

WESTBOROUGH MASSACHUSETTS  
**A**rchitectural  
Walking Tours  
With Music!  
1717  2017

**Walk #10: Come Feel the Vibe;  
Post World War II Housing Explosion**

**Guides:**

**R. Christopher Noonan**, Historic Preservationist / Historic Real Estate Specialist

**Luanne Crosby**, Troubadour/Songwriter/Singer

**Guest Speakers:**

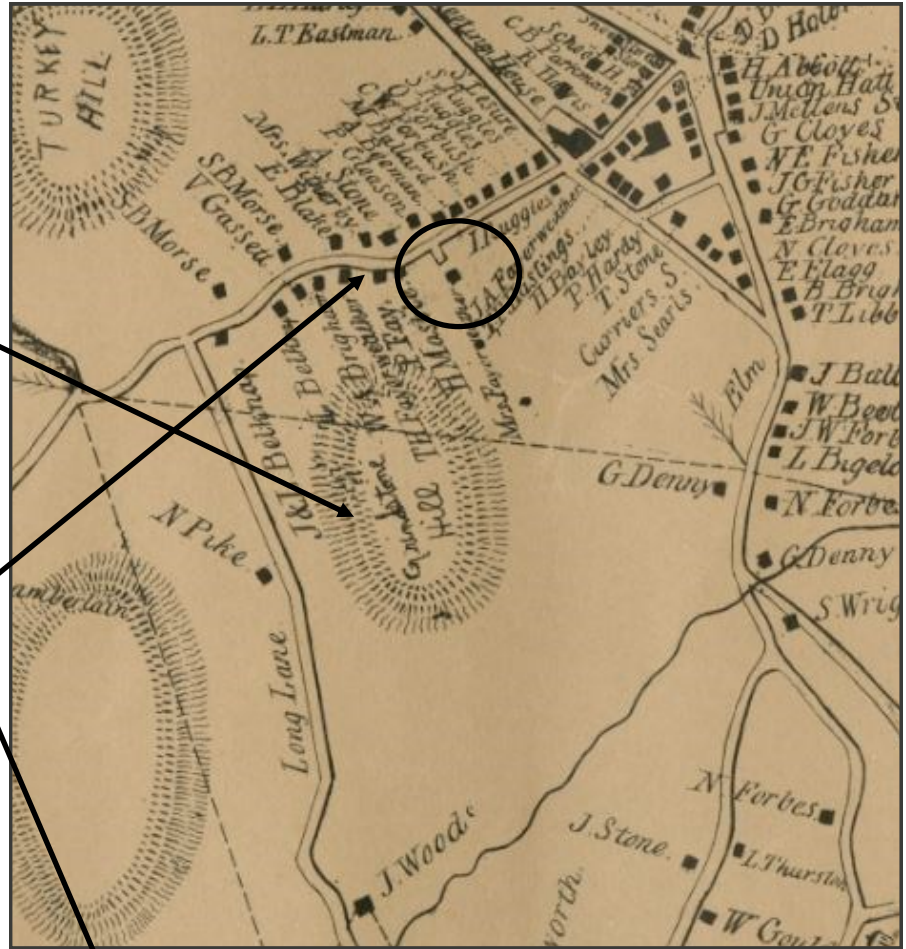
- Deb and Jim Bergeron, Proprietors of the Sleigh Maker Inn
- Floyd and Janet Brownwell

October 2017

*For further or follow-up information regarding this tour, contact  
[rcn@preserve-inc.com](mailto:rcn@preserve-inc.com) / 508-473-4884 and [luanne@luannecrosby.com](mailto:luanne@luannecrosby.com)*

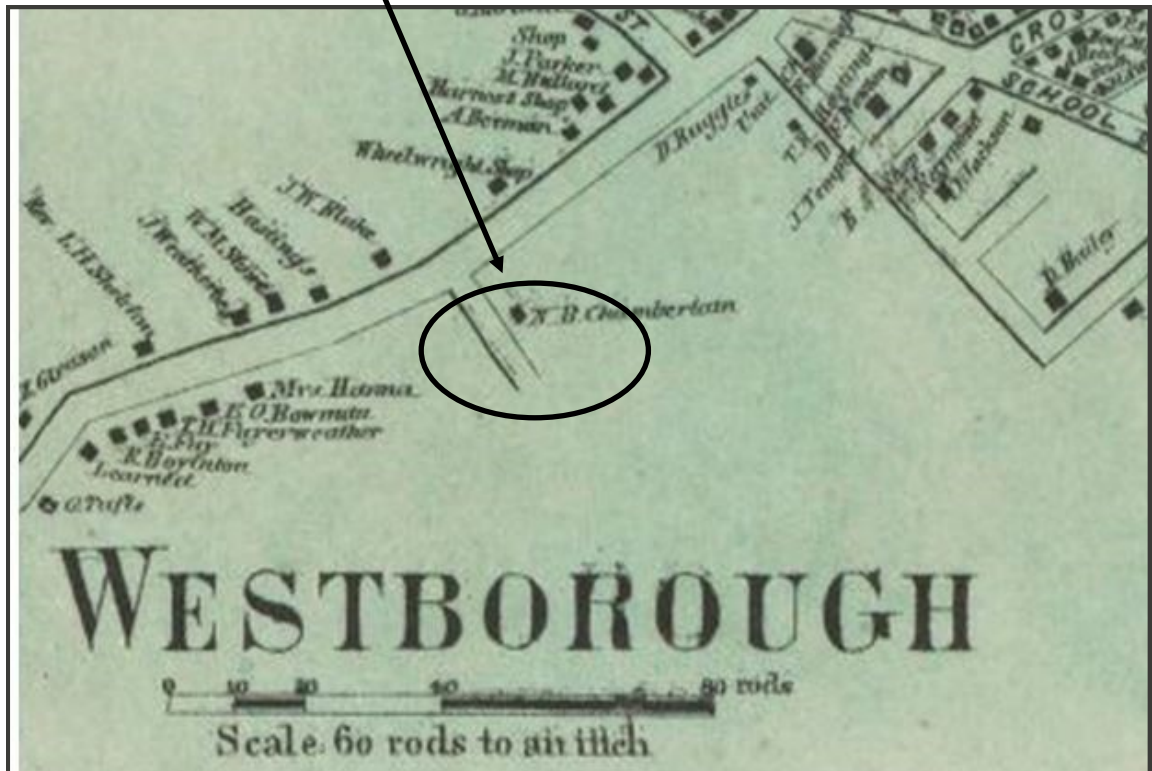


1830 Nahum Fisher map



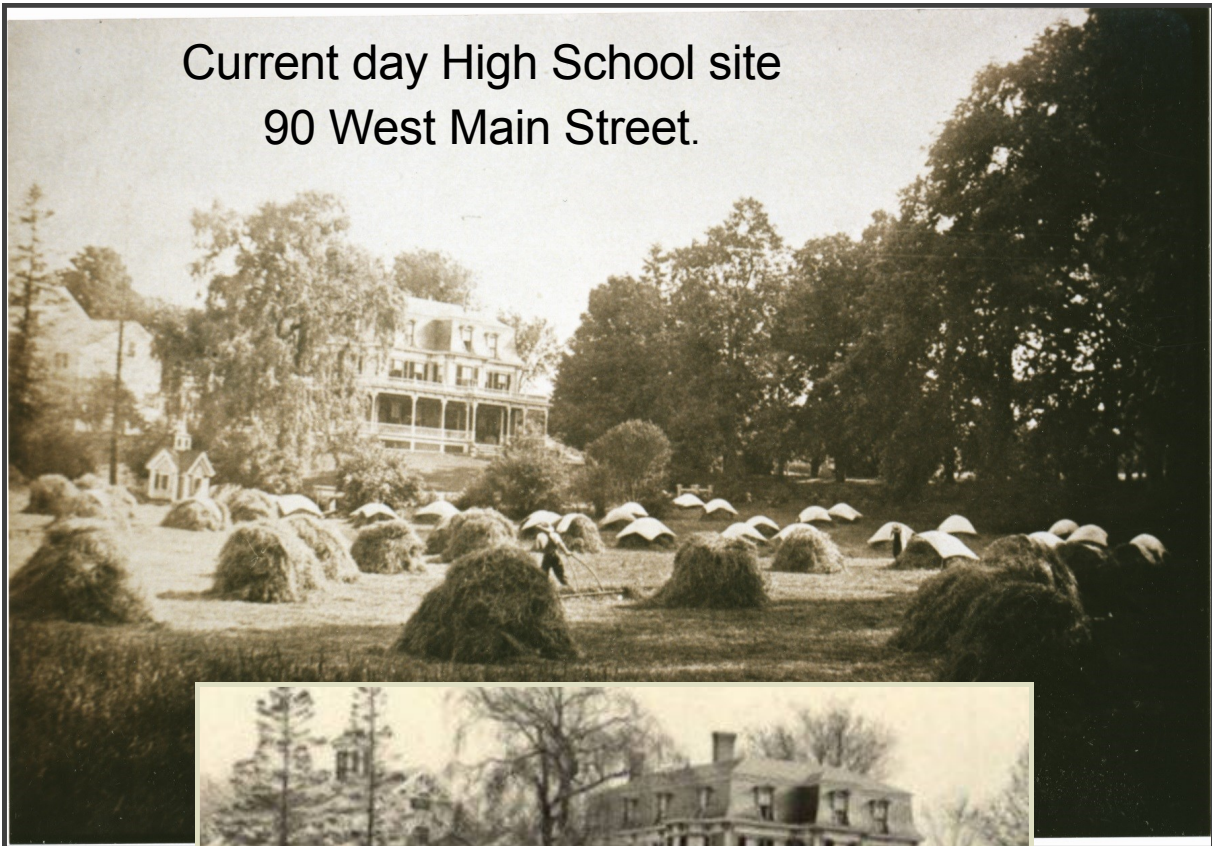
Grindstone Hill  
(today Whitney Hill Drumlin)

Current day high school site  
90 West Main Street



1857 Henry F. Walling map

Current day High School site  
90 West Main Street.



