive accordingly.

The following are a sampling of traffic calming actions that can be used to change the character of an area and alter the expectations of motorists.

1. **Gateway Treatments** - These serve to present a positive indication of a change in environment from a roadway that primarily serves vehicular traffic to a more pedestrian friendly environment. These treatments include reducing the pavement width, modifying the pavement texture, and adding landscaping and other streetscape close to the travelway.

The purpose of this treatment is to alert the motorist that he or she is entering a traffic calming area and should expect to encounter pedestrians.

2. **Chokers** - Extensions or curb bulbs, chokers serve to narrow the street thereby reducing the pedestrian crossing distance and, as a gateway treatment, signals a change in the character of the roadway.

3. **Speed Humps** - Different from speed bumps, speed humps can be an effective means of traffic calming by introducing a vertical acceleration factor to the moving vehicle. Speed humps typically measure 3 to 4 inches in height and are approximately 12 feet in length. The characteristics of speed humps differ significantly from speed bumps, which are commonly used in parking lots and measure 3 to 6 inches in height and are generally no more than a foot or two in length. It is current City policy not to install these devices on arterial or collector streets.

4. **Rumble Strips** - Sections of rough pavement, rumble strips cause a slight vibration to a motor vehicle thereby causing the driver to become more alert and as a result slow down. Although these devices have been shown effective at reducing travel speeds, the noise produced by the rumble strip can raise objections from nearby residents, institutions, and hotels. These strips can also be problematic for bicyclists, although this problem can be addressed by leaving a smooth pavement surface along the shoulder or bike lane.

5. **Median Refuge Islands** - Raised median islands are placed in the center of the roadway separating the directional flow of traffic. The median island not only provides the pedestrian a safe refuge area, but it also serves to reduce the overall pavement area thereby changing the look and the feel of the roadway.

6. **Raised Crosswalks** - Effectively speed humps placed at crosswalks, the crosswalk is raised approximately 3 to 4 inches above the roadway surface with a gradual approach and departure similar to a speed hump.

7. **Roundabouts** - circular intersections with specific design and traffic control features including yield control of all entering traffic, channelized approaches, and appropriate geometric curvature to ensure reduced travel speeds.

When considering the implementation of traffic calming actions, it is important to remember that the primary effect of traffic calming is to change the look and the feel of a roadway in such a way that motorists will expect pedestrian activity and therefore will drive accordingly. For this reason, traffic calming techniques are most effective when used to highlight the function of a local street in contrast to a higher functioning roadway.

F. ACCESS MANAGEMENT

There was a time when municipalities could design safe and efficient roadway systems with little or no coordination between public works departments, who were generally responsible for the roadway system, and planning departments, who were responsible for land use and development decisions. However, in recent years the City of Concord, like other municipalities, have come to recognize that there is a much better way. The better way is through the implementation of access management. Access management balances mobility and access, so

as to improve the efficient movement of traffic while enhancing safe and efficient access to and from abutting properties. However, to be effective, access management requires that land use planners and roadway designers work together.
"Access management is the systematic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway."[1] Along a busy commercial corridor such as Loudon Road, a well conceived access management plan can improve the efficient movement of traffic while enhancing the safe and efficient access to and from abutting properties. Some specific benefits of access management include:

- Safer and more efficient access to properties,
- Fewer and less severe automobile crashes,
- Fewer auto/pedestrian conflicts,
- Less congestion,
- Reduced travel delays,
- Reduced fuel consumption,
- Increased and preserved traffic capacity,
- Enhanced corridor aesthetics,
- Enhanced community character, and
- Preserved neighborhood integrity.

Although the benefits of access management are most readily apparent along busy commercial corridors, the City should also consider the implementation of access management strategies along rural roadways as well. Often times residential subdivisions are designed such that only the back parcels have access to the subdivision roadway while the parcels that directly abut the existing City street have individual driveways for each parcel. Given that many of the City's rural roadways are winding and rolling and as a result have sight distance limitations, it would be beneficial to limit access to the primary subdivision roadway when ever possible.

G. IMPROVEMENTS TO THE CITY'S ROADWAY SYSTEM

1. Overview

The results of the future 2030 traffic volume projections, which were developed by the Central New Hampshire Regional Planning Commission (CNHRPC,) show that the future traffic volume demand within the City of Concord will substantially exceed the capacity of the City's roadway system. To often the first reaction to an expected lack of roadway capacity is to increase the carrying capacity of the roadway system. This is not necessarily the best approach. To minimize the need to continue to add travel lanes and/or to widen existing roadways or construct new roadways will require the City to aggressively pursue the multi-modal approach that has been built into this Transportation Section of the Master Plan. This includes enhancing pedestrian and bicycle mobility through the implementation of the sidewalk and bicycle plans, encouraging transit ridership, and pursuing future opportunities with rail and air transportation.

Nevertheless, despite the most aggressive pursuit of alternative modes of transportation, the anticipated future growth will require that the carrying capacity of the City's roadway system be increased. However, this is not to say that the solution is to simply add capacity to those roadways where the greatest demand is expected. It will be necessary to add capacity to the

[1] Access Management Manual; Transportation Research Board, Washington, D.C. 2003

City's roadway system; however, it will be just as important to limit the amount of vehicular capacity in certain areas of the City - such as near residential areas. The Master Plan provides an opportunity to plan for the future - rather than simply react to it.

The key to accommodating the future growth on the City's roadway system, while protecting the quality of life within the community, will be to identify key connections (some existing roadways and some new roadways) that would be designed to efficiently move vehicular traffic through or around the City while at the same time identifying roadways that would be designed to discourage through traffic.

Enhancing the efficient movement of vehicular traffic will come from adding travel lanes, providing needed turn lanes, implementing good access management techniques, requiring improved roadway connectivity, and by putting in place and maintaining coordinated traffic signal systems. Conversely, vehicular traffic will be discouraged along some roadways where a more context sensitive design approach would serve to encourage pedestrian movement and enhancing community character. The design for these types of roadways should focus on various traffic calming actions.

The following provides a brief discussion on which roadways should be designed to efficiently move vehicular traffic and which roadways should be designed to discourage through traffic.

2. Interstate 93

As a major interstate highway, I-93 has a primary function of processing high volumes of regional and interstate traffic. The highway falls under the jurisdiction of the New Hampshire Department of Transportation (NHDOT) and in fact the NHDOT is currently conducting a study of this segment of I-93 to determine its long-term plan. However, because the interstate highway bisects the City, the operation of the highway as well as its interchanges can dramatically affect the operation of the City's transportation system.

It is clear that I-93 will need to be widened from its current 4-lane operation. The question is, will the highway need to be widened to a 6-lane or an 8-lane configuration. There are many valid reasons (aesthetic, cultural, historical, and environmental, etc.) why the City may prefer that 6 lanes be the maximum configuration of the highway. However, from a traffic perspective, the way to minimize the impact of traffic growth on the City's street system is to ensure that I-93, including its interchanges, has all the capacity that is needed to accommodate future growth.

The CNHRPC's traffic model shows 2030 peak hour directional volumes (one direction only) along I-93 ranging from approximately 5,500 vehicles per hour (vph) between Exits 13 and 14 to 7,600 vph between I-89 and Exit 12. To maintain acceptable operations along I-93, this level of traffic growth would necessitate four lanes per direction or an 8-lane highway. Otherwise, as traffic growth and congestion occurs the future traffic demand will be forced from the arterial streets to collector streets to eventually local streets.

There may, however, be a way of accommodating the regional growth without expanding I-93 to an 8-lane section. That option would be to construct a new connector roadway or by-pass of Route 106 that would extend from I-93 at I-89 to I-393 east of Route 106. One of the primary reasons why the segment of I-93, within the City of Concord, is congested is the inefficient layout of the regional highway system where I-393 intersects I-93 to the north of the City's downtown and I-89 intersects I-93 to the south of the City's downtown. This inefficient layout of the regional highway system results in unnecessary travel demand along the segment of I-93

between I-89 and I-393. Connecting I-89 to I-393 at I-93 south of the City may allow a reduced cross section of I-93 of no more than 6 lanes.

3. Opportunity Corridor

The Opportunity Corridor extends north-south from approximately Exit 12 to Exit 15 on I-93 and encompasses approximately 500 acres of land between the Merrimack River and the downtown. As described in the Concord Opportunity Corridor Master Plan[2] vision statement "*The Opportunity Corridor should become a magnet for new job opportunities, bring new residents into the City, hosting commercial and cultural activities, preserving large areas of green space, and providing for efficient transportation. The corridor will be walkable, livable, and characterized by human scale. An attractive mix of offices and shops, restaurants, cafes, residences, cultural amenities, parking, waterfront access and parks will create a unique destination for residents and visitors. Passenger rail service will connect to Boston and Montreal. Sidewalks and bike paths radiating from a central Common will connect to the surrounding downtown areas and neighborhoods, and trails along the river will lead to natural treasures beyond city limits.*"

The Plan's transportation-related recommendations include:

a. Modify 1-93 Exit 14 and 15 interchanges to improve roadway and district connectivity, and eliminate weaving hazards posed by the proximity of the two interchange ramps.

b. Create alternative routes along the Opportunity Corridor to facilitate north-south circulation at the local level.

c. Improve east-west accessibility between the downtown, the Opportunity Corridor, and the neighborhoods to the east of the river.

d. Provide roadway alternatives that will alleviate traffic congestion on Loudon Road, North Main Street and Fort Eddy Road.

e. Preserve and enhance a passenger rail right-of-way into and through Concord.

f. Secure a preferred location for a future multimodal transportation center near the downtown.

g. Improve integration of pedestrians, bicycle, transit and local vehicular circulation.

Specific elements of the recommended plan include:

- Construction of a new Exit 15 interchange to improve the transition from the highway to the local streets while easing highway-to-highway connections.

- Construction of a new collector-distributor roadways parallel to I-93 between Exits 14 and 15 to allow for the closure of the northbound on-ramp and the southbound off-ramp at Exit 14 and the elimination of traffic weaving hazards on I-93.

[2] Concord Opportunity Corridor Master Plan; April 2005 by The Cecil Group Inc., Bluestone Planning Group, Rizzo Associates, Inc, Bonz and Company, Inc.

- Extension of Storrs Street to provide a north-south spine and double-loaded development boulevard along the corridor connecting the Horseshoe Pond area to the North and Central Opportunity Corridor districts.

- Creation of a new Fort Eddy Road east-west connector to provide an alternative to Loudon Road and to reduce traffic congestion on Loudon Road, North Main Street and Fort Eddy Road.

- Reduction of traffic signals on Loudon Road at Exit 14 to three with improved spacing between signals.

- Establishment of a rail corridor alignment that will accommodate freight and passenger rail service, minimizing at grade crossings, and maintaining adequate clearances and track curvature.

- Location of the multimodal transportation center in the Central Opportunity Corridor providing access to local and regional buses, public parking, and downtown passenger rail service.

- Relocation of the rail yard out of the Central Opportunity Corridor.

- Accommodation of bicycles and pedestrians along existing and new transportation infrastructure networks.

- Re-locate the existing I-93 and railroad alignments approximately 100 feet to the west between Exits 13 and 14, and depress the highway in this area in order to allow for the creation of a public waterfront and to facilitate the "river connection" - a visual and pedestrian connection between Downtown Concord and the Merrimack River.

4. Corridors Designed to Efficiently Process Vehicular Traffic

To enhance the efficient movement of vehicular traffic throughout the City, additional roadway capacity (adding lanes) should be provided along the following roadways.

a. **Langley Parkway** - From a more local perspective, the most important and needed upgrade of the City's roadway system is the construction of the north end of the Langley Parkway. Providing motorists and bicyclists the ability to travel to the City's growing medical area at the western end of Pleasant Street by way of this new 2-lane roadway would substantially reduce the traffic volumes and congestion along roadways such as Centre Street and Pleasant Street as well as numerous neighborhood streets and streets in the downtown area.

b. **Clinton Street** - With the completion of the north end of the Langley Parkway, the segment of Clinton Street from the Langley Parkway to I-89 will need to be widened to a 4-lane cross section with bike lanes. Providing additional capacity along this key roadway segment will provide motorists convenient access to and from the regional highway system (I-89) once again reducing the potential for unnecessary travel along the City's collector and local streets. For example, a motorist that is destined to the south on I-93 from the Concord Hospital area will choose the Langley Parkway to Clinton Street to I-89 route if there is

sufficient capacity and no congestion. Otherwise motorists may continue to travel east along Clinton Street to Broadway to Exit 12 at I-93.

c. **Pleasant Street** - Similarly with the completion of the Langley Parkway, the segment of Pleasant Street from the Langley Parkway easterly to South Fruit Street/Warren Street intersection could be maintained with a single lane in each direction with perhaps a third center-turn lane provided to accommodate access to side streets and driveways. Without the Langley Parkway this segment of Pleasant Street would need to be upgraded to a four-lane section (two through lanes in each direction) with a fifth turning lane provided at major driveways. The Pleasant Street/South Fruit Street/Warren Street intersection will need to be reconfigured and upgraded regardless. Any improvements must be planned and designed to accommodate bicycle traffic.

d. **Route 4 west of I-93 Exit 17** - Another key link to the regional system, which can be found at the northernmost extent of the City, is Route 4 from the west at the I-93 Exit 17 interchange. To protect the Fisherville Road/North State Street corridor from continued traffic growth will necessitate easy access/egress to/from the regional highway system at Exit 17. This would necessitate the widening of Route 4 west of Exit 17 to a 4-lane section, the upgrade of the intersections at the Exit 17 northbound and southbound ramps, and the completion of Whitney Road to provide connectivity between Sewalls Falls Road and Route 4. Improvements must be planned and designed to accommodate bicycle traffic.

e. **Route 106** - Additional roadway capacity will also be needed along Route 106. Again, Route 106 has an important connection to the regional highway system. Providing convenient access/egress to/from I-393 as well as I-93 with the recent upgrade of the Regional Drive/Old Turnpike Road corridor serves to reduce the traffic congestion along Loudon Road. Route 106 should provide 4-lanes (2 lanes per direction) and bicycle lanes with additional turn lanes at major intersections throughout its length.

f. **Manchester Street** - Finally, Manchester Street should also be widened to improve the carrying capacity of the roadway and the City's transportation system. Manchester Street should be widened to a 5-lane cross section consisting of two through lanes in each direction plus a center turn lane as well as bicycle lanes.

5. Corridors Designed to Discourage Through Vehicular Traffic

It is not necessary or even prudent to continue to add travel lanes to all of the City's major corridors. Some corridors can be designed to operate efficiently while maintaining or in some cases reducing the number of travel lanes. The following roadways can and should be improved to operate more efficiently without increasing the number of travel lanes.

a. **Loudon Road** - The best example of enhancing the efficient movement of traffic without increasing the number of travel lanes is the proposed conversion of Loudon Road from 4 lanes to 3 lanes. Currently, Loudon Road operates poorly with substantial congestion despite a 4-lane cross section. The poor operation is primarily due to the unbalanced lane distribution that results from motorists coming to a stop in the two inside travel lanes as they wait to turn left onto one of the numerous driveways along the roadway. The conversion to a 3-lane section will provide a safer and more efficient operation while accommodating bicyclists and the same volume of traffic.

b. **I-393 Exit 2** - Another important action that would enhance the efficient movement of traffic without providing additional travel lanes would be to realign the northern end of Hazen Drive so that it intersects directly opposite the I-393 Exit 2 eastbound ramp. This action would improve traffic operations at the Hazen Drive/East Side Drive intersection and would serve to encourage the use of Hazen Drive and I-393 as an alternative to Loudon Road.

c. **Fisherville Road** - The City has just completed a corridor study of Fisherville Road. Based on input from the public, recommendations suggest that the corridor will be limited to a maximum 3-lane cross section consisting of a single lane in each direction and a center turn lane. The plan calls for upgrading the corridor with a bike lane and sidewalks in an effort to enhance pedestrian and bicycle movement while limiting the number of through lanes in an effort to discourage through traffic. The plan calls for upgrading the corridor with a bike lane and sidewalks in an effort to enhance pedestrian and bicycle movement while limiting the number of through lanes in an effort to discourage through traffic.

d. **North State Street** - From Washington Street to Bouton Street, North State Street will be upgraded without increasing the throughput capacity of the corridor. The planned actions call for the reconstruction of the Bouton Street intersection so as to eliminate the free flow high-speed southbound movement onto North State Street and require motorists to make a 90-degree right-turn at the traffic signal. Other actions include the construction of a mini-roundabout at the Franklin Street intersection, tightening turning radii and reducing pavement width at the Washington Street intersection, and the placement of well delineated crosswalks with bump-outs. The objective of the plan is to process traffic efficiently, but to do it in such a way as to reduce travel speeds and more importantly to reduce the dominance of the motor vehicle.

6. Other Actions for Consideration

In addition to the roadways that will either be designed to increase there carrying capacity or designed to discourage through traffic, there are other actions that should be considered to enhance the City's overall traffic circulation and connectivity.

a. **Storrs Street** - Traffic operations in the downtown area would be improved with both the northern end and southern end extensions of Storrs Street. Extending Storrs Street to Commercial Street to the north and to South Main Street to the south will serve to reduce travel demand along Main Street, which will allow the City to implement more pedestrian friendly features along Main Street.

b. **Route 3A** - The City should consider petitioning the State to designate Hall Street as Route 3A as opposed to South Main Street. Doing so would allow the City to better protect the neighborhoods in the south end from the continued influx of traffic. Traffic calming north of Exit 12, or limiting access to Exit 12 from the north should be considered.

c. **I-89** - The City should also begin to consider how a reconfigured and upgraded Exit 1 interchange at I-89 may alter traffic flow in the south end of Concord. Although there are no definitive plans at this time, the interchange will be reconfigured at some time in the future. The City should be prepared to take a position as to whether direct access to the interstate from South Street is in the City's best interests.

H. PEDESTRIAN MOBILITY AND SIDEWALK IMPROVEMENTS

Sidewalk improvements are those identified as either short term or long term improvements on Exhibit VI-2, Sidewalk Plan. Sidewalks are required in all new subdivision streets within the Urban Growth Boundary (UGB) and are required along the frontages of new commercial and non-residential development. If conditions warrant, the City Planning Board may require additional off-site sidewalk improvements to link, or close gaps in the sidewalk system serving a new development.

The highest priority will to complete continuous sidewalks on all arterial and collector roads on one side of each such street within the UGB, and to complete sidewalks on walk-to-school routes. The next level of priority is to complete continuous sidewalks along both sides of arterials and collector roads within the UGB, to complete linkages between neighborhoods, and between neighborhoods and commercial and institutional areas. The third level of priority is to complete sidewalks on both sides of streets in the highest density residential neighborhoods where right-of-way allows, and on one side of the streets in medium density neighborhoods, excluding dead end streets and alleys less than 500' in length. The lowest priority will to provide sidewalks along arterial and collector roads in low density residential districts inside the UGB.

Sidewalks are not intended to be constructed outside the UGB; however, where there are nodes of rural residential development, gravel shoulders should be provided adjacent to the traveled way to facilitate pedestrian movement that is safer than walking along the edge of the traveled way. The rural areas of the City will be linked by trail systems (see Section VII, Conservation and Open Space). These trails should be connected along the edge of the UGB to the sidewalks located within the UGB, so as to create pedestrian connectivity from neighborhoods to the City's open spaces.

I. BICYCLE MOBILITY AND IMPROVEMENTS

Bicycle routes are designated on Exhibit VI-3, Bicycle Plan, which has been updated with information from bicycle planning initiatives in 2010. The first priority for bicycle mobility is to appropriately mark and sign the designated bicycle routes for the safety of both bicyclists and motorists, as well as to provide navigational assistance for the bicyclists. The second highest priority is to insure that provisions are made for bicycles to share the road with motor vehicles by the marking out or adding shoulders along arterial and collector roads. The identified highest priority corridor is Route 3 north including North State Street, Fisherville Road, and Village Street in Penacook.

Bicycle routes are designated as either primary routes or secondary routes. Primary routes are those identified in either the State or Regional Bicycle plans plus those local additions to said routes that will better serve the Concord community. Most designated routes utilize existing streets and roads. Existing and proposed off-road shared use paths are also shown on the plan for both primary and secondary routes. Off-road bike paths are intended for recreational use as well as commuting, and may be joint use paths for both pedestrian and bicycle traffic. Some paths may remain unpaved due to environmental and conservation restrictions. A current initiative by local bicyclists is for a Merrimack River Greenway Path which would have a paved surface, would link to regional shared use paths to the north and south of Concord, and would serve commuters as well as recreational bicyclists.

Exhibit IV-2. Sidewalk Plan

[Insert: 11 x 17 graphic]

Exhibit IV-3. Bicycle Plan

[Insert: 11 x 17 graphic]

Bike routes along existing arterial and collector roads, either designated as primary or secondary routes, should all have appropriate signage and be provided with joint use shoulder/bike lanes wherever pavement and right-of-way of way is available. Narrowing the width of travel lanes should be considered in order to provide for wider shoulders for bicycle use. Joint use bicycle lane/shoulders should be incorporated into all roadway resurfacing and reconstruction projects. Four-foot (4') minimum width shoulders/bicycle lanes should be provided on both sides of arterial and collector on all major highway improvement projects.

Routes on low volume streets within the Urban Growth Boundary, with posted speeds of 30 mph or less, may be signed with the bicycles sharing the travel lanes. Outside of the Urban Growth Boundary, gravel shoulders may be provided along rural collector roads and bicycles would share the traveled way of local rural roads.

Bicycle parking facilities should be provided at destinations for bicyclists, both commuters and recreational riders. Safe and secure facilities for temporary bicycle storage are needed at major employment sites and centers, as well as at schools, libraries, parks, and retail sites and centers.

J. ALTERNATIVE TRANSPORTATION MODES

Alternative Transportation modes in Concord involve air transportation, freight rail service, as well as inter-city and intra-city bus service. The City of Concord is responsible for air transportation as the owner of Concord Airport, while rail freight service and bus service is provided by private and non-profit service providers. The possibility of adding passenger rail service in the long term (20 years plus) has been enhanced by the designation of a federal high speed rail corridor from Boston to Montreal through Concord.

1. Air Transportation

a. Description of Concord Airport

The 614 acre Concord Municipal Airport is located on Concord Heights and is primarily accessed from Airport Road with secondary access from Regional Drive. The Airport was established in 1920 and functions as a general aviation airport and as a base for the NH Army National Guard 1159th Medical Company Air Ambulance on a 26 acre leased parcel. The Airport also serves as a base for the NH State Police Aviation Unit, the NH Civil Air Patrol, and a number of private airport related businesses. The Airport does not receive scheduled commercial air service which is primarily being provided from the Manchester Airport, 20 miles to the south, and Logan International Airport in Boston, approximately 70 miles south-southeast.

The City of Concord owns and operates the airport. A private contractor is retained as a Fixed Base Operator (FBO) and is responsible for daily airport operations, interior building maintenance, servicing aircraft and also serves as the onsite airport manager for the City.

Two active runways serve the Airport, Runway 17-35 and Runway 12-30. Runway 03-21 has been closed since the 1990's. Runway 17-35 is 6,005 feet in length (100 ft wide) and is the main runway with approximately 75% of aircraft operations utilizing this runway. Runway 12-30 is 3,200 feet long (75 ft wide) and is used for approximately 25% of the total take off and landings at the Airport. The Airport is a non-towered airport with a B-II designation, with design criteria for airplanes with landing speeds up to 121 knots and wingspans up to 79 feet. Larger

aircraft can and do routinely use the Airport but the FAA rules and regulations that govern the Airport are associated with the B-II category of aircraft.

The Airport is anticipated to remain a general aviation airport for the foreseeable future. Total Annual Operations were 62,300 in 2004 and are forecast to grow to 85,400 by 2023. In 2004, a total of 92 aircraft were based at the Airport (including military). Of this total, 71% were small private single engine aircraft. The amount of locally based aircraft is expected to grow by 48% with a corresponding demand for hanger space and aircraft tie downs. The peak uses at the Airport are associated with NASCAR race weekends at the Loudon International Speedway and events at St. Paul's School in Concord.

The Airport is subject to a Conservation Management Agreement between the City of Concord, Federal Aviation Administration (FAA), NHDOT, the US Fish & Wildlife Service, and the NH Fish and Game Department for the preservation and enhancement of habitat for the Karner Blue Butterfly. In addition, the pitch pine woodland and scrub oak communities on the Airport are the home to three (3) other state endangered or threatened butterflies or moths and two (2) threatened plant species, Wild Lupine and Golden heather. The Airport is divided into a number of development parcels (DZ) and conservation zones (CZ). Development is prohibited in the CZ parcels and the parcels are managed by the US Fish & Wildlife Agency for the preservation and enhancement of habitat for the Karner Blue Butterfly and other threatened plant and insect species.

b. Concord Municipal Airport Master Plan

The City of Concord is required by the Federal Aviation Administration (FAA) to update its Airport Master Plan approximately every 10 years. The latest update was completed in May of 2006 and was adopted by the Planning Board on May 3, 2006. The Airport Master plan is intended to guide investment at the Airport for a twenty (20) year planning period and contains an inventory of existing conditions, an analysis of the existing facilities, forecasts of future growth and activity at the Airport, as well as recommendations in regard to capital improvements, use of the Airport property, and Airport operations, management and financing.

Federally eligible projects may receive 95% of the necessary funding from the FAA, with a match of 2.5% from NHDOT – Division of Aeronautics, and 2.5% match from the City of Concord. This funding ratio may change in 2007 when the federal Airport Improvement Plan (AIP) is up for reauthorization.

It is noted that only ten (10) acres of undeveloped property at the Airport property now remain for development purposes. Over the last forty (40) years a significant amount of property has been removed from the Airport holdings for economic development purposes including all the land abutting Barrell Court, Henniker Street, the west end of Chenell Drive, as well as most of land the along the east end of Regional Drive and the east end of Chenell Drive. Twenty six (26) acres of Airport property has been leased and developed by the NH Army National Guard for their aviation facility located southerly of Regional Drive. This Master Plan recommends the remaining ten (10) acres be reserved exclusively for aviation related uses.

The major projects planned at the Airport include the following improvements:

i. Acquisition of abutting private property north of runway 17-35 along Grant, Greeley and Robinson Streets where the existing homes will be demolished and the existing trees cut within the Runway Protection Zone (RPZ).

ii. Acquisition of property to the south and southwest of runway 17-35 in both Concord and Pembroke to allow the removal of obstacles (primarily trees) encroaching into the "obstacle free zones".

iii. Replacement of the existing Airport terminal at its current location along with expanded paved parking and additional overflow turf parking north of Regional Drive.

iv. Extension of runway 17-35 southerly an additional 1000' to allow for larger aircraft to utilize the airport and better serve the existing and proposed growth in aviation traffic. This extension will require a federal environmental assessment and will likely require additional property takings.

v. Construction of additional hangers for based aircraft adjacent to closed runway 03-21 (new taxiway) and adjacent to Regional Drive.

vi. Construction of a parallel taxiway adjacent to runway 12-30 as well as the reconstruction of the closed runway 03-21 as a taxiway.

vii. implementation of a number of minor projects intended to improve safety and operations inside the existing airport perimeter including but not limited to a complete perimeter fence, turf perimeter road, aviation lighting, landing aids, improvements to runway shoulders, blast pads and itinerant airplane parking areas.

2. Bus Service

a. Intra-City Bus Services

The Concord Area Transit (CAT) system has operated under the purview of the Concord Community Action Program since its inception in 1989. The fixed route service provides service for commuters, shoppers, and the general public from Penacook to Downtown Concord, from Concord Hospital to the Steeplegate Mall and Walmart, and from St. Paul's School to the New Hampshire Technical Institute and Ft. Eddy Road including the Stickney Avenue inter-city bus station. The CAT system currently has three scheduled routes: Heights, Penacook and Crosstown. Service is provided on weekdays from 6:30 AM to 6:30 PM. Service is provided hourly with transfers occurring downtown in front of the Statehouse on North Main Street. Ridership of the fixed route system has grown from 89,284 in 2000 to 103,397 in 2005.

The CAT system is financed primarily by Federal Mass Transit funds, with assistance from the City of Concord, and private donations including funding from its parent organization the Concord Community Action Program. Fair box revenues cover between ten to twelve percent (10-12%) of the system operating costs.

CAT operates a Senior Transit System which provides transportation for seniors (aged 60 and over), serving 12 towns throughout Merrimack County. On a space available basis, those persons under age 60 are welcome. CAT also operates a Special Transit Service serving persons with disabilities who are unable to use the fixed route service. This service is door to door with reservations required.

Concord Area Transit (CAT) has developed the first recognized dispatch system in New Hampshire to provide coordinated, door to door service utilizing the shared resources of

transportation providers in the Concord area. This demand response service uses the scheduling and dispatching resources of Concord Area Transit to expand the availability of door to door services to the greater Concord area. CAT is presently coordinating dispatch and scheduling for several agencies and intends to expand the number of providers and vehicles in the future to include all transportation providers in the region. Service is provided Monday through Friday between 6:30AM and 5:30 PM on a space available basis. Trips may be requested up to 5 days in advance, but at least 24 hours advance notice is required. All requests are scheduled on a first come first served basis. This is a shared ride service and the cost of service varies based on trip length. Qualifying individuals may have all or a portion of the travel expense subsidized by funding sources.

The CAT system also provides a shuttle service from remote lots for jurors at the US District Court and stands ready to assist other institutions in the City with similar transit needs.

Plans are in place to expand the number of fixed routes in the coming years including service to the surrounding communities of Pembroke, Bow and Boscawen and to expand the hours of operations when operating funding is secured. The 2003 Concord Area Transportation Plan envisions several new routes, the addition of new buses on existing routes to expand service, and the extension of the hours of operation to better serve the population not served by the automobile, as well as commuters, visitors and residents looking for alternative transportation.

The City has endorsed these endeavors, and supports the expansion of the CAT system financial base to include other communities in the Central New Hampshire Region, as well as large scale institutions in the City, expanded federal support, and assistance from the State of New Hampshire.

As population grows and ages, the demand for non-fixed route door-to-door service is expected to grow, hours of operation are anticipated to increase, new routes will need to be added, and the number of buses serving each route will reduce the once per hour head (arrival) times of the current system. More bus shelters will be needed to enhance the convenience of system users, and all bus shelters will require continuing maintenance.

b. Inter-City Bus Service

Bus service is provided by Concord Trailways from the Stickney Avenue Station in Concord to Manchester, and on to South Station and Logan Airport in Boston. Vermont Transit Lines provides limited bus service from Concord north to White River Junction, Vermont and southerly to South Station in Boston. Peter Pan Bus Lines also provides limited service to points south of Concord. Inter-city bus services are anticipated to grow over time. Currently, shuttle service to Manchester Airport is limited due to the availability of parking at the Stickney Avenue facility.

c. Stickney Avenue Bus Station

The Concord Bus Terminal was constructed in 1996 with 273 parking spaces. Since its inception this facility has been well received and well utilized. In 2005, an additional 50 parking spaces were added to this facility, and an additional 130 parking spaces will be made available at upon closure of the Department of Transportation facility across the street from the terminal. A Congestion Mitigation and Air Quality CMAQ application has been submitted by the State of New Hampshire to purchase the old Concord rail yard and construct an additional 200 parking spaces to provide parking for a bus service from Concord to Manchester Airport.

d. **Multi-modal station**

The City envisions the construction of a multi-modal transportation facility in Downtown Concord. This multi-modal facility will be designed and located to serve intra-city and inter-city bus service, commuter rail service to south to Boston, and high speed rail service on the Boston to Montreal Corridor. The facility should provided structured parking for at least 1000 cars and expansion capability for 2,000 or more vehicles.

3. Railroads – Freight and Passenger Service

a. Existing Rail Services and Rail Corridors

Rail transportation has historically played an important role in the City of Concord's transportation system. Freight railroads have transported goods to and from Concord businesses for years and continue to do so today, albeit in smaller quantities. Historically, Concord was the hub of the northern New England passenger rail network, at the junction of lines heading to the Lakes Region, northern New Hampshire, Vermont, Boston, and Montreal. Rail continues to play an important role in Concord's freight transportation system, and has the potential to play a larger role in freight and passenger transportation in the future.

The New Hampshire Main Line (NHML) extends from downtown Concord southward to Boston. The New Hampshire section of the NHML is 39 miles long, running between Concord and the Massachusetts state line, passing through Bow, Hooksett, Manchester, Merrimack, and Nashua. It is owned by the Boston & Maine Corporation and operated by the Springfield Terminal Railway Company and the New England Southern Railroad. Local freight service between Manchester and Concord is provided by the New England Southern Railroad.

There is no passenger service within the City of Concord, and there are four overhead bridges, no undergrade bridges, and no public grade crossings along the two miles of the NHML in Concord. This segment of track is maintained to Federal Railroad Administration (FRA) Class 1 standards, which permits a maximum operating speed of 10 mph for freight trains and 15 mph for passenger trains. The condition of the track surface, ballast, and ties on the NHML in Concord appears to be fair.

