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Historical Maps
of
Sudbury, Massachusetts

Second Edition

YON - Jan C. Hardenbergh - jch.com/sudbury

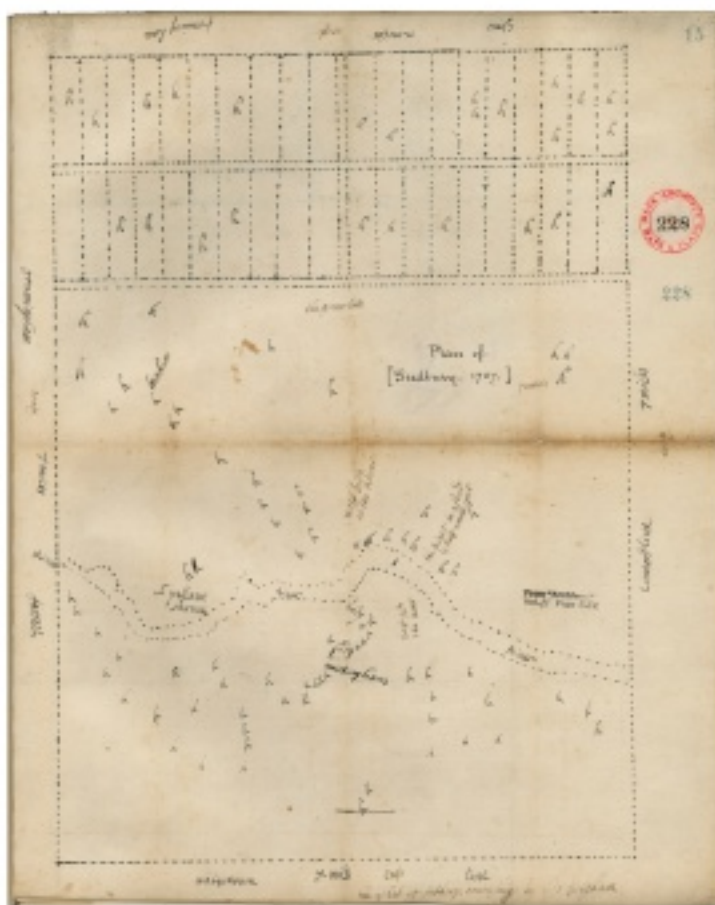
With contributions by Michael Buehler, (p. 9 & 11)

And many excerpts from Hudson's (p. 10)

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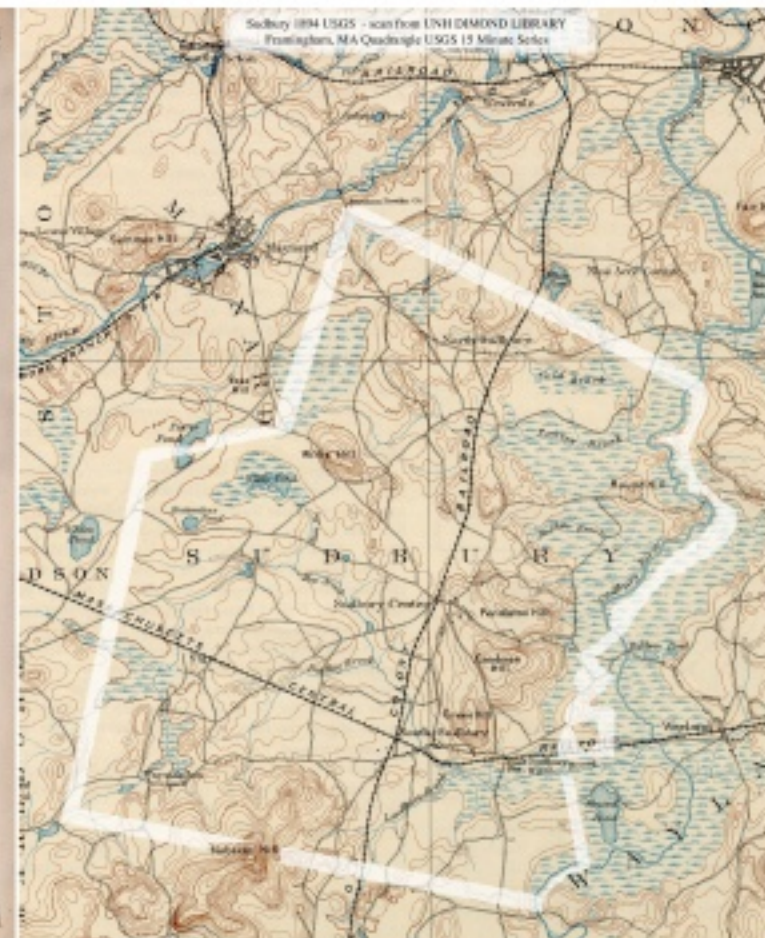
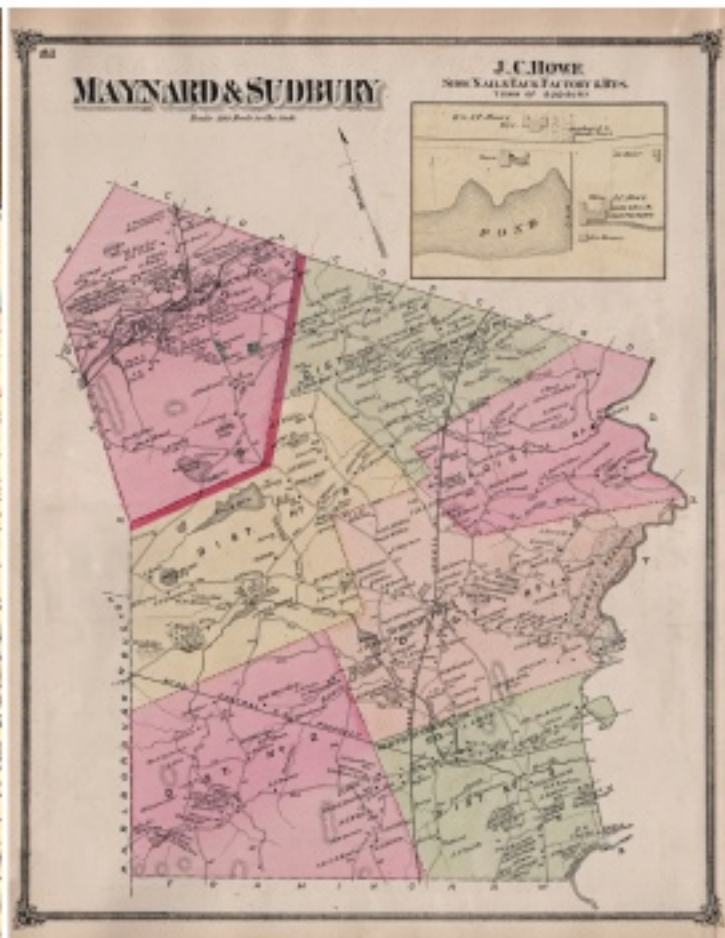
PDF only 2015.11.02 - the day after talk at Sudbury Historical Society, Inc.

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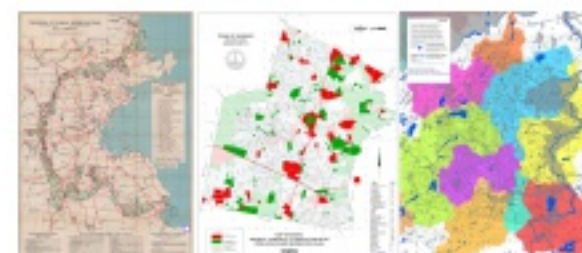
Historical Maps of Sudbury, Massachusetts

Jan C. Hardenbergh



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Historical Maps of Sudbury, Massachusetts, Second Edition

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With contributions by Michael Buehler, (p. 9 & 11)

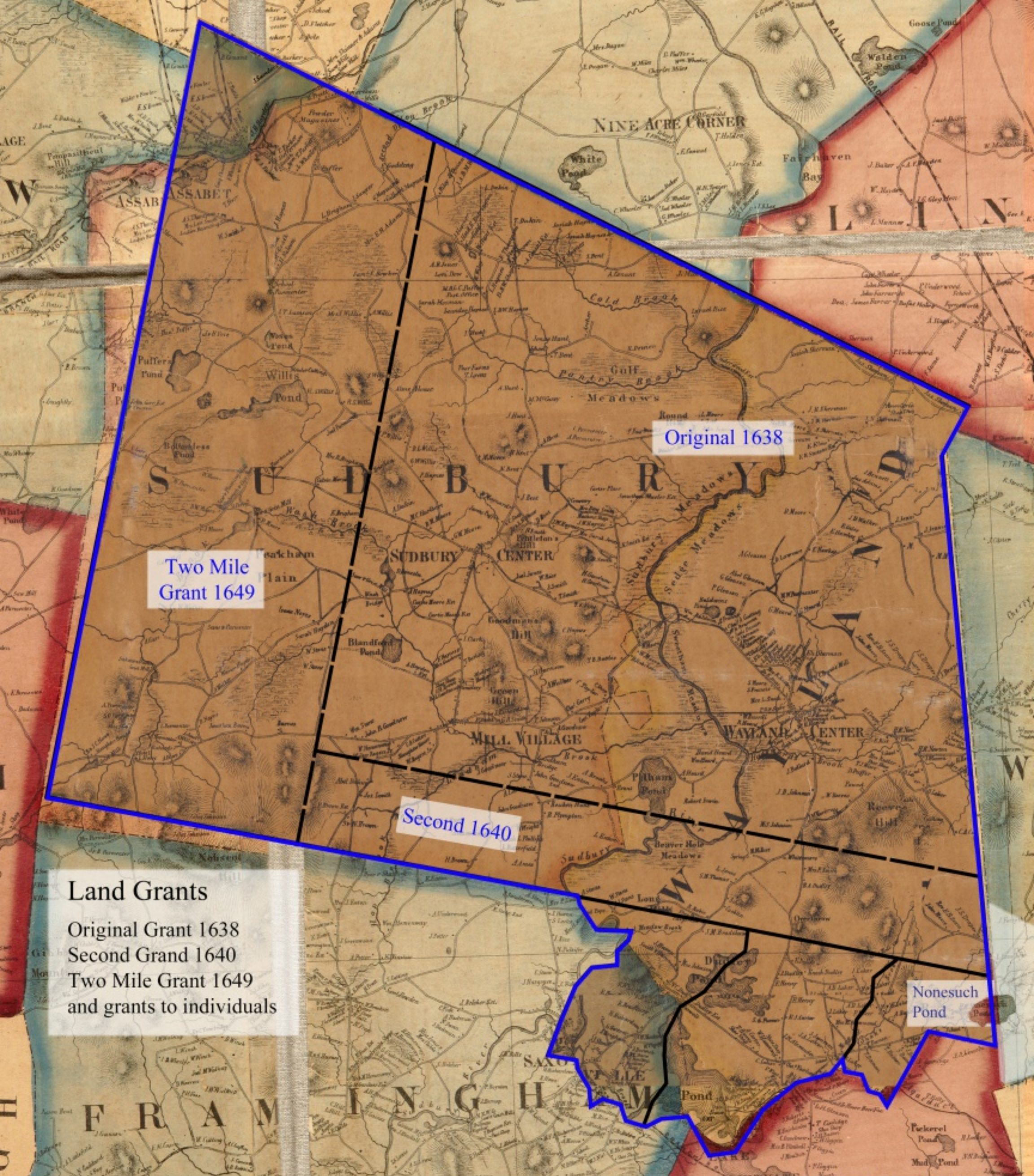
And many excerpts from Hudson's (p. 10)

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PDF only 2015.11.02 days after tlak at Sudbury Historical Society

The blue line on page 3 represents Sudbury's outer boundary. The black lines show the three major grants that formed the town and three other grants to individuals. The lines are from *A Brief History of the Towne of Sudbury in Massachusetts 1639 - 1939*. The description of the grants are in Chapter IV of Hudson, Alfred S. *History of Sudbury*. Full credits are on page 10.

The white area in the lower right shows the location of the Nonesuch Pond map on page 33.



Land Grants

Original Grant 1638

Second Grant 1640

Two Mile Grant 1649

and grants to individuals

The story of this book.

I have always loved maps.

My father, Collis Morgan Hardenbergh, had a globe next to him at his desk. Not far away were a few atlases. He had more full size dictionaries than atlases, but, that is another story. I remember his joy in 1967 when the new Times Atlas of the World, Comprehensive edition was published. My siblings gave the same atlas to Gail and me for a wedding present.

I found the 1894 USGS map containing Sudbury many years ago, but, my interest for the historical maps of Sudbury began in 2008 when I found a copy of the Beers map, (page 13), at Bearly Read Books and scanned it. I started my Historical Maps of Sudbury web page: .

Later that year I also found the 1930 maps of the Bay Circuit Trail at Bearly Read Books and scanned and restored that. I put that in the Sudbury Valley Trustees gala auction. And so I continued to find and scan maps, until I found the 1856 Walling map. The full story of that odyssey is on page 36. That turned my interest into a passion.

I feel in touch with the period of history documented by the map. Each era has many stories. Also, it is fun to see the old family names on the maps, even if none of my ancestors lived in Sudbury, at least none that I know about.

Portrait of the artist
as a middle aged man.



Thanks to:

Lee Swanson, for hints about the different maps
and where they might be found and many, many stories.
Bob Maier, for sharing his extensive collection of Sudbury maps, and his
passion for them and also for loaning me two maps to scan.
Margaret Fedrickson, for insightful opinions and questions.
Chuck Zimmer, collaboration on the Walling map and pixel wrangling.
Chalmers Hardenbergh, for proofreading.
Bearly Read Books, for having maps for me to find.
Esme Greene and the Goodnow Library, for helping me scan three maps.
Rosemary Harvell and the Town Clerk's Office for helping with 3 more.
Jennifer Fauxsmith, Massachusetts Archives
Ernie Beer, for Roxbury to spies and feedback on jch.com/sudbury
Gail, for proofreading twice and especially, constant support!