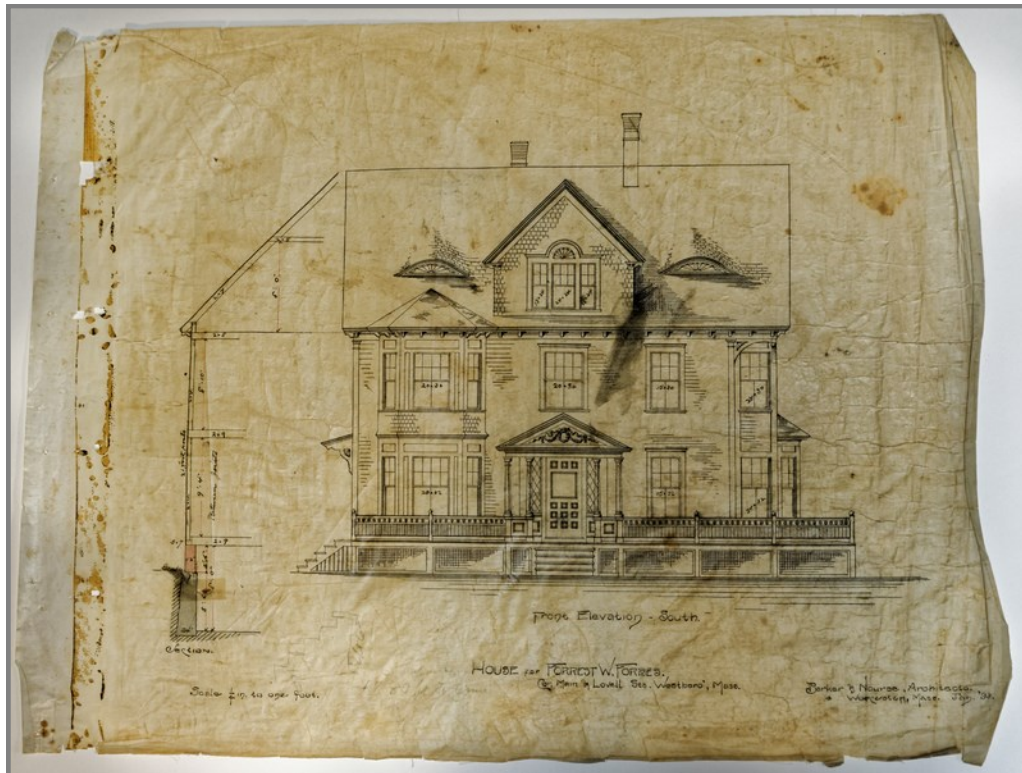
Fayweather, Chamberlain,  
Whitney, Bartlett,  
Aronson Property



87 West Main Street



Forrest W. Forbes House, —1899  
(Now Sleigh Maker Inn)



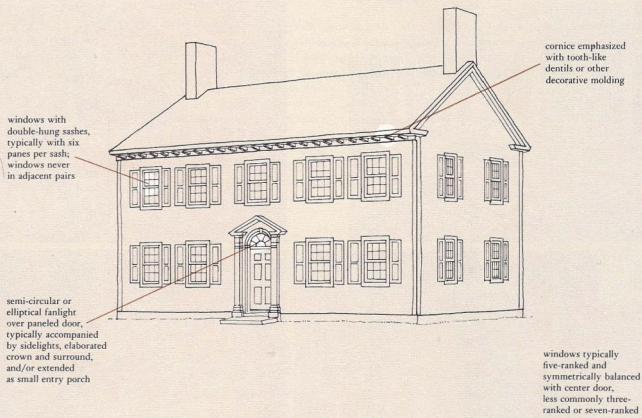
Historic plan from current owner Jim and Deb Bergeron  
Barker & Nourse Architects, Worcester, MA