The Concord-Lincoln Line extends from central Concord northward to Lincoln, a distance of 73 miles. Two tourist services and one freight railroad operate over this line, which is owned by the State of New Hampshire. Freight service is operated along the line by the New England Southern Railroad; currently there is one freight customer along the line. Sections of the line including bridges and track were rehabilitated in 1996 using both state and private funds. According to the New Hampshire State Rail Plan 2001, the condition of the track surface on the entire Concord-Lincoln Line was "Poor to Good," the condition of the drainage, ballast, and ties was "Fair to Good," and the condition of the undergrade bridges was "Good." There are five overhead bridges, three undergrade bridges and three public grade crossings along the six miles of the Concord-Lincoln Line in Concord. This segment of track is maintained to Federal Railroad Administration (FRA) Class 1 standards, with some sections meeting FRA Class 2 standards (which permits a maximum operating speed of 25 mph for freight trains and 30 mph for passenger trains.)

The Northern Line extends from central Concord northwestward to West Lebanon, a distance of approximately 60 miles. A majority of the Northern Line is owned by the State of New Hampshire. The section from Boscawen to Lebanon is abandoned, and was purchased from

the Boston and Maine Corporation in 1995. Two short segments of the line are in operation: a three-mile segment in West Lebanon and a six-mile segment in Concord.

The six-mile section of the Northern Line in Concord runs from Penacook to the junction with the NHML and the Concord-Lincoln Line. This segment is owned by the Boston & Maine Corporation and operated by the New England Southern Railroad. New England Southern currently has no freight customers on the line, but it is still considered active because it has not been abandoned. There are two overhead bridges, two undergrade bridges and four public grade crossings located along the six miles of the Northern Line in Concord. This segment of track is maintained to Federal Railroad Administration (FRA) Class 1 standards. The condition of the track surface, ballast, and ties on the Northern Line in Concord is poor, with many locations overgrown with vegetation.

b. Passenger Rail Opportunities

The existing rail infrastructure in the City of Concord and surrounding areas offers an opportunity to expand the use of the rail system for passenger transportation. Several planning studies and efforts with the potential to bring passenger rail service to Concord are currently underway or anticipated.

The NHDOT is proposing to design and construct a 12-mile extension of an existing commuter rail service from Lowell, MA to Nashua. The proposed project would extend existing commuter rail service provided by the Massachusetts Bay Transportation Authority (MBTA) and would provide an alternative to a highly congested highway corridor. While the current planning efforts focus on extension of commuter rail service to Nashua, the possibility of extending service further north to Manchester and Concord has also been considered. For commuter rail service to be extended to Concord, significant infrastructure improvements including track rehabilitation, construction of a station, construction of a layover/servicing facility, and potential double-tracking would be necessary.

In late 2000, the Federal Railroad Administration (FRA) designated the Boston to Montreal rail route as one of the nation's High-Speed Rail Corridors. High-Speed Rail refers to trains which are capable of maintained speeds in excess of 125 miles per hour; however, due to corridor constraints trains in the Boston to Montreal corridor may only average 80 miles per hour. The designation was in response to a joint application by the states of Vermont, New Hampshire, and Massachusetts that identified the desire to study the feasibility of a rail transportation alternative between the major metropolitan cities of Boston and Montreal as well as intermediate points. Designation of High-Speed Rail (HSR) corridors has been established by the FRA to facilitate planning for alternative travel modes in specific regions. In the application letter to the FRA, the potential use of HSR to reduce congestion on major highway and air corridors within the Boston to Montreal High-Speed Rail (BMHSR) route was cited as a principal reason to evaluate the feasibility of HSR service.

The Boston to Montreal High-Speed Rail Feasibility Study has been divided into two phases to address all the criteria needed to fully evaluate the feasibility of the corridor. Phase I of the study was completed in November 2002. It concluded that further study of operational, engineering, and cost/revenue factors in Phase II is warranted, based on an initial assessment of existing operations, infrastructure, and institutional issues and given the potential ridership of the BMHSR service. Phase I of the study identified Concord as a potential station location on the BMHSR corridor, which would use the NHML from Boston to Concord and the Northern Line from Concord to the Vermont state line. In June 2004, the State Supreme Court ruled that gas

tax receipts cannot be used to fund non-highway projects. As a result, Phase II of the study is currently on hold while the state explores alternative funding options.

c. Freight Rail System Issues

New Hampshire's freight rail system faces a number of challenges as it continues to compete with highway transportation in the New England market. A review of the state's rail system conducted as part of the New Hampshire State Rail Plan effort in 2001 identified two significant issues specific the state's freight rail system that must be addressed: accommodating increases in carload weights and providing clearance for double stack trains. In Concord, the provision of adequate yard space and passing tracks for freight operations are important considerations.

The railroad industry is changing to a standard of using 286,000-lb (286K) capacity rail cars to carry commodities on the lines throughout the country. This is an increase of 23,000 pounds from the previous industry standard. None of the three rail lines that serve the City of Concord are capable of handling the heavier cars. The State Rail Plan indicates that the NHML would benefit from an upgrade and might eventually require it. It is unlikely that the Concord-Lincoln Line or Northern Line will require an upgrade to accommodate the heavier cars given present levels of freight usage.

Double stacking improves the efficiency of the railroad and thus makes it more competitive with highway transportation. NH law provides that the standard vertical clearance to be provided along railroads is 22'6", which provides enough clearance for a double stack container, with some room to spare. The New Hampshire State Rail Plan 2001 identified the NHML as a "Moderate" priority for double stack improvements.

In order for freight railroads to operate efficiently, they must have access to yard space in which to switch and store railcars, as well as to strategically placed passing tracks in which one train can pass another.

In Concord, the Boston & Maine Railroad currently has a small freight yard on the NHML, south of the junction with the Concord-Lincoln and Northern lines and north of Water Street. This is currently the primary area for trains to pass each other and for freight cars to be switched and stored in Concord. To ensure the viability of freight rail in the Concord, it will be important for the City to preserve freight yard space, which may include providing a freight yard in a new location if the current yard area near Water Street is developed for other purposes. Because space for a freight yard may be limited, consideration should be given to providing a public access area for transfer of cargo, a sort of public railhead, for transshipment of goods to local businesses which do not have direct access to a siding.

d. Summary of Rail Needs

It is also important for the City of Concord to consider current and future rail requirements when planning any roadway improvements, bridge or grade crossing projects, or considering land use and development plans. Based on the planning efforts that are underway or anticipated, the freight issues identified in the New Hampshire State Rail Plan 2001, and discussions with the NHDOT Bureau of Railroads and Public Transportation, the following rail-related considerations have been identified for the City of Concord:

i. The preservation of existing rail corridors in the city.

ii. The preservation of existing freight yard space, which may include providing a freight yard in a new location if the current yard area south of Water Street is redeveloped.

iii. The reservation of space for passing tracks, particularly on the New Hampshire Main Line (NHML).

iv. The identification and reservation of space for an multi-modal transportation center/rail station; this facility should have the capability of accommodating high-speed rail, commuter rail, intercity bus, local bus, taxis, auto pick-up/drop-off, off-street parking structures, pedestrians and cyclists.

v. Consideration of heavy rail car weights (up to 286,000 pounds) and double-stack clearance when planning transportation improvements within the City.

K. TRANSPORTATION POLICIES AND RECOMMENDATIONS

1. Transportation Policies

Policies related to Transportation Planning

a. Maintain a continuous transportation planning program consisting of the collection, maintenance, and dissemination of traffic information; staff and/or consulting resources to collect, analyze, and report on traffic problems and issues; and continued coordination of transportation planning with other planning disciplines, most notably land use and environmental planning.

b. Consult with the NH Department of Transportation on proposed development projects which may impact the State's primary, secondary and interstate systems, and to seek to cooperation of, and consultation with, the NH Department of Transportation when proposed State developments which it has under review could impact streets and highways in Concord.

c. Maintain a functional roadway classification system of highways, and arterial, collector and local streets.

d. Continue to evaluate and adjust the operations of the highway network to ensure its efficient use and safe function.

e. Endeavor to maintain for all the City's arterial and collector streets a Level of Service (LOS) 'C' for daily conditions, and LOS 'D' for peak hour conditions, recognizing that lower levels of service during the peak hours may occur at certain locations in downtown Concord.

f. Continue to consider within the City's land use regulations such factors as the number, design and location of access points; the provision of median islands to control access; the provision of left and right turning lanes; signalization of access drives; internal circulation patterns; and the provision of pedestrian ways and bikeways.

g. Endeavor to preserve and/or acquire rights-of-way for new or expanded streets in advance of need through purchase, official mapping, and developer dedications.

h. Promote the use of the geometric design of streets to control and direct the movement of vehicles, bicycles, and pedestrians rather than relying on traffic regulatory signs and markings to prohibit unsafe or disruptive traffic movements.

i. Continue to evaluate and designate emergency response routes and to maintain the ability of emergency response providers to utilize these routes.

j. Continue to require that all new and redeveloped property shall provide adequate off-street parking to meet the average and peak parking demand.

k. Continue to encourage developments with complementary parking demands to locate on adjoining sites and to provide opportunities for shared parking.

l. Plan for proper drainage and storm water treatment related to roadway construction and street improvements, public and private parking lots, and paved vehicle storage areas.

Policies relates to the Fiscal Capacity to Support Transportation Infrastructure

m. Promote the safety of all motorists, pedestrians, bicyclists, and travelers on and within the City's transportation system and in the design of all improvements thereto.
n. Propose planned transportation projects for inclusion in the Six Year Capital Improvement Program and the annual Capital Budget.

o. Encourage joint public/private transportation improvement projects to support economic development and to allow the timely construction of highway improvements.

p. Continue to require traffic impact analysis in conjunction with applications pursuant to the City land use regulations.

q. Continue to require that new development bear a proportionate share of the costs for highway capital improvements, and shall be responsible for site-related improvements needed to provide safe and adequate access from the site to the arterial and collector street network.

r. Continue to update and administer a system of traffic impact fees to address off-site related impacts of new development on the existing and planned arterial and collector street network.

Policies related to Connectivity, Traffic Calming, and Access Management

s. Promote connectivity through the requirement of local street connections between existing neighborhoods and new residential developments as well as the encouragement of the interconnection of local streets between existing residential neighborhoods.

t. Implement traffic calming measures on local streets in residential neighborhoods and to direct traffic to arterial and collector streets in order to protect residential neighborhoods from adverse impacts associated with increased traffic volumes and speeds.

u. Implement access management guidelines for all functionally classified streets in order to provide safe and efficient access to abutting land uses and to maintain the operational characteristics of a roadway.

Policies related to Alternative Modes of Transportation

v. Coordinate the development at the Concord Municipal Airport with proposed highway improvement plans for the area, and in a manner consistent with the Land Use and Open Space Sections of this Master Plan.

w. Promote the implementation of the recommendations contained within the Airport Master Plan as most recently amended.

x. Continue to support the operation of the Concord Area Transit bus system including through the appropriate placement of bus stops and shelters in areas with high potential use as part of both public and private road improvements and the maintenance of bus shelters on a continuing basis.

y. Reserve a site for a future multi-modal transit station within the Opportunity Corridor in order to integrate both high-speed and commuter rail with inter-city and local bus services, taxis, off-street parking structures, and pedestrian and bicycle facilities.

z. Preserve existing rail corridors and to restrict any new at-grade rail crossings in order to retain capacity for future passenger and freight service.

aa. Reserve space for passing tracks, particularly on the New Hampshire Main Line (NHML), as well as freight yard space, and to plan transportation projects with due consideration of the requirements for heavy rail car weights (up to 286,000 pounds) and double-stack clearance.

bb. Continue to evaluate and designate truck routes within the city and implement restrictions and standards on through trucking.

Policies related to Pedestrian mobility

cc. Promote the inclusion of sidewalks in all highway improvement projects, ensure the proper provision for pedestrian access within developments, and provide for the proper integration of the public and private pedestrian ways.

dd. Ensure that pedestrian ways be designed to serve the needs of the handicapped.

ee. Give priority to the designation and improvement of walking routes to all local schools in the City.

ff. Provide for winter maintenance of a designated network of sidewalks to ensure year-round pedestrian circulation

Policies related to Bicycle mobility

gg. Incorporate provisions for bicycle lanes and/or paths in road construction and resurfacing projects, whether publicly or privately financed.

hh. Ensure that bicycle routes, lanes, and paths are properly designated with signage and pavement markings to enhance safety and assist user navigation.

ii. Provide safe, secure, and convenient bicycle parking facilities at common destinations including schools, parks, libraries, retail areas, and major employment centers.

jj. Provide for shared use paths to enhance commuting as well as recreational bicycling opportunities, and to establish connections to the regional network of shared use paths.

Policies related to aesthetics of transportation infrastructure

kk. Continue to require landscaping along the street edge in site development projects and a street tree planting and maintenance program as a requirement for new private roads

ll. Continue to support a street tree planting and maintenance as part of an improvement program for existing public roads.

mm. Continue to require as part of the City's land use regulations that utilities be placed underground in all new development, and in the redevelopment of existing commercial and industrial development when feasible.

nn. Promote the development of effective and aesthetically pleasing signage directing the traveling public to parks, recreation areas and other scenic and historic attractions; to regulate signs along at along the major travel corridors in the City in order to improve the overall appearance of the City, especially at Gateways; and to reduce visual clutter in order to promote the safety of vehicles and pedestrians.

oo. Provide for visual and noise buffers along arterial and collector streets within or adjacent to residential neighborhoods.

2. Transportation Recommendations (Transportation Improvement Plan)

This Section of the Master Plan identifies improvements to the interstate, arterial and collector street system as well as major pedestrian and bicycle improvement plans. Improvements to the Concord Municipal Airport are addressed separately in the Concord Airport Master Plan. Rail and transit services are not provided by the City of Concord but major improvements such as commuter lots and a multi-modal transportation center can included once locations for the same are identified.

Improvements listed herein are categorized into short and long term improvements. Short term improvements are those already being needed or likely to be required in the next ten to fifteen years and most likely to be implemented in the next ten to fifteen years. Long term improvements are those which will be needed in the longer term to 2030 and beyond.

The Transportation Improvement Plan does not include maintenance or replacement capital projects and does not attempt to identify minor safety or geometric improvements or measures specifically designed for traffic calming purposes within residential neighborhoods. The Master Plan provides basic input and support for the City's Capital Improvement Program and Budget which is adopted annually by the City Council. Proposed improvements are shown on Exhibit VI-4, Highway Improvement Plan,

a. Short-Term Highway Improvements

Short term improvements (Table VI-2) are those identified as already being needed in 2005 or likely to be required in the next ten to fifteen years. Highway projects will include sidewalks, and shoulders/bicycle lanes as an integral part of each project. Bus stops will be provided where right-of-way can be acquired along transit routes. The classification of the improvements as short term, or long term is not intended to be an absolute ranking, as new development projects or funding opportunities will allow for or require the reorganization of priorities in this Plan.

b. Long Term Highway Improvements

Long term improvements (Table VI-3) are those most likely to be completed in the next 10 to 25 years. Major transportation projects such as I-93 widening through Concord take fifteen or more years for a consensus to be reached on the scope and extent of the project, to have it designed permitted and constructed. Relatively small transportation projects such as intersection improvements often take three to five years from the date of initial authorization to the date the improvement is completed. Highway projects will include sidewalks, and shoulders/bicycle lanes as an integral part of each project. Bus stops will be provided where right-of-way can be acquired along transit routes. The classification of the improvements as short term, or long term is not intended to be an absolute ranking, as new development projects or funding opportunities will allow for or require the reorganization of priorities in this Plan.

Table VI-2. Recommended Short-Term Highway Improvements

TYPE OF IMPROVEMENT	LOCATION	DETAILS
INTERSECTION		
	Centre/Liberty/Auburn Sts	Roundabout
	East Side Dr @Hazen Drive & I-393 Exit 2 east bound ramps	Realignment of Hazen Dr with east bound ramps
	I-93 Exit 16 / Mountain Rd/ East Side Dr / Shawmut St	Traffic Signal w/turn lanes or roundabout
	Manor Road @ Abbott Road	Roundabout
	S Fruit Street @ Memorial Field & NH Office Park South	Traffic Signal w/turn lanes
	S Main @ Broadway	Traffic Signal
	Storrs St @ North Main St	Traffic Signal
HIGHWAY		
	Loudon Road Corridor	• Conversion to 3-lane section from Airport Rd to Branch Tpk • New signal at realigned Branch Tpk & NE Village Rd • Pedestrian, bicycle, & streetscape improvements • Gating of Chenell Drive at Pembroke Rd

	Manchester Street Corridor	• Widening to 3-lane section from Garvins Falls Rd to Airport Rd • Widen to 4-lane section from Airport Rd to Pembroke TL • Realignment and signalization of intersection with Airport Road & Integra Drive • Pedestrian, bicycle, & utility improvements • Acquisition of ROW for 5-lane section
	North State Street from Washington to Bouton	• Roundabout at North State Street and Franklin St • Intersection improvements to Washington at N State • Elimination of southbound slip ramp at Bouton St Intersection • Traffic calming & streetscape improvements
	Route 3 North Corridor (N State St, Fisherville Rd, Village St)	• 3-lane sections at intersections • Signalization at East St, Washington St, Bog Rd, Sewalls Falls Rd, & McGuire St • Intersection improvements w/ turn lanes at Rumford St & Hutchins St • Corridor long bike lane • Pedestrian & streetscape improvements
	Sewalls Falls Bridge	• Upgrade existing bridge / construct a new bridge to ensure 2-way traffic capacity • Provide for pedestrian and bicycle access

Table VI-3. Recommended Long Term Highway Improvements

TYPE OF IMPROVEMENT	LOCATION	DETAILS
INTERSECTION		
	Broadway @ West Street	Traffic Signal
	Clinton St @ Langley Pkwy	Traffic Signal
	Green Street @ School St	Traffic Signal
	Manchester St @ Old Suncook Road	Traffic Signal with turn lanes
	Old Loudon Rd (west end) @ Loudon Rd	Realignment with D'Amante Drive or Mall entrance, with turn lanes
	Pleasant St @ Warren & Fruit	Realignment
	S. Main Street @ Broadway	Northbound turn lane
HIGHWAY		
	Clinton Street	• Widening to 4 lanes from Silk Farm Rd to Langley Parkway • Accommodate bicyclists (bike route)
	Connector from North Main Street to Fort Eddy Rd	Construct a new connector from North Main St to Fort Eddy Road which also links I-393, Storrs Street Extension, & Commercial St
	Garvins Falls Road	• Construct a connection from Garvins Falls Rd to Old Suncook Road Extension, and eliminate the Garvins Falls Rd connection to Manchester Street for all but the first few

		properties at its northern end • Intersection with Old Suncook Road southerly of Passaconway Club • Possible intersection or interchange with a Route 106 connector
	Hoit Road (Route 4)	o Widen to 4 lanes from Exit 17 to East St o Accommodate bicyclists (bike route)
	I-93	• Widening to (6) lanes from I-89 to Exit 16 • Interchange upgrades as necessary • Evaluation of new Exit 16 1/2
	Integra Drive	• Extension to Old Suncook Road Extension • Intersection improvements at Old Suncook Rd Extension
	Langley Parkway	• Construction of a 2-lane controlled access street from Pleasant St to North State St, including upgrade of Penacook St from Rumford to N State • Accommodate bicyclists (bike route) • Intersection improvements at Auburn, Penacook, and Rumford Streets
	Loudon Road	o Widening from Route 106 to the east end of Old Loudon Road, with intersection improvements at Break O'Day Drive o Accommodate bicyclists (bike route)
	Old Suncook Road	• Extension southerly from Manchester Street
	Pleasant Street	• If Langley Parkway North is constructed, addition of a center turn-lane where necessary between Langley Pkwy and Fruit • If Langley Parkway North is not to be built, a widening of Pleasant Street to 4 lanes plus a center turn-lane will be necessary between Langley Parkway and Fruit St • Accommodate bicyclists (bike route)
	Route 106 Connector	• Construction of a new link between Rte 106 at Rte 3 in Pembroke to I-89 or Hall St • Intersection/interchange improvements at Old Suncook Rd Extension • Intersection/interchange improvements at each end
	Sheep Davis Road (Route106)	• Widening to 4-lane section from Autumn Lane to Pembroke TL (and to Rte 3 in Pembroke) • Accommodate bicyclists
	Storrs Street	• Extension northerly to I-393 • Extension southerly to Langdon Ave • Accommodate bicyclists
	Whitney Road	• Extension southerly as 2-lane collector road from current terminus to Sewalls Falls Rd • Signalization of intersection at Hoit Road • Addition of turn lanes at intersection of Sewalls Falls Rd • Accommodate bicyclists

L. SUPPORTING STUDIES

Airport Master Plan Update, Concord Municipal Airport, Concord NH, prepared for the City of Concord, NH by Hoyle, Tanner Associates, Inc., May 2006.

City of Concord Bicycle Master Plan, prepared by the Central New Hampshire Regional Planning Commission and the Concord Transportation Policy Advisory Committee, November 2010.

City of Concord Master Plan Year 2010 Update, Concord Planning Board & Concord Planning Department, Concord, NH, December 15, 1993.

Concord Master Plan Community Survey, prepared by The NorthMark Group, 2004.

Concord Opportunity Corridor Master Plan, prepared for the City of Concord by the Cecil Group, Inc., with Rizzo Associates, Bluestone Planning Group, and Bonz and Company, March 2006.

Concord Area Transit Expansion Study, TranSystems Corporation and the Central New Hampshire Regional Planning Commission, September 2003

Concord Area Transit – System Evaluation, Vanasse Hangen Brustlin (VHB), Inc., April 1999

Existing Conditions: Concord Transportation Plan Update, Concord, New Hampshire, Kimball Chase Co. Inc., October 11, 1989.

Future Land Use Scenarios: Transportation Master Plan Update - Phase 2, Concord, New Hampshire, Kimball Chase Company Inc., August 1990.

Merrimack River Greenway Path Feasibility Study – Concord, NH, Fay Spofford & Thorndike, and the Central New Hampshire Regional Planning Commission, December 2010.

Transportation Master Plan, Concord, New Hampshire, Summary Report, Vanasse Hangen Brustlin, Inc., December 2006.

Exhibit IV-4. Highway Improvement Plan

[Insert: 11 x 17 graphic]

SECTION VII. CONSERVATION AND OPEN SPACE

A. INTRODUCTION

The Conservation and Open Space Section is intended to guide the protection of the City's natural resources and environment while promoting the appropriate and efficient use of land and water within the City of Concord in a manner consistent with the economic, physical, and social needs and desires of the citizens of Concord. Appropriate uses of open space have been identified as recreation, public service and safety, resource production, and environmental protection while providing the maximum and multi-purpose use of open space by the citizens of Concord. Open space in Concord is intended to be a system, interconnected and interrelated, and therefore, the links among major open space areas, as well as between the open areas and developed areas, must be defined

The Conservation and Open Space Use Section consists of a review of existing protected lands with a focus on additions to the protected land inventory that have occurred since the last Master Plan was adopted in December 1993. Conservation and open space goals are articulated, and applied to and interpreted upon the landscape of the City, and as displayed on maps that indicate how land in Concord should be preserved and protected. Policies and recommendations to guide the implementation of the Future Open Space Plan complete this Section of the Master Plan.

B. CONSERVATION AND OPEN SPACE GOALS

When the City Council established the Conservation Commission in 1971, it set forth for the Commission the goal of "protecting, promoting and developing the natural resources...and for protecting the watershed resource of the City" and mandated the Conservation Commission, in conjunction with the City Planning Board, to prepare "a conservation and open space plan" as the major objective in achieving this goal, noting that the plan shall be based "on the concept of multiple use of natural resources and open space".

Specific conservation and open space goals are as follows:

1. To develop a coherent interconnected system of permanently protected open spaces designed to provide areas for recreation, public service and safety, resource production, and to protect sensitive environmental features.

2. To foster the wise and proper development and management of the City's land and water resources so as to ensure sustainable productive use of the same, while avoiding environmental degradation, personal injury, and property damage.

3. To maximize the multiple use of open space to the extent that such use does not adversely affect the primary function of the open space.

4. To maximize the opportunities for the citizens of Concord to have access to public open space through linkages between the City's villages and neighborhoods and the open space system.

5. To protect and enhance surface and ground water quality, and maximize the potential for the use of these water resources as potable water supplies.

6. To protect and enhance the air quality of the region.

7. To preserve prime and significant agricultural soils for agricultural uses, and to encourage the retention and diversification of agricultural uses within the city.

8. To encourage the use of best management practices of forest resources on both public and private land within the City in order to maintain a continuing, sustainable timber harvest from the same, and to encourage multiple use of this forest resource.

9. To retain habitat for the City's indigenous species of wildlife, including migratory species and those species that have been identified as endangered, to provide adequate area that will foster the perpetuation of these species, and allow for their movement through and within the City.

10. To protect and maintain exemplary natural communities and rare plant species that have been identified within the City.

11. To maintain and enhance scenic views and natural vistas from the City's roads and public properties where possible.

12. To preserve open space within the Urban Growth Boundary (UGB) to protect environmentally sensitive natural features, to provide non-structured recreational opportunities, and to serve as amenity features within neighborhoods.

C. THE CITY'S NATURAL RESOURCES

1. Water Resources

Much of Concord's land and its use are influenced by the City's extensive water resources. Concord is located in the watershed of the Merrimack River, and the City's other major rivers, the Contoocook, Soucook, and Turkey Rivers), are all tributaries of the Merrimack. There are 14 Great Ponds (10 acres or more in size) within the City as well as several smaller private ponds and many brooks and streams.

In the citywide rezoning of 2001, a Shoreland Protection (SP) District was adopted, supplanting the former Streambank and Shoreline (SS) District, paralleling and expanding upon the protections offered in the NH Comprehensive Shoreland Protection Act (RSA 483-B). The SP District, which was recommended in the 1993 Open Space Plan, encumbers the area within 250 feet of the shoreline of the rivers and Great Ponds, and establishes two buffer zones with differing levels of permitted activities and including restrictions on the removal of trees and shrubs. The entire SP District has a list of prohibited land uses that apply therein.

Penacook Lake is the City's primary source of potable water, although it is augmented by water pumped from the Contoocook River. A Penacook Lake Watershed Protection District was created by the City Council in the 2001 rezoning of the City which increased the minimum lot size to 4 acres and imposed restrictions on certain land uses that were deemed to represent a hazard to the water quality.

2. Wetlands

In addition to extensive surface waters, the City has substantial areas of wetlands. A wetland delineation performed for this Master Plan by means of aerial photography interpretation (ref. Exhibit VII-1) indicates there are 6,678 acres of wetlands, slightly less than the wetland acreage identified from soil mapping for the 1993 Master Plan. This methodology provided accuracy to the nearest half acre so that there is additional wetland acreage unaccounted for in terms of small pockets of wetlands.

The citywide rezoning of 2001 added provisions for buffers to wetlands, supplanting the prior Wetland Overlay District which was based on soils mapping. The Ordinance requires a Conditional Use Permit to alter the buffer area within 50 feet of wetlands that are over 3.000 square feet in area.

3. Floodplains

The City has a long documented history of floods with substantial acreages subject to flooding, primarily in relation to the Merrimack River which meanders from north to south through on broad floodplain that runs through the center of the City. The floodway and floodplain of the Merrimack were mapped by U.S. Army Corps of Engineers (USACOE) in 1966, while similar features were mapped for the Contoocook, Soucook, and Turkey Rivers by the U.S. Department of Housing and Urban Development (HUD) in 1980, and the Federal Emergency Management Agency (FEMA) in 1999.

In the mid-1970's prior to the advent of the National Flood Insurance Program, Concord adopted floodplain regulations for the Merrimack River using mapping and guidelines prepared for the City by the USACOE. Subsequently, the HUD maps and then the FEMA maps were adopted for other areas of the City, but the City continues to use the USACOE maps for the Merrimack as they proved to be more detailed and conservative than subsequent mapping prepared under the National Flood Insurance Program. The current Flood Hazard (FH) District as established in the Zoning Ordinance protects health, safety and property by prohibiting residential uses and permitting structural uses in those areas developed prior to the adoption of the District. Limiting further development in areas subject to flooding insures against increased property damage and increased public expenditures to deal with flood-related problems.

The extensive flooding in the spring of 2007 caused substantial damage in the Turkey River basin. Because major portions of the Turkey River Watershed are located in the Towns of Hopkinton and Bow, the City will need to work with both Towns to ensure coordinated actions to protect the watershed resources and to address the impacts of flooding which have been exacerbated by upstream development.

4. Groundwater/Aquifers

The maps of stratified drift formations in Concord as prepared by the U.S. Geological Survey in 1995 and 1997, reveal that aquifers underlie vast areas of Concord, surrounding and following the City's major rivers including the Merrimack, Contoocook, Soucook, and Turkey Rivers. The City's own recent water supply studies have corroborated this and identified those areas where the City could develop the groundwater as a source for its municipal water supply.

A new regulatory measure is needed in Concord's Zoning Ordinance for an aquifer protection in order to preserve options for use of groundwater for both public and private water supplies.

5. Steep Slopes

With regard to the soils and surficial geology of the City, Concord has areas of steep terrain, underlain by both rock as well as sand and gravel. While each type of resource has historically been quarried or excavated for marketable materials including granite, sand and gravel, these formations also constrain land development due to accessibility, and erodibility. Though use of soil maps, the 1993 Master Plan identified 6,767 acres of slopes in excess of 15% in the City. The steep sandy bluffs that line the Merrimack and Soucook Rivers are particularly unique and fragile examples of one type of formation, while Rattlesnake Hill that rises above West Concord continues to be a source of granite.

Another new provision of the citywide rezoning of 2001 is a setback to the top and bottom of the erodible bluffs that rise above floodplains, which limit activities on or adjacent to erodible steep slopes, ensuring that landowners do not inadvertently cause erosion.

While in effect citywide, of particular relevance to the Soucook corridor are the City's earth material removal regulations, which were updated in the 2001 rezoning, and saw their first application to an excavation site on Route 106 adjacent to the River in 2002. These regulations provide reclamation procedures and standards for closure of pits that have been depleted.

6. Prime Agricultural Soils

Another soil-based resource in Concord is prime agricultural soils, located along the Merrimack River floodplain, in the Turkey River watershed, and in upland locations in East and West Concord. These soils support an active agricultural industry ranging from dairy farming to orchards.

While there are no specific local regulatory provisions relating to the protection of these soils, other regulations, such as those related to floodplains, help in the preservation of these lands. In a more direct effort to protect areas of these soils, the City has acquired farmlands or easements on these lands for open space purposes, with leasehold arrangements with local farmers in order to maintain the productivity of the agricultural soils.

7. Productive Forest Lands

Concord has an extensive inventory of productive forest lands, some of which were once owned and managed by lumber companies. Privately owned and managed woodlots are found throughout the City, and the City has a Town Forestry program under which all municipal lands, conservation or otherwise, are managed with revenues from periodic timber sales. There are eight State Forests in Concord which are managed by the Forest and Lands Division of the NH Department of Resources and Economic Development.

There are no specific local regulatory provisions relating to the protection of these productive forest lands. As new land is added to the open space inventory, the City evaluates the forest resource and as appropriate, adds the property to the forest management plan.

8. Wildlife Habitat

Concord is fortunate to have substantial undeveloped areas of forest, field, and wetlands with ample adjoining water resources, all of which create excellent wildlife habitat. Broken Ground, and the area between West Parish Road and Currier Road along the Hopkinton townline are both examples of unfragmented habitat.

Exhibit VII-1. Wetlands

Insert 11 x 17 graphic

In terms of endangered species, the Karner Blue butterfly has been identified by both the federal and State governments, endangered, two other butterflies, the Frosted Elfin and Persius Duskywing Skipper butterfly were identified by the State. The habitat for these butterflies is the pine barrens found on parts of Concord Heights on the easterly side of the Concord Airport. Some of the airport is subject to a Conservation Management Agreement with the US Fish and Wildlife Service and the NH Fish and Game Department to protect the butterfly habitat.

There are no specific local regulatory provisions relating to the protection of wildlife habitat. As additional open space lands are considered for acquisition, the City should evaluate the wildlife habitat characteristics among other factors.

D. THE OPEN SPACE PLAN

This description of the planned open space system specifies the elements of the system by natural and geographic sub-areas of the City, primarily outside of the Urban Growth Boundary. Those properties already protected as well as lands proposed for protection are identified in terms of ownership for each geographic sub-area. Exhibit VII-2 depicts Concord's Future Open Space Plan with existing open space depicted along with the proposed future open land, differentiated by means of existing and proposed protection.

1. The Merrimack River Corridor

a. Description

The Merrimack River corridor includes the river itself as well as the broad expanses of floodplains and the erodible, sandy bluffs surround it in certain areas, from the Canterbury and Boscawen town lines on the north to the Bow town line on the south. The oxbow ponds left from former river channels are part of the Corridor including at the Old River Channel in West Concord, Horseshoe Pond, Fort Eddy Pond and the Sugar Ball.

Fishing, boating, canoeing, and kayaking have all increased on the River with the improved water quality. The United States Fish and Wildlife Service is working to re-establish the anadromous fishery through its Atlantic Salmon and Shad Restoration Program. The Merrimack River corridor is also part of the Atlantic Flyway, the eastern corridor for migratory birds, and it also provides habitat for numerous species of resident wildlife. Agriculture continues to be one of the major open space uses of privately owned land in the Merrimack floodplains in Concord.