Page 5

Title: Plat of Sudbury Township, 1707

Author: Jo Brigham

Reproduction courtesy: The Massachusetts Archive

Assume the mapmaker was John Brigham, one of 30 signatories of the first petition of the effort that eventually established the West Precinct of First Parish. Each *h* marks a house. From Hudson's history, page 284.

Petition of the West Side people of Sudbury to Governor Dudley and the General Assembly.

The petition of us who are the subscribers living on ye west side of Sudbury great River Humbly showeth that whereas ye All wise and over Ruling providence of ye great God, Lord of Heaven and Earth who is God blessed forever moore, hath cast our lott to fall on that side of the River by Reason of the flud of watere, which for a very great part of the yeare doth very much incomode us and often by extremity of water and terrible and violent winds, and a great part of the winter by ice, as it is at this present, so that wee are shut up and cannot come forth, and many times when wee doe attempt to git over our flud, we are forced for to seek our spiritual good with the peril of our Lives.

Beside the extreme Travill that many of us are Exposed unto sum 3:4:5:6 miles much more than a Sabbath days Journey, by Reason of these and many more objections, to many here to enumerate, whereby many of our children and little ones, ancient and weak persons, can very Rarly attend the public worship. The considered premises we truly pray your Excellency and ye Honorable Council and House of Representatives to consider and compassionate us in our Extreme suffering condition, and if we may obtain so much favor in your Eyes as to grant us [our presents] as to appoint us a Commity to see and consider our circumstances and make report thereof to this honorable Court. And your pore petitioners shall ever pray.

Sudbury, January 15th 1706/7

John Goodnow, John Haynes. Jr., John Brigham, and many more

We continue with a summary from *History of Middlesex County, Massachusetts, Volume 2*, 1890

After repeated discussion of the subject and years had elapsed permission was given to the west side people to erect a meeting house and maintain a minister. . . to present a petition to the General Court that y west side inhabitants may have liberty to place their meeting house on y rocky plains which request was granted. The preliminary work of forming two parochial precincts was now completed it only remained to adjust eccliastical relations to the new order things and provide whatever was essential to its success. . . On the 6th of June 1722 they extended a call to Rev Israel Loring and offered 100 for his settlement.

One of the consequences of the west side meetinghouse being erected on land set aside for a parochial precinct, is that First Parish owns the town common. All of the many, many details can be found in the opinion, *The Inhabitants of the First Parish in Sudbury v. Samuel A. Jones & others*. October Term, 1851. *Reports of Cases Argued and Determined in the Supreme Judicial Court of the Commonwealth of Massachusetts: 1851.*

Stony Brook

from square

map



228

Plan of
[Sudbury. 1707.]

7 miles

North

Concord line

From "Archives,"
Vol. II Page 220.

Stony Brook

South

7 miles

King

Farrell

the gran lots

west side
of the river

the river is half
an mile long

east side
the river

working house

at yellow
farm

North



Page 6

Title: An accurate map of the Commonwealth of Massachusetts exclusive of the District of Maine, compiled pursuant to an act of the General Court from actual surveys of the several towns &c. taken by their order, exhibiting the boundary lines of the Commonwealth,

Author: Carleton, Osgood
 Publisher: Carleton, Osgood & John Norman
 Date: 1798. Rejected by General Court.

Map reproduction courtesy of the Norman B. Leventhal Map Center at the Boston Public Library.

The map was produced in 1798, but it failed to win approval by the General Court, which criticized Norman's engraving. The government asked Norman to redraw the map, but he had already printed 400 copies and went about marketing it without the official seal of approval from the Massachusetts government. Carleton, however, began to recompile the map, and the firm of Callendar and Hill was contracted to engrave it. Published in 1802

Page 7

Title: Map of Sudbury, 1795
 Author: Mathias Mosmon
 Reproduction courtesy: Sudbury Historical Society, Inc.

This map was created in response to the Resolve of 1794, which required the towns "to make, or cause to be made... accurate plans of their respective towns or districts..." It was incorporated into Calton Osgood's map of the Commonwealth, which is on this same page.

Learn about Matthias Mossman on page 8.

Rods and Chains

The Mosman 1795 map and the Walling 1856 map, on page 9, both use rods as the unit of measurement. The Nonesuch Pond map, on page 33, uses chains. Here is the definition of each from the American Heritage Dictionary:

Chain: 100 linked pieces of iron measuring 66 feet, and 80 make a mile.
 Rod: A linear measure of 16.5 feet, to make 320 rods to the mile.

Plan of the Town of SUDBURY - 1794 Commonwealth of Massachusetts

Dated April 17th, 1795 Surveyed by Matthias Mosman ... in obedience to an order of the General Court June 26th, 1794

Subury contains Including Roads and Water 18030 Acres

... in Sudbury is but one house for Public Worship ... in Sudbury is but 3 ponds of any Considerable Magnitude ...

... here is no falls of Water worthy of note ... in Sudbury is not a Hill whose Summit is lofty ...

... in the Southwardly part of Town is part of a hill Called Penobscott ...

... No Manufactories are Erected in Sudbury.

... in Sudbury are three grist Mills, two Sawmill & one fulling Mill
on a Stream known by Several Different Names ...

... in the Northwardly part of Sudbury a Mine has been Discovered
supposed to be a Copper Mine ...

... here is no Iron works or furnaces



The above map and text are from a digital image
Courtesy of the Massachusetts Archives

Published 2012 by The Sudbury Historical Society, Inc.
Sudbury, MA 01776 USA www.sudbury01776.org

Matthias Mossman

Matthias Mossman was the author of the 1795 map of Sudbury on page 7. Here is a very short biographical sketherr from *History of Ashburnham, Massachusetts*, by Ezra Scollay Stearns

Matthias Mossman, b in Sudbury March 17 1749, was a son of James and Elizabeth Baleom Mossman and a grandson of Timothy Sen and Sarah Hicks Mossman. He and Sarah Haynes and removed from Sudbury to Ashburnham in 1793. In 1795 and a few succeeding years he was chosen an assessor and the repeated mention of his name in the records supports the voice of tradition that he was an educated capable man and that his services were held in high esteem. He was a farmer and a surveyor and many maps plans and outlines of highways neatly executed by him are in the possession of John M Pratt. He d Nov 8 1819 his wife d in Westminster Sept 29 1808 Of their eleven children the eldest was b in Marlboro eight in Sudbury and two in Ashburnham.

Matthias Mossman appears in Hudson's history at least three times: on page 385, the Muster roll for the Battle of Bunker Hill shows Mathias Mossman as a Second Lieutenant in Captain Haynes's company in Colonel Brewer's regiment and on page 398, under the heading: Pay Roll for June 27, 1778, as, Mathias Mosman.

On page 424, the Mossman's description of the town:

The above Plan of the Town of Sudbury in the County of Middlesex, Common Wealth of Massachusetts was taken by the Direction of a Committee Chosen by the Inhabitants of Sd Sudbury in obedience to an order of the General Court dated June 26th 1794. on the above plan Air inserted and described Each Town line that meets or joins with Sudbury. the Rivers are also accurately surveyed and planned, the breadth of which are as followeth. the River Elsabeth is from 4 to 5 rods wide, but [there is] no public bridge over the river where it joins Sudbury, the other river called Sudbury or Concord River is from 7 to 8 or 9 rods wide, and [there is] one bridge over sd river where it joins Sudbury called Sharman's Bridge, 100 feet long, one-half belonging to Sudbury, and 25 rod of Causeway. Sudbury also [is to] build and keep in repair the Canal Bridge in East Sudbury Long causeway and 52 rods of sd causeway, the County roads are also surveyed and planned, in Sudbury is but one house for public worship which is noted, the center of the town is about one mile northwestwardly from the meetinghouse, the distance from Sd Sudbury to Cambridge the shire-town of the county is 17 miles, and from sd Sudbury to Boston the Metropolis of the Commonwealth of Massachusetts through Watertown and Roxbury is 22 miles, and through & over West Boston Bridge is 20 miles, in Sudbury is but 3 ponds of any considerable magnitude which has been Surveyed and planned as above, here is no falls of Water worthy of note, in Sd Sudbury is not a hill whose summit is lofty, in the Southwardly part of sd town is part of a hill called Penobscott which will be described in the plan of Framingham. No manufactories are erected in Sudbury, in sd [town] are three grist mills, two saw mills, and one fulling mill as above described, on a Stream known by several different names as above, the width of which where it leaves Marlborough and enters Sudbury is not much more than a yard wide and where it enters East Sudbury is about 5 yards wide, in the Northwardly part of sd Sudbury a mine has been discovered and worked upon, the depth of the hole is about --- feet in a Ledge of rocks supposed to be a copper mine but has not been worked in since the beginning of the Revolution, here is not Iron Works or furnaces, said plan is laid down by a scale of 200 rods to an inch Surveyed by Mathias Mosmon .

Dated at Sudbury April 17, 1795.

Page 9

Title: Map of Sudbury, 1830

Author: Wm. H. Wood

Reproduction courtesy: The Sudbury Historical Society, Inc.

From:

Henry F. Walling and the Mapping of New England's Towns

By Michael Buehler

In 1830 the legislature mandated that every town conduct a survey and submit a map to the Secretary of State. These were to be quite large scale (1 inch to 100 rods, or 1:19,800); indicate the length and bearing of town boundaries; delineate roads and waterways; and show the locations of meeting houses, schools, mills, mines etc. Hundreds of maps were duly produced and submitted, and some years later they were compiled by Simeon Borden into the Topographical Map of Massachusetts of 1844. (see page 38 for more on this process)

These surveys were conducted by the centuries-old metes-and-bounds method. Using a compass for taking bearings and a rod (16.5 feet) or chain (66 feet) for measuring distances, a surveying team would work its way in a continuous path along the boundary to be measured, recording bearings and distances between objects designated as boundary markers. This arrangement required a minimum of three men: one to handle the compass and two to manage the distance measurements.

So long as no one moved the markers, metes-and-bounds surveys worked well enough for surveying the bounds of small properties. Over larger distances such as the territory of a New England town, however, they tended to produce flawed results, due to the limitations of the instruments, the methods, and the surveyors themselves. So inaccurate were some of the Massachusetts town surveys of the 1830s that in 1844 Borden wrote to Walling "in one instance I placed the maps of two towns upon the space required to be filled by them, and found room enough left to place the map of Boston between them."

William H. Wood

The 1830 maps of Sudbury, Marlborough, Palmer and West Roxbury are attributed to Wm or William H. Wood.

I assume he was the Colonel William H. Wood of Marlborough listed in the Massachusetts Register for 1834. He served as a selectman in 1849 and 1850. He is thanked in the preface of Charles Hudson's history of Marlborough. In 1862, he was appointed to the "committee of ten for the aid and encouragement of the individuals or for the support of the families of the individuals composing the volunteer militia companies now raised or hereafter to be raised in this town to meet the calls of the Government." In 1864, a Special Statute of the Commonwealth discharging him from his duties as a justice of the peace within and for the county of Middlesex. After he was discharged from being a judge, he went to war. His tombstone in the Hudson Cemetery:

- Col. William H Wood, died Aug 4 1864, aged 62 yrs
- Caroline, his wife, died May 24 1879, aged 77 yrs

William H. Wood is a relatively common name and I have not found any evidence that the Colonel and the map maker were the same person, but, I make that assumption because a civic minded judge and colonel in the vicinity might be a mapmaker.

History Books on the Town of Sudbury

Hudson, Alfred S. *History of Sudbury, Massachusetts 1638 – 1889*. Town of Sudbury, 1889.

Federal Writers Project of the Works Progress Administration in Massachusetts. *A Brief History of the Towne of Sudbury in Massachusetts 1639 – 1939*. Revised 1986. Reprinted by The Sudbury Historical Society, Inc. 1987.

Garfield, Curtis F. *Sudbury, 1890 – 1989: 100 Years in the Life of a Town*. Porcupine Enterprises, 1999.

Scott, Laura. *Sudbury: A Pictorial History*. Donning Co., 1989.

Hudson, Alfred S. *Annals of Sudbury, Wayland and Maynard, Middlesex County, Massachusetts*. Town of Sudbury, 1891.

Old Sudbury. Pinkham Press, 1929.

Powell, Sumner Chilton. *Puritan Village: The Formation of a New England Town*. : Wesleyan University Press, 1963.

Muril C. Plonko, Historic Property Survey, Town of Sudbury, Massachusetts, 01776, Sudbury Historic Districts Commission 1996, with funding by The Sudbury Foundation and The Town of Sudbury.

John C. Powers, *We Shall Not Tamely Give It Up.*, Privately Printed, 1988

I have liberally used text from Hudson's history. In some cases, Hudson is quoting other documents with archaic spellings. I have left the archaic text as is. In addition, there are many paragraphs from other historical sources, as noted above said paragraphs. These excerpts are in gray.

Sudbury Historical Society, Inc. Historical Map Series

The Sudbury Historical Society offers the following maps printed in this book as fine art prints: 1794 Mosman, page 7, 1830 Wood, page 9, 1856 Walling, page 11, and 1875 Beers, page 13.



and the 1967 Town of Sudbury Engineering map. Find out more information at sudbury01776.org

Page 11

Title: Town of Sudbury in 1856 from the Map of Middlesex County

Author: Henry F. Walling

Purchased, Scanned and Restored 2011

Working with Chuck Zimmer, we created a version for the historical map series of the Sudbury Historical Society, Inc.

The full story of the restoration of this map is on page 40.