Phineas Gleason House — circa 1800  
89 West Main Street

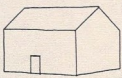


After the 1938 Hurricane

Federal Adams Style 1790s—1820's



SIDE-GABLED ROOF



pages 160-1

HIPPED ROOF, TWO-STORY



pages 162-3

HIPPED ROOF, THREE-STORY



page 164

CENTERED GABLE



pages 166-7

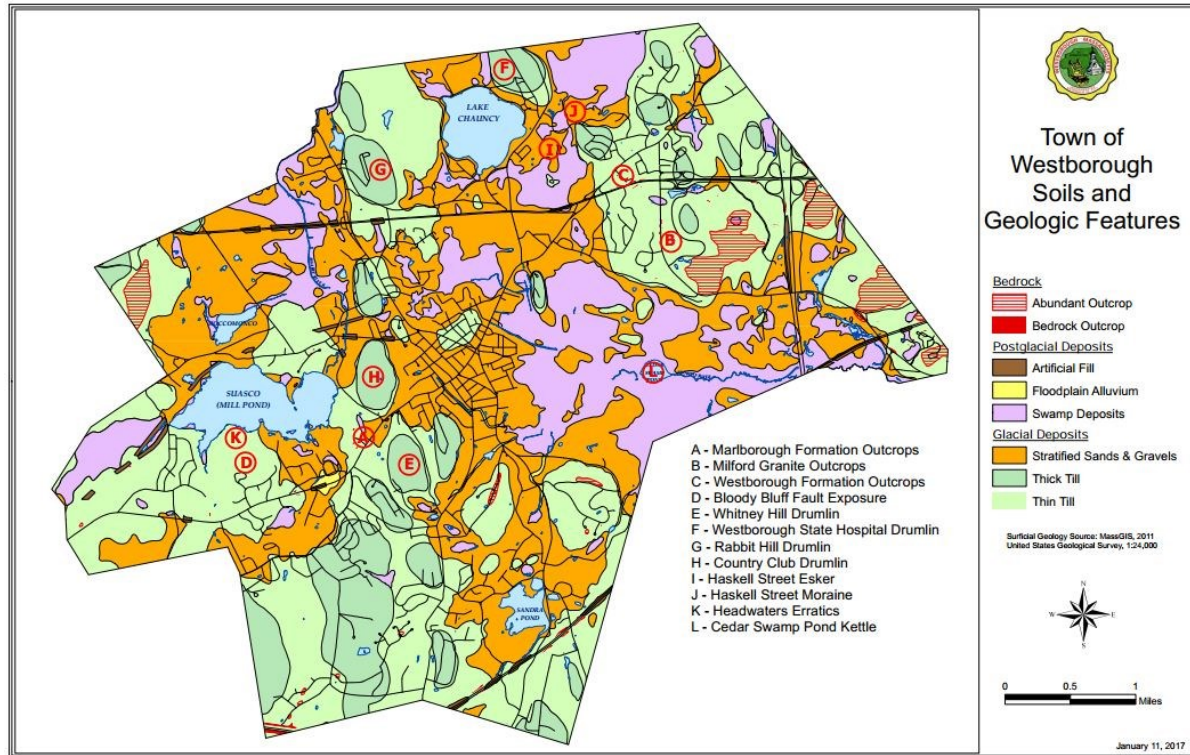
TOWN HOUSE



page 165

PRINCIPAL SUBTYPES

## View from Whitney Hill Drumlin 1890—1910



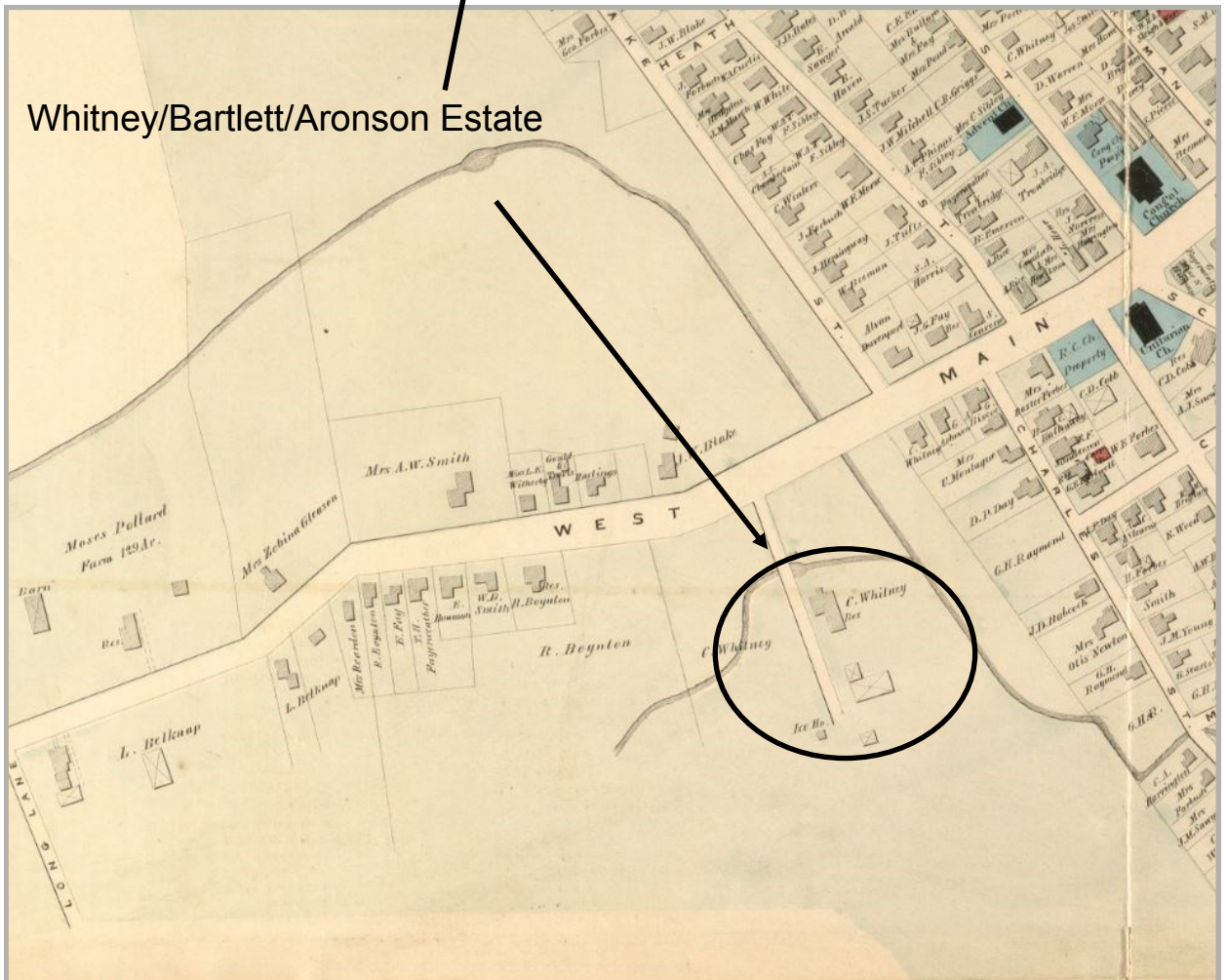
## June 9, 1953—Tornado Whitney/Bartlett/Aronson Estate



1870 J. B. Beers map



Whitney/Bartlett/Aronson Estate



1878 George H. Walker map

1880 E. H. Bigelow map



Whitney/Bartlett/Aronson Estate

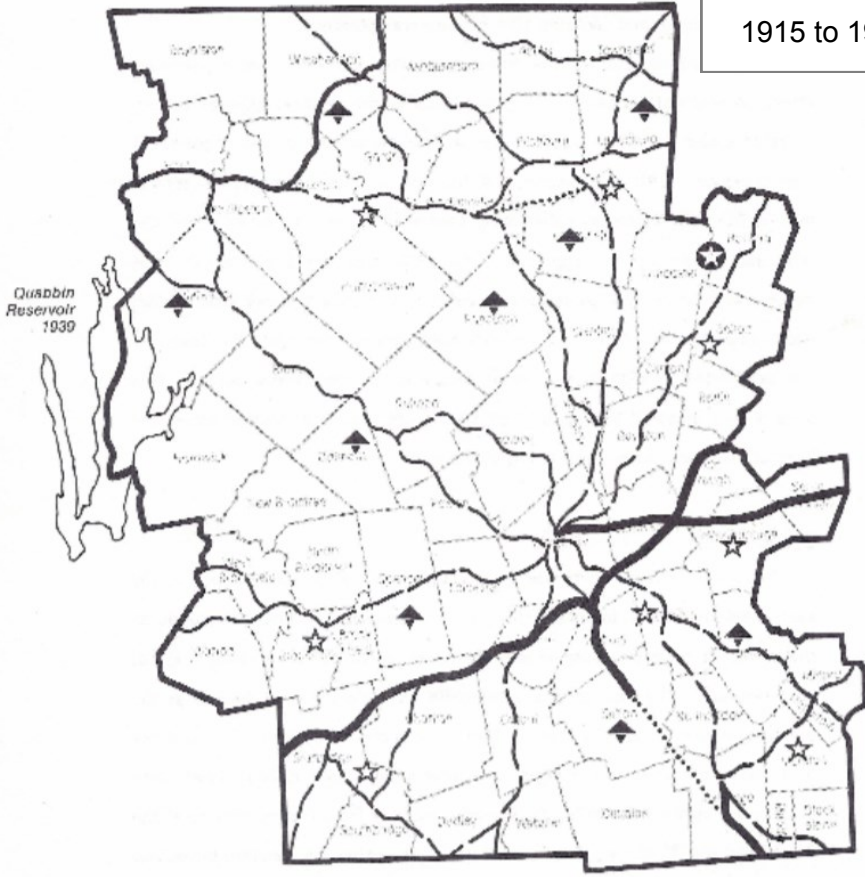
1898 L. J. Richards map





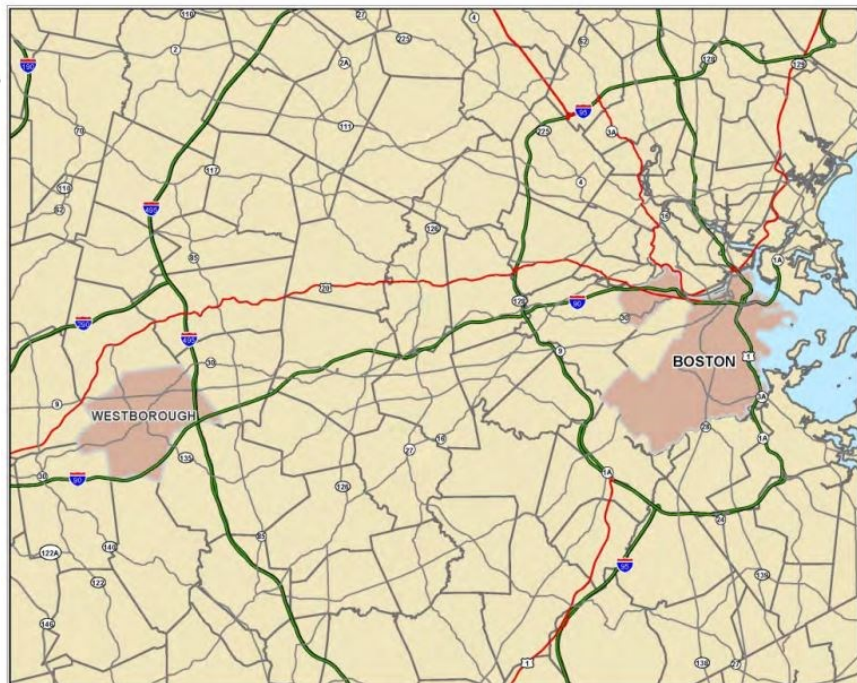
### Early Modern Period Highways, Airfields and Recreation Areas

1915 to 1920's



Interstate Highway System, at \$459 Billion, connecting over 47,000 miles of highway, still the most expensive construction project to date in the world.