The New Hampshire Heritage Trail has been initiated under RSA 216-A:7 and a portion of the planned 230-mile north-south trail system will be in the Merrimack River Corridor from Nashua to Franklin for hikers and snowshoers, and in some areas, for bicyclists and cross country skiers. A section of the Heritage Trail has been established starting at the north end of North Main Street running easterly along the edge of Horseshoe Pond to through the NH Technical Institute, then turning northerly to East Concord Village, Locke Road and West Portsmouth Street.

b. Protected Open Space

For many years, the City has owned park lands in the Merrimack River Corridor which represent protected lands, although much has been altered to create recreational facilities. These parks include Kiwanis Park/Everett Arena, Beaver Meadow Golf Course, as well as Reed Playground, Merrill Park, Terrill Park, Healey Park, and a portion of Rolfe Park. Prior to the adoption of the

first Open Space Plan in 1978, the City's non-park open space lands in the corridor consisted of the South End Marsh and a nine-acre wetland abutting the north side of the upper pond at Goodwin's Point.

Since that time, the City has preserved a significant amount of open space in the corridor. In December of 1978, the City was gifted a 50 acre wetland westerly of Locke Road as part of the development of the adjacent industrial park. In 1987, as part of the dedicated open space of a Planned Unit Development on Second Street, the City was deeded the 47-acre Morono Park on the west side of the Old West Concord River Channel south of Sewalls Falls. In 1989, the City acquired the 14-acre Wendell Knight property which links Morono Park with the State Prison Farm holdings to the south, and includes part of Rattlesnake Brook. On the east shore of the River, the City, in 2005, acquired the 145-acre Gold Star Sod Farm property west of Locke Road, and the 200-acre West Portsmouth Street farmland immediately south of the Gold Star land. In 2007, the City received a donation of 48 acres together with a conservation easement on an additional 17 acres on the south shore of Goodwin's Point Lower Pond including the adjacent bluff, from the Oxbow Bluff cluster development. Also in 2007, the City purchased agricultural lands that belonged to Green Gold Farm north of Terrill Park.

The New Hampshire Fish and Game Department manages the State land along the west bank at Sewalls Falls for recreational purposes, and this property is the only State land in the corridor which is formally protected for open space purposes. The State owns four of the five public boat ramps and launch areas on the Merrimack (one off West Portsmouth Street, one at the Technical Institute and two at Sewalls Falls).

Privately held open spaces include the bluffs and floodplains surrounding the headquarters of the Society for Protection of NH Forests on Portsmouth Street which are privately protected by that organization as is the island at Horseshoe Pond. The Five Rivers Conservation Trust holds a conservation easement on the 14-acre Foss parcel adjacent to Rolfe Park.

c. Priorities for Open Space Protection

- The land belonging to Unitil (formerly the Concord Electric Company) below the Sewalls Falls Dam on the east bank of the River, is the focus of an on-going property transaction with the City that will extend protection to the tract abutting the Gold Star Sod Farm to the north.

- A portion of the Public Service of NH (PSNH) holdings on Garvins Falls Road is proposed to be protected, including land in the floodplains of the Merrimack as well as the adjacent erodible bluffs. Conservation easements should embrace environmental protection as well as trail access along the Merrimack floodplain.

- If the NH Department of Corrections abandons its interest in the NH State Prison's agricultural lands on the west shoreline, the City should seek to preserve this land for agricultural use and passive public recreational purposes. The City's recent water supply studies also identified this area as a potential source for a public water supply from the groundwater resource adjacent to the River, providing another reason for this land to be permanently protected.

- Easements or the purchase of development rights are proposed for current agricultural lands in the floodplain that are not otherwise protected so those currently farming may continue, and so the prime agricultural soils remain available for future agricultural use.

Exhibit VII-2, <u>Future Open Space Plan</u>

[Insert 11 x 17 graphic]

- Some additional easements or purchases of land are proposed to augment available public lands to foster the expansion of the Heritage Trail in order to reach its northerly and southerly termini at the City limits.

- Additional boat ramps and/or canoe launch areas should be acquired, one in the northern reach of the River closer to the Contoocook, and one in the southerly reach of the River, below the current boat ramp at Kiwanis Park.

- Conservation easements may be needed to augment regulatory protection of wetlands in the valley and the bluffs that surround it.

- In addition to the acquisition of land and easements by the City, the City should seek the participation and assistance of other public or private organizations in acquiring land and easements in the Merrimack corridor to maximize the amount of protected open space in the corridor.

2. The Contoocook River Corridor

a. Description

Entering from Hopkinton and flowing easterly to its confluence with the Merrimack River in Penacook, the Contoocook River occupies a much narrower corridor than the Merrimack. Several floodprone shelves border the River, but much of the surrounding land is rather steep, stony embankments. Upstream of the Island are many dwellings that were constructed as seasonal camps, the presence of which was fostered by the Edward York Dam which sustains a ponded water level in that section of the river allowing for swimming, boating, canoeing, and kayaking. One boat ramp on the Island provides access to the River for non-residents as well as residents. Located below the York Dam are three separate hydroelectric facilities constructed in the 1980's.

The entirety of the Contoocook River is included in the NH Rivers Management and Protection Program (RSA 483), and a Local Advisory Committee, composed of representatives of the communities along the River including the City, has prepared management recommendations for land adjacent to the River.

There are some prime farmland soils along the Contoocook's floodplain but little agricultural use. Some timber is cut in or adjacent to the corridor, including active forest management of City and State forests.

b. Protected Open Space

The City has protected a substantial amount of open space in the corridor having acquired, in the 1970's, extensive acreage surrounding the Mast Yard State Forest on both sides of the River just east of the municipal boundary with Hopkinton. This land is held for future recreational purposes and was named Lehtinen Park in honor of the City's first city planner. In 1993, Eunice Clark donated to the City 15 acres of floodplain and wetland off of Broad Cove Drive on the River opposite Lehtinen Park. Further downstream, the City reassembled most of the once-renowned Contoocook River Park on The Island in Penacook. To complement the Contoocook River Park, a 50-acre parcel directly across the River was acquired from B & M in 2006 to preserve the gorge below the Edward York Dam. The Hardy family donated 16 acres of

land south of Elm Street to the City in 2002. The City also owns several sections of the abandoned Concord to Claremont railroad right-of-way for future trail purposes.

The sole state owned parcel in the corridor is the Mast Yard State Forest which straddles the Concord/Hopkinton boundary.

The Five Rivers Conservation Trust holds an easement on the Clark property that was acquired by the City

c. Priorities for Open Space Protection

- Another boat ramp should be provided, the best location for which appears to be just upstream of Lehtinen Park next to the power lines. The New Hampshire Fish and Game Department's program for access to public waters should be approached to assist in acquiring the land and constructing the ramp and parking area.

- Acquisition is proposed for parcels for future trails, including acquisition of additional sections of the abandoned Concord to Claremont Railroad right-of-way.

- Acquisition is proposed for land abutting Lehtinen Park as such may come available.

3. The Soucook River Corridor

a. Description

Flowing southwesterly from Loudon easterly of Route 106 to its confluence with the Merrimack at the tri-town boundary of Concord, Pembroke, and Bow, the Soucook River, which is the eastern border of the City, occupies a very narrow and meandering corridor. Small stretches of floodplain are interspersed with and lined by steep sandy bluffs.

The Soucook River water is of high quality. Public water supply wells for both Concord and Pembroke are located next to the River in Pembroke and draw water of excellent quality from a high yield aquifer.

There are relatively few areas of public and private development within the immediate river corridor. However, there is extensive commercial and industrial development atop the bluffs above the corridor along Route 106 and Route 3 in both Concord and Pembroke. There are several sand and gravel pits located in both Concord and Pembroke adjacent to the River.

b. Protected Open Space

The City of Concord owns a majority of the Soucook River frontage between Routes 106 and 3 as a buffer area for the municipal airport, and while this land is not truly held for conservation purposes, it cannot be developed or sold. A 10-acre conservation easement was obtained in 1996 on the bluffs and floodplains below Sam's Club retail site, and another was 3.5 acre easement obtained in 2003 along the shoreline of a private excavation site just upstream of the Route 106 bridge to Pembroke.

The State of New Hampshire owns the Taylor State Forest between Route 106 and the Soucook north of I-393, as well as a wetland mitigation site just south of I-393.

There are no lands that are privately conserved within the Soucook River corridor.

c. Priorities for Open Space Protection

- Conservation easements are proposed for the PSNH and KeySpan lands in the floodplains of the Soucook River as well as the adjacent erodible bluffs.

- Shoreline protective easements should be obtained on property occupied by the State's Fire Academy and Emergency Management facilities easterly of the Route 106.

- Easements or the purchase of development rights are proposed to conserve a portion of a dairy farm that lies at the edge of Broken Ground near the Loudon townline.

- The Soucook River bluffs and floodplains should be protected with easements wherever possible along the corridor.

4. Broken Ground

a. Description

Mentioned in both the Bouton and Lyford histories of Concord, Broken Ground is considered to occupy about five square miles bounded on the north by Oak Hill, on the east by the Loudon town line, on the south by Route I-393, and on the west by the PSNH transmission line. Bouton described it as "a tract of hardwood and pine, of gravelly soils and not very productive". Lyford gives a hint of the historical uses of Broken Ground when he terms it "a locality best known to woodmen and hunters". Modern soil surveys reveal rugged terrain -- rocky, gravelly soils with steep slopes surrounding pockets of wetlands. Substantial wetland areas, the largest of which abuts Turtle Pond, together with the rugged terrain, renders Broken Ground unsuited to development.

In the Broken Ground are headwaters of streams that flow into two watersheds. Water from Turtle Pond flows southerly over the dam through Mill Brook which then turns westerly on its way to East Concord Village and the Merrimack. Easterly of a topographic divide, Cemetery Brook and another unnamed stream flow southeasterly to the Soucook River.

While most areas of the City that are now forested were once cleared for farming, the Broken Ground was not. Except for the land along Josiah Bartlett Road which was and continues to be farmed, timber production has been the most important land use; hunting, hiking, cross country skiing and snowmobiling on power line right-of-ways and logging roads have also been popular.

b. Protected Open Space

The City has acquired land as well as easements within the Broken Ground in the wetland areas both east and west of Turtle Pond as well as a parcel at the end of Curtisville Road. The City has also acquired land for an east side school and park complex adjacent to Broken Ground School, which creates a natural entrance to the area. Two contiguous parcels were acquired by the City between Portsmouth Street and Curtisville Road along the PSNH transmission line that runs just easterly of the edge of the neighborhood on Portsmouth Street. A property exchange is pending with Unitil such that Unitil may acquire these two lots subject to a conservation easement to the City. The 29-acre common open space in the Welcome Subdivision on Josiah Bartlett Road was deeded to the City in 2004 along with some related conservation easements.

The City's water storage tank is located on land that stretches easterly along I-393 from the overpass of Portsmouth Street, and this land is restricted to uses solely related to the City's water system.

The NH Fish and Game Department has acquired land within the Broken Ground in the wetlands east of Turtle Pond and also owns the boat ramp off Oak Hill Road which provides public access to the Pond.

The Five Rivers Conservation Trust holds an easement on the Lang properties on both sides of Josiah Bartlett Road.

c. Priorities for Open Space Protection

- The City should seek to acquire from NHDOT two parcels that were retained by the State as part of the of the I-393 right-of-way acquisition.

- Public acquisition is recommended for most of Broken Ground in recognition of its diverse environment, its value as a large unfragmented habitat for a wide range of wildlife, as well as the range of recreational uses it offers to the public.

- The acquisition of easements or the purchase of development rights are proposed for the large dairy farm at the very easterly edge of Broken Ground so that those currently farming may continue to do so, and that the farm remains available for future agricultural use.

5. Oak Hill - Snow Pond - Hot Hole Pond

a. Description

Oak Hill rises northerly of Broken Ground between Shaker Road and Oak Hill Roads. The fire tower at its peak just across the town line in Loudon commands a panoramic view of Concord and much of Merrimack County. Hot Hole Pond, which offers freshwater swimming and cold water fishing, lies at the northerly foot of the hill, straddling the Loudon town line. Snow Pond is just westerly of Oak Hill, across Shaker Road, and is surrounded by large wetland areas with the one to the south reputed to having been a peat bog.

b. Protected Open Space

The City's first Open Space Plan identified Oak Hill as an important area to protect and over the past 30 years the City has been acquiring parcels, managing the timber, and developing and maintaining trails thereon. A small trailhead parking lot has been developed on the Shaker Road frontage of the City holdings and access has been acquired on the Oak Hill Road side.

A trail easement was donated in 2005 as part of Phase II of the Juniper Fells Subdivision providing access from Shaker Road linking the Oak Hill trailhead to Snow Pond Road via Becky Lane.

In 1989, the City acquired some of the wetlands north of Snow Pond with frontage on Snow Pond Road using matching funds from the Land Conservation Investment Program (LCIP).

The boat ramp and adjacent parking area maintained by NH Fish and Game at Hot Hole Pond are the only State-owned, protected properties in the area.

c. Priorities for Open Space Protection

- The rest of the ridge of Oak Hill as well as several access points are proposed for public acquisition to capitalize on scenic, environmental, and recreational potentials. Conservation easements are proposed for the slopes so that the scenic and natural environment of the peak will not be compromised by some ill-conceived utilization of these slopes

- One parcel is designated for acquisition to provide additional public access on Hot Hole Pond.

- The remaining wetlands surrounding Snow Pond are proposed for public easements for environmental protection.

6. Northern East Concord and the Hoit Road Marsh

a. Description

Northern East Concord includes the area easterly of Sanborn Road and northerly of Snow Pond Road to the City borders with Loudon and Canterbury. The Hoit Road Marsh is adjacent to the tri-town boundary of Concord, Loudon, and Canterbury and drains under Hoit Road into Hackett Brook which then becomes Hayward Brook near the Canterbury line. Snow Pond outlet drains northeasterly and into Hayward Brook before the latter reaches the Merrimack. Agricultural activity includes pastureland and hay fields as well as an orchard on the Canterbury line.

b. Protected Open Space

In 1992, Paul Riley bequeathed approximately 66 acres to the City abutting Fish and Game's holdings at the marsh. The City and State are managing this area cooperatively. By gift of Lester Spear in 1999, the City received the 70-acre Spear Park off of Sanborn Road for which is the forest resource is managed and public recreational use is permitted including hiking, cross-country skiing, and snowshoeing. A 34-acre tax title parcel on Tallant Road was retained in 1995 and three parcels have been donated as part of subdivisions over the past three years as follows: 29 acres off of Graham Road as part of Juniper Fells Phase I, 14 acres at the intersection of Snow Pond and Shaker Roads as part of Juniper Fells Phase IV, and 51 acres adjacent to Spear Park as part of the Reserve at Stonehaven cluster development. In that same timeframe, a trail easement over the former Snaptown Road was donated as part of Juniper Fells Phase I, a conservation easement of 4.9 acres was donated as part of Juniper Fells Phase IV, and a 16.5-acre conservation easement was donated as part of the Emerald Abode Subdivision at the southwesterly corner of Hoit and Graham Roads together with a trail easement leading west from Graham Road.

The New Hampshire Fish and Game Department acquired the Hoit Road Marsh as a waterfowl management area, open for fishing, hunting, and trapping. The State also holds the development rights on the former Blood Farm on Mountain Road.

The Five Rivers Conservation Trust holds an easement on the Bois de Brodeur Trust land on Hoit Road just west of Tallant Road, and the Society for the Protection of NH Forests has an easement on the Richards Community Forest easterly of Sanborn which is adjacent to Spear Park.

c. Priorities for Open Space Protection

- The acquisition of a parcel is proposed to complete the connection between the trail easement over the former Snaptown Road with the trails on the Riley parcel and the Hoit Road Marsh.

7. The Horse Hill Area

a. Description of the Area

Horse Hill rises in the far northwest corner of the City, above the historic Mast Yard and Contoocook River corridor. The rocky, steep area runs from the Boscawen town line to Horse Hill Road and Blackwater Road. Also included for purposes of this plan is the area easterly to Weir Road and Elm Street as well as land to the west of Horse Hill enclosed by Blackwater and Warner Roads and the City limits. Little Pond, one of two water bodies bearing that name in the City, straddles the townline with Boscawen on the north side of Horse Hill. While much of this area is comprised of forests, there are wetlands, particularly west of Blackwater Road, and pastures from former farming activities. Some timber is cut from these lands, and there is evidence of recreational activities such as hunting, cross-country skiing, and snowmobiling.

b. Protected Open Space

In 1991, the City acquired approximately 56 acres east of Weir Road on the Boscawen town line. This parcel abuts a portion of Boscawen's Town Forest, which in turn abuts NH Fish and Game Department's Hirst Marsh also located in Boscawen. The City, the Town of Boscawen and Fish and Game are cooperating in the management of the more than 600 acres of conservation land.

A 46.5-acre parcel on the westerly slope of Horse Hill was acquired by the City in 1996, a conservation easement was acquired in 1996 west of Blackwater Road at the Webster townline, and another conservation easement was acquired in 2006 on 22 acres on the north side of Warner Road.

Allen State Forest is the sole State-owned parcel in this area, located westerly of Blackwater Road. As part of an adjacent land subdivision in 2006, the State received a 5 acre donation connecting the Allen State Forest to Warner Road.

The Five Rivers Conservation Trust holds an easement on 21 acres on the easterly side of Horse Hill off of Weir Road, and on two properties that had belonged to the Hardy family located off of Elm Street.

c. Priorities for Open Space Protection

- The peak of Horse Hill is proposed for acquisition together with the shoreline of Little Pond and access to both from both Blackwater Road and Elm Street.

- Easements are proposed for the remainder of the slopes on the sides of Horse Hill in order to protect the physical and visual character of the hill, and to provide for increased recreational use.

8. The Great Bog

a. Description

Lying westerly of Fisherville Road and southerly of River Road, the Great Bog lent its name to Bog Road which was constructed across the southerly portion of the Great Bog as a “corduroy road”, made of row of logs laid side by side and covered with gravel. Bog Road was paralleled to the south by the Concord to Claremont railroad line, now abandoned, and a portion of the bog lies south of the old railbed, in a bowl-like form below the former Spofford Farm at the end of Ferrin Road. This large classic type of wetland remains relatively pristine, although residential development along Fisherville, Bog, and Borough Roads has pressed against its easterly edges, and a fringe of development lies along River Road. Although the Great Bog is primarily privately owned, the principal use of the area is for wildlife habitat.

b. Protected Open Space

The only publicly owned parcels belong to the City and include parts of the former Concord and Claremont Railroad right-of-way, used in part for the piping of Contoocook River water to Penacook Lake, and held in part for a future trail linking West Concord to the Mast Yard and Horse Hill. The agricultural lands on the Spofford Farm that lie adjacent to the Bog, southerly of the former railroad right-of-way, are protected by conservation easements. The common open space associated with the Primrose Subdivision south of Borough Road is the only private open space.

c. Priorities for Open Space Protection

- The missing links of public ownership in the former railroad right-of-way are proposed to be acquired for trail purposes.

- Conservation easements for environmental protection purposes are proposed to be obtained for the majority of this vast wetland.

9. The Penacook Lake Watershed and Environs

a. Description

Penacook Lake, the City's chief source of potable water, is the focus of a 3.7 square mile watershed area that includes portions of Jerry, Pine, and Rattlesnake Hills as well as Russell Pond. Underlain with granite, the steep, thickly forested hillsides descend into the clear, long lake which runs northeasterly from the intersection of Little Pond Road, Long Pond Road, and Lake View Drive to a point just south of Hutchins Street in West Concord. Included within this segment of the open space system is another water body that is also known as Little Pond which is located to the north and east of the intersection of Little Pond Road and Via Tranquilla. Wetlands surround Little Pond, in contrast to the steep, stony soils which predominate within the adjacent watershed. The protection of the City’s water supply is the pre-eminent purpose of public land protection in this small watershed, to the extent of exclusion of other potential uses.

b. Protected Open Space

The largest landowner within the watershed is the City of Concord. The City began acquiring the land around the lake some 40 years ago, and today owns the entire shoreline as well as varying amounts of acreage surrounding the immediate shoreline. The primary purpose of these acquisitions was and is to provide protection for the major source of the municipal water supply. The timber resource on the City’s watershed has been managed under the City's forest management program which also maintains a network of fire roads.

The Carter Hill Orchard is located along its northern boundary of the watershed on Carter Hill Road and was protected in 2001 by a conservation easement to the Five Rivers Conservation Trust for which the City holds an executory interest. The Five Rivers Conservation Trust also holds an easement on a parcel near the end of Via Tranquilla.

The State of New Hampshire owns several parcels at the westerly edge of the watershed. The Abbott State Forest and District #5 State Forest lie, respectively, north and south of District #5 Road. The State also owns property at the easterly edge of the watershed in the Rattlesnake Hill Area which it holds in relation to the NH State Prison on North State Street.

c. Priorities for Open Space Protection

- Easements are proposed for the wetlands surrounding Little Pond in order to protect its fragile ecosystem.

- Private parcels within the Penacook Lake watershed which become available should be considered for public acquisition for water resource protection.

- If the State ever abandons its interest in the NH Prison lands on Rattlesnake Hill, the City should take steps to acquire protective interests in these properties.

10. West Parish, District #5, and Dimond Hill

a. Description

This area embraces land westerly and southwesterly of the Penacook Lake Watershed to the Hopkinton townline, focusing primarily on the drainage area of Ash Brook which starts near District #5 Road and runs southerly past Currier Road to Hopkinton Road. Ash Brook has numerous associated wetland areas, of varying sizes as it meanders its way into Little Turkey Pond. Agricultural activity has been maintained at the Rossview Farm on District #5 Road and at the Dimond Hill Farm on Hopkinton Roads. Hikers and snowshoers, and in some places, bicyclists and cross country skiers use both formal and informal trails in this area which is also traversed by a snowmobile trail.

b. Protected Open Space

An easement on 21 acres on the Hopkinton townline north of Currier Road was acquired by the City in 1992. In 2001, the City acquired the 68-acre Thirteen Hills property, northerly of Currier Road and abutting the District #5 State Forest. In 2002, a trail easement over the southerly end of the Old Dimond Road was granted to the City as part of the Abbott Hill Subdivision, and a conservation easement was provided to the City along Ash Brook as it flows through the Shenandoah Subdivision. In 2006, the City purchased an executory interest in a conservation easement on the 108-acre Dimond Hill Farm with the Five Rivers Trust holding the easement, and in 2007, a similar interest in the 545-acre Rossview Farm was purchased by the City, with the New Hampshire Department of Resources and Economic Development holding the easement.

District #5 State Forest is the sole State-owned parcel which lies at the easterly edge of this area.

The Five Rivers Conservation Trust holds an easement on the Dimond Hill Farm, while the Society for the Protection of NH Forests has an easement on the 61.5-acre Hale parcel at the end of Chestnut Pasture Road.

c. Priorities for Open Space Protection

- Acquisition of land as well as easements is proposed to protect the unfragmented habitat and to provide trail connections from the Rossview Farm northerly to West Parish Road, from the Rossview Farm southerly to Currier Road along Ash Brook, as well as southerly from the Dimond Hill Farm to I-89, west of Little Turkey Pond.

- Protection should be legally formalized for the institutional lands of St. Paul's School including Jerry Hill as well as land on both sides of Long Pond Road at the intersection of Hopkinton Road, together with the trails thereon.

11. The Turkey Ponds and Turkey River Area

a. Description

The Turkey Ponds and Turkey River occupy a large area in the southwestern quadrant of Concord. Starting at the Bow town line, Bela Brook enters Concord and flows easterly under Hooksett Turnpike, while further east, White and Turee Brooks flow north into Concord toward Clinton Street. All three of these brooks drain into Great Turkey Pond, which in turn drains northerly through a dredged channel under I-89 into Little Turkey Pond. The St. Paul's School pond is the next link in the circuitous waterway system that ultimately finds its way southeasterly via the Turkey River back into Bow and its confluence with the Merrimack River. The dominant feature of this sector of the City is its flat, wetland character. Some agricultural uses remain along Stickney Hill Road and Silk Farm Road. In addition to recreational uses associated with the surface waters and the trails in the area, wildlife habitat is the predominant use of the open space.

b. Protected Open Space

The City itself is a major landowner south of Clinton Street. The City acquired properties along Bela, White, and Turee Brooks through tax title deeds and has held them, originally for an ambitious plan to create a "Concord Lake". While that plan has since been relegated to a historic novelty, the land is extremely valuable wetland and wildlife habitat. A donation of 90.8 acres from the Bela Brook cluster development was made to the City in 2004.

A portion of the White Farm on Clinton Street abutting the Turkey River was acquired from the State by the Concord School District for purposes of environmental education.

The State owns major parcels to the northeast of I-89 along the Turkey River. These include the Cilley, Russell-Shea, Upton-Morgan, and West Iron Works Road State Forests as well as the former New Hampshire Hospital farmlands northerly of Clinton Street which are used as part of substantial trail network between Memorial Field and the Turkey River.

The Audubon Society of New Hampshire maintains its headquarters on Silk Farm Road with a trail system on its premises as well as on adjacent property of St. Paul's School.

c. Priorities for Open Space Protection

- Additional easements are proposed to complete protection of the river, streams, floodplains, and wetlands within this area, as well as to protect the remaining farmlands on Stickney Hill.

- Acquisition is proposed for a parking area on the south side of Clinton Street now used for public access to the Turkey Ponds.

- Acquisition of the parcel between Memorial Field and State land is proposed to link these two public properties for trail and access purposes.

- Should the State abandon its interest in the lands west of Memorial Field, these tracts should be preserved by the City for agricultural use and passive public recreational purposes.

- Conservation easements should be sought on the entire shoreline around the Turkey Ponds as well as on the associated wetlands, all of which are in the institutional ownership of St. Paul's School, in order to formalize the protection of these valuable environmental resources and to preserve the flood storage capacity.

12. Fisk Hill

a. Description

Fisk Hill rises above Pleasant Street westerly of Concord Hospital and includes the land area westerly of Fisk Road and northerly toward Little Pond Road where the watershed of Penacook Lake begins to carry runoff to the north. Within this area lie the headwaters of Bow Brook and Miller's Brook together with some related wetlands, as well as the fields and pastures along Fisk Road which create a classic pastoral landscape. Some residential development has occurred in this area, and agricultural activity is limited to haying of the fields. There are both formal and informal recreational trails, primarily east of Fisk Road, used for hiking, snowshoeing, and cross country skiing. A rope-tow ski facility was once maintained by St. Paul's School from Pleasant Street to the height of land east of Fisk Road.

b. Protected Open Space

As part of the mitigation for the Northwest Bypass (Langley Parkway), the City acquired a 25-acre conservation easement in 1994 on the large wetland area north of Concord Hospital abutting Bow Brook. A conservation easement on the 47.8-acre common open space in the Walkers Reserve cluster development was given to the City in 2002, expanding the trails system from the adjacent Walker State Forest. In 2003, the City purchased 28 acres south of the Walker State Forest with the assistance of funds raised by supportive citizens.

Walker State Forest off of Little Pond Road is the only parcel of protected open space that is in State ownership. A trail network is maintained within the Forest.

The Five Rivers Conservation Trust holds an easement on the 28 acres the City acquired south of the Walker State Forest. The fields and forests of the Fisk Hill Farm subdivision are protected by private easements among the lot owners that bind those owners to maintaining the fields as such and not allowing their reversion to forest.

c. Priorities for Open Space Protection

- Acquisition by the City of the land between the protected wetland behind Concord Hospital westerly and northerly to the permanent open spaces surrounding Walker State Forest is proposed for both environmental protection purposes as well as for the expansion of existing trail systems.

- Protection of the institutional lands of St. Paul's School and the Unitarian Church and the public access to the trails thereon should be legally formalized.

13. Open Space inside the Urban Growth Boundary

a. Description

There are some open space lands inside the Urban Growth Boundary, and while these lands provide open space on a smaller scale, they are far more intensively used by the public due to proximity to residential development and places of employment. These parcels are mostly in public ownership and require little further action for preservation and protection.

b. Protected Open Space

The City's major parks all function as open space within or immediately adjacent to the Urban Growth Boundary, including White Park, Rollins Park, Martin Park, Memorial Field, Kimball Park, Garrison Park, Morono Park, Contoocook River Park, Rolfe Park, Merrill Park, Keach Park, Kiwanis Park, Terrill Park, and Healey Park, as well as Beaver Meadow Golf Course. The future park/school site adjacent to Broken Ground School will be added to this inventory as the park is formalized, and other recreation sites may be acquired and developed as parks to serve as urban open space for developing areas of the City.

The South End Marsh has long been held by the City as an urban open space. The City's cemeteries also function as formal, landscaped open spaces that provide open space both visually, and functionally, for walking within these special spaces.

Some subdivisions and all cluster developments within the Urban Growth Boundary have protected open spaces, some of which is held in condominium ownership as common land, some of which has been deeded as proportionate undivided interests among all of the owners, and some of which has had conservation easements conveyed to the City as a means of protection. These subdivisions and developments include the Primrose Subdivision, West Village, Millstream Estates, Brookwood, Freedom Acres, Haywood Brook, Bly Farm, Cardinal Builders Subdivision, and Woodcrest Heights.

c. Priorities for Open Space Protection

- The acquisition of easements around the South End Marsh is proposed to provide a buffer for the Marsh.

- While some specific recommendations for access to public waters are included in this plan, expanded public use of surface waters may result in the need for additional access points for purposes of recreation and safety.

14. Linkages and Connections

a. Description

Open space becomes a system when its components are linked together, and the system becomes more viable and useful to the citizens of Concord when these linked components are connected to and accessible from the villages and neighborhoods where the citizens reside. The linkage devices may include utility rights-of-way, railroad rights-of-way, and streambanks, but where no rights-of-way or streams exist, linkages will need to be acquired as corridors between open space parcels. Rights-of-way are generally traversable, being fairly free of substantial growth and having either relatively flat or at least passable terrain; however, streambanks vary in grade and are sometimes surrounded by wetlands, requiring culverts and small bridges make them valuable and viable as linkages and connections. A connected open space system will provide recreational opportunities for hiking, cross-country skiing, snowmobiling, horseback riding, bicycling and the like.

Trails and connections used by the public may also serve as wildlife corridors, linking large areas of unfragmented habitat as well as providing access for wildlife to sources of water. However, there may be need to acquire corridors for wildlife where the trail systems do not otherwise serve that need.

b. Existing Trails

Over the past thirty years, the Conservation Commission has developed trails on most of the City's public open spaces except where public access is prohibited, such as around Penacook Lake. Trail maps are available to the public (ref. Exhibit VII-3), and with the advent of computerized mapping, these maps have become available on the City's website. Informational kiosks have been constructed at many of these areas stocked with maps, and several sites have trailhead parking lots. Public trails are also available on the State land at Sewalls Falls, at the Forest Society's headquarters, and at the Audubon Society's headquarters.

c. Proposed Linkages and Connections for Public Access

While trails exist on many open space sites, only a few are connected to each other, such as Sewalls Falls, Morono Park, and Beaver Meadow Golf Course with cross country skiing trails. What is proposed to be accomplished herein is a more universal linkage among these large open space areas with their internal trail systems, and the provision of connections to these open space areas and trails from the neighborhoods and villages inside the Urban Growth Boundary. The following is a description of these linkages and connections throughout the City:

i. West Concord Village/Concord Manor to Riverhill/Board Cove/Mast Yard: The City owns or holds easements on sections of the abandoned Concord to Claremont railroad right-of-way from North State Street to the Contoocook River at the Riverhill Bridge. The missing links need to be acquired or easements obtained thereon in this stretch. There are also sections of the railroad right-of-way along Horse Hill Road that should be acquired which would connect from the O'Reilly-Fleetham Trail at Riverhill to the existing trail system in Lehtinen Park. A bridge over the Contoocook River using the old railroad bridge abutments has been proposed by local snowmobile clubs which will provide a connection to Mast Yard trails which lead into Hopkinton.

ii. Riverhill to Weir Road/Horse Hill/Boscawen Town Forest: For trail users arriving at Riverhill, a short trip up Horse Hill Road onto Elm Street and Weir Road leads to existing trails at the townline that continue into the Boscawen Town Forest and the Hirst Wildlife Management area. As land is acquired on Horse Hill, trails should be laid out on and over Horse Hill to Blackwater Road and Lehtinen Park.