From:

Henry F. Walling and the Mapping of New England's Towns,
By Michael Buehler, BostonRareMaps.com

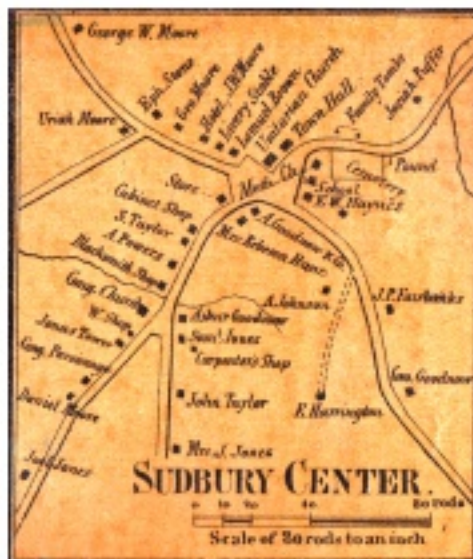
Henry Walling (1825–1888) was arguably the most accomplished and interesting American mapmaker of the mid-late 19th century. His output was astonishing for its scope and quality, setting new and higher standards for others to emulate. Equally striking was the sheer volume of his output: During a 40-year career he was responsible for at least 117 large-scale maps of American towns and counties, nearly 20 state maps and atlases, substantial contributions to the work of the U.S. Coast and Geodetic Survey and the U.S. Geological Survey, and important academic publications.

Walling's early town maps set a new cartographic standard for the depiction of New England towns. For Walling himself, this early body of work was a catalyst for a lifetime of achievement and innovation. His synthetic approach served him well in the next phase of his career, during which he produced the dozens of large-scale "land-ownership" maps of counties in New England and elsewhere. It also earned him the commission to revise Simeon Borden's groundbreaking map of Massachusetts, which in turn led to work on several other major state maps in the late 1850s and early 1860s.

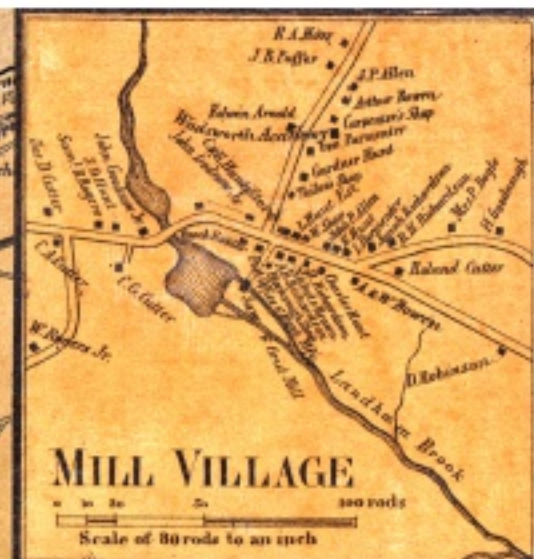
These experiences helped him develop a powerful understanding of both the science of mapmaking and its financial and organizational aspects, and they brought him into contact with leaders of America's scientific mapmaking community. From there he went on to play a key role in important transitions in American mapmaking: the rise to market dominance of large-scale "land-ownership" maps and atlases; the application of the methods and tools of "geodetic" and "trigonometric" surveying to the mapping of states, counties and even towns; the emergence of topographical mapping; and the growing importance of collaboration between the private sector and federal and state agencies in the mapping of the United States.

Even in 1854, when Walling was just 29, Simeon Borden and other leading civil engineers felt confident enough in his skills and integrity to recommend him for the position of Superintendent of the Massachusetts State Map. Later his work brought him into the embrace of the scientific community, and he became an acknowledged leader in applying advanced methods and tools to the mapping of the United States.

Whether Walling realized it or not, his synthetic approach to mapmaking was an elegant resolution of many competing considerations. Use of the best existing material would have reduced time in the field and kept costs down, while the cost-effective odometer road surveys provided an important corrective for earlier inaccuracies and ensured that the maps were current and comprehensive. Finally, the addition of decorative elements would have rendered the maps more attractive, and the inclusion of land owners would have appealed to the vanity of prospective buyers.



The Town of
Sudbury in
from the Map of
MIDDLESEX COUNTY
1858
ESTABLISHED BY
SMITH & BUNSTED
Henry F. Walling
ESTABLISHED BY
Jas. C. Hardenbergh



Page 13
Title: Beers: County Atlas of Middlesex Mass, 1875
Author: F.W. Beers & Co
Purchased at Bearly Read Books, Purchased and Scanned 2009

On the following pages:

Page 14
Title: Atlas of Middlesex County, 1908
Author: Geo. H. Walker & Co
Purchased and Scanned 2013

Page 15
Title: The Atlas of Middlesex County, 1889
Author: George H. Walker
Purchased and Scanned 2013

George H. Walker

George H Walker, of Boston, Mass, son of Ralph S. and Jane (Long) Walker, was born at Springfield, Jan. 24, 1852.

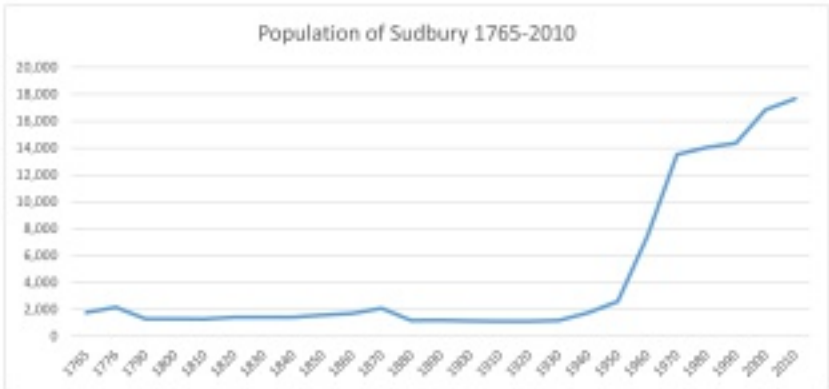
He began his business life in a dry goods establishment in Brooklyn, N.Y, but in the fall of 1873 he became interested in the publishing business, contracted with a New York firm and was engaged with them in various works until 1878, when he went into business for himself in Boston. The firm of George H. Walker & Co. was established at 61 Hanover street, for the publication of real estate atlases. In 1880 he extended his business by establishing a lithographic branch at 81 Milk Street, but soon outgrowing their quarters, they removed to 160 Tremont street, where they have since remained, adding new floors and presses, until 1888, when the building was enlarged for their benefit. The establishment is one of the finest of its sort in New England, employing only the best artists. In addition to their other works the State Atlas of Massachusetts is pronounced as fine a work of its class as was ever published.

In 1891 Mr. Walker established, with headquarters in Boston, opposite Trinity Church, the Walker-Gordon Milk Laboratory for the scientific feeding of infants, which proved a remarkable success and many thousand infants were fed. The milk was supplied only upon physicians' prescriptions. A similar laboratories were established in New York and other large cities.

Mr. Walker was married in 1885, to Irene L., daughter of Robert E. and Irene (White) Loud, of Weymouth, Mass.

From: *Men of Vermont*, via Katie Devine of Boston Public Library

Sudbury Population



1765	1,773	1850	1,578	1930	1,182
1776	2,160	1860	1,691	1940	1,754
1790	1,290	1870	2,091	1950	2,596
1800	1,303	1880	1,178	1960	7,446
1810	1,287	1890	1,197	1970	13,506
1820	1,417	1900	1,150	1980	14,027
1830	1,423	1910	1,120	1990	14,358
1840	1,422	1920	1,121	2000	16,841
				2010	17,659

Source: 1765, 1776 - Mass Vitals Records Project,
1790-1840 - Massachusetts Map of 1844 by Simeon Borden,
1850-2010 - U.S. Census via Wikipedia,

There is remarkable stability in the population of Sudbury from 1820 to 1840 and from 1880 to 1930. The population doubled from 1940 to 1950 and tripled from 1950 to 1960 and then almost doubled again in 1970.

The drop from 2,160 in 1776 to 1290 in 1790 is explained by the split of East Sudbury in 1780. The drop from 2,091 in 1870 to 1,178 in 1880 is explained by the split of Maynard in 1871.

Frederick W. Beers

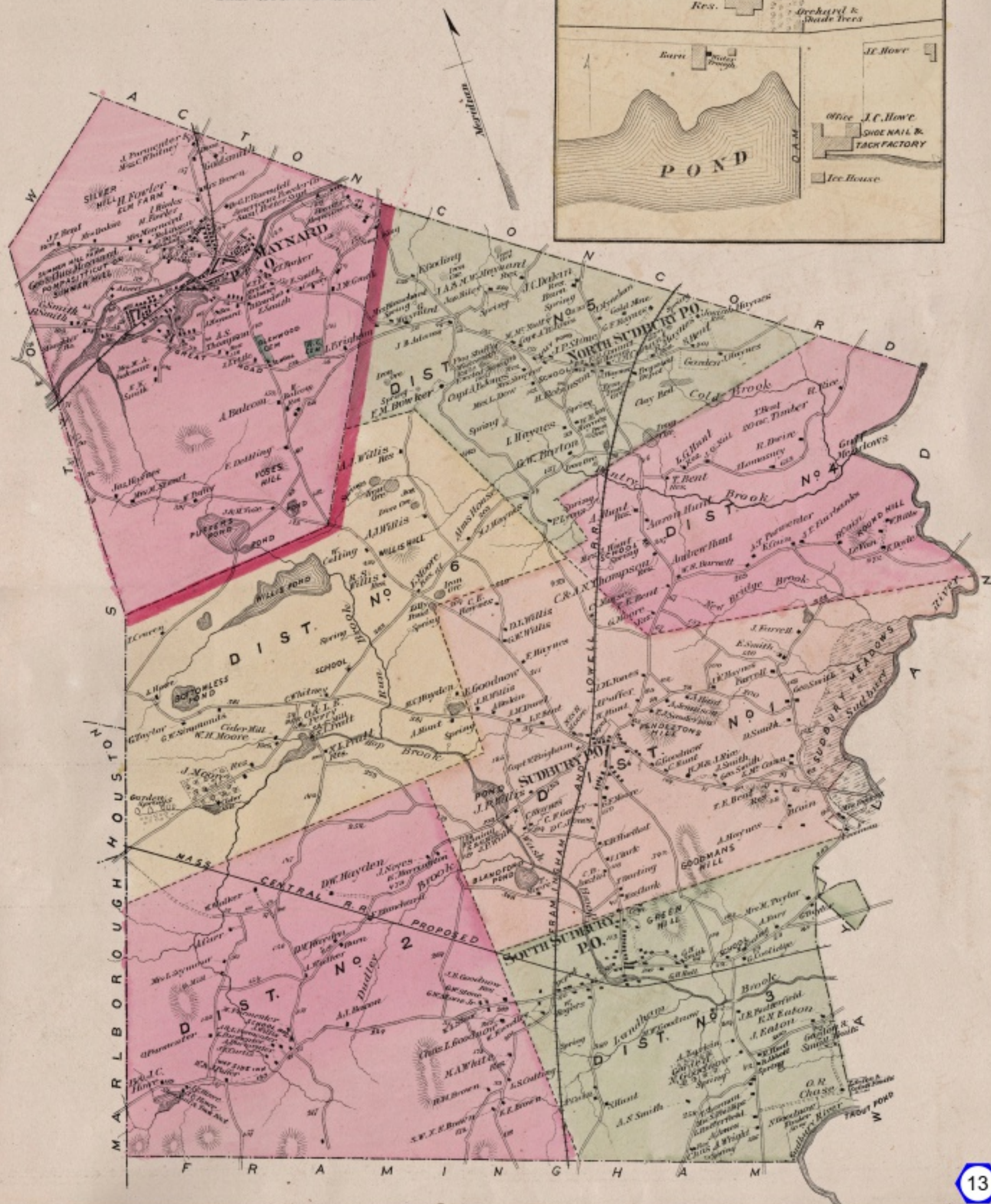
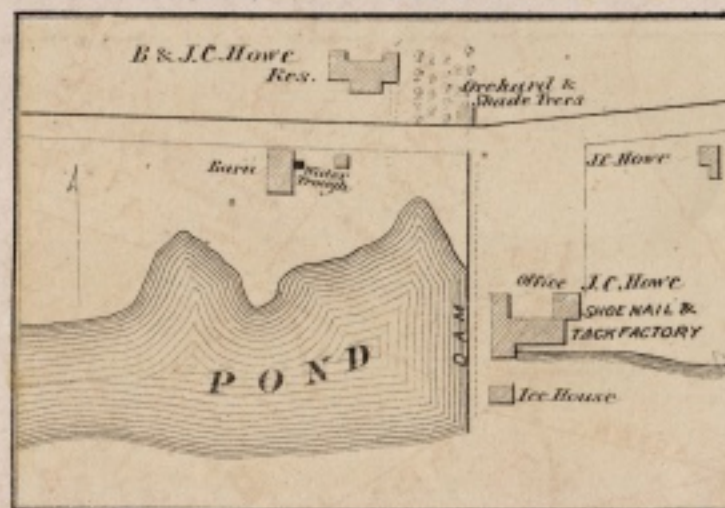
Frederick W. Beers was a prominent atlas and map publisher from the Beers family of cartographers. In 1867, then located at 95 Maiden Lane in Manhattan, Beers published his Atlas of New York and Vicinity, collaborating with A.D. Ellis and G.G. Soule. In 1870, Frederick joined his cousin, James Botsford Beers (b. 1811), in founding J.B. Beers & Company, in New York. As this suggests, the Beers family members sometimes worked individually, and other times in collaboration with each other and/or with other surveyors and publishers. Between 1865 and 1900, the Beers family and collaborators produced atlases of more than 80 counties in 10 states, including Vermont, Maine, Massachusetts, Pennsylvania, Ohio, New York and Michigan, as well as city atlases, separately issued maps, and county histories. F.W. Beers lived in Brooklyn, where he was also employed as head of the map division in the Brooklyn Office of Public Records for 35 years. His long career continued until his retirement at the age of 90.