Began in 1955 under Eisenhower, and took 35 years to complete



**Town of Westborough Regional Contacts Map**

January 11, 2017

# From National Register Bulletin, National Park Service “Historic Residential Suburbs” September 2002

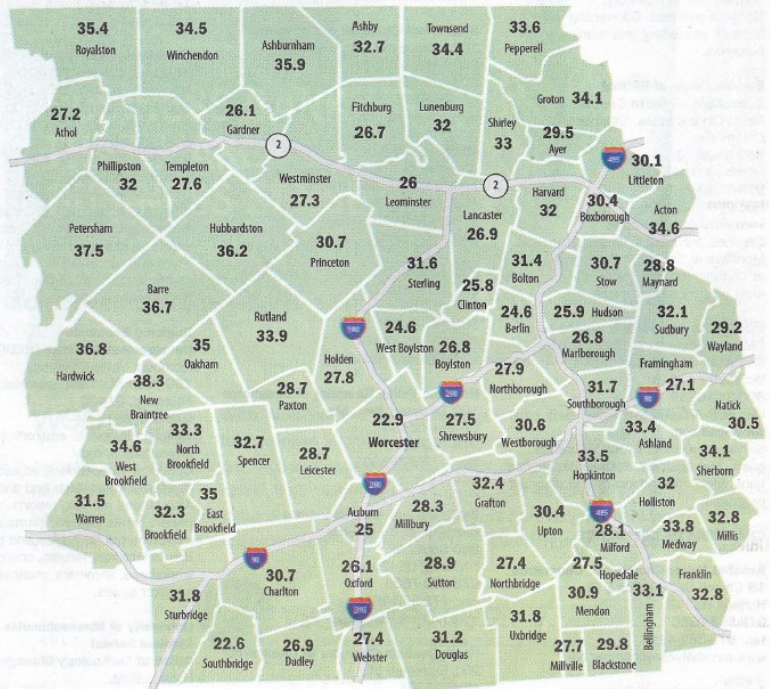
Figure 1.  
*Milestones in Urban and Metropolitan Transportation*

1830	Baltimore and Ohio Railroad introduces the steam locomotive in America.	1923	Detroit Rapid Transit Commission announces comprehensive system of mass transit including a centralized subway.
1868-92	Parkways designed by Olmsted firm for Brooklyn, Buffalo, Boston, and Louisville.	1928-29	Radburn developed as the “Town for the Motor Age.”
1887	Electric streetcar introduced by Frank J. Sprague in Richmond, Virginia.	1938	Bureau of Public Roads report, <i>Toll Roads and Free Roads</i> , calls for a master plan for highway development, a series of upgraded interregional roads, and the construction of express highways into and through cities to relieve urban traffic congestion.
1893-1915	Kessler Brothers design park and boulevard system for Kansas City.	1939	New York World’s Fair “Futurama” presents designer Norman Bel Geddes’s vision for a national highway system and the modern city of the motor age.
1902	<i>Improvement of Towns and Cities</i> by Charles Mulford Robinson calls for civic improvements such as roads, site planning, playgrounds and parks, street plantings, paving, lighting, and sanitation.	1940	Arroyo Seco Freeway opens in Pasadena; first modern, high-speed turnpike opens in Pennsylvania.
1908	Introduction of the Model-T automobile by Henry Ford.	1944	Federal Aid Highway Act calls for a limited system of national highways and a National System of Interstate Defense Highways; Interregional Highway Committee recommends creation of a 32,000-mile national network of express highways, now known as the Eisenhower Interstate System.
1911	<i>The Width and Arrangement of Streets</i> by Charles Mulford Robinson is published, later republished as <i>City Planning</i> (1916).		
1916	Federal Aid Highway Act (42 U.S. Stat. 212), commonly called the “Good Roads Act,” establishes Bureau of Public Roads and authorizes Federal funding of 50 percent of State road projects within a Federal aid highway network.		
1916-24	Construction of Bronx River Parkway, New York.		

## Average travel time to work

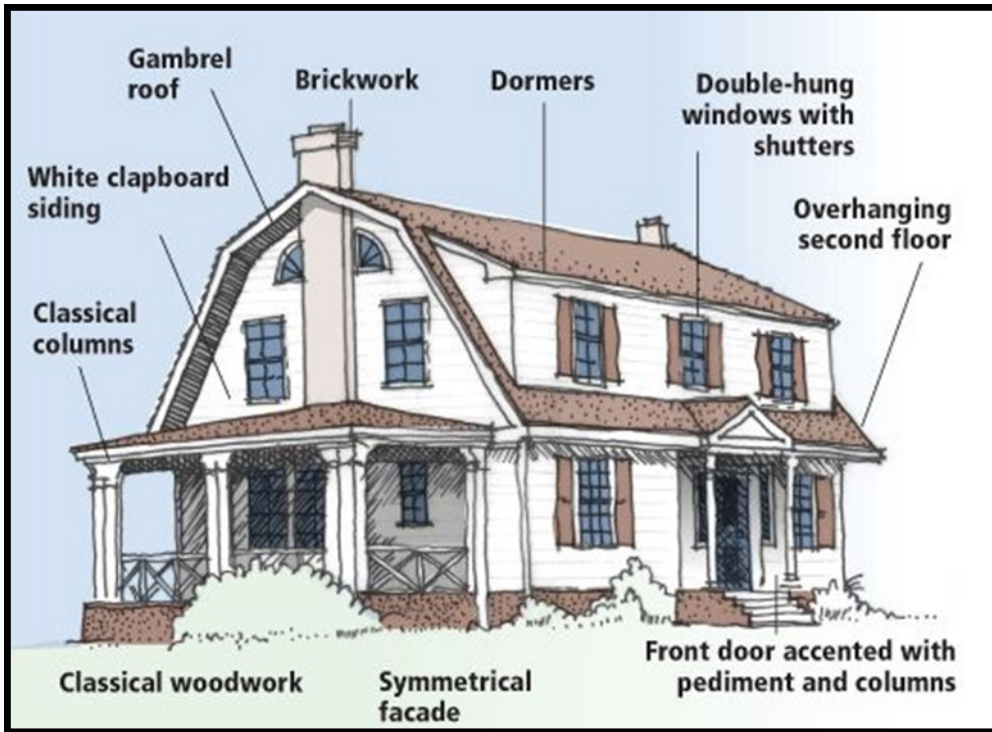
Mean commuting times are around a half hour for most Central Massachusetts cities and towns. Worcester, Southbridge and Berlin have the shortest average times; New Braintree, Petersham and Hardwick the longest.

This map shows the mean commuting times by community, in minutes.



Source: U.S. Census Bureau, 2008-2012 American Community Survey

# Dutch Colonial Gambrel



Similar: 20 Blake Street

Photograph of a two-story Dutch Colonial style house with a gambrel roof and a front porch. Below the photograph is the text:

**MODERN HOME No. 264B164**

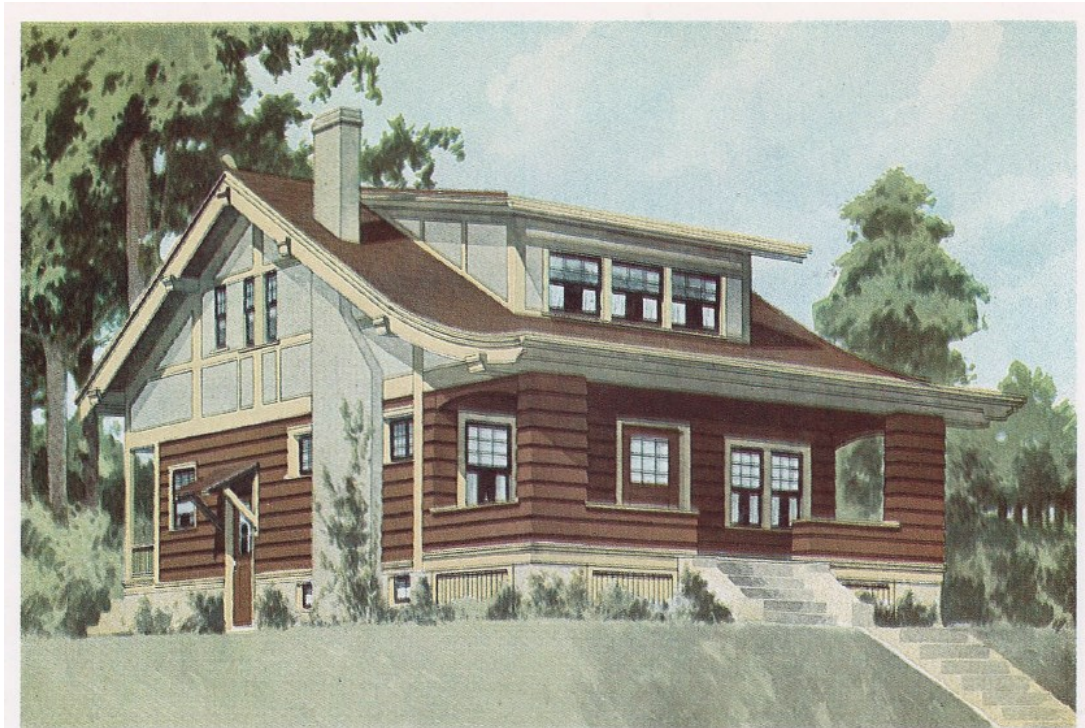
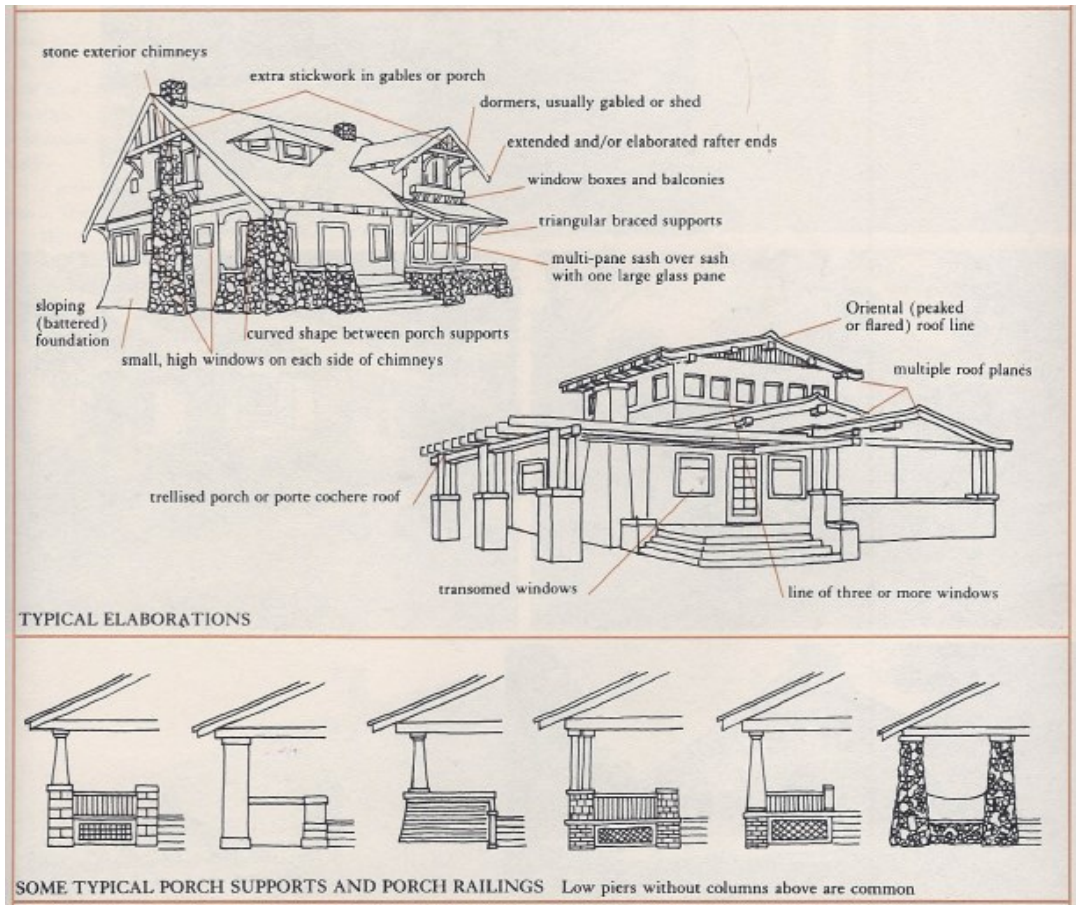
**\$1,584<sup>00</sup>**