Exhibit VII-3. Trail Map
Insert 8 ½ x 11

iii. West Concord Village to West Parish/District #5/Currier Roads and Dimond Hill: Running southerly from the proposed trail along the abandoned Concord to Claremont railroad right-of-way paralleling Bog Road, a trail connection should be established along the water line easements to West Parish Road. This would require the acquisition of trail easements in addition to the utility easement the City now holds. By continuing westerly on West Parish Road, a hiker could then enter the Carter Hill Orchard trail system, which is planned to be expanded westerly and southerly throughout Rossview Farm crossing District #5 Road. At the southerly end of the Rossview Farm, a trail needs to be laid out to continue southerly through the Thirteen Hills parcel and along an easement over the Old Dimond Road to Timberline Drive and Currier Road. Other connections from the Rossview Farm to Currier Road should be sought. Currier Road provides access to the northern edge of the Dimond Hill Farm which continues southerly across Hopkinton Road.

iv. Memorial Field through the White Farm to the Turkey River Watershed: The South End is connected to the Turkey River Watershed via trails leading westerly from Memorial Field through the White Farm under a license agreement between the Commission and NHDRED. The Concord School District land is also utilized in reaching the Turkey River just north of Clinton Street, which must be utilized to reach trails at the Audubon Headquarters as well as trails in the Upton-Morgan State Forest on Silk Farm Road, respectively north and south of Clinton Street. Further west off of Clinton Street is a new trail system in the Bela Brook cluster development. Opportunities should be explored to link with trails maintained by the Bow Conservation Commission in the Town of Bow.

v. Pleasant Street to Walker State Forest over Fisk Hill: Formal trails exist at both ends of this area, in Walker State Forest and on the land of the Unitarian Church. The informal network in between needs to be formally protected and upgraded, providing access from the West End to this open space area.

vi. The Heritage Trail along the Merrimack: The Heritage Trail is intended to follow the Merrimack River from Bow to Boscawen and Canterbury, providing access to the river from all of the neighborhoods and villages in Concord. Begun in 1990, some sections follow sidewalks along City streets, and some have been established over pre-existing trails such as the bicycle lane on the I-93 bridge connecting the NH Technical Institute with East Concord Village. All of the recently acquired properties on the Merrimack floodplain will be used to expand this trail system but there are missing pieces that will need to be acquired to connect from the Gold Star Sod Farm to Sewalls Falls Road, and from Sewalls Falls Road to Hannah Dustin Drive. The trail along I-93 in the Downtown area will have to wait for the modifications to I-93 by NHDOT to connect from Healey Park to Loudon Road and provide for the “river connection” to the trail over I-93 from Downtown Concord. Non-public sections of the abandoned Concord to Claremont railroad right-of-way should be acquired from Horseshoe Pond continuing north to North State Street and West Concord.

vii. Broken Ground: Existing trails on the future school park site accessed by Batchelder Mill, North Curtisville, and Curtisville Roads lead east toward Broken Ground. Trails have also been laid out on the Nichols parcel at the dead-end of Curtisville Road, while other more informal trails run southerly from Curtisville Road to Portsmouth Street, where the East Sugarbell Road trail connects back to East Side Drive providing access from the Heights. The vast remainder of Broken Ground is laced with old logging roads that are well used by the public but no formal trail rights exist to these. The protection of Broken Ground will be

the key to gaining formal trail rights throughout Broken Ground connecting east to Josiah Bartlett Road, and north to Appleton Street, Turtle Pond, and Oak Hill Road.

viii. Oak Hill to the Hoit Road Marsh: The City has an extensive trail system on Oak Hill with access from Oak Hill Road and a trailhead with parking off of Shaker Road. Existing trail easements connect from Shaker Road through Becky Lane across Snow Pond Road to a trail easement on the former Snaptown Road from which trails can diverge in two directions. Heading westerly, a City owned parcel that can provide a connection to Graham Road from which another trail easement continues westerly toward the Richards Community Forest and Spear Park on Sanborn Road, with one easement connection needed to complete this connection. Heading northerly from the former Snaptown Road, one additional acquisition would fill a missing link to the Riley Trails on City land that cross Hoit Road to the Marsh.

The City should remain alert for and actively seek additional corridors and linkages to provide connections between areas of open space and the urban parts of the city.

d. Proposed Linkages and Connections for Environmental Protection and Wildlife Corridors

Easements are proposed whenever possible along all streams and brooks. Drainage rights, development rights, and in some cases, right of access, should be sought along the following brooks:

i. Bow Brook is proposed for easements in order to unify various urban open spaces and to provide access and a link to Little Pond in the north and the Turkey River in the south.

ii. Hayward Brook, Hackett Brook, and the Snow Pond Outlet link the Hoit Road Marsh and the Snow Pond/Oak Hill area and the Merrimack as they meander through a developing area in East Concord.

iii. Hoyt Brook rises in the Great Bog southwest of Borough Road and flows northerly under Borough Road and South Main Street in Penacook, down through the land of the Merrimack Valley School District to the Merrimack River.

iv. Beaver Meadow Brook rises east of Ferrin Road and adjacent to the Penacook Lake watershed, and flows down across the railroad right-of-way, under Fisherville Road, through Concord Manor and Beaver Meadow Golf Course to the Merrimack River.

While the shorelines of rivers, streams and ponds have been placed under a protective setback requirement in the City's Zoning Ordinance, easements should be obtained for land in the Shoreland Protection District whenever possible, both to reinforce the zoning and to alert future landowners to development restrictions. Where no rights-of-way or streams exist, linkages will need to be acquired as corridors between open space parcels to act as wildlife corridors.

E. CONSERVATION AND OPEN SPACE POLICIES AND RECOMMENDATIONS

1. Conservation and Open Space Policies

a. Open space protection and management policies

i. Acquire and manage open space lands where public access is desired, including lands which provide access to public waters.

ii. Acquire conservation easements in perpetuity or purchase development rights in areas proposed to remain as open space and where public access is not envisioned or not desirable due to environmental sensitivity.

iii. Provide adequate public funding, such as the proceeds from the Use Change Tax, that will sustain a program for the acquisition and protection, as well as the long term management of open space, and to leverage that public investment with other sources of funding

iv. Work with volunteers, private conservation groups, landowners, adjacent towns, and the agencies of the state and federal governments to protect, monitor and maintain the open space areas identified in this open space plan.

v. Encourage and support the continued maintenance of the quality and functions of private open space areas owned individuals and institutions.

vi. Evaluate each tax title property for consistency with the Open Space Plan, and if consistent, to determine if the title should be retained if public access is desired, or should be resold with conservation easements, if public access is not recommended.

vii. Accept donations of conservation easements and/or fee simple title to open space lands only after a determination that the donation is consistent with the open space plan, and the site has been evaluated for the presence of hazardous wastes.

viii. Utilize conservation organizations as secondary grantees in holding easements or executory interests on publicly owned open space, to ensure that the land is protected in perpetuity.

ix. Support the continuation of the Current Use Taxation (RSA 79-A) and the Conservation Restriction Assessment (RSA 79-B) Programs for privately held open space.

b. <u>Policies related to the public use of, and access to, open space</u>

i. Establish linkages between large open space areas both for public access and as corridors for wildlife migration along rivers and streams, major transmission line rights-of-way, and abandoned railroad rights-of-way.

ii. Develop trails, boat ramps, boardwalks, and other facilities for public access to Concord's open space where such access will not adversely impact natural resources and the ecology of the open space.

iii. Continue trail development and maintenance within open space areas throughout the City, and to encourage and coordinate volunteer efforts to develop and maintain these trails.

iv. Carefully consider and mitigate adverse impacts which may occur from the development of public and private recreational facilities within the open space system.

c. <u>Environmental protection policies</u>

i. Conserve large unfragmented areas that provide a variety of wildlife habitats and promote landscape connectivity to allow for the movement of wildlife within the City.

ii. Protect the habitat of endangered or threatened species through acquisitions and easements that ensure the continued existence of the natural habitats of these species.

iii. Maintain and improve the quality of ground and surface waters

d. Land Use Regulatory Policies

i. Wetlands:
   - Strive for no net loss of the functions and values of wetlands in the City and to seek mitigation for unavoidable impacts.
   - Require setbacks from wetlands for activities that may have an adverse impact upon the wetland.
   - Continue to add to the City's inventory of mapped wetlands so that wetlands are readily and easily identified when land is proposed to be developed.

ii. Floodway - Prohibit the placement of fill and/or obstructions in the floodway, and to prohibit the erection of buildings and structures in the floodway other than those which cannot be located elsewhere, such as bridges and boat ramps.

iii. Floodplain:
   - Use the best available information to establish the regulatory flood elevations and limits of flood hazard areas and to continue participation in the Federal Flood Insurance Program.
   - Continue to restrict development in the floodplain outside of existing urbanized areas to agricultural and recreational uses.
   - Prohibit new residential uses within the floodplain and encourage the removal of existing residences.

iv. Steep and Erodible Slopes - Perpetuate setbacks and use regulations intended to protect steep erodible slopes and bluffs from irreversible damage from clearing, grading, and excavation.

v. Shoreland Protection - Perpetuate setbacks, buffers, and use regulations intended to maintain surface water quality and protect the banks of the rivers, streams and ponds from damage by incompatible development.

vi. Penacook Lake Watershed – Continue to protect the Penacook Lake Watershed City's primary source of potable water through restrictions on incompatible uses and limitations on density of development.

vii. Aquifers - Prepare and adopt ground water protection regulations.

viii. Site Development**:**
   - Require site development to take into account the natural site conditions during the design process and, where appropriate, to preserve and promote such physical and natural features as rivers, streams, ponds, marshes, wetlands, scenic vistas, steep slopes, woodlands, wildlife habitat, and special geological features.
   - Require site development to minimize the destruction of natural vegetation and alteration of terrain.

ix. Cluster Development - Foster the use of cluster development and/or limited development techniques in rural residential areas to promote the preservation of open space and to reduce the economic and environmental costs associated with sprawl.

e. Policies related to the use and development of natural resources

i. Agriculture:
- Recognize that agriculture is the highest and best use of prime agricultural soils within open space areas.
- Support a diverse agricultural industry including but, not limited to, field crops, horticultural production, dairy farms, orchards and animal husbandry.
- Support the use of agricultural best management practices to protect water and soil resources and to maintain long term productivity.
- Recognize agriculture as an economic activity which should be supported through tax policy and land use regulation.

ii. Forestry:
- Support the use of forestry best management practices to protect water and soil resources, to prevent soil erosion and sedimentation, and to preserve and enhance wildlife habitat.
- Recognize forestry as an economic activity which should be supported through tax policy and land use regulation.
- Continue the forestry management program for the City's open space lands to provide for sustainable yield of timber and allow for multiple use which will not adversely impact the ecological functions of the open space.

iii. Potable Water

- Protect the quality of surface and groundwater to ensure availability of a potable water supply for both the City as well as for individual homeowners.

iv. Sand and Gravel Deposits

- Maintain regulations consistent with the authority of RSA 155-E for the establishment of new excavations as well as the closure and reclamation of depleted excavations.

2. Conservation and Open Space Recommendations

a. Regulatory Recommendations

i. Sustain and perpetuate the open space-related regulatory provisions adopted in 2001. The 2001 Zoning Ordinance included a Shoreland Protection Overlay District, a Flood Hazard Overlay District, and a Penacook Lake Watershed Protection Overlay District as well as requirements for wetland buffers and requirements for buffers to bluffs. The City's earth removal regulations were also reviewed and substantially revised to reflect amendments to RSA 155-E, "Local Regulation Excavations".

ii. Aquifer Protection District - An aquifer protection district should be prepared and adopted to safeguard the City's potable groundwater supplies for future use by both the City and private users. Available models of such ordinances do not adequately address Concord's circumstances wherein the City possesses both municipal water and sewer

systems which serve the urban areas, and the land over the aquifers in these urban areas is substantially and heavily developed. At the same time, there are rural and undeveloped areas of Concord that are dependent on wells and septic systems. A Concord-specific ordinance should be prepared that will address requirements and standards for management practices such as for leak detection and spill containment, and will explore the legal means to apply these requirements retroactively to those existing uses that represent a hazard to groundwater.

iii. Maximize the open space benefits of Mandatory Cluster Development - While this was not included as a recommendation in the past editions of the Open Space Plan, the City Council adopted a zoning amendment making cluster development mandatory. Based on a tentative recommendation in the draft of this Master Plan, the amendment was promoted in part because the enabling statute was revised to allow the mandate, and in part because related research revealed that cluster developments had yielded about 600 acres of open space since the adoption of the citywide revision of the Zoning Ordinance in 2001. While the zoning amendment does not, and cannot require that the rights to the open space be granted to the public, it does require that a certain amount of land be kept open on a permanent basis. This represents a new opportunity to augment other more traditional means of protecting open space in Concord. The design of individual cluster developments should maximize the connectivity of the proposed open space to other existing as well as planned open spaces, for the benefit of both wildlife corridors as well as trails.

b. Public Acquisition Recommendations

All proposed open space acquisitions, whether the fee title or some lesser interest, should be judged by several criteria when establishing priorities. Perhaps the foremost is *vulnerability to development or other alteration*. Some open space is more susceptible to development by virtue of its location adjacent to an existing public highway or a waterbody. Since inaction would mean the loss of such open space, acquisition of interests in these properties should be of highest priority.

A second criterion would be the *potential for immediate public utilization* of the open space. Some parcels would require funding not only for acquisition but also for site development to render them useful to the public. Other lands can be utilized with minimal effort once they are acquired.

Other criteria include the following:

- maximizing the protection of multiple natural resources;
- providing linkages between and among existing protected open spaces and lands targeted for protection, or provision of connections between open spaces and the City's neighborhoods and villages;
- being located adjacent to existing open space such that there would be a complementary and beneficial relationship; and
- comprising a portion of an unfragmented area of open space.

The history of public acquisition of land indicates that opportunities will arise to acquire properties in a sequence unrelated to established priorities. Such opportunities should be carefully evaluated in light of available funding and the status of negotiations for parcels of higher priority. In some cases, non-sequential acquisitions will be warranted.

Some parcels of land may be offered to the City for open space purposes that are not included in this Plan. These properties should be evaluated on a case by case basis using the following criteria:

- the provision of possible linkages to or within the open space system,
- the potential to provide neighborhood "pockets" of open space,
- the level of difficulty of management of the property if acquired, and
- the potential for the resale or trade of the property, perhaps with the encumbrance of a conservation easement, for other more valuable or desirable property.

Finally, some consideration should be given to the timing of the various acquisitions. Based on past experience, in the case of acquisition by direct public purchase, at least one high priority or several lower priority acquisitions should occur each year. Receipt of gifts and retention of tax title land will periodically augment these purchases. The amount of remaining open land in the City is finite, and with development pressures and the passage of time, opportunities for protection of that open land that are lost, are likely lost forever.

i. Acquisition of Fee Title

All of the proposed acquisitions, with the possible exception of those around Penacook Lake, have the "potential for immediate public utilization", and there is some level of "vulnerability to development or other alteration" associated with each. However, of all of the proposed acquisitions, Broken Ground is the only one that meets all of the criteria for the acquisition of open space. The list of acquisitions presented below parallels that as presented in the description of the open space system in this Section and does not reflect a priority ordering of the same.

- Merrimack River Corridor - trail linkages; boat ramp/canoe launch sites

- Contoocook River Corridor - trail linkages; boat ramp/canoe launch site; expansion of Lehtinen Park

- Broken Ground – all land not already publicly owned or otherwise protected

- Oak Hill & Hot Hole Pond – additional access to, and remainder of ridgeline of, Oak Hill; frontage on Hot Hole Pond

- Northern E Concord & Hoit Road Marsh – one parcel linking the Snow Pond Road open space and trails to the Riley lot and the trails related to the Hoit Road Marsh

- Horse Hill - peak of Horse Hill; shoreline of Little Pond; access to both from Blackwater and Weir Roads

- The Great Bog – abandoned railroad rights-of-way to complete the trail connections

- Penacook Lake Watershed – additional land as may become available, evaluated on a case by case basis

- West Parish, District #5, and Dimond Hill – linkages from Rossview Farm to West Parish Road and to Currier Road

- Turkey Ponds and Turkey River – area for parking on Clinton Street for access to the Turkey Ponds; parcel between Memorial Field and State land

- Fisk Hill – the hillside between Pleasant Street and the Walker State Forest westerly of Langley Parkway

- Open Space inside the Urban Growth Boundary – future parks and cemeteries, access to public waters that may become available; common open spaces from cluster developments

ii. Acquisition of Interests-Less-Than-Fee

The list of acquisitions of interests-less-than-fee presented below parallels that as presented in the description of the open space system in this Section and does not reflect a priority ordering of the same.

- Merrimack River Corridor - agricultural lands; wetlands; bluffs

- Soucook River Corridor - agricultural lands; floodplains; bluffs

- Broken Ground - agricultural lands

- Oak Hill & Snow Pond – slopes of Oak Hill; wetlands around Snow Pond

- Northern E Concord & Hoit Road Marsh – trail easement to link Graham Road to open space along Sanborn Road

- Horse Hill – slopes

- The Great Bog – wetlands

- Penacook Lake Watershed – wetlands around Little Pond

- West Parish, District #5, and Dimond Hill – linkages from Rossview Farm to West Parish Road and to Currier Road; and from Dimond Hill Farm to Little Turkey Pond; wetlands and shoreline of Ash Brook

- Turkey Ponds and Turkey River – shorelines of the Ponds, River, and streams; floodplains and wetlands; agricultural lands

- Fisk Hill – trail easements

- Open Space inside the Urban Growth Boundary – easements over the currently privately owned sections of the Marsh and forming a buffer around its edges; shorelines of rivers, streams and ponds not otherwise mentioned to reinforce floodplain and shoreland zoning, as well as wetlands, and erodible slopes and bluffs.

c. Management of the City's Open Space

As the City accumulates more land and interests in land for permanent open space, the management of these lands becomes a more substantial matter that needs to be addressed. At present, much of the management undertaken under the aegis of the Conservation Commission is done through the Forestry Program. After starting the Forest Management Program rather modestly some thirty years ago with assistance from the NH Division of Forests and Lands as

well as employment of college interns, for the past twenty years Commission has maintained a contract with a consultant forester who oversees forest management practices, timber harvests, timber stand improvements including trail blazing though the forests. The City's Forest Management Plan is currently undergoing its third update which will recognize past work on existing lands and add new properties to the management schedule.

The City's consultant forester has provided a regular presence on these open space lands and a watchful eye for storm-related damage, illegal dumping activity, encroachment by neighboring owners, and other matters of concern in terms of land management. The trail volunteers who work under the forester's guidance and with his assistance also provide a public presence on these properties and public evidence of maintenance activities. Of course the trail users themselves, for whom the trail improvement efforts are expended, provide the best source for the reporting of management issues and concerns such as natural damages as well as acts of vandalism.

The addition to the City's open space inventory of agricultural lands has opened a new chapter in the City's open space management through formal lease agreements with farmers who plant various crops and provide a seasonal presence on these properties.

The terms of some of the easements acquired by the City as well as the terms of certain funding by which interests in land were acquired require stewardship on an annual basis by the City, which is generally performed by the Conservation Commission or a subcommittee thereof. As the number of these stewardship requirements increase, the responsibility will likely have to be shared or even shifted to an employee designated to serve the Commission to manage its land and its programs.

The private non-profit conservation organizations holding interests in open space land in the City are another major player in the management of open space land in the City. The Society for the Protection of NH Forests, and the Audubon Society of NH both own land as well as hold conservation easements, and the Five Rivers Conservation Trust holds a number of conservation easements. These organizations are all active stewards of the lands and are engaged in land management.

The other major land manager in the City's open space network is the State which includes the NH Division of Forests and Lands, NH Fish and Game, and the NH Department of Corrections, all of which manage major open space lands within the City.

As the open space system achieves its maximum limits, management planning should be a focus for the City in the future to provide for adequate and appropriate support and oversight of the system that will ensure the public's enjoyment and safety, as well as protect the public investment in this irreplaceable resource.

F. Supporting Studies

A Legacy for Future Generations – Open Space in Concord, New Hampshire: A Master Plan Report, Concord Conservation Commission, Concord, NH, 1978.

City of Concord Master Plan Year 2010 Update, Concord Planning Board & Concord Planning Department, Concord, NH, December 15, 1993.

Concord Wetland Mapping Study, prepared by James W. Sewall Company, 2004.

Concord Master Plan Community Survey, prepared by The NorthMark Group, 2004.

Endowment for the 21st Century, Conservation & Open Space Plan, Concord Conservation Commission, Concord, NH, December 15, 1993.

Floodplain Information, Merrimack River, City of Concord, New Hampshire, United States Army Corps of Engineers, 1972.

Geohydrology and Water Quality of Stratified-Drift Aquifers in the Contoocook River Basin, South Central New Hampshire; United States Geological Survey Water Resources Investigations Report 92-4154, 1995.

Geohydrology and Water Quality of Stratified-Drift Aquifers in the Upper Merrimack River Basin, South Central New Hampshire; United States Geological Survey Water Resources Investigations Report 95-4123, 1997.

Groundwater Exploration Program Phase I Report for the City of Concord Water System Master Plan, Emery & Garrett Groundwater, Inc., October 2005.

Merrimack River Greenway and Trail System, Concord Conservation Trust, Concord, NH, 1990.

Turkey River Basin Plan, prepared for the Turkey River Basin Trust by Margaret Watkins, 1993.

Water System Master Plan, Phase 1, for the City of Concord, New Hampshire, Wright-Pierce, September 2006.

Zoning Ordinance for the City of Concord, New Hampshire. Adopted November 29, 2001 together with zoning map, as revised through June 2007.

SECTION VIII. HISTORIC RESOURCES

A. INTRODUCTION

The inclusion of this Historic Resources Section in the Master Plan is the first time that the Concord Master Plan has included such a section. Goals for the preservation of historic resources are set forth. An overview is provided of the City's history as well as the history of the neighborhoods within the City. A description of available tools and techniques for historic preservation is presented followed by a review of the City's historic preservation activities. Policies and recommendations are presented for future actions related to the preservation of the City's historic resources.

B. GOALS RELATED TO HISTORIC RESOURCES

The overall goal is to recognize, preserve, enhance, and continue the use of buildings, structures, sites, areas, and districts having historical, architectural, or cultural significance to the City. The specific historic resource goals are to:

1. Safeguard the heritage of Concord by providing for the protection of structures and areas representing significant elements of the City's cultural, social, economic, political, and architectural history.

2. Encourage the rehabilitation of historic buildings that reflects and respects each building's historic character.

3. Encourage development that reflects and respects the historic landscape.

4. Encourage adaptive reuse that respects character-defining features of historic buildings and structures.

5. Promote the identification of, consideration of impacts to, and mitigation measures (such as avoidance) for historical properties affected by development.

6. Remove any unintended impediments to the rehabilitation and/or reuse of historic properties inherent in the City's land use regulations and building codes.

7. Complete a comprehensive survey of historical resources for the entire city.

8. Encourage the preservation of historic barns and other significant agricultural outbuildings.

9. Identify and designate scenic roads in outlying rural areas.

10. Encourage the protection of historic stonework including stone walls, foundations, and culverts.

11. Revise the City's design review guidelines to include an historical resources component.

12. Amend the City's development regulations to include provisions for review and comment by the Heritage Commission on development proposals that potentially impact historical resources or an historic area.

13. Provide for consultation with the Heritage Commission when a City-owned historic property is impacted by proposed alterations, new use, or disposition.

14. Develop a process for review and comment by the Heritage Commission relative to architectural changes proposed for historic properties owned by the school districts and the State within Concord.

15. Promote use of the federal tax credits in local historic rehabilitation projects.

16. Develop priorities for the future listing of properties on the National Register.

17. Promote the concept of Neighborhood Heritage Districts, founded on neighborhood-based sponsorship and support.

C. CONCORD'S HISTORICAL AND ARCHITECTURAL DEVELOPMENT

1. Citywide Historical Overview

Located in the geographic center of New Hampshire, Concord is bounded on the north by Webster, Boscawen and Canterbury; on the east by Loudon and Chichester; on the south by Pembroke and Bow; and on the west by Hopkinton. The fertile floodplains along the Merrimack River provided the impetus for early settlement in this area.

The Concord area is part of the land occupied by the Western Abenaki peoples prior to European contact. Population estimates for this region, essentially all of what is now Vermont and New Hampshire range from 5,000 to 10,000 people at the beginning of the 17th century. People in this region tended to move from large towns to small camps at various times of the year. The area around Concord itself was the land of the Penacook, and evidence of 16th and 17th century European contact has been found along the Merrimack south of Concord and to the northeast around Ossipee Lake and Lake Winnipesauke. During the first decades of the 18th century, the general area was ravaged by warfare as a result of struggles between France and England and efforts at native extirpation by the New England colonists (New English).

a. *1726-1808* - Concord was founded by Europeans around 1720, when Captain Ebenezer Eastman arrived from Haverhill with a group of settlers. The initial plantation of "Pennycook" was formed by a grant in 1725. The plan of Concord was unusual in that it was laid out as a nuclear town (commonly used in Massachusetts) rather than as a range township (the plan most commonly used in early New Hampshire settlements). This meant that most of the lots and later homes were located in the central village, primarily along Main Street. In 1727, the area east of the river and in what is now West Concord was laid out and by late 1731 over 85 houses had been at least partially erected in the town. In 1733, the plantation was incorporated as the town of Rumford. In 1744, Rumford was fortified with ten blockhouses during the first French War (also known as King George's war, 1744-1748)

Following the Revolutionary War, Concord benefited from its position as the terminus of both the First and Fourth Turnpikes. Residential and mercantile activity remained clustered at the north

end of Main Street although the villages of West and East Concord continued to evolve throughout this period.

b. ***1808-1842 -*** Concord was designated as New Hampshire's state capital in 1808, dramatically impacting the city's commercial, professional and industrial development. The first State Prison was built in 1812, followed by the NH State House in 1819. In 1823, Concord became the county seat or shire town for Merrimack County. The business district, concentrated on the north end of Main Street, began to branch off into other areas. Many of the City's existing streets were in place by 1834, with the village core extending from Main Street on the east to Penacook on the north, Merrimack Street on the west and West, Water and Hall Streets on the south. Houses and businesses lined Main, State, South and Green Streets. Diverse manufacturing and extraction industries supplanted agriculture as the dominant economy of Concord during this period – granite quarrying, furniture making, musical instrument building, and the manufacture of freight vehicles by the Abbot-Downing Company (founded 1813) were the most prominent. The villages surrounding Concord's center continued to expand slowly, but residential growth remained concentrated in the Central Village.

c. ***1842-1914 -*** The arrival of the railroad in 1842 had a profound impact on Concord and ushered in the City's period of greatest change. After the eventual consolidation of over 30 separate railroad lines, the Boston & Maine (B & M) Railroad emerged as the primary company in New Hampshire. The City's population doubled in the decade following the railroad's arrival, reaching approximately 9,000 in 1853. It was in that year that Concord became incorporated as a City. The granite industry expanded significantly in the post-Civil War period and Concord granite became highly sought-after throughout the country. The success of the Abbot-Downing coachworks spawned numerous ancillary industries such as harness and axle makers. Printers, belt makers, iron foundries and silver makers all prospered and expanded during this time period, benefiting from a highly skilled workforce. At the close of this period the railroad was the City's largest employer.

The New Hampshire State Hospital opened in 1842 and a new prison facility was opened in 1880. A civic district emerged around the newly renovated State House during the 1880's that eventually included the Post Office, Courthouse, State Library and City Hall. The City initiated a period of major civic construction in the final quarter of the 19th century with the construction of police and fire stations and a library that was built by Daniel Chester French (the current library was erected in the 1930s). Sewerage and water works systems were built and numerous public schools were constructed.

Residential development exploded during this period and by the first decade of the twentieth century many of Concord's downtown neighborhoods were fully developed. Most of the homes were single-family, wood-frame houses, although a large number of duplexes including the distinctive "Concord Duplex" and a number of brick homes are found throughout the city. Starting in 1878, streetcar lines from South Main Street to Penacook brought residents to and from work and shops and allowed for even more substantial growth in the West End, West Concord and Penacook. During this era, the village of Penacook (initially called Fisherville) became known as a center of textile and furniture manufacturing, while East and West Concord continued to grow at a steadier pace with West Concord benefiting from country's reliance on Concord granite. A strong rural tradition of farming continued in the areas immediately surrounding the City's urban area.

d. ***1914-1944 -*** In the years after World War I, following a pattern seen throughout New England, the influence of the railroad and industries of Concord began to wane. Electronics, printing and insurance replaced the railroad as the leading employers during this period. The

rise of the automobile brought about changes in the character of the city as major arteries were widened and forced out the street car lines. Relatively little construction took place during this period. Residential growth continued at a slower pace and was concentrated in the South End and apart from the Concord Public Library and the State House Annex, few governmental structures were built during this time.

e. 1945-2006 - The use of passenger rail continued to decline after World War II and came to an end in the 1960s. The Concord rail station was replaced by a shopping center in 1960-1961, but Concord remained major transportation center with the construction of Interstate Highway System through Concord including first I-93, then I-89, and culminating with the construction of I-393. The railroad and textile industries, and most of the granite and printing concerns closed shop by the middle of the twentieth century. In 1954 the Concord Regional Development Corporation (CRDC) was formed to attract new industry in response to the decline of the long standing industrial concerns. CRDC was able to attract new industries and business to outlying industrial parks on the Heights near the Airport and in East Concord at I-93 Exit 16 and in Penacook at I-93 Exit 17. During this period Concord's largest employer became the State of New Hampshire, while Concord grew to be the second largest Health Care Center in NH, and a major retail, wholesale, finance and professional service center. Residential development continued after World War II with major subdivisions on the Heights, in the Fisherville Road corridor between West Concord and Penacook, in the South End, and in East Concord. Concord went through several major growth periods, including one in the early 1970's and another in the mid-1980's. Many new subdivisions and multi-family complexes were constructed and available land has become more scarce within the last two decades.

2. Village/Neighborhood Historical Overview

Reflecting initial settlement patterns, Concord has developed into distinct areas of individual character. These areas have been previously identified and characterized (Hengen, 1988 and Hengen, 1994). It is important to note that due to a history of a highly diversified industrial base coupled with the relative stability of large numbers of state government employees, Concord has an extremely well-preserved housing stock dating from the mid-nineteenth century to the present, leaving a legacy of neighborhoods with little modern infill. Despite some diffusion of the city center with the construction of outlying shopping malls and office complexes, the city center remains vital and its historic character remains substantially intact. This is largely due to the adaptive reuse of the City's historic buildings. The architectural integrity of the building stock of the City of Concord has been remarkably maintained. Literally hundreds of properties retain sufficient integrity of location, design, setting, materials, workmanship, feeling and association to merit inclusion on the National Register either as contributing structures in historic districts or as individually eligible properties.