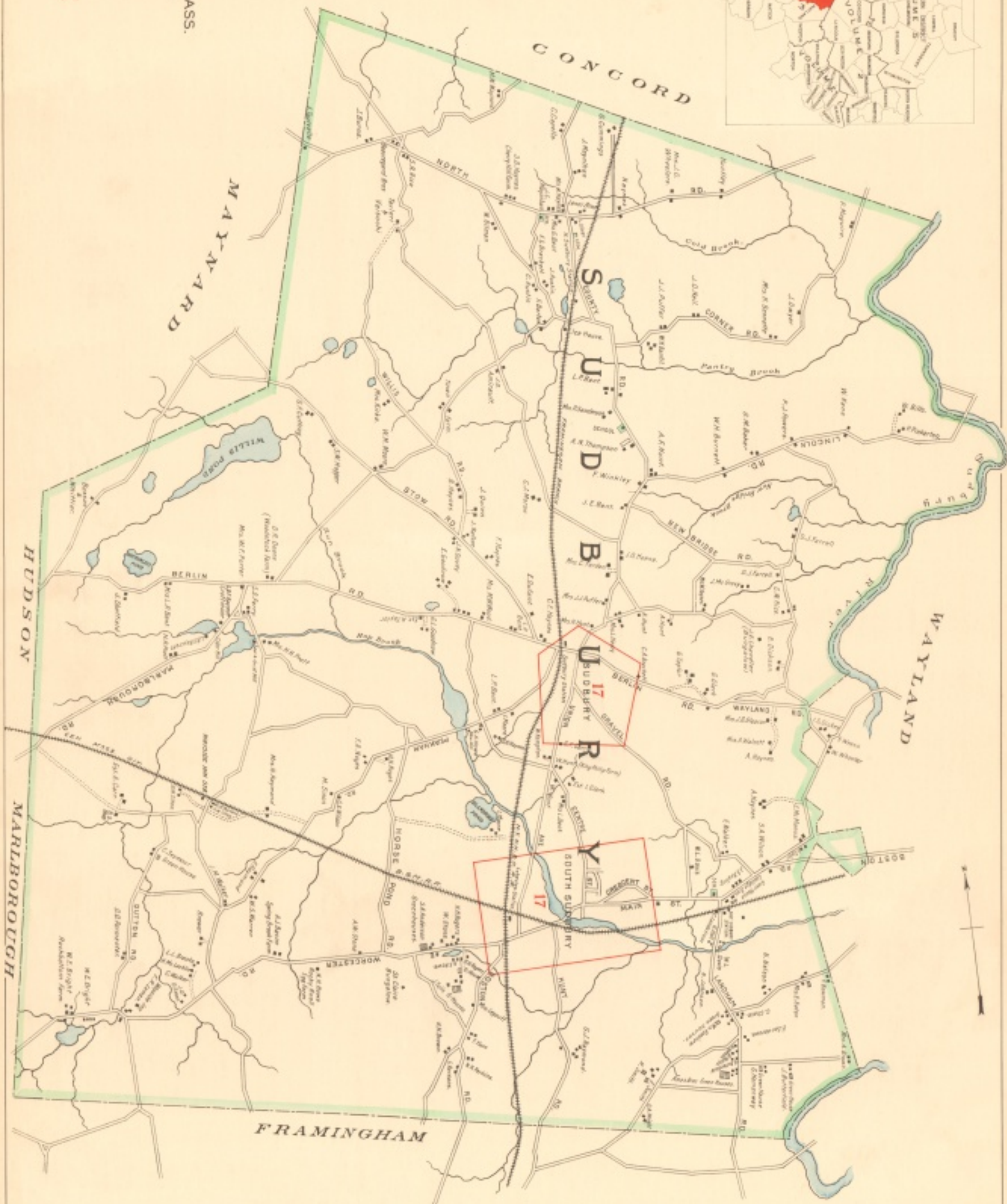
From: georgeglazer.com/maps/newyorkmaps/NYCBkln.html

MAYNARD & SUDBURY

Scale 200 Rods to the inch

J. C. HOWE
SHOE NAIL & TACK FACTORY & RES.
TOWN OF SUDBURY





MIDDLESEX CO. MASS.
INDEX MAP
TO THE TOWN OF
SUDBURY

Scale 1 inch = 1500 feet.

ROADS AND BUILDINGS OF THE
TOWN OF SUDBURY ARE SHOWN IN RED.

U.S. Geological Survey (USGS)

From: A 125 Year History of Topographic Mapping and GIS
in the U.S. Geological Survey 1884-2009, Part 1
1884-1980

Founding and Overview

On December 4-5, 1884, John Wesley Powell addressed the U.S. Congress seeking authorization for the U.S. Geological Survey (USGS) to begin systematic topographic mapping of the United States. During the next 125 years, mapping techniques evolved from field surveys through photogrammetry to the computer-based methods currently used, and the scales and content of the topographic maps changed. Here are some of the details of the USGS mapping processes through time and to help demonstrate that innovations by USGS employees and provision of public domain geospatial data helped spur the evolution and development of digital geographic information systems (GIS) and the commercial market for geospatial data and products of today. What follows describes topographic mapping developments prior to widespread use of GIS.

Field Mapping

In the late 19th century, surveyors created topographic maps in the field. A series of points were measured in the field using tape and compass traverses with elevations determined with an aneroid barometer, and used in a process known as field sketching to draw a terrain representation using contours.

First Maps

During this time, USGS maps were created at scales of 1:250,000 for 1-degree areas and 1:125,000 for 30-minute areas. The scales were increased with time and by 1894, most of the maps were 15-minute areas and produced at a scale of 1:62,500. Features shown on the maps included civil divisions of state, county, township, and cities or villages; public works including railroads, tunnels, wagon roads, trails, bridges, ferries, fords, dams, canals, and acequia; hypsography with contours and floodplain representations; and miscellaneous features of forest, sand, and sand dunes.

Reproduction of Maps

The reproduction of maps from the original field sketches used a three-color lithographic printing process based on copper plates. The image of the topographic features was engraved on the copper plates. A three-color process was used with civil divisions and public works in black, hydrography in blue, and hypsography and miscellaneous features in brown.

7.5 Minute Maps

The 1:24,000-scale 7.5-minute mapping program resulted from demand for more detail on the topographic maps. With the larger scale, the USGS included almost 200 features separated into color groups for the five color plates to be used in the film-based reproduction process. The five plates included cultural features, such as roads shown with casings, buildings, and much of the type used on the map on a black plate; road fills, urban tints, Public Land Survey lines, and other features on a red plate; woodland tint and other vegetation on a green plate; hydrographic features on a blue plate; and contours, depressions, and other hypsographic features on a brown plate. The color separations were composited on a five-color lithographic press.

Page 16

Title: Sudbury in 1894 USGS 15 Minute Series
Framingham Quadrangle
Author: U.S. Geological Survey
Reproduction courtesy: UNH Dimond Library

Page 17

Title: Sudbury in 1943 USGS 7.5 Minute Series
Assembled from Maynard, Concord, Natick
and Framingham Quadrangles
Author: U.S. Geological Survey
Images from nationalmap.gov/historical/



15 and 7.5 Minute Maps

A minute is a latitude and longitude term. The circumference of the world is divided into 360 degrees, Each degree is divided into 60 minutes and each minute into 60 seconds. At the equator, a minute is about 1.15 miles for both latitude and longitude. Since Sudbury is above 42 degrees North, a minute in latitude is shorter, about 0.85 miles, while the North/South minute is still 1.15 miles. The maps are quadrangles in which the aspect ratio changes as a function of the latitude.

The First Parish of Sudbury meetinghouse is at 42.383155°, -71.412500° as a decimal fraction, which is 42° 22' 59.358", 71° 24' 44.9994". The Global Positioning System or GPS is based on latitude and longitude.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY now known as USGS
MAYNARD, CONCORD, NATICK & FRAMINGHAM QUADRANGLES
SUDBURY in the 7½- MINUTE SERIES

<http://nationalmap.gov/historical/jch.com/sudbury/Sudbury1943USGS.jpg>
SURVEYED 1940-41
PRINTED 1943

STATE OF MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
HERMAN A. MAC DONALD, COMMISSIONER

FILE COPY

JUL 2 1976

N.C.I.C.

Scale 1:25,000
Contour interval 10 feet
Datum is mean sea level

Polycaric projection. 1927 North American datum
5000 yard grid based on U. S. zone system, A
10000 foot grid based on Massachusetts
(Mainland) rectangular coordinate system

USGS
Historical File
Topographic Division

ROUTES USUALLY TRAVELED
HARD IMPROVED SURFACES
OTHER SURFACE IMPROVEMENTS
U. S. ROUTE 1942 STATE ROUTE

Topography by R. L. McGinnis, J. H. Lynch,
H. G. Warner, E. M. Thompson, J. L. Twombly,
J. A. Harting, C. R. Galloway, and F. J. Howe, Jr.
Surveyed in 1940-1941 Natick

Topography by Frank Lerner,
H. G. Warner, and Frank J. Howe, Jr.
Surveyed in 1940 Framingham

Topography by R. L. McGinnis,
E. M. Thompson, and B. T. Hopkins
Surveyed in 1940 Concord

Topography by B. P. Taylor, S. L. Parker,
B. J. Keating, F. J. Howe, Jr., F. M. Ware,
and H. C. Crumacker
Surveyed in 1940-1941 Maynard

Page 18

Title: Sudbury Center, 1856
From 1856 from the Map of Middlesex County
Author: Henry F. Walling
Purchased, Scanned and Restored 2011

Page 18

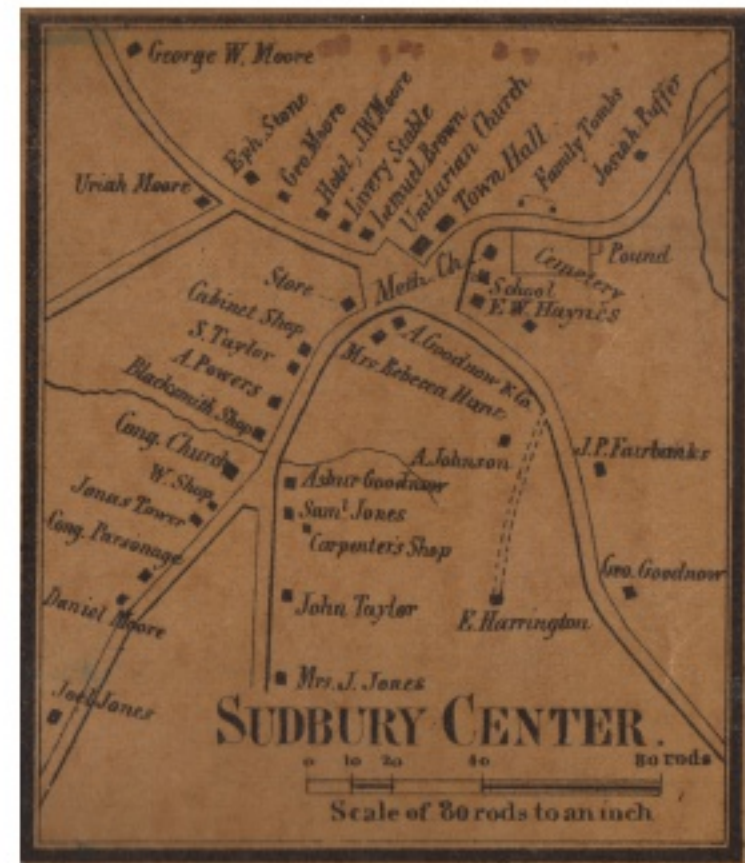
Title: Town of Sudbury, 1875
From Beers: County Atlas of Middlesex Mass, 1875
Author: F.W. Beers & Co
Purchased and Scanned 2013

Page 18

Title: Village of Sudbury, 1889
From Atlas of Middlesex County, 1889
Author: George H. Walker
Scanned from the collection of Robert Maier