Below the price are two floor plans:

- FIRST FLOOR PLAN:** Includes a Porch, Living Rm., Dining Rm., Kitchen, Pantry, and a small room.
- SECOND FLOOR PLAN:** Includes four Bed Rooms and a central Hall.

# Craftsman Style

(Similar example at 8 John Street)

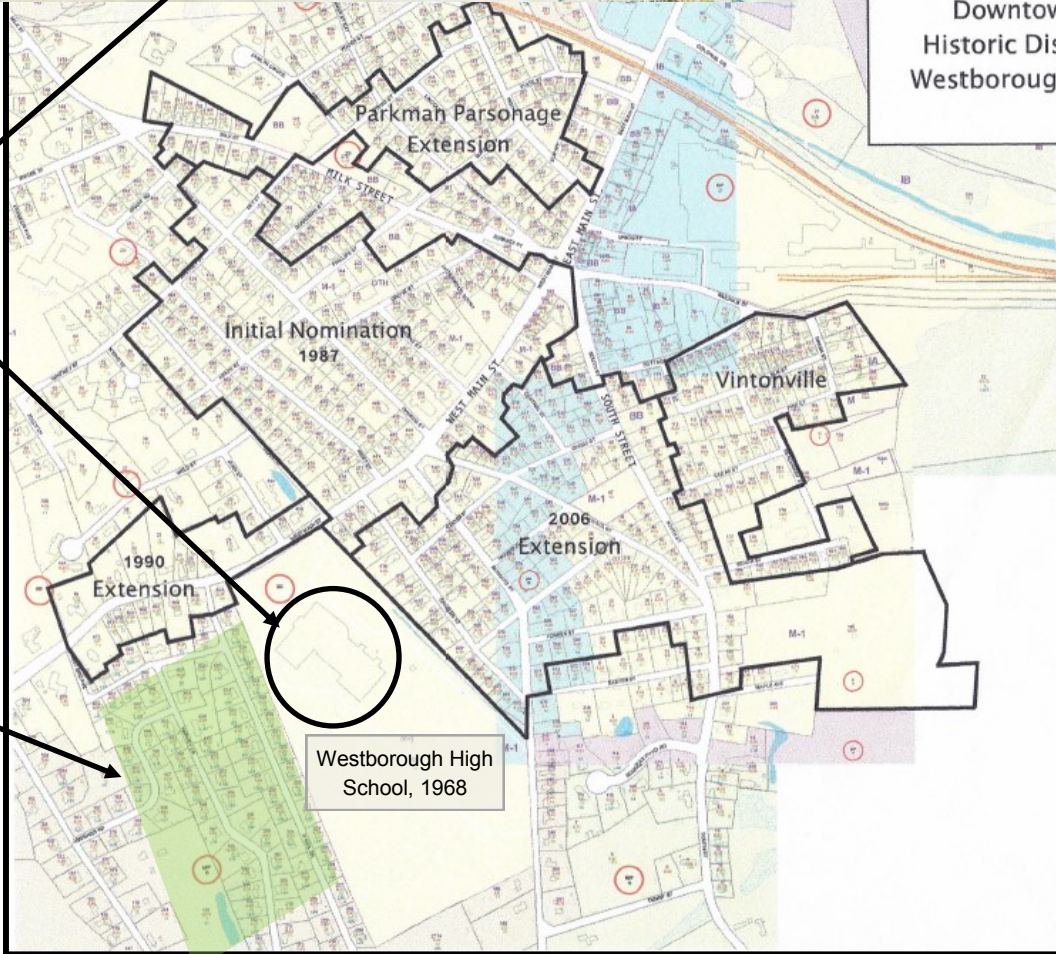


1898 L. J. Richards, Co. Map



Downtown  
Historic District  
Westborough, MA

Whitney/Bartlett/  
Aronson Estate



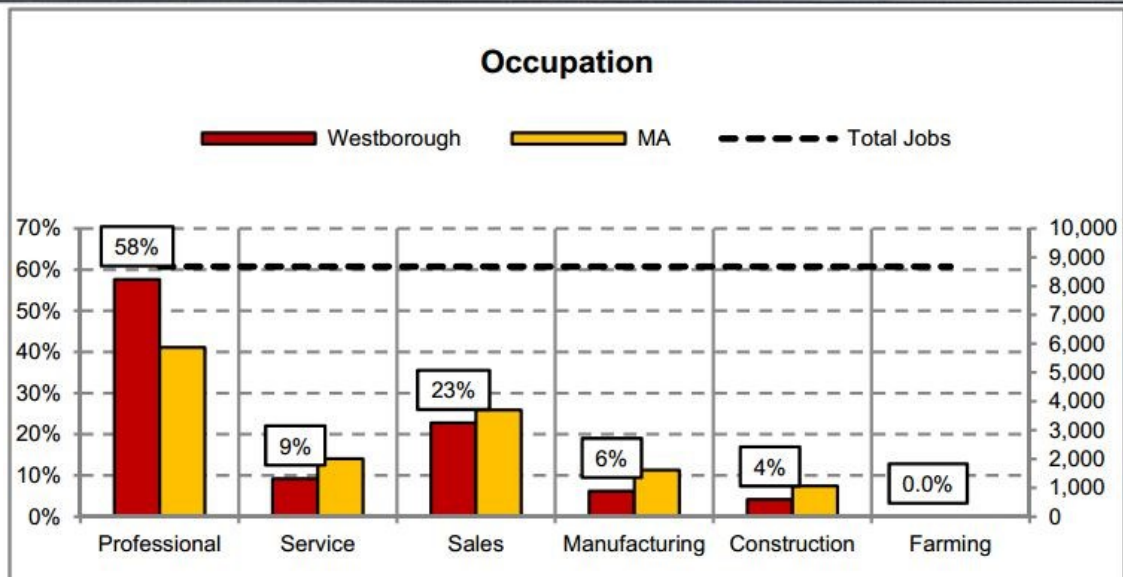
Gregory O'Neil,  
1953 Subdivision

Westborough High  
School, 1968

From National Register Bulletin, National Park Service "Historic Residential Suburbs"  
September 2002