The large size of Concord geographically has allowed for the creation of a varied collection of neighborhoods, villages and rural areas.

a. Penacook - The Village of Penacook, located at the northern edge of Concord within Concord and Boscawen, was first settled in the 1750. The economy of this village was developed on agriculture, forestry, and small-scale manufacturing, first in the form of gristmills, and later in the 1830s and 1840s, in the production of cotton cloth. One key resource which dates from this time period is Penacook Mill, a 90,000 square foot stone mill built in 1846. The village prospered during the second half of the 1800s as other small factories began to produce wagon axles, matches, tanned leather, and electrical instruments. The housing stock of the village is divided between the vernacular-style houses built for the factory workers and the larger and more architecturally sophisticated homes of the mill owners and merchants. Elm,

Washington, and Bonney (formerly Pleasant) Streets are all lined with predominantly post-Civil War era homes built in the Second Empire, Queen Anne, Gothic Revival and Italianate styles while the majority of the worker housing, consisting mainly of Greek Revival-style and Italianate side-hall and duplex houses, is concentrated along Merrimack, Summer, High, Shaw (formerly Spring), and Coral (formerly Union) Streets. The character of Penacook remains substantially intact as a mid-late 19th century industrial village, despite some demolition and unsympathetic infill within the central business district along Village Street (formerly Main Street).

b. East Concord - The village of East Concord, located on the east side of the Merrimack River and north of I-393 was not established until the late 18th century, although some houses built by the relatives of the first settler Captain Ebenezer Eastman in the mid-1700s remain along Portsmouth, Eastman and Shawmut Streets and Mountain Road. Typically, the basis of the economy was the small manufacturing operations located primarily along Mill Brook, and the housing stock of the village reflects the dichotomy of the simple housing built for workers and the more elegant homes built for merchants and prosperous farmers. Perhaps most significant to the village are the existing upland farms located along Mountain Road and the rural quality of the existing farmsteads and summer camps located along Graham, Snow Pond, and Hot Hole Pond Roads. The village of East Concord remains intact despite the obvious changes brought about by the construction of I-93. The diversity of housing styles found throughout the village is impressive. Georgian, Greek Revival, Italianate and Gothic Revival style buildings are found along Eastman Street and Mountain Road.

c. West Concord - West Concord village is located north of the city center on the West side of the Merrimack River. West Parish, as it was originally known, remained primarily a farming community until the granite quarries began their operations in the 1810s. The peak period of the granite industry was ushered in by the construction of the railroads and lasted between 1865 and 1929. The demand for worker housing (single family and duplex houses) in the area resulted in the development of Fosterville. West Concord Village contains perhaps the most intact pre-Civil War village center in the City. There are a large number of pre-1840 houses, most of which are scattered along North State, Hutchins, and Lake Streets. Many of pre-1840 houses still exist in this village and the village is still surrounded by open space and farmland. North State Street also contains a large number of important 18th and 19th century houses. The State Prison has been a prominent presence in the village since it was moved here in the 1880s. Its vast masonry complex is comprised of numerous outbuildings and an associated farm.

d. North End - The North End was the original settlement area of Concord, with most of the City's first houses built along the northern portion of Main Street. Development continued in the area throughout the eighteenth and nineteenth centuries, despite the fact that the first State Prison was located here in 1812. The North End became the commercial heart of Concord and remained so until the mid-19th century. The land for White Park was donated to the City in 1884, the park was designed in 1888, and it remains an important example of naturalistic landscape architecture. Stylish residences were built on the main arteries of the North End throughout the nineteenth and early twentieth centuries. However, the majority of the building stock consisted of housing for workers employed in the various local industries such as the nearby Ford Iron Foundry, Durgin Silver Factory, and Page Belting. Industrial sites and clusters of residential development characterized the North End until the 1930s, when commercial development began to replace blocks of older homes on North Main Street and the industrial uses were substituted for by office and educational institutions. The character of the North End neighborhoods depends largely on the architectural integrity of the area's remaining residential properties.

e. South End (including Abbott-Downing and Broadway-Rollins Park Neighborhoods) - This area of Concord was mostly developed between 1880 and 1920, much later than most of the other villages. This area has been surveyed extensively over the years and has been described in NH Division of Historical Resource (DHR) area forms for the Broadway Rollins Park Area, Concord Districts A&B, the Upper South End, and the Abbott Downing Neighborhood, each area of which has now been recognized as a separate National Register-eligible Historic District. The largely intact houses located along West Street serve as a veritable timeline of the City's housing types – from farmhouse to Bungalow. Duplexes and tenements for the village's carriage workers and are concentrated along Downing, Perley, Laurel, Pierce, and Grove Streets. Dunklee Street and the neighboring side streets feature a variety of Colonial Revival, Craftsman, Tudor Revival, and Queen Anne pattern-book homes. Clusters of Bungalow cottages and other modest turn of the century era housing styles are found on the streets surrounding Rollins Park. There is relatively little commercial intrusion in these neighborhoods and the condition of the housing stock is exceptional.

f. Lower West End - Also know as the Centre Street/Pleasant Street Historic District, this area west of the Statehouse and downtown, began to develop as a cohesive residential area in the 1830s. By the late1850's, this neighborhood was fully developed with dense residential development westerly from downtown to Merrimack Street and was develop along Warren Street as far as West Washington Street. This area has experienced relatively few modern residential incursions, leaving a remarkably intact mid-19h century neighborhood with relatively uniform sized lots and building massing. Stylistically the area seems to run the gamut of building modes of that era from late federal to Greek Revival to Italianate with some colonial revival and Queen Anne style buildings as well.

g. Upper West End - The area west of Liberty Street grew rapidly after the streetcar came up Centre Street in the late 1880's. In 1890 a group of prominent professionals laid out the first subdivision and over the next two decades, large comfortable houses were built on relatively large lots on School and Auburn Streets, as well as on lower Ridge Road and the streets west of White Park. There is a cohesive visual nature to this area created by the relatively uniform size of the buildings and their lots as well as a predominant use of Colonial Revival decorative forms.

h. Concord Heights - Due to the sandy soil, thick growth of pine groves and the bluffs located along the riverbanks, the Heights remained lightly settled until after 1900. Prior to that time, the New Hampshire Turnpike terminated in East Concord. A residential nucleus began to emerge during the 1920s and 1930s as Loudon Road and Manchester Street developed, displacing the few farmsteads in the area. These two thoroughfares became service roads that were dotted with gas stations and tourist cabins to accommodate the growing trend of automobile tourism. The flat plateau became the perfect location for the City's airport. In the period following World War II, the Manchester Street area developed around the auto service and sales industries. The Loudon Road corridor was filled with high density residential developments and became the home of most of the City's large scale retail development.

i. Outlying Rural Areas - Numerous farmhouses, mill sites and well-preserved 18th and 19th century properties are found in the City's surrounding rural areas, including:

- **Horse Hill -** There are only a few historic structures located in this area comprising the northwest corner of the City. These are primarily found along Runnells Road, Elm Street, and River Road. The Contoocook River Park just west of Penacook was developed by the Concord Street Railway in the 1890s. While the City has acquired much of the original

parkland, nothing remains of the park structures, but numerous early 20th century cottages line the banks of the river to the west of the park.

- **District Five /West Parish Road -** This section of Concord located in the west central portion of Concord is one of the most intact rural areas in the city with the largest number of late 18th and early 19th century properties and fewest number of newly constructed buildings in the City. Large orchards and farms still exist throughout this area and add tremendously to the overall rural character of the place. Penacook Lake, once known as Long Pond, was a popular recreational facility during the 19th century.

- **Millville-Hopkinton Road -** During the 18th and 19th centuries, the area of Hopkinton Road between Fiske and Long Pond Roads was a busy industrial community of sawmills, gristmills, a blacksmith shop, a carriage shop and two schoolhouses. East of this area, along Pleasant Street, large institutional buildings are commingled with 19th century farmsteads and early 20th century residential infill. St. Paul's School, with buildings and grounds designed by major architects of the 19th and 20th centuries, now dominates Millville in the area between Hopkinton Road and Dunbarton Road. West of St. Paul's School, 18th and 19th-century farmsteads lead up to Dimond Hill Farm at the City limits.

- **Stickney Hill -** Located at the western edge of the town and virtually inaccessible from Concord proper, Stickney Hill Road is among the best-preserved 19th century rural landscapes in the City. This road provides access to farmsteads and open fields that overlook the Turkey Ponds, with stonewalls and mature trees.

- **Silk Farm Road -** Named for an abortive 19th-century attempt to cultivate silkworms, the area contains two mid-18th century farmhouses. Operating farms are still located along the southern end of the road, parts of which have been realigned to accommodate I-89. The southern end of the road has been subject to development with modern subdivisions and cul-de-sacs.

D. DESCRIPTION OF PRESERVATION PLANNING TOOLS

1. National Register of Historic Places

The National Register of Historic Places is the nation's official list of historical resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archeological resources. Resources can be buildings, districts, sites, landscapes, structures or objects that are significant in American history, architecture, archeology, engineering, or culture. Properties can be listed in the Register either individually or as part of an historic district. If a property is part of a district, it will be designated either a contributing or a non-contributing resource. Each contributing resource has all the same benefits of listing as individually listed properties.

Benefits of listing on the National Register, whether individually or as part of an historic district, are as follows:

- Recognition that a property is of significance to the nation, the state, or the community
- Some protection from impacts caused by state or federally funded, licensed or assisted projects

- Eligibility for federal tax benefits if undertaking an approved rehabilitation project and the property is income-generating
- Qualification for federal assistance for historic preservation, when funds are available
- Special consideration or relief in application of access, building and safety codes
- Strong marketing tool for owners and businesses
- Leverage for the community when working with developers, in that listing publicly recognizes a significant community asset.
- Promotion of the unique features of buildings helps owners make sound decisions on rehabilitation and maintenance issues
- No restrictions on using or altering the property, as long as only private funds are involved

A National Register historic district is group of related properties that, instead of being listed individually, are listed as a grouping. Contrary to popular belief, there is no regulatory oversight of National Register districts: owners are free to make alterations of any type without seeking approval.

2. State Register of Historic Places

New Hampshire's State Register of Historic Places recognizes and encourages the identification and protection of historical, architectural, archeological and cultural resources. Resources may be buildings, districts, sites, landscapes, structures or objects that are meaningful in the history, architecture, archeology, engineering or traditions of New Hampshire residents and their communities. A resource must meet at least one of the following four criteria for listing:

1. Tell a story about an event(s) that is meaningful to a community's history
2. Have an association with a person(s) who made important contributions to a community, professional or local tradition
3. Represent a local architectural or engineering tradition; exemplify an architectural style or building type; or serve as a long-standing focal point in a neighborhood or community
4. An identified, but unexcavated and unevaluated archeological site that is likely to yield significant information about the lives, traditions and activities of former residents

Generally, an eligible resource must be at least fifty years old. It must also retain enough of its historic character and physical attributes to illustrate what it is being nominated for. Properties that are listed on the State Register:

- Are publicly recognized for their significance to a community
- Are considered in the planning phase of local or state-funded or assisted projects
- Qualify for state financial assistance for preservation projects, when such funds are available
- Receive special consideration or relief in application of access, building and safety codes
- Are not restricted as to use or alteration as long as only private funds are involved

3. Locally Designated Historic District

A locally designated historic district is one of the most effective and comprehensive mechanisms to manage change in a historic area. Its purpose is to preserve the significant character of an area, while accommodating and managing change and new construction in accordance with regulations developed by local consensus.

A locally designated historic district is a zoning (usually overlay) district. They are established in Concord by the adoption of a Historic (HI) Overlay Zoning District by the City Council and administered by the Heritage Commission. The Commission reviews and approves exterior alterations, new construction and demolition within the district, using officially adopted regulations and guidelines.

4. Neighborhood Heritage District

A neighborhood heritage district (also known as a neighborhood conservation district) is similar to a locally designated historic district, but the neighborhood heritage district would operate under more flexible, less stringent standards. While a new concept for New Hampshire, a Neighborhood Heritage District could be established and operate under the same enabling statues as would a Historic District. A heritage district is a group of buildings and their settings that are architecturally and/or historically distinctive and worthy of protection based on their contribution to the architectural, cultural, political, economic or social history of the community. Sometimes a heritage district lacks sufficient significance or integrity to be designated as a traditional historic district. Other times, the neighborhood or political climate favors looser standards.

Within a neighborhood heritage district, some degree of change is subject to mandatory review and approval. In most instances, the change is defined as major alterations, additions, new construction, demolition or relocation. Some communities have binding review over major changes and advisory review over minor changes, such as window replacement, applying synthetic siding, removing architectural trim and demolition of a part of a building, such as a porch. Overall, heritage districts seek to limit the detrimental effect of alterations, additions, demolitions and new construction on the character of the community through a combination of binding and non-binding regulatory review.

5. Community Revitalization Tax Relief Incentive (Downtown Tax Incentive)

Newly passed by the legislature, the Community Revitalization Tax Relief Incentive RSA 79-E encourages investment in downtowns and village centers by temporarily granting property tax relief in exchange for properties that have been substantially rehabilitated and on which the owner has granted an covenant that insures a continued public benefit that extends for the life of the abatement or twice the length of the abatement as determined by the legislative body. Qualifying properties must be located downtown and undergo a rehabilitation costing at least 15% of the building's pre-rehab assessed value, or $75,000, whichever is less. The rehabilitation must be consistent with the municipality's master plan or development regulations. The rehabilitation must provided one of the following public benefits as defined in the statute; an enhancement of the economic vitality of the downtown, the enhancement or improvement of a structure that is culturally or historically important, it promotes the development of a municipal center, or it increases residential housing in an urban or town center. The City must adopt the provisions of this program before a property owner may apply for tax relief.

6. Preservation Easements

A preservation easement, comparable to a land conservation easement, is a voluntary legal agreement that protects a significant historic, archaeological, or cultural resource in perpetuity. It provides assurance to the owner of an historic or cultural property that the property’s intrinsic values will be preserved by subsequent owners. An easement grants partial interest in a property, through sale or donation, to a grantee, which can be a qualifying local governing board, such as the City of Concord, or non-profit historical organization, such as the New

Hampshire Preservation Alliance. With a preservation easement, the owner gives that second party the right to protect and preserve the historic and architectural features of the property. The property remains in private ownership, and the community continues to receive annual tax revenue. If the property is listed on the National Register of Historic Places, the value of the donated easement is federally tax deductible as a charitable contribution.

7. Barn Easements

Under state law passed in 2002 (RSA 79-D), municipalities can grant property tax relief to barn owners who can demonstrate the public benefit of preserving their barns or other old farm buildings and agree to maintain their structures for a minimum of ten years by means of a preservation easement. The statute defines agricultural structures to include barns, silos, corn cribs, ice houses and other outbuildings, as well as the land on which they sit. The structure must currently or formerly have been used for agricultural purposes and be at least seventy-five years old. At last count, nearly 200 New Hampshire barns and other agricultural buildings in forty-eight towns had been protected in this manner.

The law is based on widespread recognition that many of New Hampshire's old barns and agricultural outbuildings are important local scenic landmarks and help tell the story of agriculture in the state's history. Yet many of these historic structures are being demolished or not maintained because of the adverse impact of property taxes. The law is intended to encourage barn owners to maintain and repair their buildings by granting them specific tax relief and assuring them that assessments will not be increased as a result of new repair and maintenance work. It is strictly voluntary on the part of the property owner, and it combines established criteria and guidelines at the state level with decision-making and implementation at the local level.

E. SUMMARY OF HISTORIC PRESERVATION ACTIVITY TO DATE

1. An Established Tradition of Historic Preservation

Organized public preservation activity in Concord began in the 1960's when the pending demolition of the Franklin Pierce House and the former U.S. Post Office (now the Legislative Office Building) brought the community together in successful protests. The Concord Historic District and the administering Historic District Commission were established in 1967 "to safeguard the heritage of the city as it is represented in structures of historical and architectural value located, or which may be located, in the Historical District." The District was listed on the National Register of Historic Places in 1975 and since that time, the Concord Civic District, Downtown Concord and twenty-four individual properties have also been listed.

Concord was among the first cities in New Hampshire to apply to the National Park Service's Certified Local Government Program in 1989. This allowed the City to receive federal funds and technical assistance to integrate the process of historic preservation with the work of the local government. In 1994, Concord became the first city – and one of the first communities – in the state to establish a Heritage Commission. The Heritage Commission replaced the Historic District Commission, assuming its regulatory duties in addition to providing advice on preservation-related projects throughout the city.

In 2001 the Heritage Commission successfully spearheaded the adoption of a demolition review ordinance, the first such ordinance in New Hampshire to cover the entire city. Since its enactment, it has reviewed more than two dozen proposed demolitions and successfully found

alternatives to demolition for every application that involved a significant historical resource. One such proposed demolition, the Rolfe Barn in Penacook, thrust the Commission into the national spotlight, as it worked alongside the Penacook Historical Society to prevent the loss of this remarkable structure.

The Commission regularly provides advice to the City Council, other boards and commissions, and the public on matters relating to historical resources. Its proposal for the Sewalls Falls Bridge – rehabilitating the original structure for one-way traffic and building a simple, modern structure adjacent to it – received the endorsement of the Council. The Commission also works closely with the City Council and the City's Director of Real Estate Assessment to review and make recommendations on applications for barn preservation easements.

In addition to the work of the Heritage Commission, the City's Architectural Design Review Committee frequently reviews applications affecting historical resources, providing advisory recommendations to the Planning Board.

In the past couple of decades, many private businesses, sometimes in a public-private partnership, as well as individuals have undertaken major rehabilitation projects that have preserved and retained the viability of historical buildings throughout the city. Main Street Concord established through the auspices of the NH Main Street Program, an arm of the National Trust for Historic Preservation, has brought another level of interest and momentum to preserving the distinctive buildings and streetscape of downtown Concord.

The Chamber of Commerce and Heritage Concord, Inc. (now dormant) provided walking tours of the city in the 1980s and 1990s; the former published an historic downtown walking tour brochure and the latter reprinted the 1876 bird's-eye view of Concord, both of which remain in print.

In 1995, the Penacook Historical Society was formed to foster appreciation for the history of the village and vicinity of Penacook. In the wake of Concord's Sesquicentennial in 2003, a Concord Historical Society was established to promote public awareness, understanding and appreciation for Concord's history and traditions. Its current and primary project is to write and publish a history of Concord in the twentieth century.

In the late 1990's, the Museum of New Hampshire History opened its new museum at Eagle Square in the Historic Stone Warehouse with the assistance of ISTEA funds and NH State Tax Credits.

The State's Land and Community Heritage Investment Program has funded the protection of two significant cultural landscapes: Carter Hill Orchard (formerly Sunnycrest Orchard) and Rossview Farm, both in West Concord. The program also funded structural repairs and conservation work for the highly important interior of the Benjamin Kimball House adjacent to the Capitol Center for the Arts.

In 2006, with the protection of Dimond Hill Farm on Hopkinton Road, the City celebrated its first combined conservation and preservation easement – one of the first such easements in a new trend in New Hampshire to protect historical/cultural landscapes.

2. Architectural Surveys

An overview historic/architectural survey, also known as a "Townwide Area Form", was completed in 1996 under the auspices of the Heritage Commission. It included an overview

history of Concord from an integrated historical, architectural and developmental perspective. Within each chronological period, an analysis of representative surviving historical resources was presented. The survey also identified all of the City's existing and potential historic neighborhoods and areas. Three more detailed architectural/historical resource surveys of specific areas have been conducted:

- Downtown neighborhoods (1988)
- Penacook Village (1990)
- Downtown Concord (1999)

In addition, scattered survey work has occurred, primarily in response to the requirements of Section 106 of the National Historic Preservation Act of 1966 and Section 4(f) of the Department of Transportation Act of 1966. Under the former, any federal undertaking must be evaluated to determine if it will have an effect on historic properties, where a federal undertaking is defined to include construction or demolition, as well as activities pursuant to federal loans, grants, or licenses. The latter protects public parks as well as recreation and wildlife areas by establishing criteria to evaluate any taking of the same for federal or federally funded projects, and the Act specifically includes in its protections those historic resources that are on or eligible for the National Register.

These surveys have resulted in the identification of sites, districts and neighborhoods that are potentially eligible for listing on the National Register, as follows: (refer to Exhibit VIII - 1)

- Elm Street Historic Neighborhood (Penacook)
- Graham Road Historic Rural Neighborhood
- Hall Street Historic Area
- Merrimack/Summer Street Historic Neighborhood (Penacook)
- North End Historic Neighborhood
- Northern Railway
- North Main Street Historic Area
- Penacook Historic Rural Area
- Pleasant Street Historic Neighborhood (Penacook)
- South Main Street Historic Area
- Stickney Hill Road Historic Rural Area
- St. Paul's School Campus
- Upper West End Historic Neighborhood
- Washington Street Historic Neighborhood (Penacook)
- West Concord Village

3. Heritage Sign Program

The Heritage Sign program was initiated by the Heritage Commission in 2006. It provides an opportunity to commemorate the history of Concord through its buildings. All buildings and sites are eligible for this program, regardless of age or use. Through the signs, which are purchased and mounted by a property owner, citizens and visitors alike will learn more about our built environment. To receive a sign through the program, a property owner provides research on the construction date, early owners and, if appropriate, uses of the building to the Heritage Commission for review and approval. In turn, the owner receives a specially designed sign that displays this information, as well as the name of the historic district, area or neighborhood in which the building is located.

4. Individual Properties & Districts <u>Listed</u> on the National Register of Historic Places (refer to Exhibit VIII - 1)

Ref. #	Listed Property or District
1.	2 1/2 Beacon Street
2.	Beaver Meadow Brook Archeological Site (27MR3) (location restricted)
3.	Styles Bridges House, 21 Mountain Rd.
4.	Concord Civic District
5.	Concord Historic District
6.	Chamberlin House 44 Pleasant St.
7.	Henry J. Crippen House, 189-191 N. Main St.
8.	Dimond Hill Farm, 314 Hopkinton Rd.
9.	Lewis Downing Jr. House, 33 Pleasant St.
10.	Downtown Concord Historic District
11.	Eagle Hotel, 110 N. Main St.
12.	Endicott Hotel, 1-3 S. Main St.
13.	Farrington House, 30 S. Main St.
14.	Reuben Foster and Perley Cleaves House, 64 and 62 N. State St.
15.	Leavitt Farm, 103 Old Loudon Rd.
16.	Merrimack County Bank, 214 N. Main St.
17.	Merrimack County Courthouse, 163 N. Main St.
18.	Millville School, 2 Fiske Rd.
19.	New Hampshire Savings Bank Building, 97 N. Main St.
20.	Old Post Office (now Legislative Office Building) N. State St
21.	Page Belting Company Mills, 26 Commercial St.
22.	Pleasant View Home, 227 Pleasant St.
23.	Rolfe Barn, 16 Penacook St., Penacook
24.	Gov. Frank West Rollins House, 135 N. State St.
25.	Donald D. Tuttle House, 12 Gabby Lane
26.	Upham-Walker House, 18 Park St.
27.	White Farm, 144 Clinton St.
28.	White Park

5. **Historic Sites, Districts & Neighborhoods <u>Determined Eligible</u> for Listing on the National Register:** (refer to Exhibit VIII - 1)

Ref. #	Property or District Determined Eligible
29.	Abbott-Downing Historic Neighborhood
30.	Boston & Maine Shops Historic District, off South Main Street
31.	Broadway-Rollins Park Historic Neighborhood
32.	Concord Gasholder-Holt Brothers Industrial Historic District
33.	East Concord Village Historic District
34.	Loudon Road Agricultural Historic District
35.	Lower West End Historic Neighborhood
36.	New Hampshire Hospital Grounds Historic District
37.	Penacook Tannery, East St, Penacook
38.	South End Historic Neighborhood

6. Individual Properties Listed on the State Register of Historic Places

- Rolfe Homestead, 16 Penacook Street, Penacook

Hard copies of many of the National Register and survey forms are on file in City Hall (Community Development Department), Concord Public Library (Concord Room), and New Hampshire Historical Society. A complete file of all the forms is maintained at NH Division of Historical Resources (19 Pillsbury Street, Concord).

7. Local Historic Regulations

a. Concord Historic District - Established in 1967, this is a locally designated historic district created as an overlay zoning district. The Heritage Commission serves as the land use board to administer the district, reviewing and approving alterations to the exterior of buildings and structures and their settings.

b. Demolition Review Ordinance - The City's Demolition Review Ordinance found in Article 26-1-11 of the Code of Ordinances, Title III, Building Code, is administered by the Code Administrator and the Demolition Review Committee, which is a subcommittee of the Heritage Commission. The purpose of the Ordinance is to give Concord citizens fair warning when an older building, which may be important to the City's history and character, is proposed for demolition. Such warning will enable the community to determine if the building is architecturally or historically significant, to explore alternatives to demolition, and, if such demolition is to go forth, to document the building prior to demolition.

The Ordinance is invoked if a building or part of a building is requested to be demolished. Qualifying buildings must be greater than 500 square feet of gross floor area; constructed more than fifty years before the date of application for the demolition permit; and visible from the adjacent pubic right-of-way or public lands. The imposed delay may be a minimum of 10 days and a maximum of 49 days.

c. Barn Preservation Easements - Under a State law passed in 2002 (RSA 79-D), municipalities can grant property tax relief to barn owners who can demonstrate the public benefit of preserving their barns or other old farm buildings and agree to maintain their structures for a minimum of ten years by means of a preservation easement. The structure must currently or formerly have been used for agricultural purposes and be at least 75 years old. In Concord, decisions on easement applications are rendered by the City Council, with input from the Heritage Commission. To date, two local barns have been preserved through barn easements, both on Little Pond Road.

F. PRESERVATION POLICIES AND RECOMMENDATIONS

1. Preservation Policies

a. Promote the use of preservation easements, particularly in conjunction with conservation easements, as a means to protect historic farmsteads.

b. Undertake a biennial review of all historically significant City-owned properties and those belonging to the City's two school districts in order to evaluate the condition and status of the resources.

Exhibit VIII-1. Historic Resources

[Insert 11 x 17 graphic]

c. Provide comments and suggestions to the appropriate State agency on any proposed modification of any State building over 50 years.

d. Ensure that developers interested in renovation projects in the City receive accurate information about the federal 20% historic tax-credit incentive process.

e. Promote barn easement tax incentives to barn owners and continue to work with City Director of Real Estate Assessment to evaluate applications.

f. Promote the Heritage Sign Program.

2. Recommendations

a. Amend the Site Plan Review and Subdivision Regulations to require that applications include the identification of all historical resources, such as buildings, structures, cemeteries and stone walls, both on-site as well as contiguous to the subject parcel. Historical resources should also be included in the application checklists. If historical resources are present, the extent of the project's impact and any mitigation measures should be included as part of the application materials.

b. Review the City of Concord's Zoning Ordinance and the City's Building Code with the assistance of a consultant, to identify regulations that would unintentionally impede the viable rehabilitation or reuse of historical properties without losing their character or historic fabric. If impediments are found, appropriate amendments should be proposed which would eliminate or reduce the impediments to the adaptive reuse of historic structures.

c. Offer assistance in developing best management practices for the maintenance, rehabilitation, disposition and appropriate reuse of historical properties owned by the City and the school districts. Encourage the school districts and City Departments to seek technical assistance from the Heritage Commission when such properties will be impacted by proposed alterations, new use or disposition.

d. Ensure that reasonable efforts are taken in cluster subdivision applications to preserve historic farmsteads within the required open space area.

e. Consider the preservation of historic farmsteads through conservation and preservation easements when evaluating new subdivision applications in rural areas.

f. Prepare for adoption by the City Council a resolution establishing the Community Revitalization Tax Relief Incentive (also known as the Downtown Tax Incentive) for downtown Concord and Penacook as well as other village centers as maybe identified. Provide a formal review and comment role for the Heritage Commission on each application.

g. Establish National Register Historic Districts (non-regulatory), with the assistance of grant funded consulting services, in West Concord, East Concord Village, Abbot-Downing Neighborhood, Broadway-Rollins Park Neighborhood, South End Railroad Yards, North Main St. (between Centre Street and I-393), and South Main St. (south of Freight Street).

h. Complete historical surveys with the assistance of grant funded consulting services, for North State Street, West Concord Village, East Concord Village and outlying rural areas considered particularly vulnerable to new development and loss of character.

i. Introduce the concept of Neighborhood Heritage Districts to neighborhood groups and serve as a facilitator in establishing such districts where local interest and support exists.

j. Revise and enhance the existing citywide design guidelines with special emphasis on historic areas of the community including Downtown Concord and Penacook.

k. Research and propose Scenic Road designations, where appropriate, in rural areas of the City, pursuant to RSA 231:157.

l. Complete a city-wide historical survey of historic agricultural buildings with the assistance of grant funded consulting services.

m. Complete a survey of the City's historic and prehistoric archeological resources.

G. SUPPORTING STUDIES

A Capital for New Hampshire, Grace Amsden. Unpublished manuscript in 3 volumes, 1930-1960.

An Historic and Architectural Overview & Historic Preservation Assessment of Concord, NH., prepared for the Concord Heritage Commission by Elizabeth Durfee Hengen, 1996.

Capital Views, A Photographic History of Concord, New Hampshire, 1850-1930, Elizabeth Durfee Hengen and Gary Sampson. Concord, NH: New Hampshire Historical Society, 1994.

Concord Eastside. A History of East Concord, NH. Virginia Colby and Ruth Stevenson. Privately printed, 1993.

The History of Concord, Nathaniel Bouton. Concord, NH: Benning W. Sanborn, 1856.

History of Concord, James O. Lyford. Concord, NH: Rumford Press, 1903, 2 volumes.

Village of Penacook, New Hampshire. An Architectural and Historical View. Elizabeth Durfee Hengen. Concord, NH: Heritage Concord, Inc., 1990.

The Village of West Concord, NH, West Concord Villagers, 1976.

SECTION IX. RECREATION

A. INTRODUCTION

The Recreation Section consists of a review of existing parks and recreation facilities in the City, an analysis of current need for and deficiencies in these parks and facilities, as well as the need for additional parks and facilities to serve future increases in the population in the City anticipated by this Master Plan. The City has not had an officially adopted Recreation Section of a Master Plan since the early 1970's. Recreation goals are articulated to guide this update, and a classification system is established for the various types of parks and recreational facilities to provide an organizational structure for evaluating the current and future needs on a citywide basis as well as within the six Village/Master Plan Districts. Policies are set forth to guide the planning, development, operation, and maintenance of the parks and recreational facilities. Recommendations are made for providing the land and facilities needed to meet current and future recreational demands of Concord residents.

For the purposes of this Master Plan, the focus of the Recreation Section is on the park and recreational facilities within or immediately adjacent to the Urban Growth Boundary wherein more than 90% of the citizenry reside and will continue to do so. Some City facilities, such as Lehtinen Park, are called "parks", but are located outside of the Urban Growth Boundary and are more similar to open space areas which are managed by the Conservation Commission, whereas parks are programmed by the Recreation Department and maintained by the General Services Department. Open spaces and the trails within these open spaces support individualized and passive recreational pursuits such as hiking, cross country skiing, boating, hunting, bicycling, and fishing. Parks inside or adjacent to the Urban Growth Boundary also provide some passive, open green space, but they are also the primary location for athletic fields and active recreational facilities. Athletic facilities are generally not planned or feasible in open spaces outside the Urban Growth Boundary, and the remoteness of these rural "parks" from population centers creates inefficiencies for use of these areas for organized sports and recreational activities. Therefore, these open space "parks" are addressed in the Conservation and Open Space Section (Section VII) of this Master Plan.

B. RECREATION GOALS

The overall recreation goal is to provide services and facilities on a year-round basis to accommodate the recreation needs of the present and future citizens of the City of Concord. The specific recreation goals are to:

1. Provide a broad range of recreational services and facilities that will facilitate active and passive recreation, organized and individualized recreation, and indoor and outdoor recreation.

2. Provide recreational services and facilities for citizens of all ages and abilities.

3. Provide parks and recreational facilities within the Urban Growth Boundary in locations consistent with a service area appropriate to the park or facility and adequate to serve current and future populations of the service area.

4. Foster recreational opportunities within public open spaces outside of the Urban Growth Boundary that are appropriate to the environmental sensitivity of the open space areas and where such recreational use will not have adverse impacts on natural resources and habitats.

5. Provide municipal recreational facilities, services, and programs in an efficient, cost effective manner.

6. Cooperate with the City's two public school districts and with the State of Hampshire in the planning, design, provision, operation, and maintenance of recreation facilities within the City in order to maximize the benefits of the same to Concord's citizenry.

7. Create opportunities in the City's land use regulations for the provision of recreation facilities and services that may be established by non-profit, private, and commercial entities, and will be complementary to those provided by the City.

8. Employ recognized high standards of safety, aesthetics, and efficiency in the design, construction, operation, and maintenance of parks and recreational facilities.

9. Provide for a comprehensive system of recreational trails that will serve the needs of Concord residents.

C. CLASSIFICATION OF PARKS AND RECREATION FACILITIES

1. Citywide Parks and Recreational Facilities

As implied by the title, a citywide park is not only City-owned but is also intended to serve the populace of the entire city, addressing a broad range of recreational demands created by users of all ages, whether as individuals or in organized groups. Such parks should be large enough to incorporate facilities common to other smaller categories of parks such as playground equipment, while adding to those facilities the benefits of open space and areas for passive recreational pursuits such as hiking and bicycling, picnicking, boating, and fishing. While those living within a mile of a city park might tend to use it more as a neighborhood park, for the majority of Concord's citizenry the city park will be a special destination occasioning a specific vehicular trip from their neighborhood to a citywide park. As such, support facilities are necessary including parking lots, restrooms, and storage space for maintenance equipment, and possibly, concession stands. This category also includes City owned indoor recreational facilities that serve all City residents, the Everett Arena being the best example thereof.

2. Neighborhood Parks and Recreational Facilities

Located within the Urban Growth Boundary in each of the Villages or Master Plan Districts, neighborhood parks are generally 10 to 30 acres in size serving residents of all ages with passive space and facilities ranging from those provided for playlots to youth athletic fields to fields for adult sports. Special facilities such as ice rinks and outdoor pools may also be incorporated in neighborhood parks. These City-owned parks will function as neighborhood playgrounds for those living closest to the site (within ½ mile), and as such should be conducive to pedestrian or bicycle access. However, they will also serve some residents throughout the City through use of fields by local sports leagues and general usage of special facilities.

Because of a more extensive primary service area (1 mile radius) and more intensive citywide usage of these parks, parking lots and restrooms are important features for these parks.

3. Community Centers

The City has a long tradition of providing community centers in the neighborhoods of the City in order to offer indoor recreational activities and activities in all seasons. Other than the West Street Ward House, the centers have generally had a gymnasium space and meeting rooms. Of recent years the West Concord Community Center fell into disrepair and the costs to restore it as a functioning community center were such that the City decided to sell it for redevelopment into housing. A study was completed in 2006 for a new Heights Community Center but implementation has not been funded at this time. The non-profit Penacook Community Center fulfills this function for the village of Penacook.

4. Playlots

These small, urban, City-owned park areas are focused on the active recreational needs of pre-school aged children, while providing limited facilities for older children and adults. Sites ranging in size from 1/4 to 1 ½ acre typically offer play equipment together with outdoor seating, as well as a full or half basketball court. Intended principally as pedestrian facilities centered in older, high density, urban neighborhoods where average densities exceed 10 dwelling units per acre and private yard space is limited, playlots generally serve residents within 1/4 of a mile of the site. The City's public elementary schools generally offer similar recreational facilities and serve the function of playlots for their surrounding neighborhoods.

5. Mini-parks and Plazas

Mini-parks are small, urban, City-owned sites generally ranging in size from 1/4 to 1 acre that are primarily ornamental in nature and used for visual enjoyment. While a few do contain a park bench, most are landscaped areas, with grass and trees, although some have flower beds and ornamental plantings. The mini-parks are of benefit to the driving public passing by as well as to adjacent residents and neighboring pedestrians.

Plazas are downtown pedestrian spaces, owned by the City, with both hardscape and landscape improvements as well as seating, fountains, and lighting. The plazas serve a pedestrian public who reside, work, or shop in the surrounding commercial center, and are used as a setting for scheduled outdoor concerts and cultural events and gatherings.

6. School District Recreational Facilities

The City's two school districts, Concord and Merrimack Valley, both provide outdoor and indoor recreational facilities for their student populations, but these facilities are also made available to the public during time when not in use for district purposes. Included in these facilities are playlots as well as a range of athletic fields, and gymnasiums with associated locker room facilities. With the exception of some of the urban elementary schools, parking facilities are generally available as are rest rooms within the schools, although these are only accessible when the schools are open.