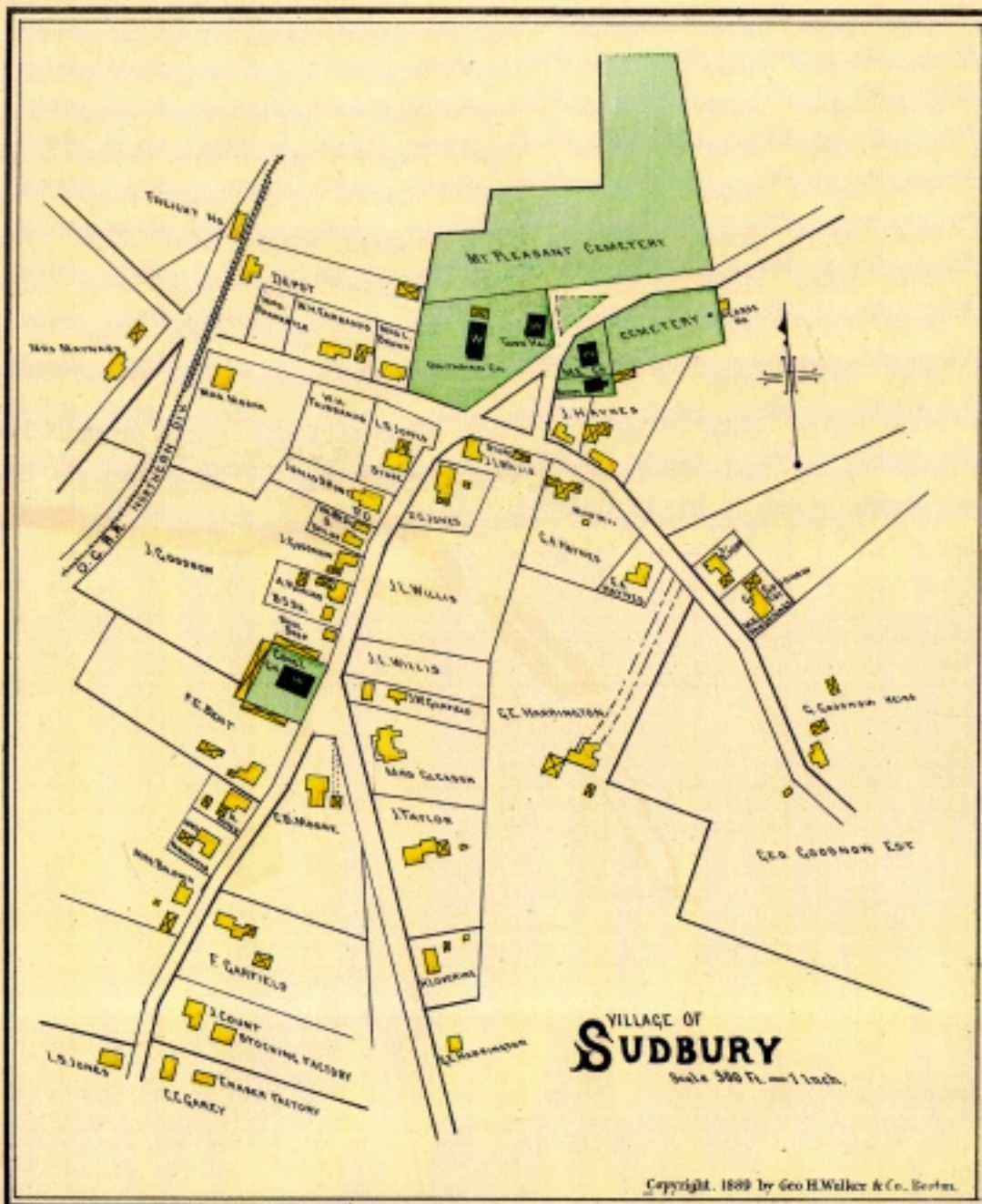
Page 19

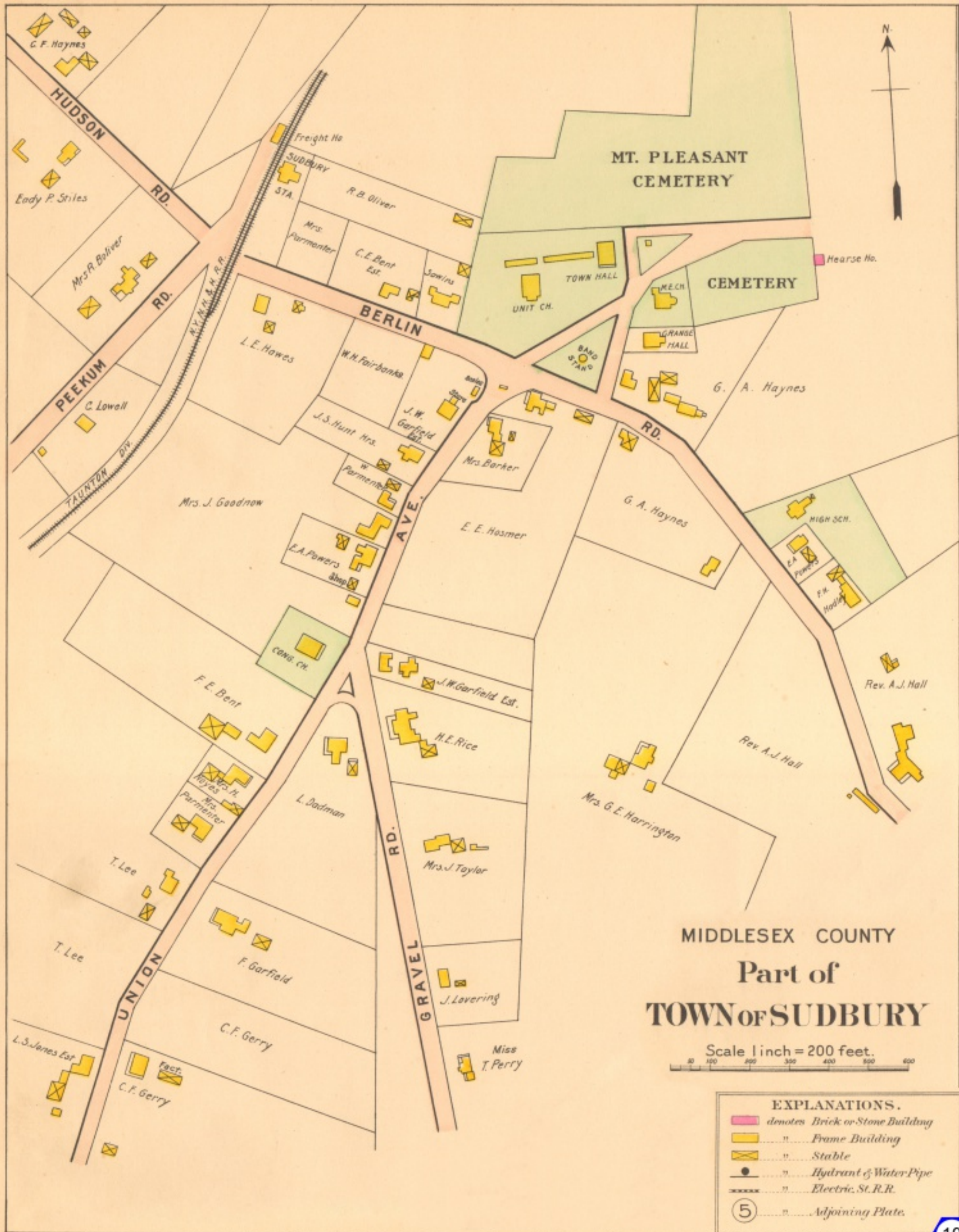
Title: Part of Town of Sudbury, 1908
From Atlas of Middlesex County, 1908
Author: Geo. H. Walker & Co
Purchased and Scanned 2013



The Town Center of Sudbury is much the same as it was in 1856. This is due to South Sudbury being the center of commerce, which expanded along the Boston Post Road (Route 20).

These maps all show the first Town Hall, which was built in 1846, after the separation of church and state, which happened in 1836 in Sudbury. Before that time, the First Parish meetinghouse was owned by the Town. The Town Hall burned in 1931 and was rebuilt in its present location.





SOUTH SUDBURY

From Hudson's *History of Sudbury*, 1889, page 486

The village of South Sudbury is about a mile south of the Centre, on the Boston and Worcester highway and the Massachusetts Central and northern branch of the Old Colony Railroad. Until recently it was known as "Mill Village." It has a store, post office, machine shop, blacksmith's shop, school-house, chapel, grist-mill, a junction depot, the Goodnow Library, and about fifty dwelling-houses. The depot is a little westerly of the village. . .

From Hudson, p. 186

In 1659 a mill was erected on Hop Brook by Thomas and Peter Noyes. In recognition of the serviceableness of their work to the community, the town made them a land grant, and favored them with such privileges as are set forth in the following record :

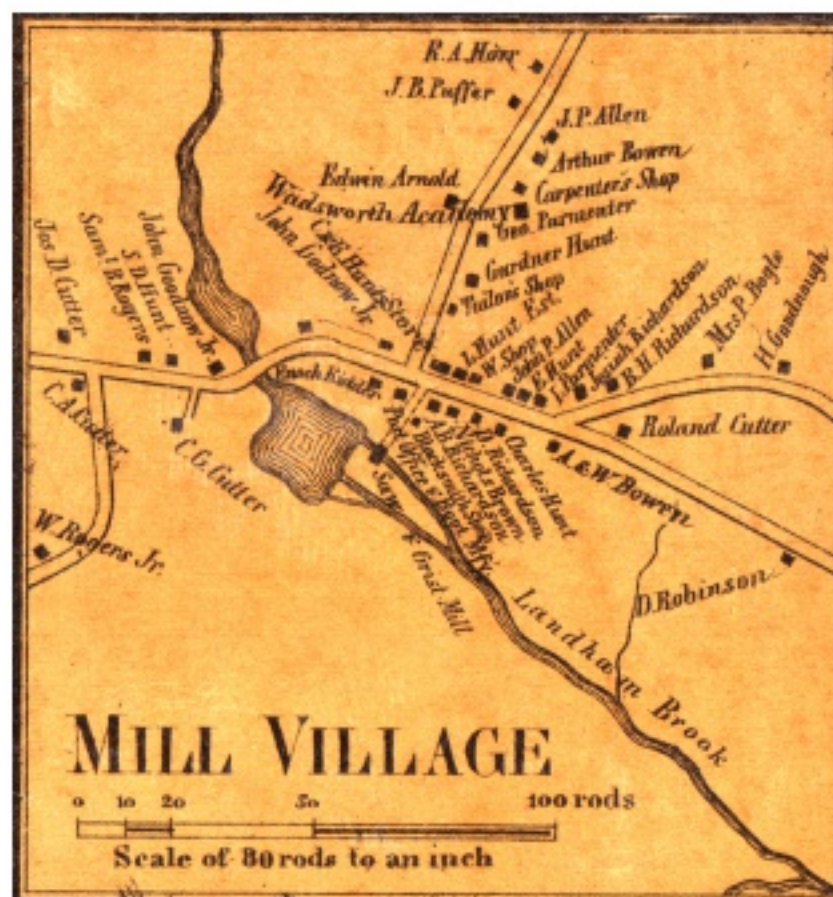
Jan. 7th 1659. Granted unto Mr. Thomas Noyes and to Mr. Peter Noyes for and in consideration of building a mill at Hop brook laying and being on the west side of Sudbury great river . . . Also, granted to the above named parties timber of any of Sudbury's common land, to build and maintain the said mill. Also the said Thomas and Peter Noyes do covenant with the town for the foregoing consideration, to build a sufficient mill to grind the town of Sudbury's corn...

From Hudson p. 492

The industries of South Sudbury have been various. In 1794, besides the saw and grist-mill run by Cutler and Holden, there was a fulling-mill run by Mr. Reed. About three-quarters of a century ago (1815), bricks were made at the Gibbs place and also at the Farr farm. Clay pits at both places are yet to be seen unless recently filled. As has been noticed, malt was made at the malt house (Thompson's), people coming from all parts of the town for this product. Leather was tanned by William Wheeler at a place just beyond the bridge, near the old "upper dam." There were also tanning vats on the "Island" (land between the machine shop and the mill). On the "meeting house road" was a bakery. .. The first greenhouse in Sudbury was erected in 1879 by Hubbard H. Brown for raising cucumbers. He has since erected three more, all of which cover six thousand feet of ground. Since 1882, thirty greenhouses have been built. There is now used for raising vegetables and flowers nearly one hundred thousand square feet of land covered with glass. .. One house has twenty-eight thousand lettuce plants, another has twelve thousand carnation pinks. In 1881, the manufacture' of machinery was begun at South Sudbury by Rufus H. Hurlbut. The business is now carried on by the firm of Hurlbut & Rogers. The machine shop is near the Parmenter mill and the Massachusetts Central Railroad.

In 1886, fire also claimed the Mill Village gristmill. Erected in 1853, and later used by Hurlburt and Rogers for manufacturing, it was replaced by Mr. Charles Parmenter that same year. This gristmill was disassembled 70 years later by Henry Ford and used to create the Wayside Inn's.

In 1922, the American Florist Company's Directory listed nine florists in South Sudbury including FG Bartlett, G Beckwith, East Sudbury Greenhouses, Nobscot Greenhouses, and HH Rogers. Many of these were producing carnations. Nobscot Greenhouses won the prize for "Best general display of carnations" at the Annual Meeting of the American Carnation Society in 1902 and 1906.



Page 20

Title: Mill Village, 1956

From 1856 from the Map of Middlesex County

Author: Henry F. Walling,. Purchased, Scanned and Restored 2011.

Page 21

Title: South Sudbury, 1875

From Beers: County Atlas of Middlesex Mass, 1875

Author: F.W. Beers & Co. Purchased print and Scanned 2008.

On the following pages:

Page 22

Title: South Sudbury, 1889

From Atlas of Middlesex County, 1889

Author: George H. Walker,
Scanned at Goodnow Library 2014.

Page 23

Title: South Sudbury, 1908

From Atlas of Middlesex County, 1908

Author: Geo. H. Walker & Co
Purchased and Scanned 2013.

Page 24

Title: Sudbury: Then And Now, 1939,

Author: Charles Way,

Scanned from the collection of Robert Maier, May 2015

See notes on page 26.