Figure 2.  
*Federal Laws and Programs Encouraging Home Ownership*

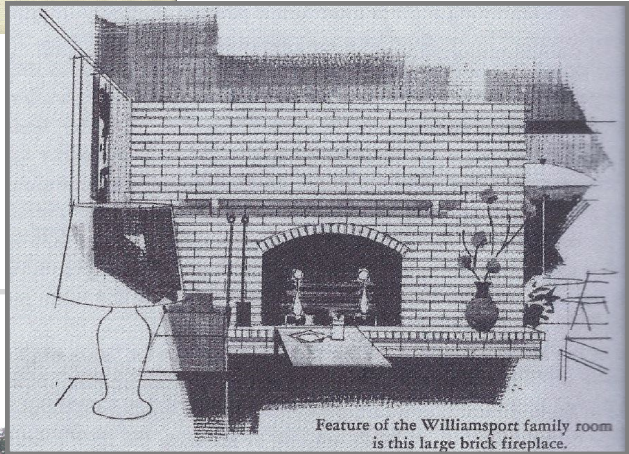
1932	<b>Federal Home Loan Bank Act</b> (47 Stat. 725) establishes home loan bank system authorizing advances secured by home mortgages to member institutions.	1942	<b>Federal defense housing and home loan programs</b> consolidated in the National Housing Agency under Executive Order 9070.
1933	<b>Home Owners' Loan Act</b> (48 Stat. 129) establishes Home Owners' Loan Corporation, an emergency program (1933-36) introducing the concept of low-interest, long-term, self-amortizing loans and enabling home owners to refinance mortgages with five percent, 15-year amortizing loans.	1944	<b>Servicemen's Readjustment Act</b> (58 Stat. 291), commonly known as the "GI Bill," authorized Veteran's Administration to provide loan guarantees for home mortgages for World War II veterans.
1934	<b>National Housing Act</b> (48 Stat. 1246) creates Federal Housing Administration (FHA) to establish national standards for the home building industry and authorizes Federal insurance for privately-financed mortgages for homes, housing subdivisions, and rental housing. First FHA mortgages require a 20 percent down payment and monthly payments amortized over 20 years.	1946	<b>Veterans' Emergency Housing Act of 1946</b> (60 Stat. 215) authorizes Federal assistance in housing returning veterans and extends FHA authority to insure mortgages under Title VI.
1938	<b>Amendments to the National Housing Act</b> (52 Stat. 8) allow Federal mortgage insurance on as much as 90 percent of home's value and extend payments up to 25 years (Title II). Law authorizes the creation of the Federal National Mortgage Association (Fannie Mae) to buy and sell mortgages under the Reconstruction Finance Corporation.	1947	<b>National Housing Agency renamed</b> Housing and Home Finance Agency (61 Stat. 954).
1941	<b>Amendments to the National Housing Act</b> (55 Stat. 31) adds Title VI, creating a program of Defense Housing Insurance targeting the construction of housing in areas designated critical for defense and defense production.	1948	<b>Housing Act of 1948</b> (62 Stat. 1276) liberalizes FHA mortgage terms by allowing insurance on up to 95 percent of a home's value and loan payment periods extending as much as 30 years (Section 203). Also adds Section 611 to Title VI of the National Housing Act to encourage the use of cost-reduction techniques through large-scale modernized site construction of housing.
		1949	<b>Federal Housing Act of 1949</b> (63 Stat. 413) establishes a national housing directive to provide Federal aid to assist in community development, slum clearance, and redevelopment programs.
		1954	<b>Housing Act of 1954</b> (68 Stat. 590) provides comprehensive planning assistance under Section 701.



**DETACHED AMERICA** Building Houses in Postwar Suburbia



JAMES A. JACOBS □ □ □ □ □



Feature of the Williamsport family room is this large brick fireplace.



## Modern Residential Options



Toll Brother's Transit Village Gleason St.



Treetop Park, Park St.



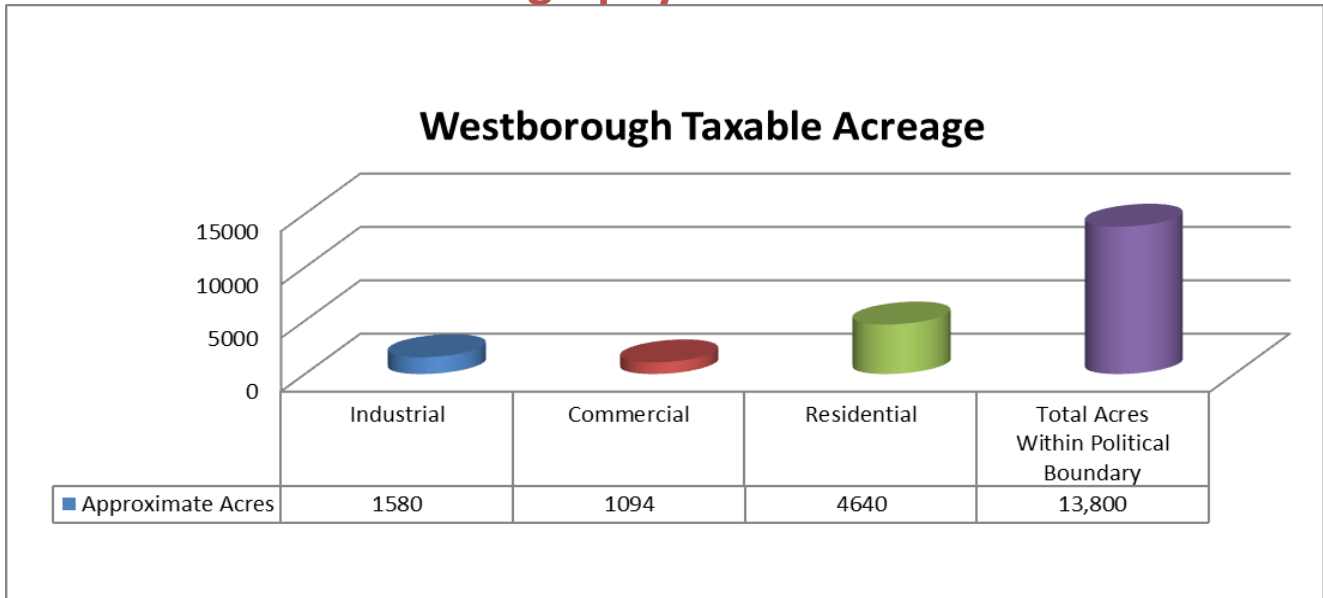
Fountainhead—Route 9



Extended Stay—Route 30



## Economic Geography—Economic Factors



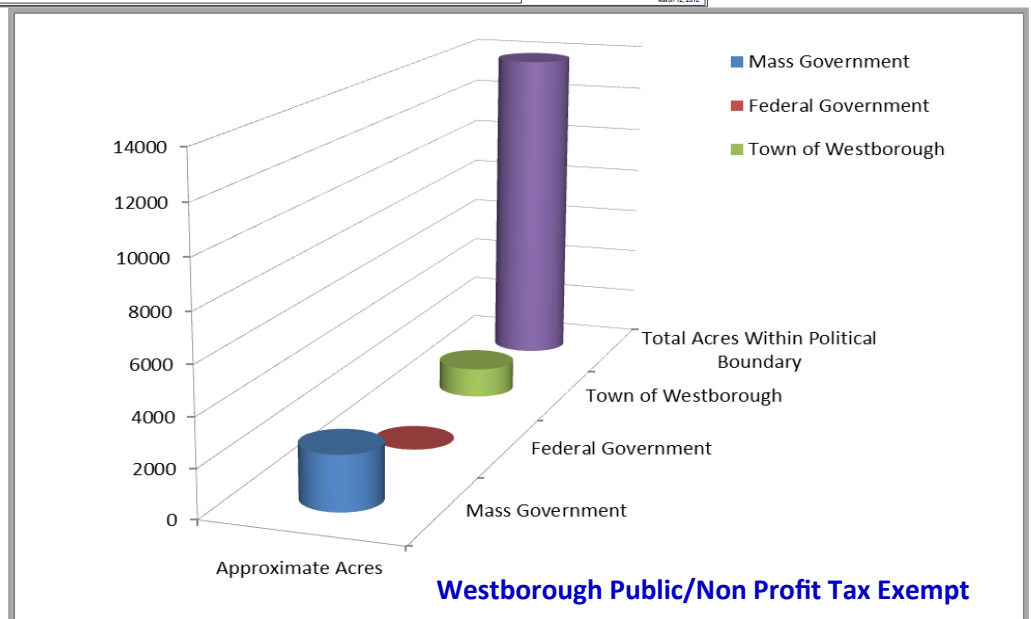
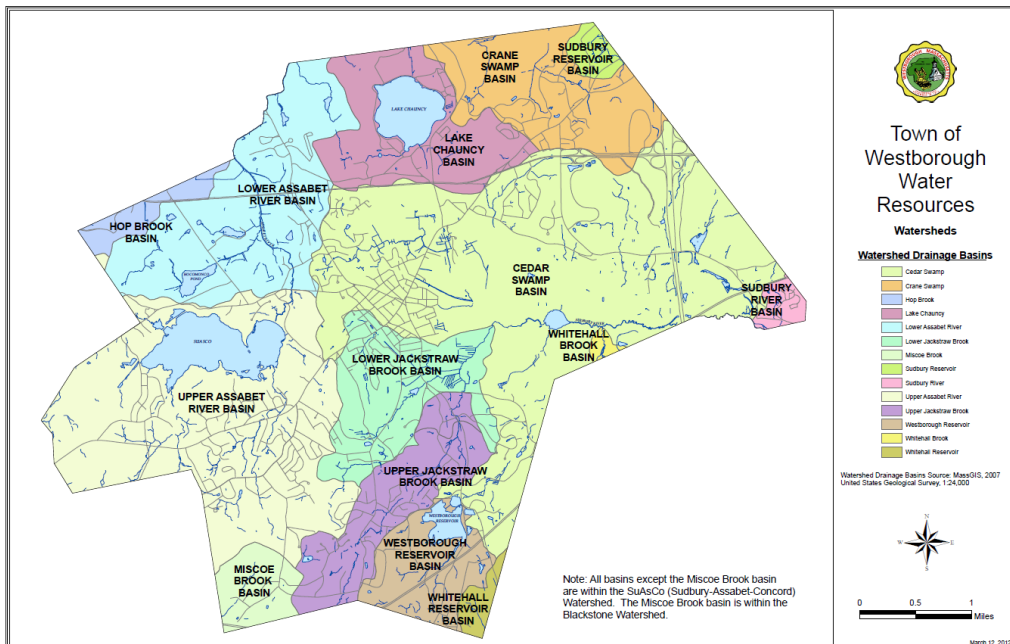
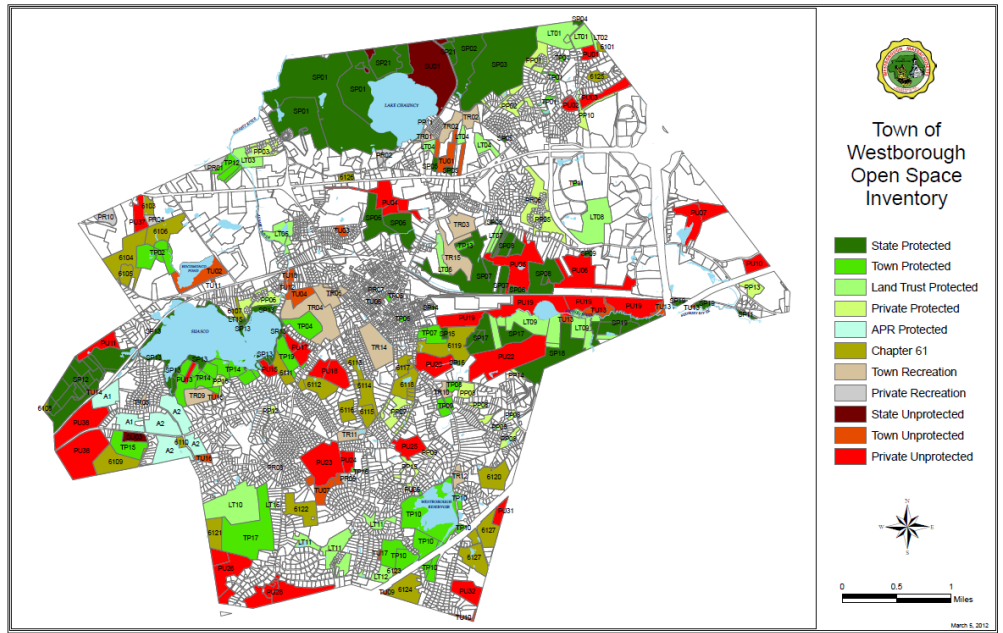
**Astra Zeneca (former Westborough Airport)  
bought 1970's—built early 1980's**