7. State of New Hampshire Recreational Facilities

Several properties owned by the State within the City of Concord have active or passive recreational facilities that are made available for use by Concord residents. These facilities include athletic fields as well as open spaces that support passive recreational pursuits such as hiking and bicycling, picnicking, boating, and fishing.

8. Quasi-public Recreational Facilities

Indoor and outdoor recreation facilities owned by private or non-profit organizations that allow public use of their facilities by permission, or that charge a fee such that any member of the public may have access to their facilities, are included as quasi-public recreational facilities. These include gymnasiums and fitness facilities as well as athletic fields.

9. Private Recreational Facilities

Private membership recreational facilities, both indoor and outdoor, include those that are not available to the public, or are available for a fee to only certain individuals or groups of individuals. These include recreational facilities within a condominium developments which are only available to condominium owners, recreational facilities provided by businesses and institutions exclusively for their employees or members, as well as private recreation clubs the membership for which is not open to the public but is by invitation or other means of selection. The presence of these facilities which include pools, tennis courts, play equipment, and basket ball courts may reduce some of the demand on similar City facilities.

D. INVENTORY OF PARKS AND RECREATION FACILITIES

1. City Facilities

An inventory of City parks and recreational facilities was compiled in accordance with the above-described classification system. As noted earlier in this Section, “open space parks” are addressed in Section VII, Conservation and Open Space, of this Plan. The results of the inventory of city-owned park lands within the Urban Growth Boundary are summarized Table IX-1 and presented in detail in Table IX-2 which includes the following information on each park: the location by Village or Master Plan District (PEN=Penacook, EC=East Concord, WC=West Concord, CH=Concord Heights, NW=North/West End, and SE=South End), the size of the park, and the type and number of facilities available therein. A notation is also made as to whether the park received funding assistance from the federal Land and Water Conservation Fund (LWCF). A reference number is assigned to each City park which is keyed to a graphic display of the City’s park system shown on Exhibit IX-1.

Table IX-1. Summary of City Parks

Classification	Number	Total Acres
City Parks	4	242
Neighborhood Parks	14	358
Community Centers	4	0.6
Playlots	3	1.8
Mini Parks & Plazas	14	10.5
Total City Facilities		613

2. School District Recreational Facilities

An inventory was compiled of recreation facilities located on school grounds as well as the number of gymnasiums within the school buildings under the jurisdiction of both the Concord School District and the Merrimack Valley School District. While these facilities serve the needs of the students during school hours and are used for school sanctioned athletic activities, at other times the facilities including the gyms are used extensively for community recreation purposes. The results of the school facility inventory are presented in Table IX-3 and displayed on Exhibit IX-1. The City's 12 elementary schools, two middle schools and two high schools together with several other school district properties occupy 225 acres of land and provide numerous athletic fields and recreational facilities including10 gymnasiums.

3. State Recreational Facilities

The State has three facilities within the City that are of special benefit to Concord residents: the Sewalls Falls Recreation area and the grounds of the New Hampshire Technical Institute (NHTI) as well as the former State Hospital. Sewalls Falls has boating and canoeing access as well as fishing, hiking, and cross-country skiing, the latter being a natural adjunct to the cross country skiing that occurs at Beaver Meadow Golf Course and Morono Park. The NHTI grounds have a number of athletic facilities which are principally for the use and benefit of the students at the Tech. However, NHTI has established a number of soccer fields that are used by the non-profit Concord Express Soccer which has previously used City fields, relieving pressure on the City's facilities. There is a softball as well as a soccer field on the NH Hospital Grounds that are used by the public. Information about the State facilities in summarized in Table IX-4.

4. Quasi-public Recreation Facilities

Recreation facilities are available under certain circumstances to Concord residents at a number of locations provided by five private and parochial schools. In one instance, a private company has provided property for a soccer field that is made available to the public. An inventory of these quasi-public recreation facilities, including information on the location and type of facilities, is presented in Table IX-4. Notable among these quasi-public facilities are seven indoor pools and seven gyms, 25 tennis courts, as well as a number of other outdoor fields and courts. Although quasi-public facilities are not available to City residents on a daily basis, the extent to which such facilities are available and used reduces the overall demand for City recreation services.

5. Private Recreation Facilities

A number of private recreation facilities are available in Concord to residents of certain apartment and condominium complexes, as well as through private memberships in clubs offering special recreation facilities. An inventory including location and type of facility was compiled and is presented in Table IX-5. A number of residential complexes provide pools and tennis courts to the residents, while a few offer outdoor basketball courts and play equipment. Facilities offered through private clubs include tennis courts, pools, and a golf course. Private facilities are not usually available to the general public, but the private use of these facilities lessens the demand for municipal facilities and services.

TABLE IX-2. CITY PARKS AND RECREATION FACILITIES																				
IDENTIFICATION			Size	FACILITIES																
Ref #	Name	MP Dist	(ac)	Athletic Fields						Outdoor Courts								Indoor Facilities		
		1		Base-ball	Youth basbll	Soft-ball	Soccer	Foot-ball	Track	Baske tball	Tennis	Pool	Ice Rink	Play Equip	Rest Rooms	Park-ing	Light-ing	Gym	Ice Arena	Misc 2
	CITYWIDE																			
C1	Memorial Field	SE	36	1	1	2	1	2	1	1	10				Y	Y	Y			LWCF
C2	Kiwanis Park/ Everett Arena	CH	15												Y	Y	Y		1	Trails, Skatebd LWCF
C3	Terrill & Healey Parks	SE/ CH	26.7													Y				Trails.. Dog Pk LWCF
C4	Beaver Meadow Golf Course	WC	164												Y	Y				Golf; XC ski LWCF
Citywide Park Totals			**242**	**1**	**1**	**2**	**1**	**2**	**1**	**1**	**10**				3				1	
NEIGHBORHOOD																				LWCF
N1	Rollins Park	SE	22.4	1		1				1	1	1		1	Y	Y				LWCF
N2	Martin Park	SE	29			1	1									Y				
N3	Reed	SE	2.6			1								1						LWCF
N4	White Park	NW	23.4	1	1		2			1		1	1	1	Y	Y				LWCF
N5	Kimball Park	NW	15.5							1		1		1	Y	Y				LWCF
N6	Grappone Park	NW	11.2		2	1									Y	Y				
N7	Keach Park	CH	10		1	1	1			1	1	1		1	Y	Y				LWCF
N8	Sanel Field	CH	13.4		2	1									Y	Y				
N9	Merrill Park	EC	17.2	1		1	2			1	3	1	1	1	Y	Y				trails LWCF
N10	Broken Ground	EC	121																	LWCF
N11	Garrison Park	WC	13.4							2		1		1	Y	Y				LWCF
N12	Beaver Mdw Pk	WC	9.6		1						3					Y				LWCF
N13	Rolfe Park	PEN	42.8	1	1	1	1		0.5	1	4	1		1	Y	Y				trails LWCF
N14	Contoocook River Park	PEN	27													Y				Trails LWCF
Neighborhood Park Totals			**358**	**4**	**8**	**8**	**7**		**0.5**	**8**	**12**	**6**	**2**	**8**	9					

TABLE IX-2. CITY PARKS AND RECREATION FACILITIES (continued)																				
IDENTIFICATION			Size	FACILITIES																
Ref #	Name	MP Dist [1]	(ac)	Game Fields					Outdoor Fac									Indoor Fac		
				Base-ball	Youth baseb	Soft-ball	Soccer	Foot-ball	Track	Bask-etball	Tennis	Pool	Ice Rink	Play Equip	Rest Rooms	Park-ing	Light-ing	Gym	Ice Arena	Misc [2]
COMMUNITY CNTR																				
N15	West St Ward Hs	SE	0.1												Y					
N16	Green St Com Ctr	NW	0.4												Y			1		
N17	Heights Com Ctr	CH													Y	Y		1		
N18	E Concd Com Ctr	EC	0.1												Y			1		
PLAYLOTS																				
P1	Fletcher Murphy	SE	0.5							0.5				1						LWCF
P2	West Street	SE	0.6							0.5				1						LWCF
P3	Thompson	NW	0.7							0.5				1						LWCF
MINI-PARK/PLAZAS																				
M1	Deer Park	SE	2.5																	
M2	Noyes Park	SE	0.5																	
M3	Doyen Park	NW	0.2																	
M4	Bradlee Park	NW	0.3																	
M5	Fisk Park	NW	0.2																	
M6	Park Ridge	NW	0.6																	
M7	State Hse Plaza	NW	0.3																	
M8	Eagle Square	NW	0.4																	LWCF
M9	Bicentennial Sq	NW	0.2																	LWCF
M10	Veterans	CH	0.7																	
M11	Eastman Clock	EC	0.3																	
M12	Pecker Park	EC	0.2																	
M13	Town Pound	WC	0.2																	
M14	Riverfront Park	PEN	2.0																	LWCF
M15	Poulin Gazebo	PEN	0.12																	
M16	Walnut St	PEN	1.79																	
Other Facility Totals			12.9							1.5				3	4			3		
CITY PARK/FAC TOTALS			**613**	**5**	**9**	**10**	**8**	**2**	**1.5**	**10.5**	**22**	**6**	**2**	**11**	**16**			**3**	**1**	

TABLE IX-3. SCHOOL DISTRICT FACILITIES																				
IDENTIFICATION			Size	FACILITIES																
Ref #	Name	MP Dist	(ac)	Athletic Fields						Outdoor Courts								Indoor Facilities		
		1		Base-ball	Youth basbl	Soft-ball	Soccer	Foot-ball	Track	Bask-etball	Tennis	Pool	Ice Rink	Play Equip	Rest Rooms	Park-ing	Light-ing	Gym	Ice Arena	Misc
Concord SD																				
SD1	Conant School	SE	9.1											1	Y	Y		1		
SD2	Rundlett Middle	SE	16.8	1		1	1	1							Y	Y		2		
SD3	Rumford School	SE	1.3											1	Y					
SD4	Kimball School	NW	1.4							1				1	Y	Y				
SD5	Walker School	NW	1.7											1	Y	Y				
SD6	Dewey School	NW	1.1											1	Y	Y				
SD7	Concord High	NW	6.9												Y	Y		1		
SD8	Dame School	CH	5.4											1	Y	Y				
SD9	Broken Ground	EC	94.8			1	1			1					Y	Y		1		
SD10	Eastman School	EC	4.5											1	Y	Y				
SD11	Beaver Meadow	WC	12											1	Y	Y		1		
SD12	White Farm	NW	27.4												Y					
Merrimack Valley SD																				
SD11	Penacook Elem	PEN	13.3											1	Y	Y		1		
SD12	MV Middle Sch	PEN	56.2				1								Y	Y		1		
SD13	MVHS	PEN					1	1	0.5						Y	Y	Y	1		
SD14	Washington St [Childcare Cntr]	PEN	1							1				1	Y			1		
SD15	Summer St [Closed]	PEN	0.5																	
SCHOOL DIST TOTALS			**225**	**2**		**1**	**3**	**2**	**0.5**	**5**				**10**				**10**		

TABLE IX-4. STATE AND QUASI-PUBLIC RECREATION FACILITIES																				
IDENTIFICATION			**Size**	**FACILITIES**																
Ref #	**Name**	**MP Dist**	(ac)	**Game Fields**						**Outdoor Courts**								**Indoor Facilities**		
		1		Base-ball	Youth basebl	Soft-ball	Soccer	Foot-ball	Track	Bask-etball	Tennis	Pool	Ice Rink	Play Equip	Rest Rooms	Park-ing	Light-ing	Gym	Ice Arena	Misc
STATE OF NH																				
ST1	NH Hosp Campus	NW				1	1													
ST2	NH Tech Institute	NW		1		1	8			1	2				Y	Y		1		trails
ST3	Sewalls Falls	WC	110													Y				trails
STATE TOTALS				**1**		**2**	**9**			**1**	**2**							**1**		
QUASI-PUBLIC																				
Q1	Conc Christian	SE	7	1		1	1									Y				
Q2	Trinity Baptist	SE					1								Y	Y				
Q3	Gold's Gym	SE													Y	Y		1		
Q4	Comfort Inn	SE										1-ind			Y	Y				
Q5	St Paul's School	NW		2			5		1-out 1-ind		15-out 3-ind	1-ind			Y	Y		1	1	
Q6	Bishop Brady	NW				1	1								Y	Y		1		
Q7	Holiday Inn	NW										1-ind			Y	Y				
Q8	Boys/Girls Club	NW													Y			1		
Q9	Concord YMCA	NW										1-ind			Y			1		
Q10	Planet Fitness	NW													Y	Y				
Q11	Fit City	NW													Y			1		
Q12	Delta Dental	NW					1													
Q13	Racquet Club	CH								1	3-ind 4-out	1-in 1-out		1	Y	Y		1		
Q14	Shaker Rd School	EC	42				2					1			Y	Y				
Q15	Penack Com Cntr	PEN	0.27												Y			1		
QUASI-PUBLIC TOTALS				3		2	11		2	1	25	7		1				8		

TABLE IX-5. PRIVATE RECREATION FACILITIES																				
IDENTIFICATION			Size	FACILITIES																
Ref #	Name	MP Dist	(ac)	Athletic Fields						Outdoor Courts								Indoor Facilities		
		[1]		Base-ball	Youth baseb l	Soft-ball	Soccer	Foot-ball	Track	Bask-etball	Tennis	Pool	Ice Rink	Play Equip	Rest Rooms	Park-ing	Light-ing	Gym	Ice Arena	Misc
PRIVATE																				
PR1	S Conc Meadows	SE									1	1-Ind								
PR2	COPOCO	NW								1	4	1								
PR3	Bow Brook Club	NW									2									
PR4	McKenna's Purch	CH										1-Ind								
PR5	Edgewood Hts	CH										1-Ind		1						
PR6	Alton Woods	CH								1	2	1								
PR7	Eagle's Bluff	CH								1				1						
PR8	Canterbury Mead	CH									1	1								
PR9	Woodcrest Hts	CH												1						
PR10	Salisbury Green	CH										1								
PR11	Centerstone Apts	CH										1								
PR12	Eastern Apts	CH												1						
PR13	Cranmore Ridge	CH										1								
PR14	Heritage Hts	EC										1-Ind								
PR15	Concord Country Club	EC										1								Golf
PR16	Vineyards	WC								1		1								
PR17	Penacook Apts	PEN										1		1						
PR18	Island Park Est	PEN										1								
PR19	Willow Crossing	PEN												1						
PRIVATE REC TOTALS										4	10	14		6						

[1] PEN=Penacook, EC=East Concord, WC=West Concord, CH=Concord Heights, NW=North/West End, and SE=South End
[2] LWCF = park received funding assistance from the federal Land and Water Conservation Fund

Exhibit IX-1. Park and Recreation Plan

[Insert 11 x 17 graphic]

E. RECREATION NEEDS ASSESSMENT

1. Past Master Plan Recommendations Related to Recreation

a. Community Facilities Plan (1965)

The first Recreation Section was part of a 1965 Community Facilities Plan that was adopted by the Planning Board. It contained an inventory of parks and facilities, a classification system, a discussion of cooperative efforts between the City and the Concord School District, and a series of recommendations for improvements to existing parks as well as acquisition and conversion of land to parks. Most notable among the recommendations were the following:

- Acquisition of land and development of parks in conjunction with new schools in the South End and East Concord which has led to Martin Park and the land for Broken Ground Park;
- Acquisition and development of the Contoocook River Park in Penacook, of which the acquisition has occurred;
- Conversion of lands on Manor Road and Old Suncook Road, the latter of which contained a borrow pit (which was later used for a landfill) to parks;
- Acquisition of land westerly of Memorial Field, at that time suggested as far as I-89, for a new "Central Park";
- Development of a new Merrimack River Park that added what has become Healey Park to Terrill Park and included the Old Turnpike Road landfill and the floodplain below, designed for boating and beaches among other facilities;
- The expansion of Beaver Meadow Golf Course to 18 holes, which has occurred.

b. Recreation 1990: A Plan for Community Recreation (1972)

In 1972, the Planning Board adopted a Recreation Master Plan, which carried forward the recommendations of 1965, and included the following:

- Acquisition of land for the expansion of Kimball, Keach, and Merrill Parks as well as Memorial Field, all of which have occurred except for the expansion of Keach Park;
- Acquisition of land for additional playlots in the Rumford School neighborhood;
- Conversion of the Fort Eddy Road stump dump to a waterfront park;
- The inclusion of proposals for open space protection of Sewalls Falls, Broken Ground, Oak Hill, and the Broad Cove/Mast Yard area, together with proposals for trails, camping areas, and boating facilities. Many of these initiatives were acted upon and the Conservation Commission now heads up the efforts for open space protection guided by an Open Space Plan;
- Development of plaza areas for the Downtowns of Concord and Penacook, which eventually led to Bicentennial Square, Eagle Square, and Riverfront Park in Penacook.

c. Recreation Plan for the Year 2000 and Beyond (1990)

In 1990 the City commission an update of the Recreation Plan which yielded a study that was never adopted due to its methodology for assessing recreation needs, and despite the adoption

of an Open Space Plan in 1978, this Recreation Plan included the open space in the park evaluation.

During the 1990's, the City conducted studies relative to the seven City pools that were in dire need of upgrading or replacement, and initiated a program of replacement that has yielded six pools, one of which is adult size, as well as a children's water park. In this same time frame, the City prepared a plan for the development of Martin Park and implemented the initial phases.

Starting in 2003, the City redeveloped Keach Park, and undertook a series of park improvement plans for White (ref. Exhibit IX-2), Rollins, Merrill, Garrison, Kimball, and Terrill Parks, as well as Bicentennial Square. The primary results of these studies, which are now being included in the Capital Improvement Program, are as follows:

- Provision of improved and safer pedestrian access to the parks;
- Reorganization of parking facilities in the parks in recognition of the increased use of vehicular access to the parks, the need for safety of park users, and the desire to prevent the parking areas from intruding on the park facilities;
- Upgrading of and reorganization of recreation facilities in these parks to eliminate problems, such as the baseball field drainage at White Park, or to improve functionality of the facility, such as the ball fields at Rollins Park;
- The addition of a few new facilities such as a rectangular sports field at Terrill Park, as well as ice skating areas, and sunshades for the pool areas in several parks.

In 2005, the City commissioned a study of a replacement of the Heights Community Center which has led to a proposal for a new and expanded center at the Keach Park site. This is now included in the Capital Improvement Program. At the same time, the City decided to formally abandon the West Concord Community Center (Scandia Hall) and seek proposals for the redevelopment of the building for housing.

2. Summary of the Results of Surveys and Questionnaires

a. Community Survey

i. Respondents were provided with a list of various sports or activities and asked to indicate whether any adults or children in their household participated in each. The highest reported participation by both adults and children were in individual sports/activities such as hiking/walking, bicycling, and swimming. Adults also indicated a relatively high participation in canoeing/boating, and fishing, followed by jogging, golf, ice skating, cross country skiing, and tennis. The next highest areas of participation for children were in ice skating and baseball, followed by fishing, canoeing/boating, soccer, and basketball.

ii. An open-ended question on additional recreational facilities/resources desired sought write-in responses. Topping the list in terms of number of mentions were bike paths and hiking/walking trails, followed by more ball fields and ice skating rinks, as well as a number of responses related to swimming that included longer hours at existing pools, a desire for a year-round indoor pool, a want for more adult sized pools, and support for swimming beaches on the Merrimack River.

Exhibit IX-2. White Park Master Plan
Insert 8 ½ x 11

iii. The most frequently used parks and recreation facilities by the largest number of respondents were White Park, Memorial Field, and the Everett Arena, followed by Rollins Park, Beaver Meadow Golf Course, and Rolfe Park.

iv. The condition and availability of individual City facilities were judged to be "adequate" by the vast majority of respondents. Those facilities receiving lower ratings for "condition" were the Community Centers.

b. Recreation League Questionnaire

A questionnaire was prepared and mailed to representatives of 17 non-municipal recreation leagues that utilize the fields and facilities within the City's park system. Nine non-municipal organizations returned the questionnaire including two of the four Little Leagues, the Babe Ruth League, Concord Club Lacrosse, the Penacook Independent Youth Soccer League, and five adult softball and baseball leagues. The same questionnaire was also completed by the Recreation Department for the City-sponsored recreation leagues. Information was requested about each league and its current usage of the recreation facilities, with the non-municipal leagues being queried as to the extent to which they donated materials for, or made improvements to, the facilities used. Respondents were asked to assess current league needs that are not being met by the City's park system, and to estimate demand for facilities generated by projected growth of the league over the next five years. Interviews were also conducted with the athletic directors of the Concord School District (CSD) and the Merrimack Valley School District (MVSD), and contact was made with the athletic director of Bishop Brady High School (BBHS) relative to the current use of the City's fields and facilities for school physical education programs, intramural athletics, and interscholastic sports, as well as the needs that are not being met and demand for facilities generated by projected growth.

The following is a summary of the organizational characteristics of the leagues that use the City parks together with an indication of the perceived needs for more facilities.

i. **Little League Baseball** - Two of the four leagues are based at facilities on City land which the leagues lease from the City and that is not part of a larger City park. The Northeast Little League leases Sanel Field, while the American Little League leases Grappone Park. Both leagues use other fields in City parks to augment the leased fields. The National Little League leases fields at Memorial Field and Martin Park, but both of these are parks for which the City has used federal funding through the Land and Water Conservation Fund (LWCF) and therefore the league cannot have exclusive control over the facilities. The Merrimack Valley Little League uses facilities at Rolfe Park. The Little Leagues which have lease arrangements for exclusive use of fields donate materials, make improvements, and maintain these leased fields.

   The two leagues that responded to the questionnaire have declined slightly in numbers of Concord youth participating during the five-years prior to the questionnaire, but are expecting to maintain the current participation levels. Facilities are used annually from April through July, and in the peak season, there are activities seven days each week. An immediate need was cited for two additional fields by the National Little League.

ii. **Babe Ruth Baseball** - Active seven days each week from April through July, the league has been growing and expects to continue to do so. With 85% of its participants being Concord youth, fields at Rollins, Rolfe, and White Parks as well as Memorial Field are utilized. Two additional game fields as well as practice facilities are indicated as being needed.

iii. **Adult Softball and Baseball** - The five leagues responding to the questionnaire, including the Sunset League, the Senators and Cardinals, the Coed Church Softball League, Concord Coed Softball A, and Concord Coed Softball B, have seen league participation grow modestly and are expecting continued modest growth. The percentage of Concord residents participating in these leagues ranges from 20% to 85%. With seasons stretching from April to September, some of the leagues are active four to five days per week while others play only one day each week. Softball fields are used at Memorial Field as well as Rollins and Merrill Parks and Reed Playground, while baseball fields at Memorial Field and White Park are used by these leagues. The Sunset League and the Senators and Cardinals have contributed to improvements at the White Park baseball field. Two to four more softball fields, and one more baseball field were cited as being needed by these leagues.

iv. **Youth Lacrosse** - There is one citywide league that serves Concord's youth from March to June each year. Concord Club Lacrosse has seen increased its participation and is expecting an additional modest increase in participation. The season runs from March through June on a four days per week basis. Fields at Martin Park and Memorial Field are used and another field is seen as being needed.

v. **Youth Soccer** - The City Recreation Department's youth soccer program has decreased in participation from the five-years prior to the questionnaire, and a modest increase in participation is expected in the future. The program is active on a six-day per week basis from August through the end of October on fields at Merrill, White, and Keach Parks. Three additional fields as well as practice areas are cited as being needed.

   The Penacook Independent Youth Soccer league did not respond to the questionnaire but makes use of the fields available at Rolfe Park for games.

   The Concord Express Soccer did not respond to the questionnaire presumably due to its agreement with the New Hampshire Technical Institute (NHTI) that allows the League to practice and play games on existing fields at NHTI. With a regional participation and activity in both spring and fall seasons, the League had created a substantial demand for City fields that has been abated by the shift of activities to NHTI.

vi. **Youth Basketball** - The City Recreation Department's youth basketball program had a substantial increase in participation in the five-years prior to the questionnaire, and anticipates modest increases in the foreseeable future. The program utilizes the gymnasiums at three of the Concord School District's elementary schools as well as the Green Street and Heights Community Centers on a six-day per week basis from November through March. Two additional gyms are seen as needed to accommodate future demand.

vii. **Youth Football** - The Concord Capitals did not respond to the questionnaire but makes use of the fields available at Memorial Field and Martin Park for games and practices in the fall.

A second team has formed, and the number of participants has increased, adding to the need for rectangular fields.

viii. **School Athletic Programs** - The Concord School District is the largest user of Memorial Field for interscholastic athletics and the physical education programs related to Concord High School (CHS). CHS football, track, tennis, soccer, lacrosse, baseball, and softball teams all use facilities at Memorial Field, while field hockey is played in Rollins Park, and some baseball games at White Park. The CSD has a number of fields at Rundlett Middle School (RMS) that accommodate that school's needs except for the track team which uses Memorial Field. All indoor sports are conducted in the gymnasium facilities at CHS and RMS with the exception of ice hockey which uses Everett Arena. More soccer fields or fields suited to rectangular field sports that can be used for several sports including soccer, football, lacrosse, and field hockey are seen as needed. Drainage improvements to the White Park baseball field will make it more reliable for use.

The Merrimack Valley School District has been adding athletic fields and facilities adjacent to the High School and Middle School as the District acquired more land from Beede Electric. Football, soccer, lacrosse, and field hockey all take place on the campus, and the track is split between the campus and Rolfe Park. Baseball, softball, and tennis are played at Rolfe Park. The MVSD has adequate land available to add more facilities as the need arises. A concern was expressed with the intensity of use of the baseball and softball fields and the need for irrigation to sustain the fields during the period of such usage.

Bishop Brady High School has some athletic facilities on its campus and uses a number of City park facilities for the balance of its sports programs. Football is played at Memorial Field; softball, baseball and field hockey at Rollins Park; tennis at Memorial Field, Merrill Park, and Beaver Meadow Park; and soccer at the field on the NH Hospital grounds.

2. Application of Park Land and Recreation Facility Standards

Traditionally, recreation planning utilized recognized national standards for parks and recreation facilities as related to population, in ratios of acres per 1,000 population and facilities per 1,000 population. These standards, set forth by the National Recreation and Parks Association (NRPA) were used to evaluate current deficiencies and estimate future needs for park land and facilities. In the mid-1990's, the NRPA recognized that this "one size fits all" approach was not appropriate and did not address differences in communities across the country in terms of physical developmental characteristics of the community, the socio-economic characteristics of the citizenry, and the demand for parks and facilities based on the recreational activities of the citizenry. Standards are now viewed as starting points that need to be adjusted to fit the local circumstances. The ratios of Concord's existing park land to population and existing recreation facilities to population for Concord were derived, and evaluated and adjusted in light of the information compiled in the Community Survey and League Questionnaire.

a. Park Land Standards

Concord presently has 611 acres of park land within or immediately adjacent to the Urban Growth Boundary for a ratio of 15 acres per 1,000 population, which is more than the 12 acres

per 1,000 population that Nashua had at the time of its 1999 Recreation Plan. Concord's Citywide Parks comprise almost 6 of the 15 acres and Neighborhood Parks comprise almost 9 of the 15 acres, with the balance included in Playlots, Mini-parks, Plazas, and Community Centers. While historically, the NRPA did not advocate specific standards for Citywide parks, for the purposes of this Master Plan the standard was set at 5 acres per 1,000 population for Citywide Parks, and 10 acres per 1,000 population Neighborhood Parks, retaining the 15 acres as the standard. Based on the description in the classification section above, Playlots are to be provided just in the areas of historically high density residential development.

As indicated in Table IX-6, the City currently has a reasonable amount of land devoted to Citywide Parks but needs some additional land for Neighborhood Parks. By applying the acres pre 1,000 population to the 2030 population estimate (53,577), Table IX-6 reveals a need for more land for both Citywide and Neighborhood Parks by that time.

Table IX-6. Summary of Park Land Needs

	2000	2000		2000	2030
Park Lands	**Total Acres**	**Existing Acres per 1000 population**	**Standard Acres per 1000 population**	**Additional acres to meet standard**	**Additional acres to meet standard**
Citywide	**242**	**5.94**	**5.0**	**(-39)**	**26**
Neighborhood	**358**	**8.80**	**10**	**49**	**178**
Playlots	**4.4**	**n/a**	**n/a**	[1]	[1]
Other	**6.6**	**n/a**	**n/a**	**n/a**	**n/a**
Totals	**611**	**14.74**	**15**	**10**	**204**

[1] See Section IX.E.3 below

b. Recreation Facility Standards

Ratios for recreation facilities per 1,000 population are recommended based on the information on need and demand gleaned from the Community Survey and the Recreation League Questionnaire, as well as from a review of facility registration records for a one-year period. Comparisons to similar ratios for Nashua and Manchester are provided for perspective. While school district land area was not included in the parkland totals due to the presence of buildings and parking lots on school land, the school district facilities were included in the facility analysis as the athletic programs of the schools create a substantial portion of the demand for the City's facilities.

Most recreation facilities were considered adequate to serve the current population and the existing ratios for those facilities per 1,000 population were applied to the population estimate for 2030 to derive the number of facilities needed by that time to serve the anticipated populace. However, the existing ratios for youth baseball, baseball, softball, and rectangular field sports were adjusted upwards in recognition of the reported and indicated deficits in the number of those facilities. The ratio for outdoor ice skating facilities was also adjusted upwards in recognition of the response in the community survey. The selected recreation facility standards

are displayed in Table IX-7, and the resultant needs for facilities based on the application of these standards are summarized in Table IX-8.

Table IX-7. Recreation Facility Standards

Recreation Facilities	Existing City	Existing School Districts	Existing Total Public	Existing Fac per 1000 pop	Nashua Fac /1000 pop[1]	Manchstr Fac/ 1000 pop[2]	Selected Standard Per 1000
Baseball	5	2	7	0.17	0.16	0.10	0.22
Youth Baseball	9	0	9	0.22	0.28	0.21	0.25
Softball Yth & Adult	10	1	11	0.27	0.35	0.19	0.32
Soccer	8	3	11	0.27	0.27	0.20	0.35
Football	2	2	4	0.10	0.09	0.08	0.10
Track	1.5	0.5	2	0.05	n/a	0.2	0.05
Basketball (outdoor)	10.5	5	15.5	0.38	0.20	0.30	0.35
Tennis	22	0	22	0.54	0.36	0.36	0.50
Pool (outdoor)	6	0	6	0.15	0.09	0.04	0.12
Ice Skating (outdoor)	2	0	2	0.05	0.14	n/a	0.12
Play Equipmnt	11	10	21	0.52	0.50	n/a	0.50
Gym	3	10	13	0.32	0.26	n/a	0.32
Ice Arena	1	0	1	0.02	n/a	0.2	0,02

[1]Nashua Recreation Plan, 1999. [2]Master Plan for the City of Manchester, NH, 1993.

Table IX-8. Summary of Recreation Facility Needs

Recreation Facilities	Total Existing Public Facilities	Selected Standard Per 1000 pop	Standard applied to pop in 2000	Facilities Currently needed	Standard applied to pop in 2030	Additional Facilities needed by 2030
Baseball	7	0.22	9	2	12	3
Youth Baseball	9	0.25	10	1	13	3
Softball (Youth & Adult)	11	0.32	13	2	17	4
Soccer/Lacrosse/ Field Hockey	11	0.35	14	3	19	5
Football	4	0.10	4	0	5	1
Track	2	0.05	2	0	3	1
Basketball (outdr)	15.5	0.35	14	0	19	4.5
Tennis	22	0.50	20	0	27	5
Pool (outdoor)	6	0.12	5	0	6	0
Ice Skating (outdr)	2	0.12	5	3	6	1
Play Equipment	21	0.50	20	0	27	6
Gymnasium	13	0.30	12	0	16	3
Ice Arena	1	0.02	1	0	1	0

3. Service Area Analysis and Application of Recreation Facility Standards

A service area analysis was conducted to determine the spatial distribution of current Neighborhood Parks and Playlots and an evaluation of the populations served within the six Village/ Master Plan Districts. The optimal service area standard of a one mile radius for Neighborhood Parks, as defined in the park classifications in Section IX.C above, was applied to each park, and service gaps were identified. In some cases the park land is yet to be developed, so recreation facilities are not presently available, but the land has been acquired for park purposes. Areas of notable deficiency for proximity to Neighborhood Parks included the southerly portion of Concord Heights including Garvins Falls Road, Manchester Street, and Airport Road south of Terrill Park Drive, as well as the Concord Manor area in the southerly part of Penacook and the northerly portion of West Concord on both sides of Fisherville Road. The Northern part of East Concord along Mountain Road is also distant from Neighborhood Parks, but while it has been included within the Urban Growth Boundary, the development densities remain rural in character.