Page 25

Title: Town of Sudbury. Zoning Map, 1938

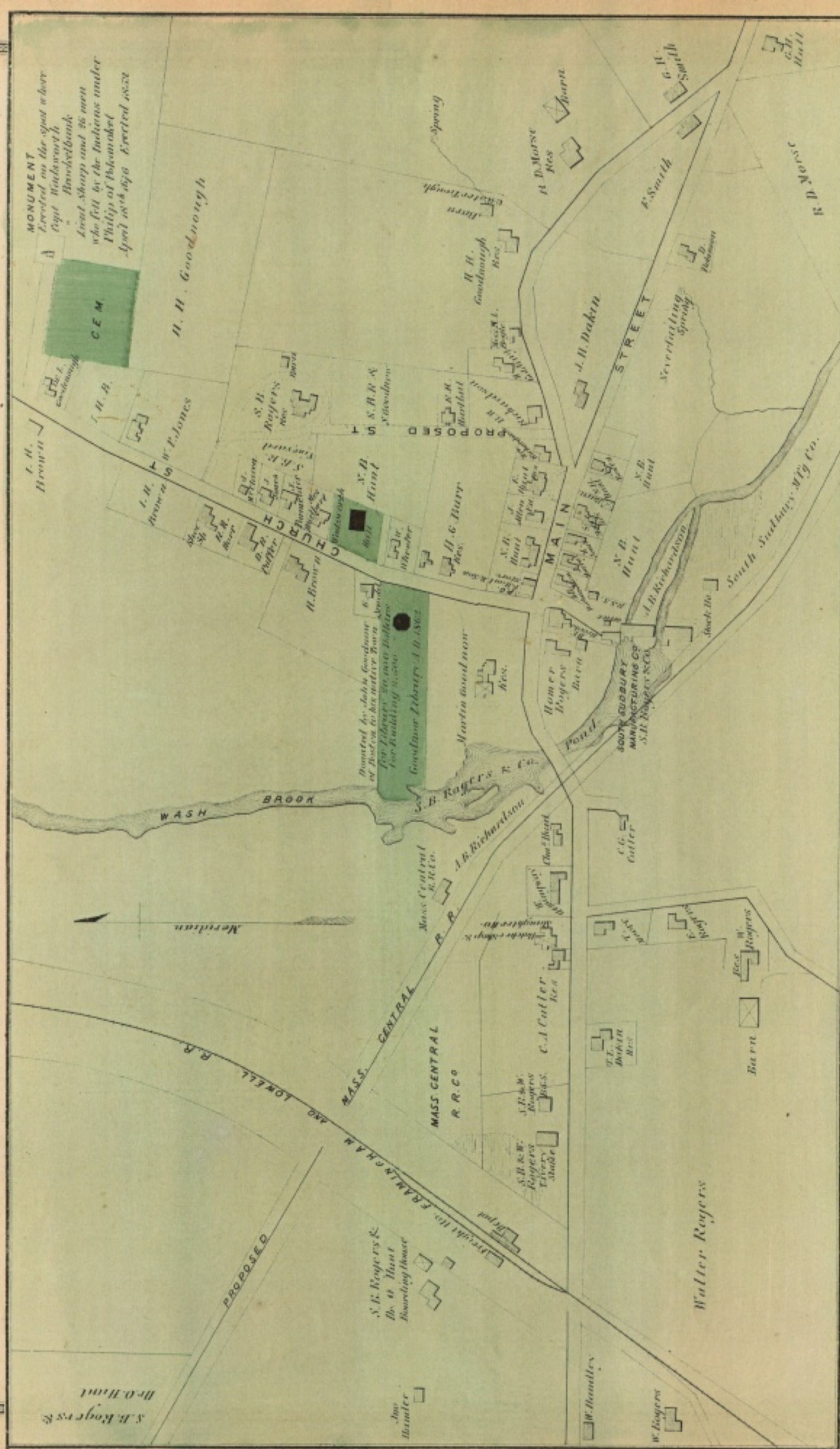
Author: Everett N. Montague

Scanned at the Sudbury Town Clerk's Office

SOUTH SUDBURY

TOWN OF SUDBURY

Scale 20 Rods to the inch



South Sudbury

TOWN OF
SUDBURY

Scale 300 FT = 1 INCH.

HOT HOUSES SOUTH SUDBURY.

Scale 200 ft = 1 Inch.

WIND MILL.

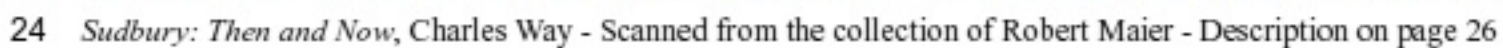
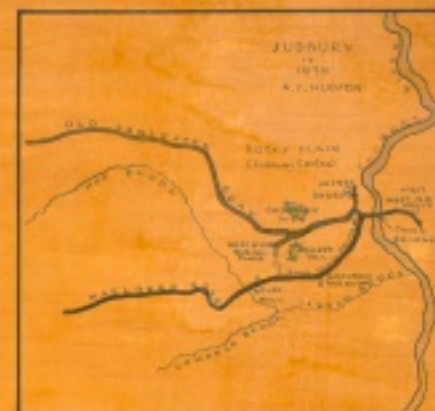
Chas. F. Goodnow.
RES.Chas. F. Goodnow's
TANK. □
HOT. HOUSES.HOT HOUSES
F. C. Fisher.TANK. ○
F. C. Fisher's RES.J. Tuttle
RES.

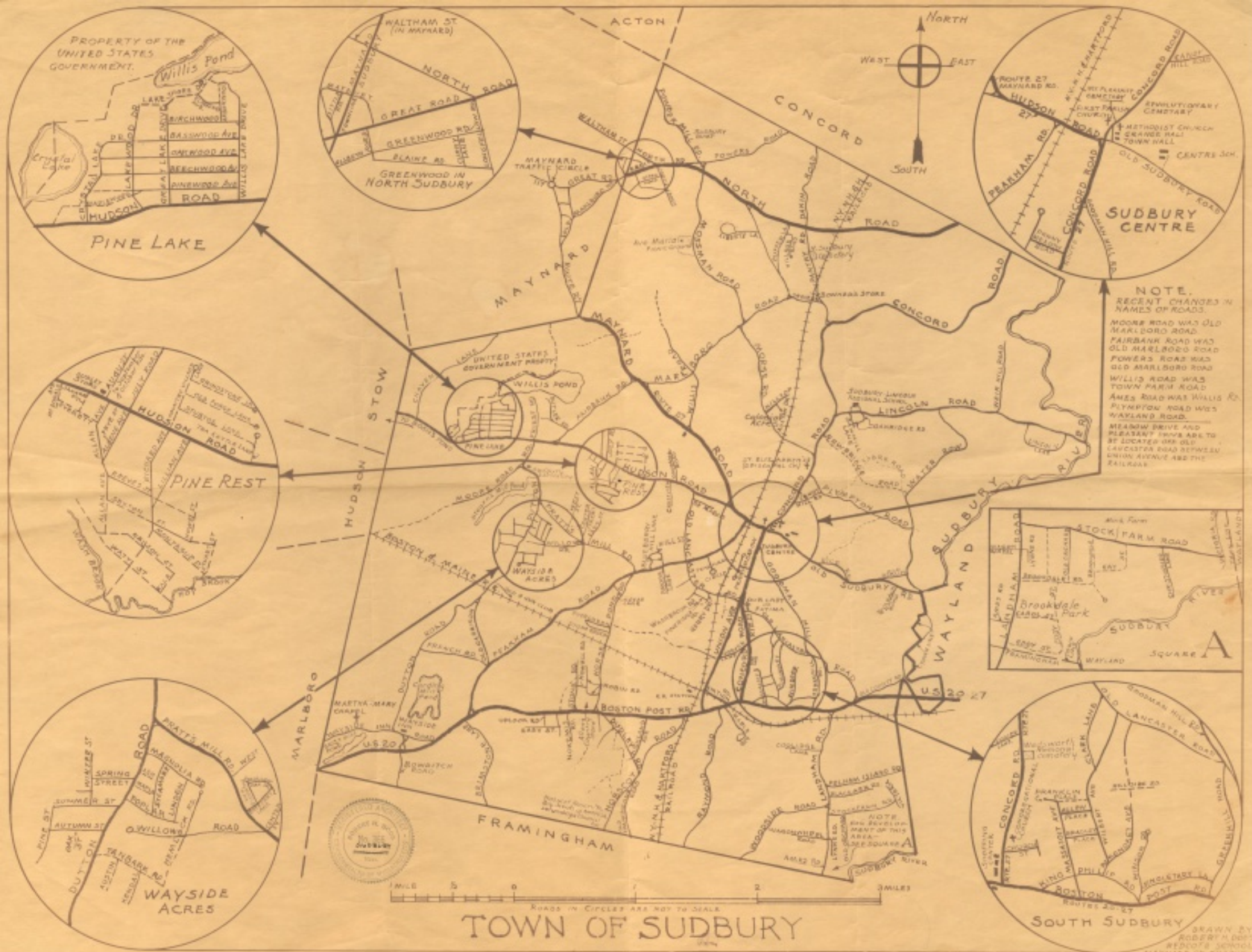
South Sudbury

Vol 3, Geo. H. Walker & Co, 1908
jch.com/sudbury



SETTLED 1638 INCORPORATED 1639





Page 26

Title: Town of Sudbury, 1956

Author: Robert H. Dods

Scanned at Goodnow Library - Dec 2014

Notes on the **Sudbury: Then And Now** map on page 24, from Lee Swanson, Sudbury Historical Society: Then and Now map was designed & produced by Charles Way, the Architect of the new 1932 Sudbury Town Hall, to commemorate the 300th Anniversary of the Town in 1939, according to news articles I have read about the Celebration.

The images drawn around the edge of the map tell stories from the history of Sudbury. Like many good stories, the factual details on the map may not be fully accurate.

The image on page 24 was scanned from a hand painted version of the map, signed by Charles Way. It hung in a local bank for decades. When Robert Maier noticed it was removed from the wall and asked after it, the bank manager gave him the map.

Open Space and Watershed Maps

Page 27

Title: Bay Circuit Map, 1930

Author: Charles Elliot II

Purchased at Bearly Read Books, Scanned and Restored 2008

This was the vision. Current map: www.baycircuit.org

On the following pages:

Page 28

Title: Open Space 1970

Author: Conservation Commission

Purchased at Bearly Read Books and Scanned 2012

Page 29

Title: Open Space and Recreation Plan, 2009

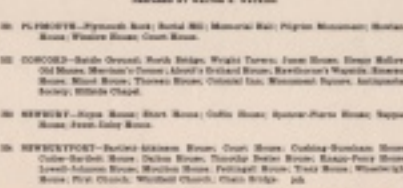
Author: Open Space and Recreation Plan Committee

PDF available at sudbury.ma.us under Open Space Plan 2009

· BAY · CIRCUIT ·

A CORPORATION CREATED BY THE MASSACHUSETTS LEGISLATURE IN 1931 TO PURCHASE AND HOLD FOR THE PUBLIC ENJOYMENT, RECREATION AND HISTORICAL PLACES.

2000

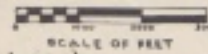




TOWN OF SUDBURY MASSACHUSETTS

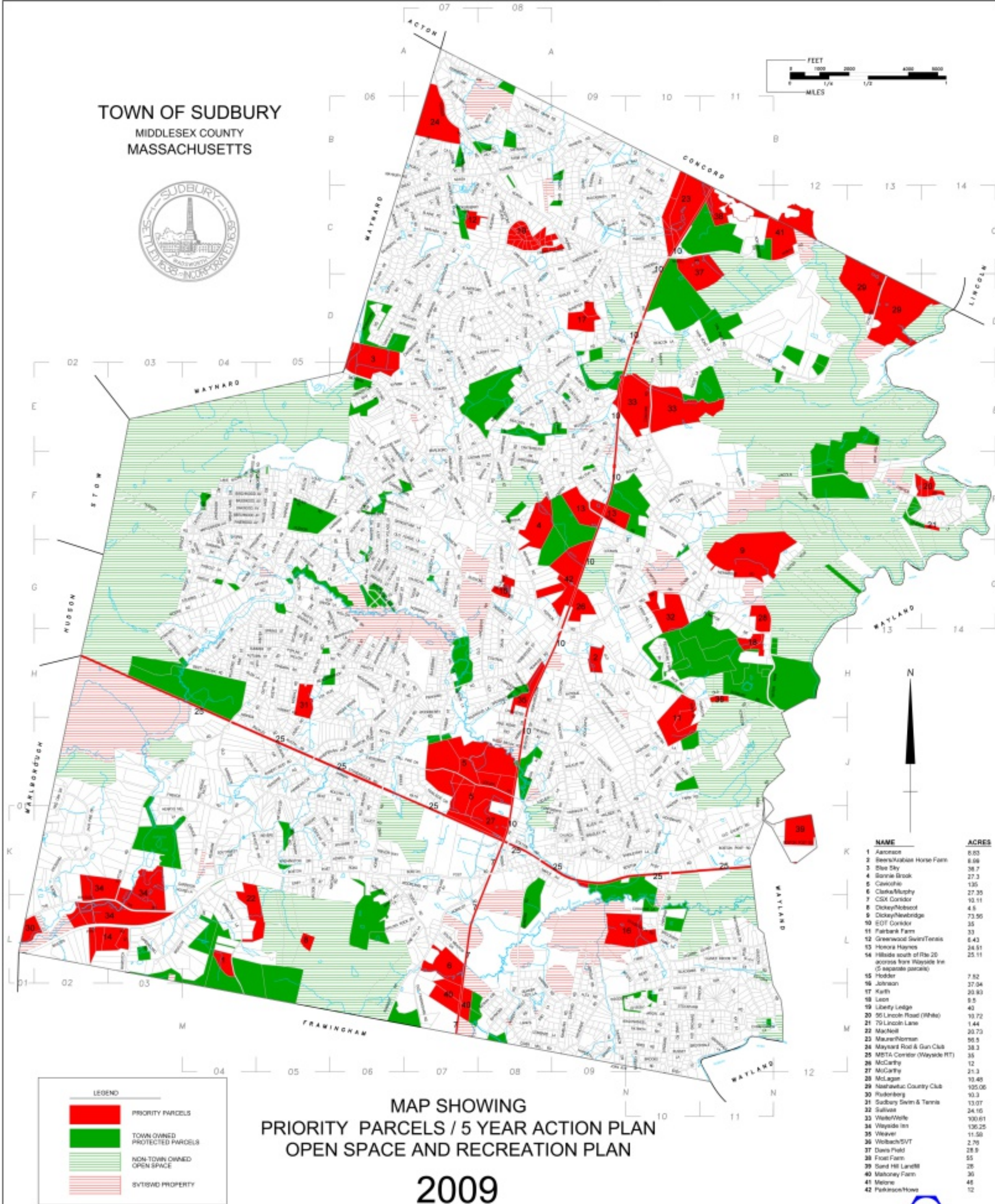
OPEN SPACE AND RECREATION PLAN MAP 1970

REVISED 1973



- PROPOSED OPEN SPACE AND RECREATION LANDS
- BOSTON EDISON COMPANY
- CEMETERIES
- CHURCHES
- CONSERVATION COMMISSION
- SEMI-PUBLIC AND PRIVATE OPEN SPACE
- MILITARY RESERVATION (See Public Works)
- PARKS & RECREATION COMMISSION
- SCHOOLS
- SELECTMEN
- STATE & FEDERAL CONTROL
- WATER DISTRICT (See Public Works)

TOWN OF SUDBURY
MIDDLESEX COUNTY
MASSACHUSETTS



**MAP SHOWING
PRIORITY PARCELS / 5 YEAR ACTION PLAN
OPEN SPACE AND RECREATION PLAN**

2009

NAME	ACRES
1 Aaronson	6.83
2 Beers/Kuskie Horse Farm	6.99
3 Blue Sky	38.7
4 Bonnie Brook	27.3
5 Cavoshie	135
6 Clarke/Murphy	27.35
7 CSX Corridor	10.11
8 Dickey/Motest	4.5
9 Dickey/Newbridge	73.50
10 EOT Corridor	35
11 Fairbank Farm	33
12 Greenwood Swims/Tennis	6.43
13 Horvath Haynes	24.51
14 Hillside south of Rte 20 across from Wayside Inn (5 separate parcels)	25.11
15 Hodder	7.82
16 Johnson	37.04
17 Keith	20.83
18 Leon	9.5
19 Liberty Lodge	40
20 55 Lincoln Road (White)	10.72
21 79 Lincoln Lane	1.44
22 MacNeil	20.73
23 Maurer/Horvath	50.5
24 Maynard Road & Gun Club	38.3
25 MBTA Corridor (Wayside RT)	35
26 McCarthy	12
27 McCarthy	21.3
28 McLagan	10.49
29 Nashawatt Country Club	125.06
30 Rudenberg	10.3
31 Sudbury Swim & Tennis	13.07
32 Sullivan	24.16
33 Water/Wells	100.61
34 Wayside Inn	136.25
35 Weaver	11.50
36 Wolbach/SVT	2.70
37 Davis Field	28.9
38 Frost Farm	55
39 Sand Hill Landfill	28
40 Maloney Farm	30
41 Melrose	48
42 Parkinson/Hove	12

MAP OF TOWN OF SUDBURY

MASS.