**Data General Late 1970's  
15,000 Employees**



**Speedway Plaza  
Former Westborough Speedway (1947)**



# From National Register Bulletin, National Park Service "Historic Residential Suburbs" September 2002

Figure 4.  
*Suburban Architecture and Landscape Gardening, 1832 to 1960*

1832	Balloon frame construction invented in Chicago.	1832-23	Country Club Plaza, Kansas City, Missouri, first automobile-oriented regional shopping center, developed by J. C. Nichols.
1838	<i>Rural Residences</i> by Alexander Jackson Davis published.	1923	Home Owners Service Institute sponsors "Home Sweet Home," the official demonstration house for the Better Homes in America movement and publishes <i>Books of A Thousand Homes</i> , edited by Henry Atterbury Smith.
1841	<i>Publication of Treatise on Domestic Economy</i> , by Catharine E. Beecher and <i>Treatise on the Theory and Practice of Landscape Gardening</i> by Andrew Jackson Downing.	1926	Publication of Myrl E. Bottomley's <i>The Design of Small Properties</i> .
1842-1850	Cottage Residences and <i>Architecture of Country Houses</i> by Downing published.	1928-1932	Variety of moderately priced small houses built at Radburn; grounds and plantings by Marjorie Sewell Cautley.
1869	<i>The American Woman's Home</i> by Catharine E. Beecher and Harriet Beecher Stowe published.	1929	Architects' Small House Service Bureau, Inc. publishes <i>Small Homes of Architectural Distinction</i> , edited by Robert T. Jones.
1870	<i>Art of Beautifying Suburban Home Grounds</i> by Frank J. Scott published.	1930	Park-and-Shop, Cleveland Park, Washington, D.C., designed by Arthur Heaton for Shannon and Luchs Real Estate.
1876	<i>Model Homes for the People: A Complete Guide to the Proper and Economical Erection of Buildings</i> , the first of a series of mail order plan catalogs by George and Charles Palisser, published.	1931	President's Conference on Home Building and Home Ownership.
1878	<i>Modern Dwellings in Town and Country Adapted to American Wants and Climate</i> by Henry Hudson Holly published.	1932	Museum of Modern Art, New York, mounts exhibition entitled, "The International Style: Architecture Since 1922."
1907-1908	<i>How to Lay Out Suburban Home Grounds</i> by Herbert J. Kellaway and <i>Artistic Bungalows</i> by William Radford published.	1932-36	Chatham Village, at Pittsburgh, developed by the Buhl Foundation and designed by architects Ingham and Boyd and landscape architect Ralph E. Griswold.
1913-14	Sears and Roebuck begins pre-cut, mail order house catalog sales.	1933-34	Century of Progress International Exhibition, Chicago, features "House of Tomorrow."
1916	<i>Suburban Gardens and Planting Around the Bungalow</i> by Grace Tabor published.	1934	Federal Housing Administration establishes programs for insuring mortgages on small homes and large-scale rental housing.
1916	Frank Lloyd Wright's American System Ready-Cut method of prefabrication used in the Richard's Small House and Duplexes, Milwaukee, Wisconsin.	1935	<i>Rehousing Urban America</i> by Henry Wright and <i>Garden Design</i> by Marjorie Sewell Cautley published.
1918	<i>The Small Place: Its Landscape Architecture</i> by Elsa Rehmann published.		Demonstration of prefabrication at Purdue Research Village, Lafayette, Indiana.
1919	Architects' Small House Service Bureau founded in Minneapolis.		Forest Products Laboratory of the U.S. Department of Agriculture introduces house made of "stress-skin" plywood panels.
1921	<i>The Little Garden</i> published, introducing "The Little Garden Series," edited by Mrs. Francis King (Louise Yeomans King).	1936	Bemis Industries publishes three-volume <i>The Evolving House</i> , which outlines principles of prefabrication.
1922	Better Homes movement founded by the Butterick Company and endorsed by Secretary of Commerce Herbert Hoover.		

1936-39	Federal Housing Administration publishes first standards for insurable neighborhoods and introduces the FHA minimum house.	1945 (60 Stat. 215)	extends FHA authority to insure mortgages under Title VI. Elevator structures determined acceptable for FHA rental housing.
1938	Buckingham Community, Arlington, Virginia, developed by Paramount Motors Company using the principles of economies of large-scale construction and standardization of building components.	1947	Legislation to encourage private development of housing for veterans based on prefabrication methods in the form of short-term loans to housing manufacturers.
1940	Federal Home Loan Bank Board, Producers Council, and AIA jointly introduce Federal Home Building Service Plan, encouraging home builders to use the services of registered architects to carry out construction according to architect-designed small house plans.	1947-50	Levitt and Sons builds first houses at Hempstead on Long Island, New York; Philip Klutznick forms American Community Builders to develop Park Forest, Illinois (planner Elbert Peets).
1940	Construction of Crow Island School, Winnetka, Illinois, by architects Eiel and Eero Saarinen and Perkins, Wheeler, and Will.	1948	Prefabricated homes made of porcelain-enamelled steel panels manufactured by the Lustron Corporation (Carl Strandlund, manufacturer).
1940-41	Royal Barry Willis publishes <i>Houses for Good Living and Better Houses for Budgeteers</i> .	1950	Cameron Village Shopping Center, Raleigh, North Carolina, first large retail shopping center, planned by developer Wilke York, and site planner, Seward H. Mott.
1942	Skidmore, Owings and Merrill plans defense-worker community at Oak Ridge, Tennessee.	1950	<i>Landscape for Living</i> by landscape architect Garrett Eckbo, published by <i>Architectural Record</i> .
1945-46	<i>Build Your Post-War Home Now</i> , by George Nelson and Henry Wright; <i>The Small House of Tomorrow</i> by Paul R. Williams; <i>If You Want to Build a House</i> by Elizabeth B. Mock.	1952-54	Northland Shopping Center, Detroit, Michigan, planned by Victor Gruen and Associates.
1946	Sunset Magazine publishes <i>Western Ranch Houses</i> featuring work of Cliff May, Doug Baylis and others.	1953	Southdale Shopping Center, Minneapolis, Minnesota, first enclosed, climate-controlled mall designed by Victor Gruen.
1945-66	Arts & Architecture publishes Case Study House series.	1952-56	U.S. Gypsum Research Village in Barrington Woods, Illinois, showcases contemporary house designs.
1946	Movement to provide veterans' housing gains momentum especially in rental housing; Veterans' Emergency Housing Act of	1953	<i>Before You Buy A House</i> published by New York Architectural League and Southwest Research Institute, promoting modern principles of house design and the collaboration of architects and developers.
		1955-56	Publication of Thomas Church's <i>Gardens Are for People: How to Plan for Outdoor Living</i> ; Garrett Eckbo's <i>Art of Home Landscaping</i> ; and <i>Sunset Magazine's Landscape for Western Living</i> .
		1957	Hollin Hills, Alexandria, Virginia, selected as one of the "Ten Buildings in America's Future" in AIA Centennial Exhibition.
		1957-58	Publication of A. Quincy Jones Jr., and Frederick E. Emmons's <i>Builders' Homes for Better Living</i> and Carl Koch's <i>At Home with Tomorrow</i> .