Playlots represent a more specialized service area analysis as the park classification calls for playlots in "older, high density, urban neighborhoods where average densities exceed 10 dwelling units per acre and private yard space is limited" and assigns a ¼ mile service radius. These circumstances occur in the older neighborhoods adjacent to Downtown Concord as well as to Downtown Penacook. The City has several playlots south and west of Downtown Concord, and the playground facilities of Rumford and Walker Schools as well as in the White and Kimball Parks help to establish a network in and around these high density neighborhoods. Doyen Park was lost to the County facilities a number of years ago, and a location to establish a new playlot was never found as land is generally fully developed and a new playlot would require redevelopment of a site. In Penacook, the playground facilities at Rolfe Park are the only ones which serve the playlot function. Any opportunities to augment these facilities should be taken, as they do not represent an ideal coverage for the areas where they are most needed.

The standard of 10 acres per 1000 population was applied to the population of each of the Master Plan Districts and the results compared to the existing acreage of Neighborhood Park land (Table IX-9). Two areas have acreage in excess of the standard, including Penacook, with Rolfe Park and the yet to be developed Contoocook River Park; and East Concord, with Merrill Park and the yet to be developed Broken Ground Park. Concord heights had the greatest need for more Neighborhood Park land, and the Heights and West Concord had the least amount of existing park land. The South End and the North West End both showed a need for more land, but each of these Districts has several developed parks with good service area coverage, and both are proximate to the Citywide facilities at Memorial Field.

Table IX-6 had indicated a need for 129 more acres of neighborhood parkland to meet demand created by population growth by 2030. While District population projections were only done for household population, and not the group quarters population, it is apparent that East Concord and Penacook will continue to have adequate acreage. Household population growth alone will create demand for more acreage in the North/West End, West Concord, Concord Heights, and the South End.

Table IX-9. Current Neighborhood Park Land Need By Master Plan District

Master Plan District	2000 Total Pop	Exist Acres	Exist Acres per 1000 pop	Standard 10 ac per 1000 pop	Added acres to meet Standard
East Concord	3,184	138.2	43.4	31.8	(-106.4)
Concord Heights	8,545	23.4	2.7	85.5	62.1
South End	8,286	54	6.5	82.8	28.8
North/ West End	10,479	50.1	4.8	104.8	54.7
West Concord	5,949	23	3.9	59.5	36.5
Penacook	4,244	69.8	16.4	42.4	(-27.4)
City Totals	40,687	358.5	8.8	406.8	48.3

4. Summary of Recreation Needs

a. The City needs more recreation facilities now, but has some undeveloped parkland (Contoocook River Park, Broken Ground Park) on which to develop new facilities.

b. The City needs to provide some additional land now for Neighborhood Park use in some of the Master Planning Districts that are underserved, particularly for Concord Heights and West Concord.

c. The City has land it has used for other purposes but held for future park use (landfills on Heights and West Concord) and now is the appropriate time to initiate redevelopment of these for park purposes.

d. Current deficiencies in recreation facilities are in baseball, softball, rectangular field sports, and outdoor ice skating.

e. The City will need more land in the future to meet the demand from population growth.

f. Population growth will create a future need for all recreation facilities except outdoor pools and ice arenas.

g. There is a public interest in an indoor pool and outdoor beaches to provide more opportunities for swimming.

F. RECREATION POLICIES AND RECOMMENDATIONS

1. Recreation Policies

Recreation policies are statements which form the framework for developing and implementing the Recreation Section of the Master Plan. In furtherance of its recreation planning goals, the City of Concord establishes the following recreation policies:

a. Secure adequate and appropriate land areas within the City and its neighborhoods to accommodate the recreation needs of current residents and future generations.

b. For those recreational facilities intended to serve neighborhoods or portions thereof, provide such facilities of reasonable convenience to those neighborhoods in order to serve the current population as well as anticipated future population of the neighborhood.

c. For those recreational facilities intended to serve all citizens of the City, provide such facilities at centrally located, easily accessible locations for all citizens unless such facilities have unique or specialized locational requirements.

d. Continue to provide neighborhood community centers in order to meet indoor recreational and social needs of Concord residents.

e. Continue cooperative efforts with the Merrimack Valley School District (MVSD) and the Concord School District (CSD) in the development, operation, and maintenance of indoor and outdoor recreational facilities for the use and benefit of students of the respective districts and the residents of City.

f. Continue to work with those state agencies that operate and maintain recreational facilities within the City to ensure the maximum recreational benefit for the citizens of Concord.

g. For recreational use of public open spaces outside the Urban Growth Boundary, recreation improvements should not be constructed in wetlands, on steep slopes, or in the habitat of threatened or endangered species, nor should recreation buildings or structures be constructed in floodplains or floodways, except those that are associated with water uses or access.

h. Cooperate with private organizations to develop and maintain a comprehensive recreational trail system for walking, hiking, biking, cross country skiing, and snowmobiling on both public parks and open space as well as private lands, including trail head parking facilities.

i. Maximize opportunities for the citizenry to avail themselves of non-municipal recreation opportunities offered within the City by non-profit, private, and commercial entities.

j. Prepare “master plans” for all proposed new parks and facilities, and redevelopment plans for all existing parks and recreation facilities recognizing the importance of good design, aesthetic concerns, and historical significance.

k. Encourage the participation of individual citizens, neighborhood organizations, and recreation leagues in the planning and design of new recreation facilities, as well as the Recreation and Park Advisory Committee, Planning Board, and City Council.

l. Provide necessary supporting facilities such as parking lots, storage space, rest rooms, and lighting, in parks for the benefit and convenience of park users as well as to facilitate proper maintenance of the same.

m. Provide for the comprehensive administration of the park system as well as recreation services in a cohesive and efficient manner, with sufficient personnel to ensure adequate support for recreation programming as well as park maintenance.

n. Foster the proper maintenance and timely renovation, redesign, or replacement of existing recreation facilities in order to ensure the safety of facility users, and to maximize the longevity and utility of such facilities.

o. Promote volunteerism within, donations to, and maintenance of the park system by individuals, neighborhood groups, service clubs, and civic organizations;

p. Minimize the expansion of or increases in user fees, as well as the demands on the City's tax revenues to support the City's parks and recreation services through funding from state, federal, and private grants; donations of land, materials, equipment and labor; and the collection of impact fees and exactions from new residential development.

q. Comply with the provisions of the Americans with Disabilities Act (ADA) for all City parks and recreation facilities should be achieved as soon as financially feasible.

r. Conduct an annual safety inspection of all park and recreational facilities, and take appropriate action to rectify any noted deficiencies or violations of safety standards.

2. Recommendations

a. Land Acquisition

i. Playlots

- Any opportunity that presents itself should be taken to provide additional playlots in the high density urban neighborhoods in the North/West and South End Master Plan Districts immediately adjacent to Downtown, as well as portions of Penacook Village adjacent to Downtown Penacook.

- If the Concord School District abandons the Walker and Rumford Schools, the playlot function should either be retained or replaced nearby.

ii. Neighborhood Parks

- The former landfill on Old Suncook Road should be properly closed, capped as necessary, and converted to a Neighborhood Park to serve the southerly portion of Concord Heights.

- The former stump dump on Abbott Road should also be properly closed, and converted to a neighborhood Park.

- A parcel of 20 to 30 acres in size should be acquired for a potential Neighborhood Park in northern East Concord in the area north of Sewalls Falls Road and westerly of Sanborn Road.

- Environmental studies should be conducted to determine if opportunities exist for the expansion of Martin Park to the north and west; if the land is not determined to be jurisdictional wetlands, then the City should proceed to acquire additional acreage.

- Access to Broken Ground Park from East Concord Village needs to be acquired.

- Acquisition of infill and adjacent parcels to older urban parks including Keach, and Riverfront

iii. City Parks

- If environmental conditions are acceptable and the State is willing, the City should acquire the land between Memorial Field and Langley Parkway to expand Memorial Field.

- While studies have shown that it is feasible but costly to develop a park on the Old Turnpike Road landfill, the City should explore creative ways to promote the redevelopment including offering a long term lease of the facility in exchange for the reconstruction of the site so that the City will receive a usable park facility at the end of the lease period.

- Convert the Fort Eddy Road Stump Dump to a riverfront park facility.

- Expand Kiwanis Riverfront Park to include the adjacent former Fire Training Site and possibly some adjacent State land.

iv. Community Centers

- If the Concord School District abandons the Dame School, the land and building should be acquired for conversion or redevelopment into the new Heights Community Center.

- In light of the decision to sell rather than renovate Scandia Hall, and to build a new Heights Community Center with facilities far superior to other centers, the City should evaluate its policies related to community centers to decide if it wishes to abandon its former policy of providing a center in each of the six major neighborhoods (Master Plan Districts). Pending the outcome of such an evaluation, the City may need to acquire

additional property and to abandon or convert some of the existing centers.

b. Planning and Design of Parks and Recreation Facilities

- Park development plans should be prepared for the Old Suncook Road Landfill site, the Abbott Road stump dump site, Broken Ground Park, Contoocook River Park, and Kiwanis Riverfront Park.

- Park improvement plans should be completed for Rolfe Park and Eagle Square.

c. Development of Parks and Recreation Facilities

i. Playlots

- Consideration should be given to adding playlot equipment in the high density areas of Penacook Village either at Walnut Street, the former Washington Street School, or Riverfront Park.

ii. Neighborhood Parks

- Currently needed field and facilities should be developed on existing parkland at Broken Ground Park, and Contoocook River Park. There is opportunity for a rectangular sports field to be developed at Terrill Park, and Martin Park is developed to its full capacity.

- When land is acquired for access from East Concord into Broken Ground Park, it should be improved in coordination with the Concord School District depending on the Districts plans for school expansion on the adjacent property.

- When additional land is made available for other neighborhood parks, then facility development should be distributed throughout these new parks in accordance with park plans.

d. Management of Parks

- Open space areas outside the Urban Growth Boundary, that have been designated as parks, such as Lehtinen Park, should be officially re-designated as open space and the management responsibility transferred to the Conservation Commission.

- Parks within or adjacent to the Urban Growth Boundary, that have been designated as open space, such as Contoocook River Park, should be officially re-designated as parks and the management responsibility transferred to the Recreation and General Services Departments.

G. SUPPORTING STUDIES

Bicentennial Square Renovations Report and Recommendations, Groundwork Concord, February 2004.

City of Concord Park Improvement Master Plans-Garrison Park, Merrill Park, Rollins Park, White Park, Copley Wolff Design Group, May 2005.

Community Facilities Plan, A Master Plan Report, City of Concord, New Hampshire, Edwards and Kelcey, Inc., May 1965.

Concord Master Plan Community Survey, prepared by The NorthMark Group, 2004.

Growth and Change: An Analysis of Concord, NH, prepared by Planning Decisions Inc., 2004.

Heights Community Center Study Final Report , Groundwork Concord, Inc., not dated.

Kimball Park Proposed Improvement Plan, Groundwork Concord, September, 2004.

Master Recreation Plan for the Year 2000 and Beyond: City of Concord, prepared by the Thoreson Group Planning Consultants, June 1990 (never adopted).

Recreation 1990: A Plan for Community Recreation, City of Concord, A Master Plan Report, City Planning Board, 1971.

SECTION XII. IMPLEMENTATION

A. INTRODUCTION

The policies and recommendations set forth in this Master Plan are intended to be implemented in a number of ways. While amendments to the Zoning Ordinance are most commonly associated with implementing the Future Land Use Plan, there are other regulatory amendments that are recommended within this Master Plan that will need action.

Amendments to the Capital Improvement Program are another means to implement recommendations for specific projects and improvements to municipal facilities, as well as transportation and utility infrastructure.

Where the recommended projects or improvements involve public/private partnerships or economic development proposals, redevelopment initiatives are an appropriate response.

Implementation may also occur through initiating or perpetuating programs that will accomplish certain policies contained in this Plan.

Lastly, there is an identified need for continued studies, planning, and design efforts to effectuate some of the recommendations of this Master Plan.

B. REGULATORY AMENDMENTS

1. Amendments to the Zoning Ordinance

The Zoning Ordinance is the primary regulatory device for implementing land use changes as recommended in this plan. The City adopted a completely new Zoning Ordinance in November 2001 which implemented the land use recommendations of the 1993 Master Plan and its subsequent amendments. This represented the first completely new Zoning Ordinance in almost 25 years, and much of what was adopted does not need to be changed in terms of format, administrative provisions, definitions, supplemental standards, provisions related non-conformities, and other similar features of the Ordinance. What will need to be amended in the Ordinance in order to incorporate the recommendations of this Master Plan are the sections related to the establishment of zoning districts (including overlay districts) and their related purpose statements, the zoning map, the table of uses and table of dimensional regulations, and some related design standards. Total revision of these sections of the Ordinance would not be necessary; specific amendments to these sections would be appropriate.

Detailed recommendations are found primarily in Section III. Land Use, with some additional recommendations contained in Section V. Economic Development, and Section VII. Conservation and Open Space. Key recommendations include amendments to accomplish the following:

- Provisions for high intensity mixed use for the Northern and Central Opportunity Corridor
- Allowance of a mixed use, high residential density village in the Southern Opportunity Corridor

- Addition of a Transfer of Development Rights (TDR) program
- Inclusion of Traditional Neighborhood Development (TND) standards
- Retention of mandatory cluster development outside of the Urban Growth Boundary
- Reduction of density outside of the Urban Growth Boundary
- Enhancement of buffers between incompatible land uses
- Perpetuation of natural and environmental resource protection
- Introduction of an Aquifer Protection District
- Reservation of Garvins Falls for development pursuant to a unified, comprehensive economic development initiative
- Allowance for existing buildings in industrial areas to be converted to office use without having to add additional stories
- Re-evaluation of the City's parking requirements for various land uses to determine if a lesser standard can be employed

2. Other Regulatory Amendments

a. Site Plan Review and Subdivision Regulations

The Planning Board should consider amendments to the Site Plan Review and Subdivision Regulations to address the following recommendations:

From Section III. Land Use

- Retention of the capacity for future rail service to and through the City by protecting rail corridors, restricting any diminution of the transportation capacity of these corridors, and promoting compatible adjacent land uses thereto

From Section VI. Transportation

- Explicit inclusion of connectivity, traffic calming, and access management requirements and standards.
- Continue to require landscaping along the street edge in site development projects and a street tree planting and maintenance program as a requirement for new private roads
- Continue to require that utilities be placed underground in all new development, and in the redevelopment of existing commercial and industrial development when feasible

From Section VII. Conservation and Open Space

- Require site development to take into account the natural site conditions during the design process and, where appropriate, to preserve and promote such physical and natural features as rivers, streams, ponds, marshes, wetlands, scenic vistas, steep slopes, woodlands, wildlife habitat, and special geological features.

- Require site development to minimize the destruction of natural vegetation and alteration of terrain

From Section VIII. Historic Resources

- Inclusion of a requirement for the identification of historic resources and the mitigation of impacts to the same.

b. Building Codes

The City should consider amendments to Health, Building, Housing, and Life Safety Codes to address the following recommendations:

From Section IV. Housing

- Routine updating of Health, Building, Housing, and Life Safety Codes in order to incorporate new technologies and practices, to respond to evolving energy and resource conservation practices, and to address handicapped accessibility issues

From Section V. Economic Development

- Adoption of the International Building Code to encourage the reuse of existing structures

From Section VIII. Historic Resources

- Amendment of the Codes to reduce impediments to adaptive reuse of historic structures

c. Design **Review Guidelines**

From Section III. Land Use

- Development of specific guidelines for non-residential and mixed use areas

From Section V. Economic Development

- Provision of architectural and design regulations varied by neighborhood, as each neighborhood has its own distinct characteristics and development history

From Section VIII. Historic Resources

- Revisions to address historic areas of Downtown Concord and Penacook

d. Impact Fee Ordinance

From Section III. Land Use

- Provision of impact fee credits as an incentive for strategic redevelopment areas.

From Section IV. Housing

- Continuation of the regular updating of the Impact Fee system

e. Other Regulatory Measures

From Section VI. Transportation

- continue to evaluate and designate truck routes within the city and implement restrictions and standards on through trucking

From Section VIII. Historic Resources

- Initiation of Scenic Road designations pursuant to RSA 231:157, where appropriate, in rural areas of the City

C. CAPITAL IMPROVEMENTS

RSA 674:5 provides that "where the planning board has adopted a master plan, the local legislative body may authorize the planning board to prepare and amend a recommended program of municipal capital improvement projects projected over a period of at least 6 years". RSA 674:21 authorizes the adoption of "an innovative land use control…when supported by the master plan" and goes on to specify impact fees as a type of innovative land use control, but one which requires the adoption of a capital improvement program as a prerequisite".

The City annually updates a Six Year Capital Improvement Program (CIP) the first year of which is the Capital Budget for the current fiscal year. The CIP includes projects for the construction of new buildings and infrastructure; land acquisition; the repair and replacement of infrastructure, buildings and certain equipment; as well as planning and design efforts. While the Planning Board once reviewed a draft Capital Improvements Program, as prepared by the City Manager, and reported its findings to the City Council, that practice subsided in the 1980's and has not been revived. However, in 2000, the City adopted an Impact Fee Ordinance which the Planning Board is charged with administering. Given the statutorily envisioned relationship among the Master Plan, a Capital Improvements Program, and an Impact Fee Ordinance, it would be appropriate for the Planning Board to again review and comment on the Six Year Capital Improvement Program and the annual Capital Budget prior to its annual adoption by the City Council. The focus of such commentary would be the consistency of CIP projects with the Master Plan.

The primary capital improvement projects that are proposed in this Master Plan are as follows:

From Section V. Economic Development

- Investment in quality visual improvements and perpetual maintenance that enhance the visitor's experience at the major gateway entries to the City
- Continuation of the creation of linked trail systems and greenways for recreation and wildlife, thereby providing a community amenity that would be accessible for and recognized by residents, visitors, and businesses.

From Section VI. Transportation

- Implementation of the Concord Municipal Airport Master Plan
- Construction of short term highway improvements including those related to the Loudon Road Corridor, the Manchester Street Corridor; and the North State/Fisherville/Village Street Corridor, and the completion of Whitney Road
- Upgrading of the Sewalls Falls Bridge

- Design, acquire right-of-way, and construct as funding permits long term highway improvements including those related to the Opportunity Corridor, the transportation infrastructure necessary for development of Garvins Falls, Langley Parkway North
- Construction of sidewalks inside the Urban Growth Boundary in the following order of priority: on arterial and collector roads, on walk-to-school routes, on local streets in high density residential neighborhoods, and on local streets in low density neighborhoods
- Installation of appropriate signage for all existing and new bicycle routes
- Construction or marking of bicycle lanes on arterial and collector roads
- Continuation of the appropriate placement of bus stops and shelters to support the operation of the Concord Area Transit bus system
- Acquisition of a site for a future multi-modal transit station within the Opportunity Corridor
- Continuation of funding for street tree planting and maintenance

From Section VII. Conservation and Open Space

- Acquisition of rights in land for open space and trails in accordance with this Master Plan in areas including the Merrimack River Corridor, Broken Ground, Oak Hill, and Horse Hill, as well as trail linkages between open spaces areas, and connecting open space areas to villages and neighborhoods
- Continuation of the development of trails, boat ramps, boardwalks, and other facilities for public access to Concord's open space where such access will not adversely impact natural resources and the ecology of the open space

From Section IX. Recreation

- Acquisition of land for parks
- Construction of recreation improvements in existing and new parks
- Closure of the former Old Suncook Landfill, and capping as necessary, and redevelopment as a neighborhood park

D. PROGRAMMATIC ACTIONS

From Section IV. Housing

- Reinstitution of the Neighborhood Planning Program
- Reinstitution of a rental housing inspection program
- Provision of support for efforts to create as well as rehabilitate low and moderate income housing and in providing permanently affordable housing

From Sections IV. Housing; and Section VII. Conservation and Open Space

- Continuation of the evaluation of tax title properties for retention by the City for open space, housing, or economic development purposes

From Section V. Economic Development

- Institution of a business incubator/assistance program
- Creation of a Redevelopment Authority

- Encouragement of local secondary educational facilities to tailor curriculum and programs which are oriented to serve local businesses and industries.
- Provision of proactive developer guidance through business assistance programs or existing agencies, to help developers to understand and prepare for the City's regulatory processes.
- Assumption of a leadership role in initiating regional discussions, forming cooperative arrangements, and fostering creative solutions to the regional issue of promoting appropriate workforce housing

From Section VII. Conservation and Open Space

- Continuation of working with volunteers, private conservation groups, landowners, adjacent towns, and the agencies of the state and federal governments to protect, monitor and maintain the open space
- Continuation of acceptance of donations of conservation easements and/or fee simple title to open space lands only after a determination that the donation is consistent with the open space plan, and the site has been evaluated for the presence of hazardous wastes.
- Continuation of having conservation organizations as secondary grantees, holding easements or executory interests on publicly owned open space, to ensure that the land is protected in perpetuity

From Section VIII. Historic Resources

- Introduction of Neighborhood Heritage Districts
- Adoption of the Community Revitalization Tax Relief Incentive Act
- Provision of assistance in developing best management practices for the maintenance, rehabilitation, disposition and appropriate reuse of historical properties owned by the City and the school districts.

E. REDEVELOPMENT

From Section IV. Housing

- Maximizing the inclusion of housing in City redevelopment projects

From Section V. Economic Development

- Seek the most fiscally productive forms of redevelopment and new development
- Initiation of the redevelopment of the Opportunity Corridor – Northern, Central, and Southern areas
- Continuation of the redevelopment of Downtown Concord and Penacook
- Attraction or promotion of a four year college with a residential campus
- Provide incentives for redevelopment, as opposed to new development, including relief from fees, density bonuses, and other forms of relief.

F. FURTHER PLANNING EFFORTS

From Section III. Land Use

- Village/neighborhood Plans
- Basin Street Area Brownfield Redevelopment Plan
- Coordination with the Federal, State, and County governments on planning for improvements within the City of Concord

From Section V. Economic Development

- Prepare a community arts and cultural plan with emphasis on (1) a public articulation of the community's embrace of its cultural identify, (2) broader participation among potential as well as existing participants in cultural activities, and (3) assistance to local arts/culturally-oriented nonprofit organizations

From Section VII. Conservation and Open Space

- Prepare an evaluation of management options for the City's open space system

From Section VIII. Historic Resources

- Completion of additional historic surveys for North State Street, West Concord Village, East Concord Village, and historic agricultural buildings citywide
- Completion of a study of the City's historic and prehistoric archeological resources
- Establishment of additional National Register Historic Districts

From Section IX. Recreation

- Preparation of park plans and designs for recreation improvements for new parks
- Conduct an evaluation of City policy related to the provision of Community Centers in each Village/Master Plan District

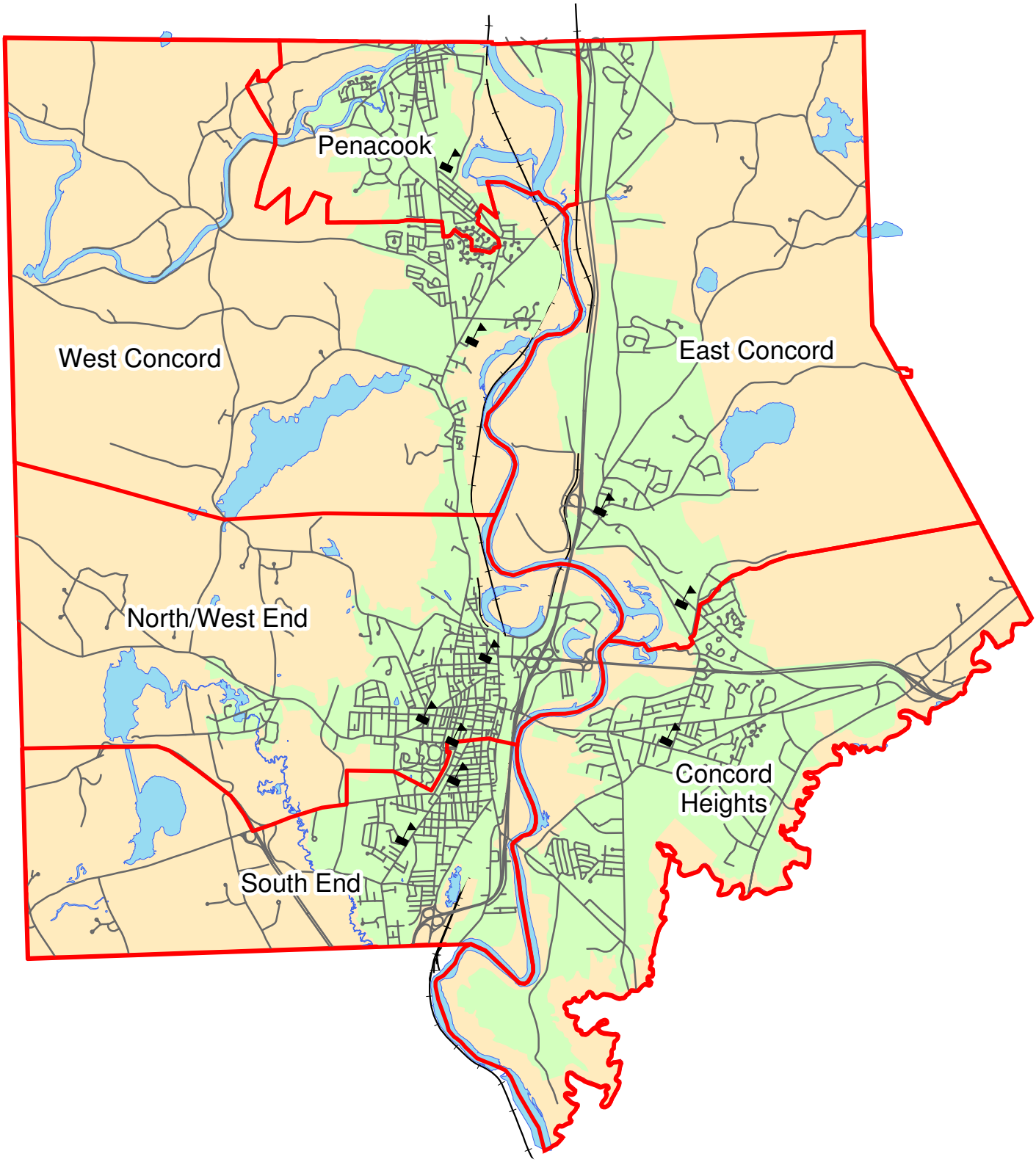
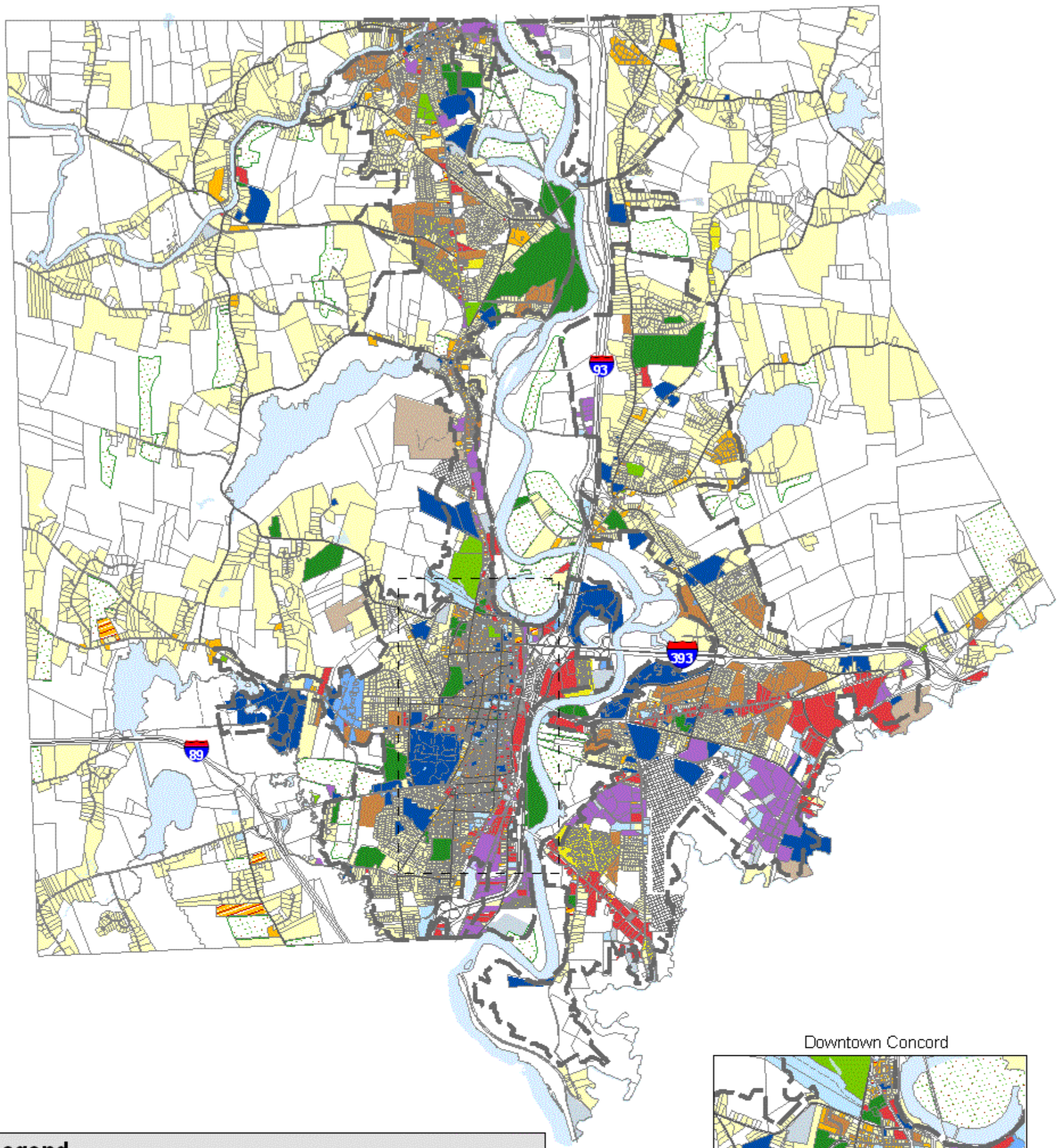


Exhibit I-1
Villages/Master Plan Districts
City of Concord, NH
Master Plan 2030

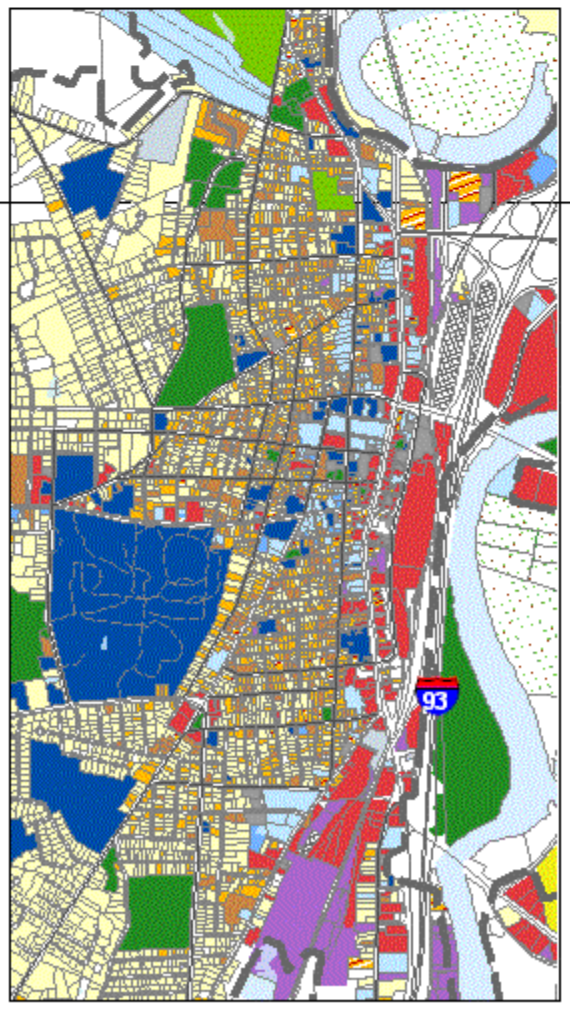
N

Legend

- Village/Master Plan Boundary
- Inside Urban Growth Boundary
- Outside Urban Growth Boundary
- Elementary School



Downtown Concord



Legend

- Urban Growth Boundary

Existing Land Use

- Single Family
- Duplex
- Multifamily
- Mobile Home
- Mixed Use - Residential/Commercial
- Commercial/Services
- Institutional
- Industrial
- Parking
- Cemetery
- Parks & Recreation
- Excavation & Quarrying
- Agriculture
- Vacant
- Transportation
- Utility
- Office
- Medical