Showing Location of White Pond
and other possible Sources for a
Water Supply

Scale 1650 Feet per Inch

Reduced to 80%

March 12-1910

E. Worthington
Engineer

Black Figures show approximate
elevations above Mean Sea level

MARLBORO

HUDSON

MARLBORO

FRAMINGHAM

Page 30

Title: Town of Sudbury, Water Sources, 1910

Author: E. Worthington

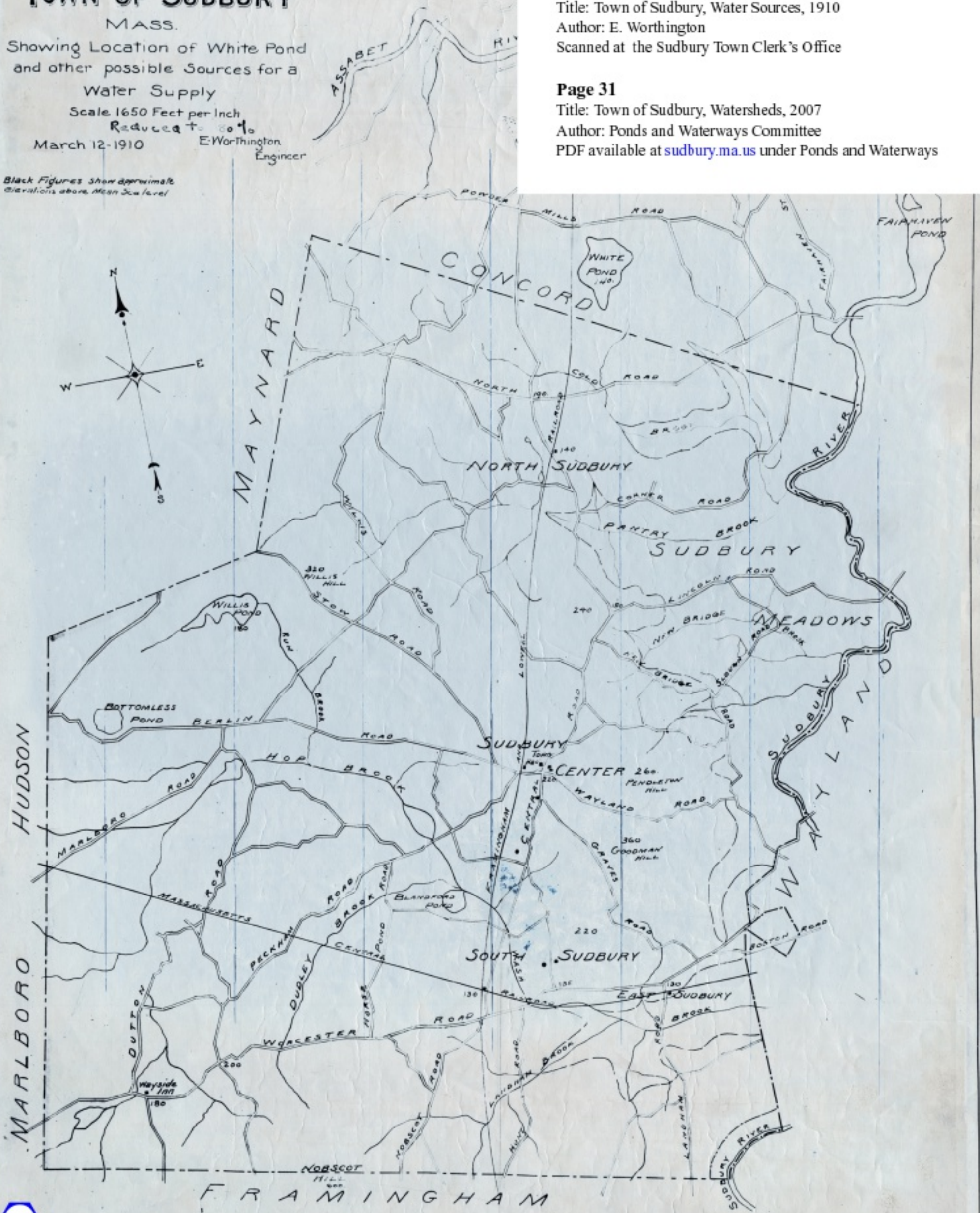
Scanned at the Sudbury Town Clerk's Office

Page 31

Title: Town of Sudbury, Watersheds, 2007

Author: Ponds and Waterways Committee

PDF available at sudbury.ma.us under Ponds and Waterways



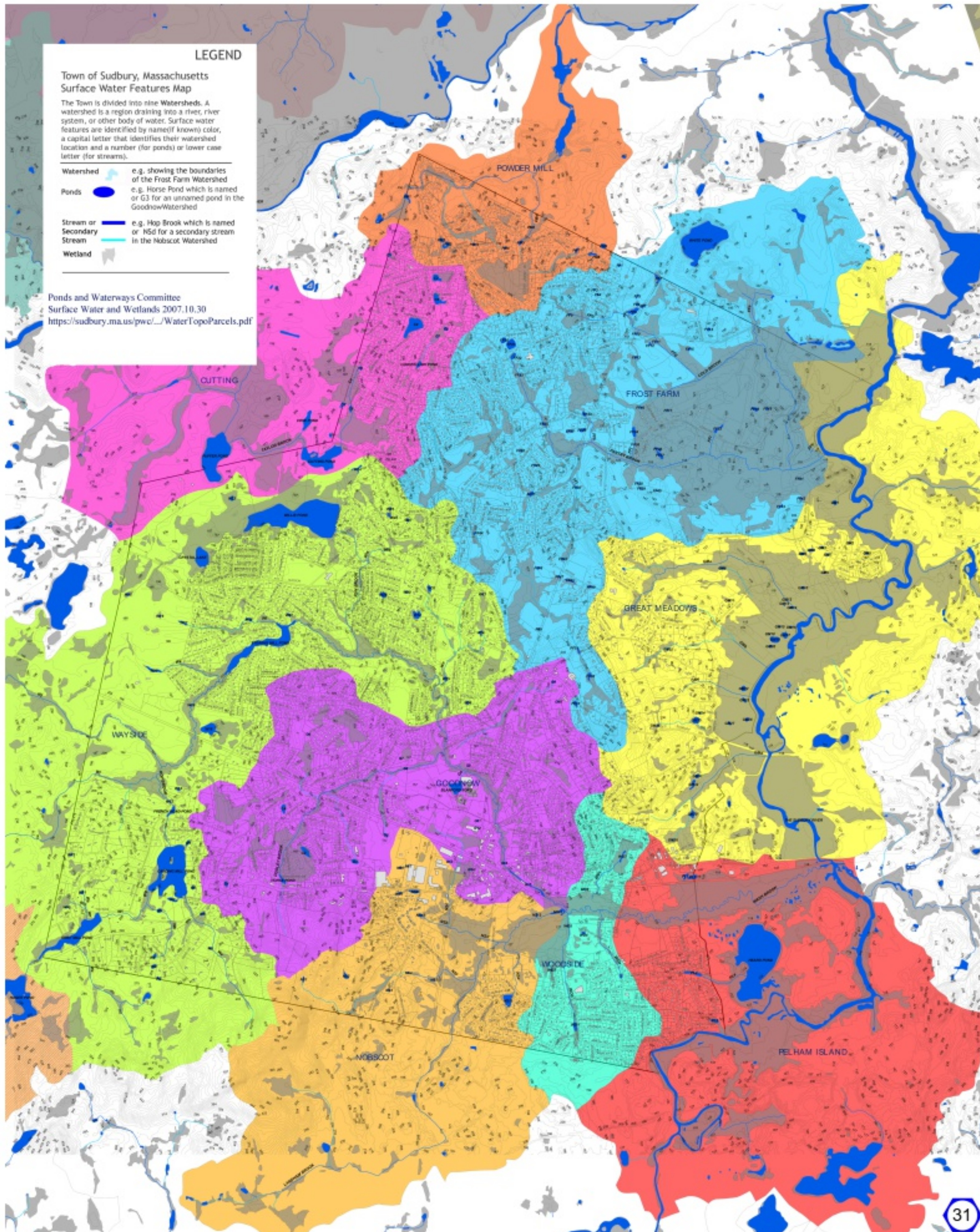
LEGEND

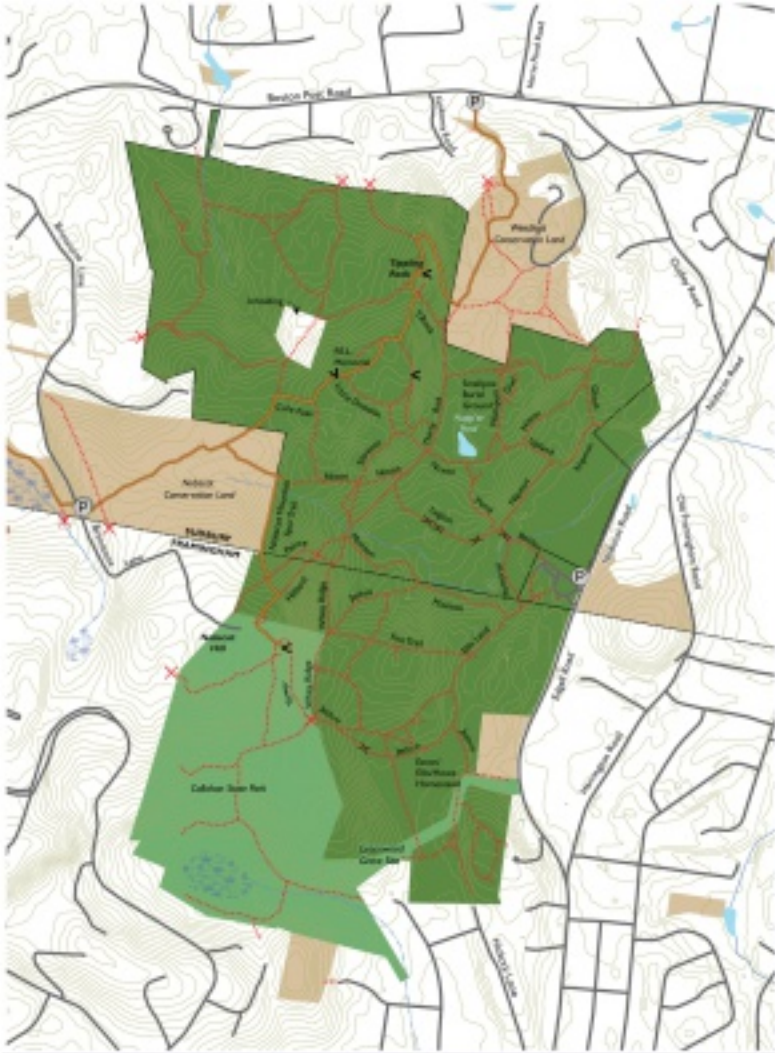
Town of Sudbury, Massachusetts Surface Water Features Map

The Town is divided into nine Watersheds. A watershed is a region draining into a river, river system, or other body of water. Surface water features are identified by name (if known) color, a capital letter that identifies their watershed location and a number (for ponds) or lower case letter (for streams).

Watershed	e.g. showing the boundaries of the Frost Farm Watershed
Ponds	e.g. Horse Pond which is named or G3 for an unnamed pond in the Goodnow Watershed
Stream or Secondary Stream	e.g. Hop Brook which is named or H5d for a secondary stream in the Nobscot Watershed
Wetland	

Ponds and Waterways Committee
Surface Water and Wetlands 2007.10.30
https://sudbury.ma.us/pwc/_/WaterTopoParcels.pdf





Left: Nobscot Scout Reservation svtweb.org/maps

This map was created by the Sudbury Valley Trustees (SVT) after the Town of Sudbury and SVT purchased the development rights to the Sudbury portion of the Nobscot Scout Reservation from the Knox Trail Council of the Boy Scouts of America in 2008. The Norumbega Council, predecessor of the Knox Trail Council, began acquiring portions of the land in 1928.

The light brown portions of the map represent conservation parcels owned by the Town of Sudbury. To the North is the Tippling Rock Trailhead land. To the West is the Town's Nobscot conservation land. Across Brimstone lane and off of this map is Ford's Folly.

The Knox Trail was used by Henry Knox to transport canon captured at Fort Ticonderoga to Boston. The guns were placed upon Dorchester Heights overlooking the harbor. Since the canon jeopardized their ships, the British promptly evacuated Boston. Knox later became the first Secretary of War.