# From National Register Bulletin, National Park Service “Historic Residential Suburbs” September 2002

Figure 6.

## *Historical Sources for Researching Local Patterns of Suburbanization*

The following historical sources are especially valuable in researching local patterns of suburbanization and the history of residential subdivisions. While many can be found in the collections of local or regional libraries, archives, and historical societies, others may be found among the public records of municipal and county governments. Some source materials are available on microfilm or CD-ROM and may be found in many research libraries.

- **Historic Maps and Atlases:** Historic maps indicating the growth and development of a metropolitan area at various intervals of time are especially valuable to chart the outward migration of residential subdivisions in relationship to advances in transportation technology and expansion of transportation routes. Maps were commonly published by streetcar and transit companies, oil companies, local chambers of commerce, highway departments, as well as local governments for tax and planning purposes.
- **Aerial Photographs:** After World War II, many local governments began making aerial surveys of their rapidly changing landscape; many of these remain among local government records. Beginning in the 1930s, the U.S. Department of Agriculture began making aerial surveys of rural areas of the United States for soil conservation purposes; these provide good coverage of the outlying areas of metropolitan cities that were later subject to residential development and are available on microfilm from the Cartographic Division of the National Archives. As part of the Global Land Information System (G.L.I.S.), the U.S.G.S. now makes available electronically the aerial photographs (called “digital orthophoto quadrangles,” or “DOQs”) taken to update digital line graphs and topographic maps.
- **Fire Insurance Maps:** Insurance maps, such as those compiled by the Sanborn Fire Insurance Company, are available in many local libraries and at the Library of Congress. Due to a major recording effort now underway, many Sanborn maps will soon be available on CD-ROM at major research libraries.
- **Local or County Ordinances:** These indicate the dates and provisions for local planning controls, such as zoning, subdivision regulations, comprehensive planning processes, local design review, and citizens’ associations.
- **City, County and Regional Plans:** On file with local planning offices and available in local libraries and archives, these plans provide information about transportation routes, publicly funded improvements (e.g. utilities, water, sewer, mass transit), and overall plan of development that include distribution and density of land use activities, including residential development.
- **Subdivision Plats:** Local land records for a county, city or town, often organized chronologically in plat-books. While some older records of this type may be found in public libraries or historical collections, many remain among the public records of local courthouse or local planning offices. Also, copies may be found among the records of the architectural, planning, or development firms responsible for the design.
- **Building Permits/Tax Records:** These records frequently provide the names of site planners, architects, and developers and often indicate the dates and cost of original construction and additions. In many communities, tax assessment information is contained in a computerized database and is available on CD-ROM.
- **Deeds of Title, Mechanic Liens, and Real Estate Records:** Public court records indicate a property’s chain of ownership and the terms of any deed restrictions. These are generally organized by date of recording and indexed by the names of sellers and purchasers. They may also indicate dates of construction and additions, original cost, source of mortgage, and identity of the subdivider or developer. Mechanics liens—temporary encumbrances on the title of property to ensure payment to the building contractor—may also identify the building contractors and indicate the cost of construction.
- **Building Contracts:** Found in private and public historical collections, the records of architectural firms, and, when a legal dispute arises, in court records. In States where the public recording of building contracts was required by statute, they may be found in courthouse records. In the form of a legal agreement between owner and contractor, they describe the property to be constructed, often specifying materials, workmanship, design, and other specifications. Purchase orders and bills of lading for building materials may also be found with these records.
- **Historic Photographs:** Photographs documenting the design, construction and daily life of residential suburbs exist in many local historic collections. These include family or community records; promotional or documentary materials used by realtors, developers and designers; and illustrations in historic newspapers, journals, magazines, and published portfolios. Although local historical collections may be the best place to locate historic photographs, specialized repositories may contain the work of local or regional architects, landscape architects, and photographic studios.

Figure 6, continued

- **Site Plans, Architectural Drawings, Construction Plans, and Planting Plans:** Available from the office of developer or architect, the archival repository for records of the architect, builder, or developer. Clearinghouse services, such as the Cooperative Preservation of Architectural Records (COPAR) and the Catalog of Landscape Records in the United States, provide researchers assistance in identifying repositories for the records of architectural firms and landscape designers. In addition, home owners may be in possession of promotional brochures, floor-plans, and landscape plans for their yards. Promotional brochures and advertisements may also be found in community archives and local historical societies.
- **Historic Newspapers:** Advertisements in the real estate sections of local newspapers provide information about housing design, subdivisions, housing costs, prospective home owners, and availability of house financing. They are also a source of information about local events affecting suburbanization, such as industrial development, demographic trends, and expansion of transportation routes. Advertisements for merchants, suppliers, and contractors provide information about building materials and practices. Obituaries provide biographical information about architects, landscape architects, and real estate developers. Many local libraries maintain copies of local newspapers on microfilm. Many news publishers now offer archival indexing and assistance through the Internet; while these services are useful for locating recent obituaries or retrospective articles, few extend back far enough to locate original advertisements or features.
- **U.S. Census Records:** Census records provide demographic information about a subdivision or neighborhood, including the size of families, whether they own or rent their house, and the country of origin, education, occupation, and age of family members. The Census Bureau also gathers statistics on economics, housing, and population growth. Many census records are indexed and are available on microfilm from the National Archives (Record Group 29). Enumerative maps used by census takers are among the records of the Cartographic Division of the National Archives.
- **Oral History:** Interviews with original and early homeowners are a valuable source of oral history and may be recorded in audio-tape, videotape, or written transcripts. Such individuals may also own historic materials, such as promotional brochures, architectural drawings, landscape plans, nursery receipts, photographs, diaries and personal memoirs. Interviews with builders, contractors, developers, architects, landscape architects, planners, and former public officials may provide interesting insights into historic patterns of suburbanization.
- **Records of Neighborhood Associations:** Community newsletters, organizational minutes, correspondence, promotional brochures, anniversary publications, news clippings, early advertisements, neighborhood directories, historic photographs, and other information related to the history of a neighborhood. Records may be maintained by the organizations or may be on file in local library or historical collections.
- **City, Neighborhood, and Telephone Directories:** Available in local or regional libraries, historical societies, and community collections, these directories give the name and addresses of residents and their affiliated businesses as well as identify active merchants, suppliers of construction materials, designers, and contractors. Historic city directories for major cities are also available on microfilm in many libraries.
- **Records of Local Chapters:** Local chapters of professional and trade organizations should be contacted for information about historic events and the role of former members in the form of historic correspondence, official minutes, and newsletters. These include chapters of the AIA, ASLA, NCCP, NAHB, NAREB, as well as regionally based associations.
- **WPA Real Property Surveys.** During the 1930s many local governments, using Works Projects Administration (WPA) funds, compiled large-scale, city block maps that recorded information about real estate development and land use. The FHA used these maps to graphically illustrate statistical data on housing in metropolitan areas. Many of these maps are among the Records of the FHA (Record Group 31) in the Cartographic Division of the National Archives. Others may be on file in local libraries or archives.
- **Housing Market Analysis Maps:** Compiled by the FHA beginning in 1937, these maps indicated areas surrounding selected cities where it was considered safe to underwrite mortgages and were supplemented by data concerning commuting times, the location and condition of main highways, and the location of defense areas. These maps are among the Records of the FHA (Record Group 31) in the Cartographic Division of the National Archives.
- **Pattern Books, Mail Order Catalogs, and Landscape Guidebooks:** Sources of popular house and yard designs by architects, landscape architects, and mail-order companies such as Sears, Roebuck, Aladdin, and Van Tine. Many are available in libraries in the form of published reprints, microfilm, or CD-ROM, such as the microfiche edition of the Architectural

For additional information about archival sources, readers should also refer to the National Register bulletins, *Guidelines for Local Surveys: A Basis for Preservation Planning* (rev. 1985) and *Researching a Historic Property* (rev. 1998).