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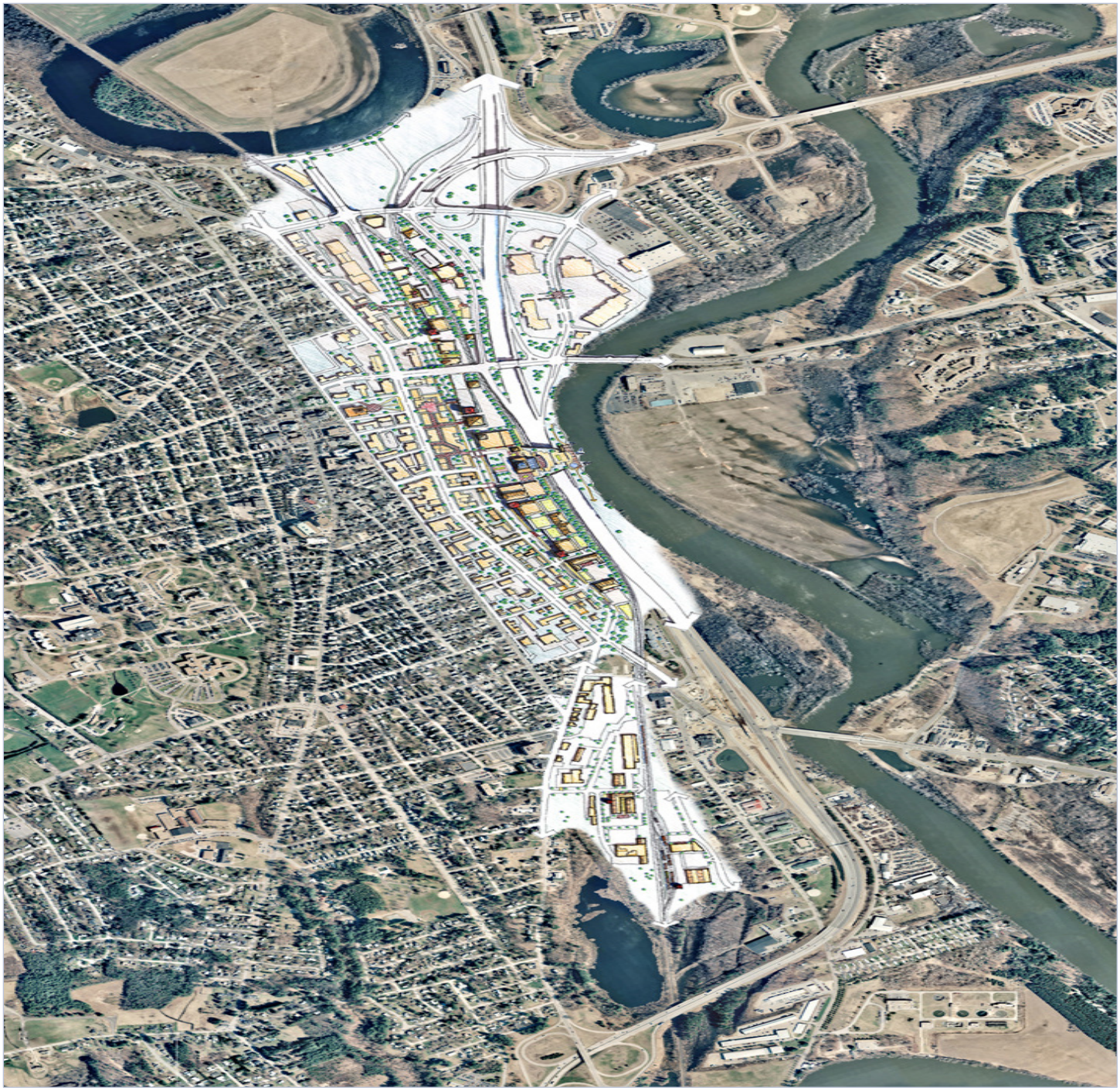
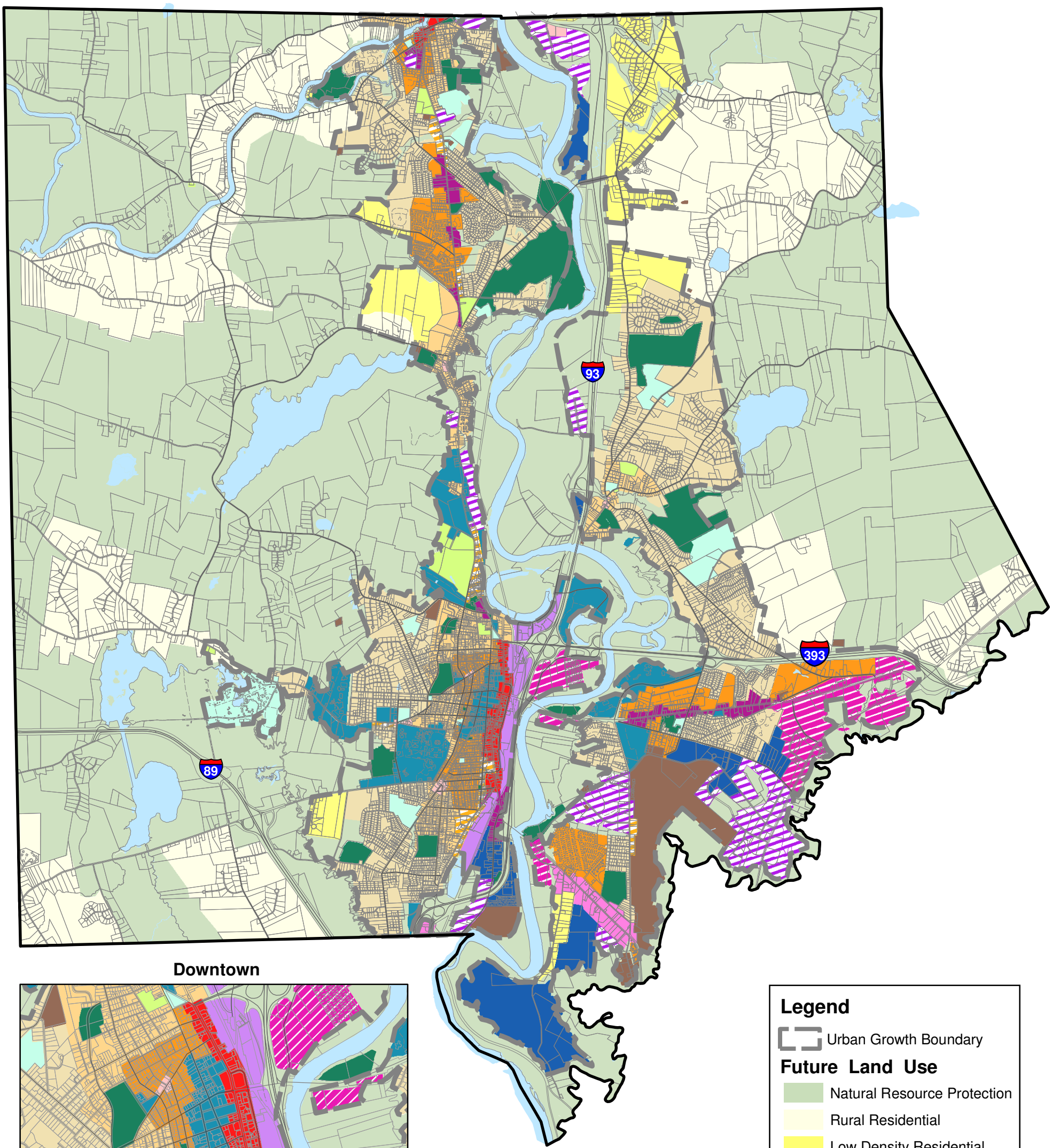
Exhibit III-1
Existing Land Use Plan
City of Concord, NH
Master Plan 2030

N

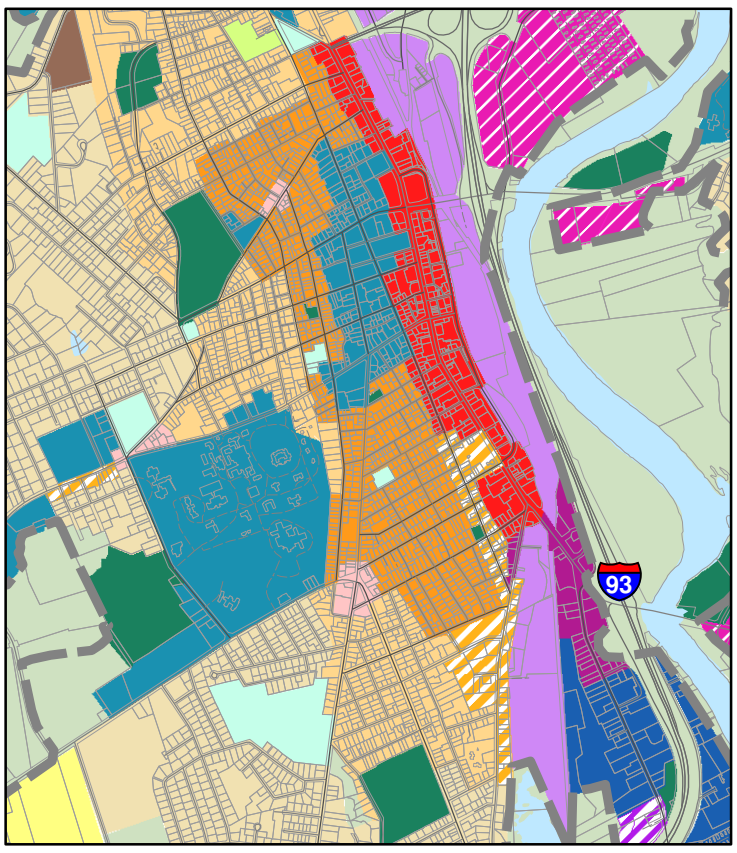


Source: Concord Opportunity Corridor Master Plan, prepared by The Cecil Group, Inc.

Exhibit III-2
The Opportunity Corridor



Downtown



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Amdmt. #1 - Chenell Drive, 1/21/2009

Legend

Urban Growth Boundary

Future Land Use

- Natural Resource Protection
- Rural Residential
- Low Density Residential
- Medium Density Residential
- Urban Residential
- High Density Residential
- Urban Transitional
- Neighborhood Commercial
- General Commercial
- Downtown Commercial
- Highway Commercial
- Regional Commercial
- Opportunity Corridor
- Institutional
- Office Park
- Industrial
- Transportation & Utilities
- Public & Private Schools
- Parks and Recreation Sites
- Cemetery

Exhibit III-3
Future Land Use Plan
City of Concord, NH
Master Plan 2030

N

Source: Terrence J. DeWan & Associates

Exhibit III-4
The Southern Opportunity Corridor

Legend

Functional Class

- Interstate
- Major Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Rural Collector
- Urban Collector

Prepared by the City of Concord Planning Division
Concord, New Hampshire

Funding Assistance for the preparation of this plan was provided by the NH Department of Transportation through the award of Congestion Mitigation and Air Quality (CMAQ) grant.

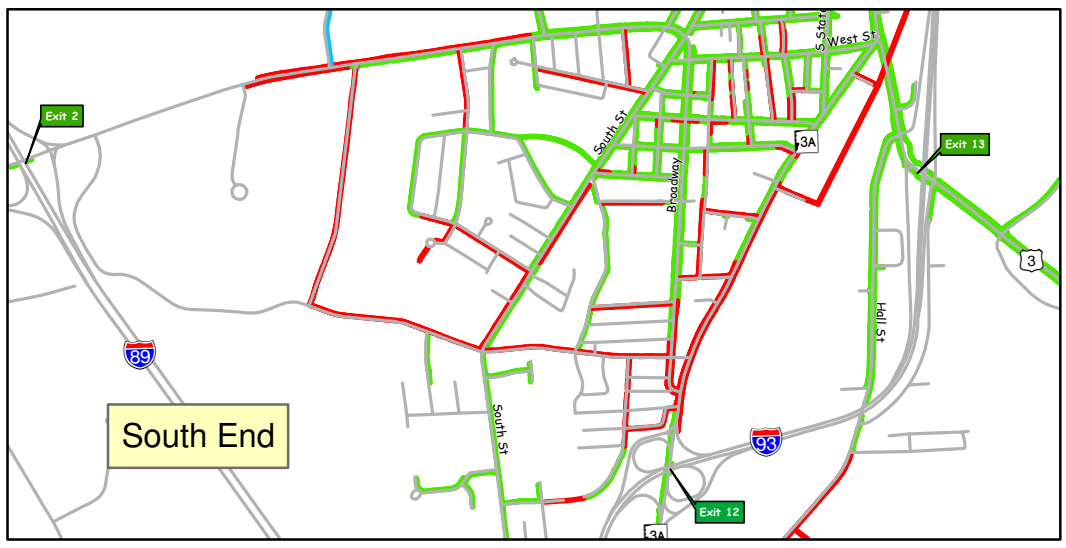
The consulting firm of Vanasse Hagen Brustlin, Inc. (VHB) assisted in the preparation of this plan.

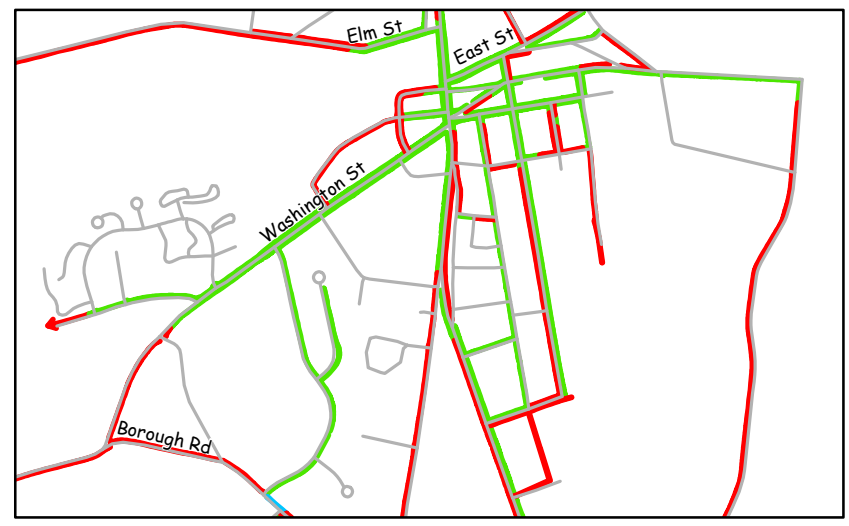
November 2007.

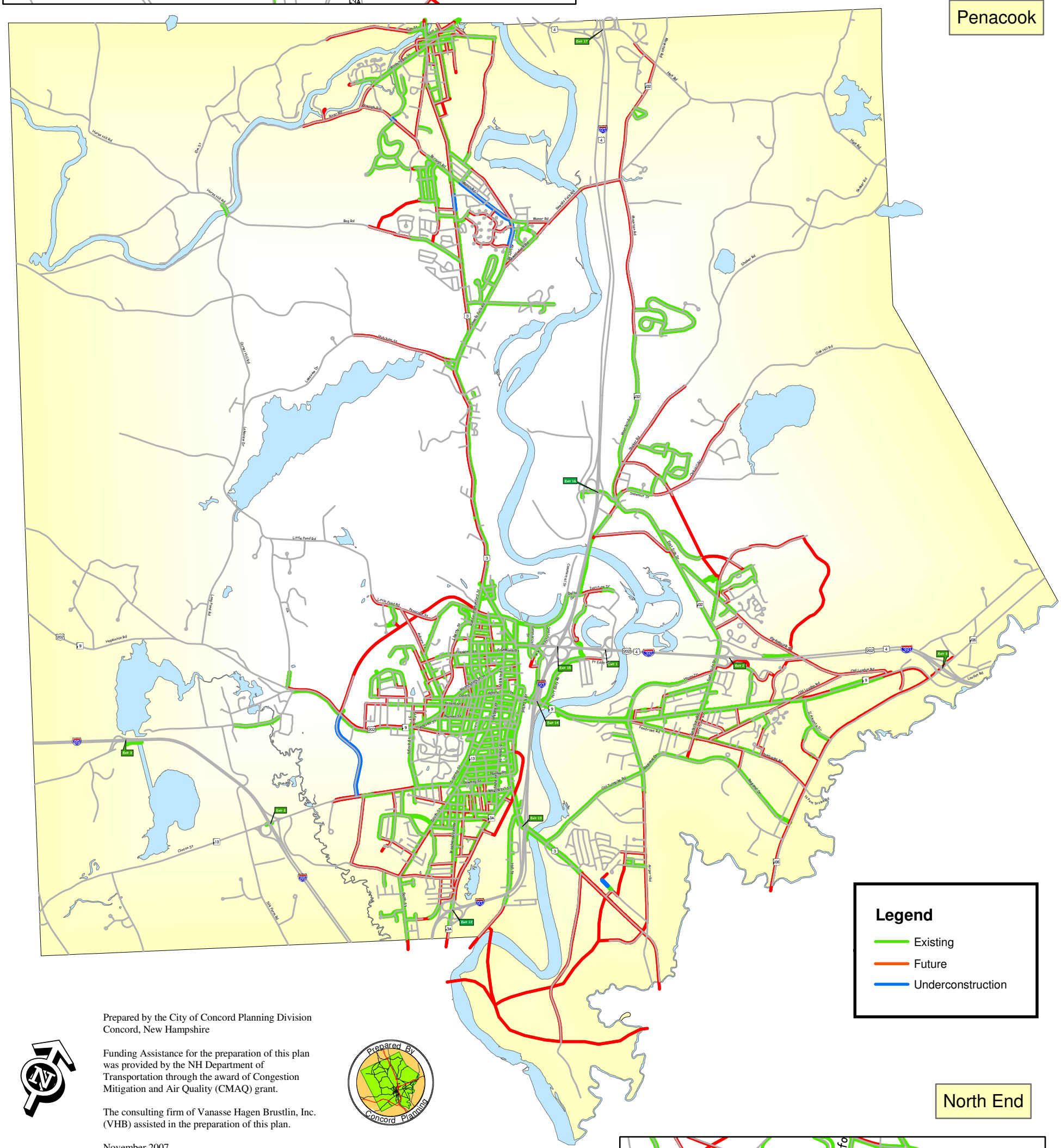
South End

City Center

Exhibit VI-1
Functional Classification
Existing Street System
City of Concord, NH
Master Plan 2030







Prepared by the City of Concord Planning Division
Concord, New Hampshire

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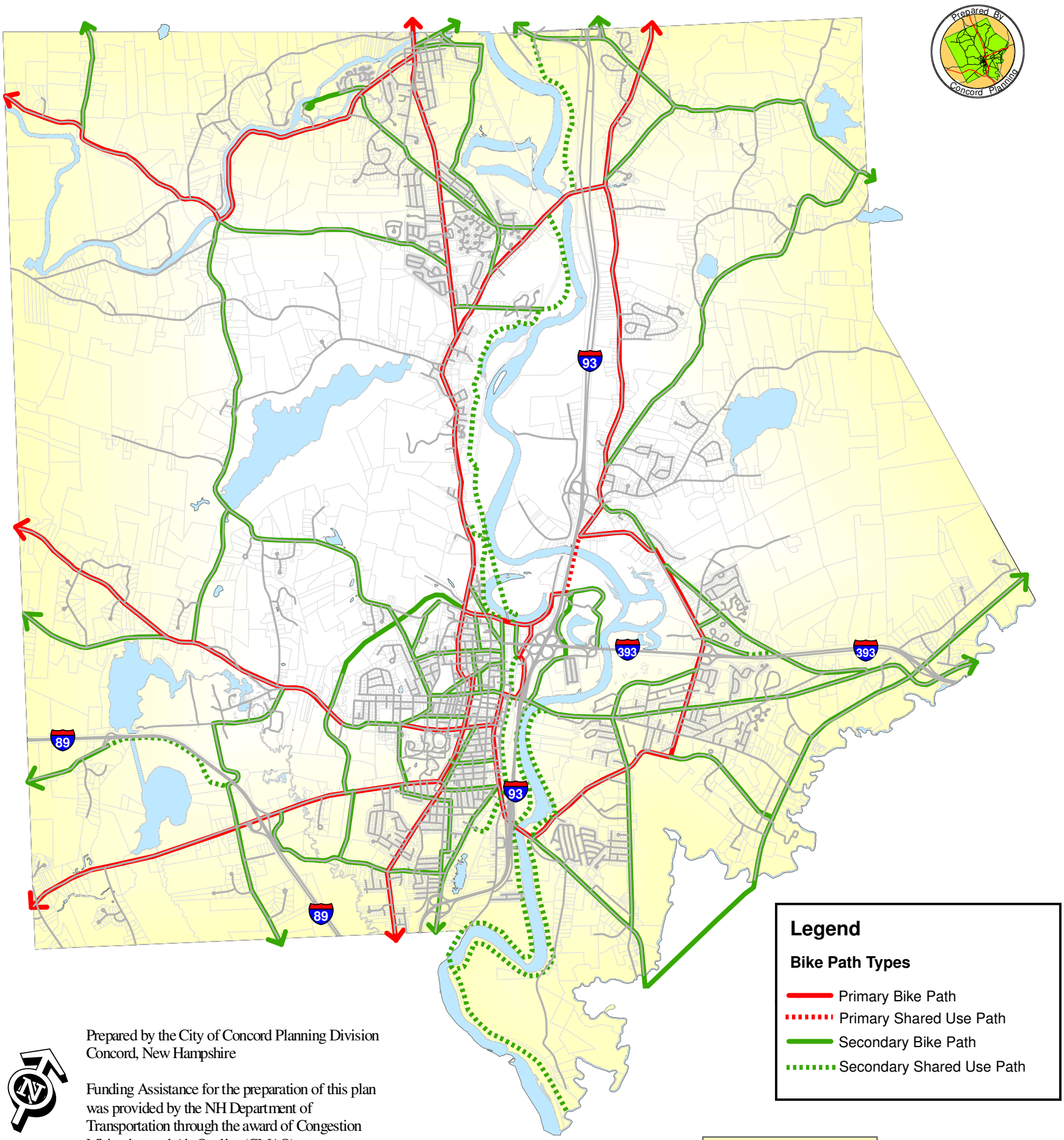
November 2007.

Exhibit VI-2
Sidewalk Plan
City of Concord, NH
Master Plan 2030



Prepared by the City of Concord Planning Division
Concord, New Hampshire

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Adopted by the Planning Board: June 18, 2008
Revised: March 30, 2011

Downtown Concord

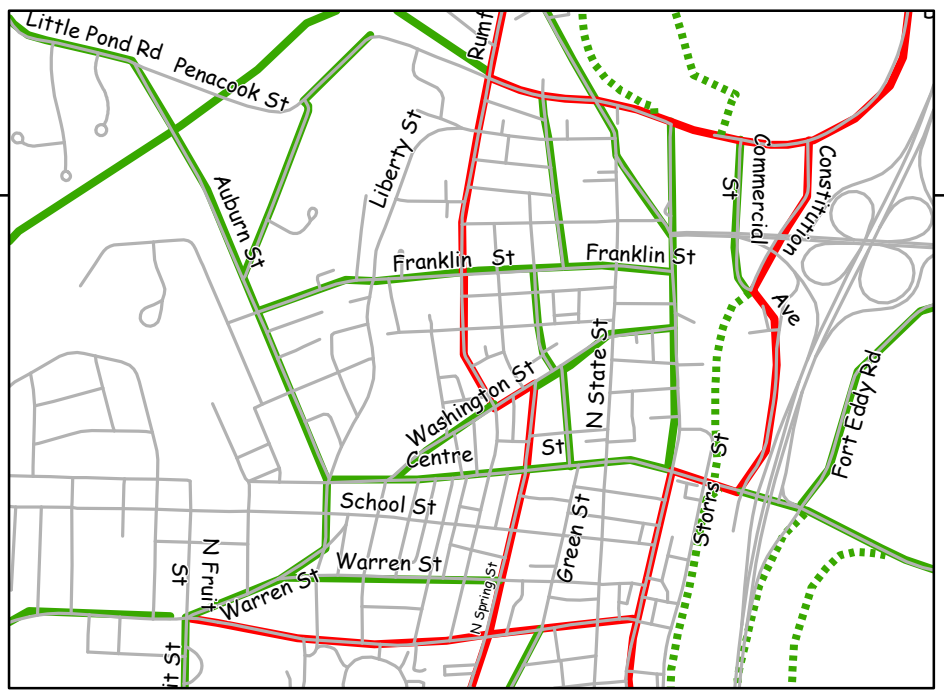

Exhibit VI-3
Bicycle Plan
City of Concord, NH
Master Plan 2030

Prepared by the City of Concord Planning Division
Concord, New Hampshire

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The consulting firm of Vanasse Hagen Brustlin, Inc. (VHB) assisted in the preparation of this plan.

November 2007.

Legend

- Intersection Short Term Improvements
- Intersection Long Term Improvements
- Roadway Improvements Short Term
- Roadway Improvements Long Term
- Corridor Improvements Short Term
- Corridor Improvements Long Term

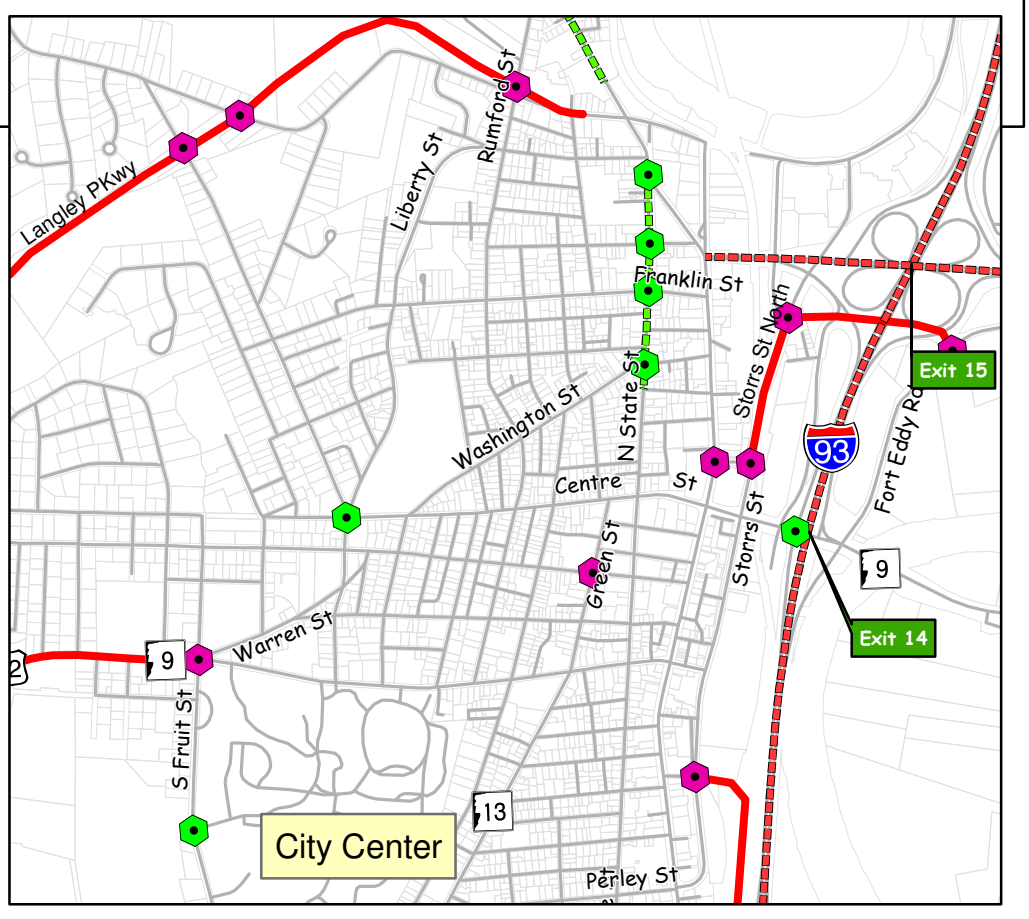

Exhibit VI-4
Highway Improvement Plan
City of Concord, NH
Master Plan 2030

Webster

Boscawen

Canterbury

Loudon

Hopkinton

Pembroke

Bow

Contoocook River

Penacook Lake

Merrimack River

93

89

Legend

Streams

Wetland Class

CLASS1

- Forested
- Scrub-Shrub
- Emergent
- Aquatic Bed
- Unconsolidated Bottom
- Unconsolidated Shore

Exhibit VII-1
Wetlands Map
City of Concord, NH
Master Plan 2030

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Prepared by the Planning Division: November 2007

Webster
Boscawen
Canterbury
Loudon
Pembroke
Bow
Hopkinton
Horse Hill
The Great Bog
Contoocook River
West Parish Road
Penacook Lake
District #5 Road
Dimond Hill
Fisk Hill
Turkey River Basin
Merrimack River
93
89
Hoit Road Marsh
Hot Hole Pond
Snow Pond
Oak Hill
Broken Ground

Legend

- Priority Acquisition - Fee Simple
- Priority Acquisition - Easement
- Existing Open Space
- Existing Trails
- Proposed Open Space Connections

Exhibit VII-2
Future Open Space Plan
City of Concord, NH
Master Plan 2030

N

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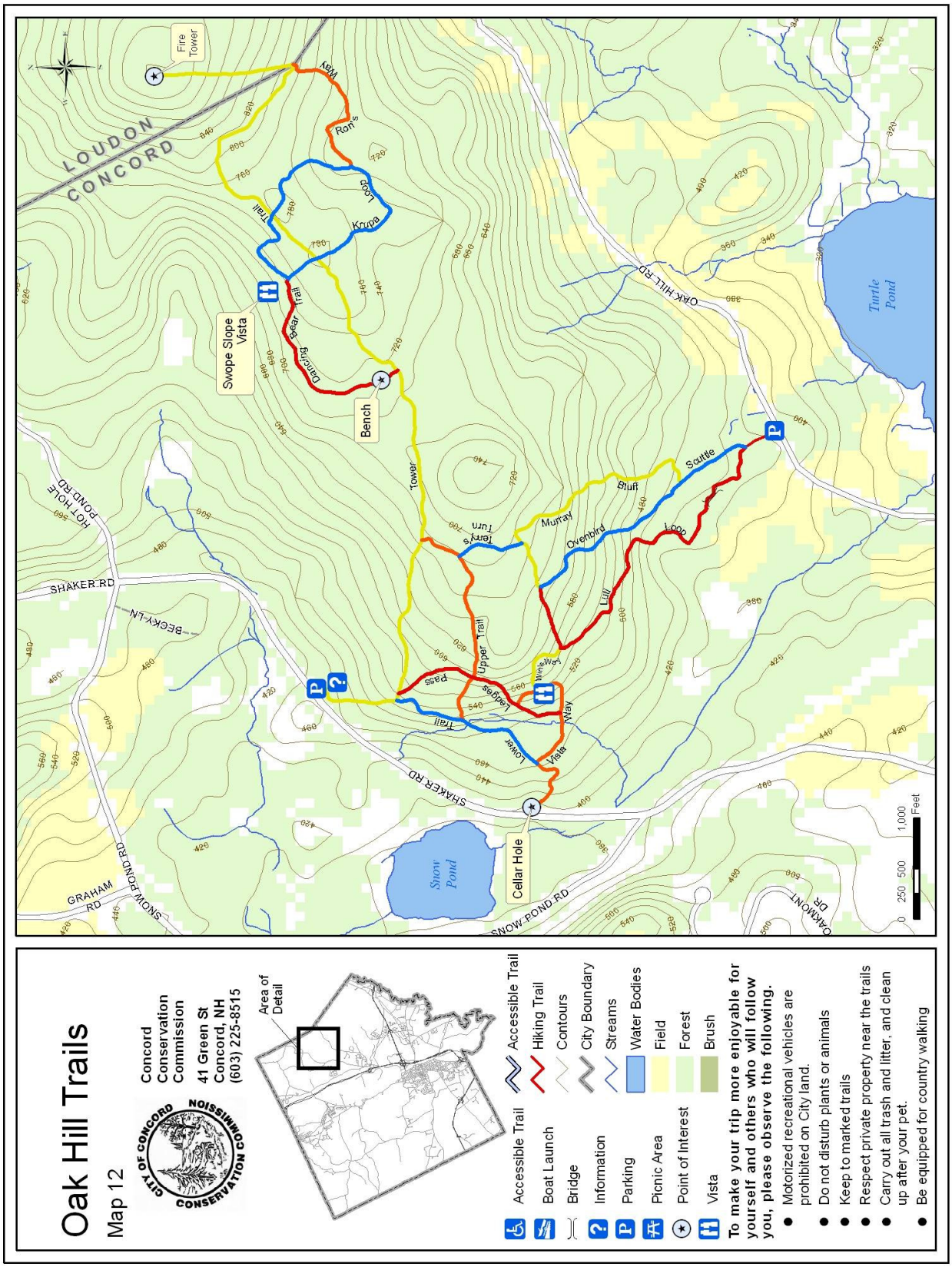

Exhibit VII-3 Trail Map

Town of Canterbury

Town of Boscawen

Town of Webster

Town of Loudon

Town of Hopkinton

Town of Pembroke

Town of Bow

Downtown Concord

National Register of Historic Places

- Listed
- Determined Eligible
- Potentially Eligible

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Exhibit VIII-1
Historic Resources
City of Concord, NH
Master Plan 2030

N

Penacook

East Concord

West Concord

North/West End

Concord Heights

South End

See Detail of Downtown Concord

N1 N2 N3 N4 N5 N6 N7 N8 N9 N10 N11 N12 N13 N14 C1 C2 C3 C4

93

89

Legend

- Village/Master Plan Boundary
- Existing City Parks
- Future City Parks
- Urban Growth Boundary
- School Districts (CSD & MUSD)

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Downtown Concord

N5 N6 N4 M8 M9 P3 P1 P2 C1 N1

Exhibit IX-1
Park & Recreation Plan
City of Concord, NH
Master Plan 2030

N

Source: City of Concord Park Improvement Plans Master Plan, prepared by Copley Wolff Design Group

Exhibit IX-2 White Park Master Plan