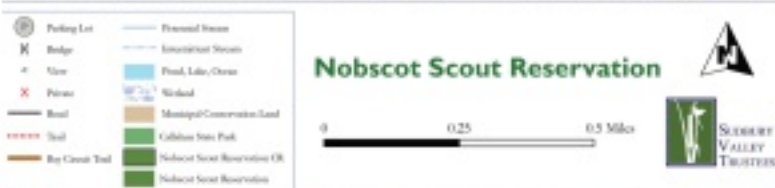
On the map below, Tippling Rock is marked by the triangle in the top right corner of the map. See more at jch.com/tipplingrock

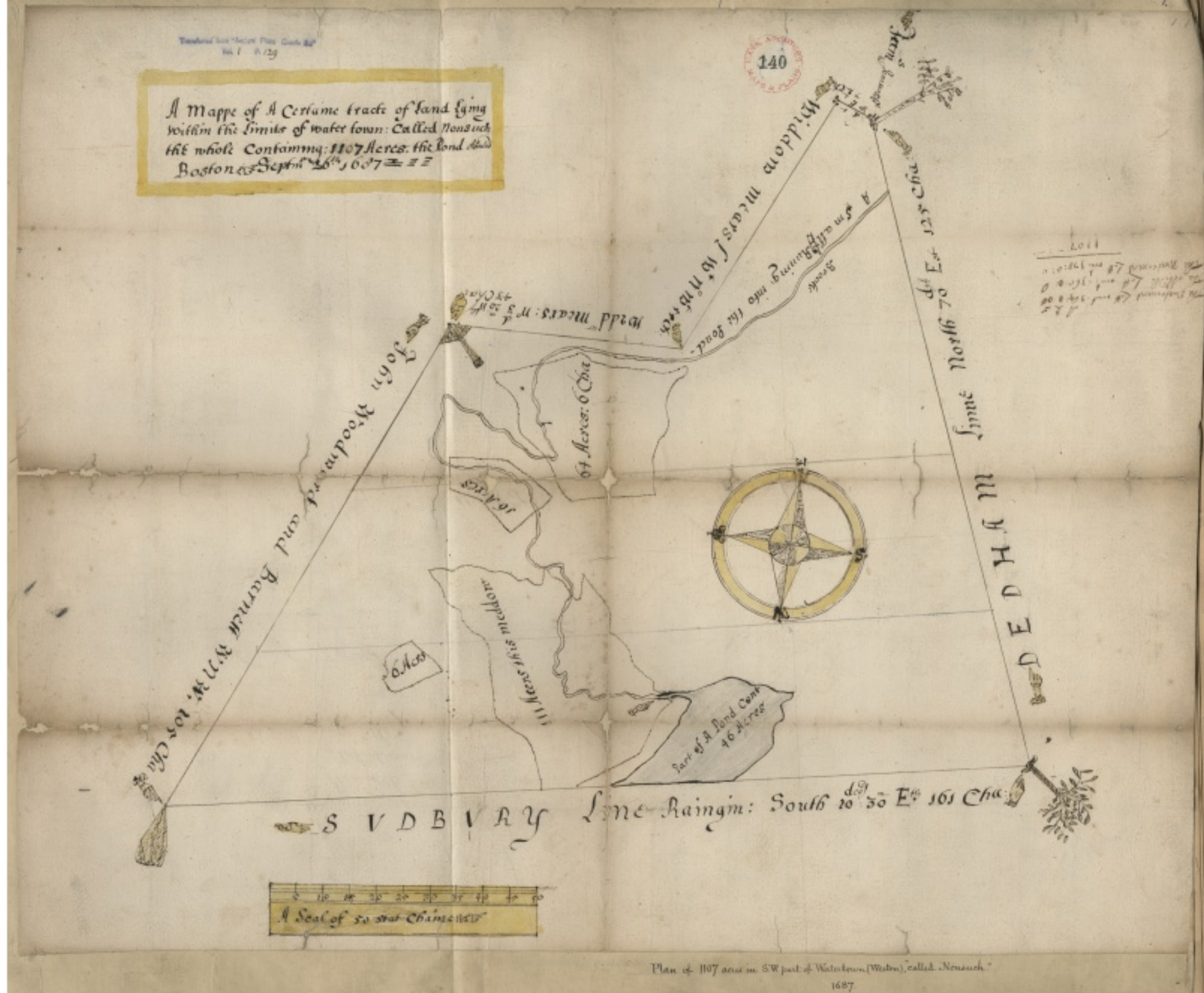
Page 32

Title: Topographical Plan of Nobscot Reservation, 1928

Author: Henry F. Bryant

Scanned in 2003. Gift from Charles Larson. On display in Nobscot Reservation Lodge.





Page 33

Title: Nonesuch Pond, 1687

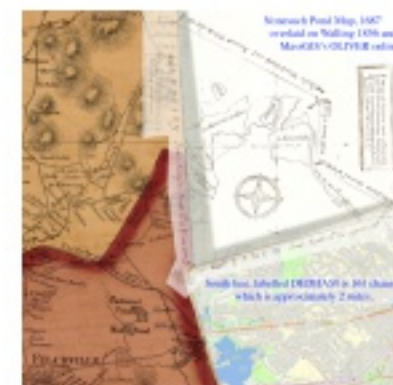
Author: unknown

Reproduction courtesy: The Massachusetts Archive

This map the pond shows Sudbury on one side and Dedham on the other. Needham, Natick and Weston were all incorporated and given borders after 1687. Nonesuch Pond is now on the border of Weston and Natick and quite close to Wayland & Needham. The inset to the right shows the map in more context, as does the map on page 3.

In the detail to the right, from the Douglas map on page 36, you can see the lack of borders. Needham, Natick and Weston are villages with meetinghouses, but, no borders. In 1780, Sudbury split into Sudbury and East Sudbury, which would become Wayland.

Dedham and Watertown were the two mother towns to most of the towns in Middlesex and Norfolk counties. They were bounded on the north and south, but stretched out into the continent forever. As more land was taken for each new town, the mother towns shrank. Today, Dedham and Watertown are both smaller than most surrounding towns.





Page 34

Title: A Mapp of New England, 1675

Author: John Seller

Reproduction courtesy: Norman B. Leventhal Map Center at the Boston Public Library.

Other significant early maps that show Sudbury
and were considered for this book, but not included:

1755 Thomas Jefferys, A map of the most inhabited part of New England

1759 Carte des Possessions des Anglois en Amerique

1785 John Norman, Accurate Map of the Four New England States.

1871 Henry F Walling, Massachusetts Atlas

1891 Geo. H. Walker, Topographical Atlas of Massachusetts







Page 36

Title: Map of New England, 1755

Author: William Douglas

Reproduction courtesy: Library of Congress,
Geography and Map Division

The detail to the right, from Douglas, shows no other borders between Sudbury and Dedham. The Nonesuch Pond map from 1687 shows Sudbury on one side of the tract and Dedham on the other. The towns which now lie between Sudbury and Dedham were incorporated after 1687. See the Nonesuch Pond map on page 33.



Title: Roxbury to Concord, Roads and Distances, 1775

Author: Brown & D'Bernieres

Reproduction courtesy: Library of Congress,
Geography and Map Division

General Gage's Instructions

To Captain Brown and Ensign D'Berniere,

Boston, February 22, 1775.

You will go through the counties of Suffolk and Worcester, taking a sketch of the country as you pass; it is not expected you should make out regular plans and surveys, but mark out the roads and distances from town to town, as also the situation and nature of the country; all passes must be particularly laid down, noticing the length and breadth of them, the entrance in and going out of them, and whether to be avoided by taking other routes.

The rivers also to be sketched out, remarking their breadth and depth and the nature of their banks on both sides, the fords, if any, and the nature of their bottoms, many of which particulars may be learned of the country people.

You will remark the heights you meet with, whether the ascents are difficult or easy; as also the woods and mountains, with the height and nature of the latter, whether to be got round or easily past over.

The nature of the country to be particularly noticed, whether inclosed or open; if the former, what kind of inclosures, and whether the country admits of making roads for troops on the right or left of the main road, or on the sides.

You will notice the situation of the towns and villages, their churches and church-yards, whether they are advantageous spots to take post in, and capable of being made defensible.

If any places strike you as proper for encampments, or appear strong by nature, you will remark them particularly, and give reasons for your opinions.

It would be useful if you could inform yourselves of the necessities their different counties could supply, such as provisions, forage, straw, &c. the number of cattle, horses, &c. in the several townships.

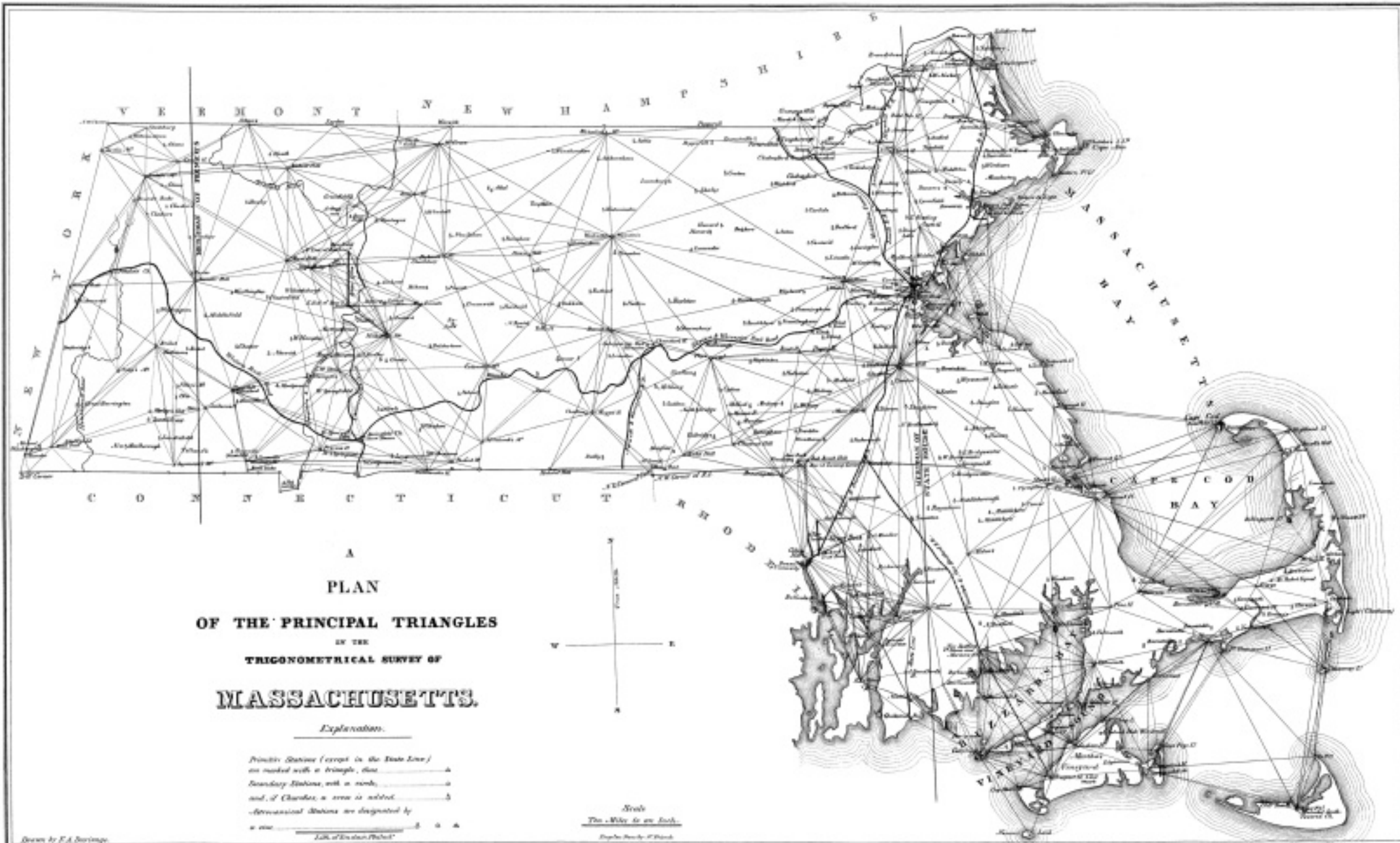
I am, Gentlemen,
your most obedient humble servant,

THOMAS GAGE.

To Capt. Brown 52d regiment, and
Ensign D'Berniere 10th regiment.

From: Project Gutenberg EBook of Gage's Instructions, by
Thomas Gage and Ensign de Berniere
gutenberg.org





The map above is from:

Account of a Trigonometrical Survey of Massachusetts, by Simeon Borden, Esq., with a Comparison of Its Results with Those Obtained from Astronomical Observations, by Robert Treat Paine, Esq., Communicated by Mr. Borden

Author(s): Robert Treat Paine and Simeon Borden

Source: *Transactions of the American Philosophical Society*, New Series, Vol. 9, No. 1 (1846), pp. 33-91

Published by: American Philosophical Society

Available through JSTOR's [Early Journal Content](#)

Stable URL: <http://www.jstor.org/stable/1005341>

Simeon Borden (January 29, 1798 - October 28, 1856) was an American inventor, engineer, and noted surveyor.

In 1830 Borden invented a new apparatus for accurately measuring the base line for the upcoming Massachusetts' Trigonometrical Survey. It was 50 feet long, enclosed in a tube, and used with four compound microscopes. The tube and microscopes were mounted on trestles, and adjustable to any direction.

Borden's equipment was judged to be more accurate and convenient than any instrument available, and thus he assisted in measuring the Borden base line to a remarkable accuracy in 1831, and afterwards led the triangulation of the entire state from 1834-1841 as Superintendent of the Survey. He described this first geodetic survey in America in the ninth volume of the *Transactions of the American Philosophical Society*.

Map on the right – from David Rumsey Historical Map Collection. davidrumsey.com. The image is only 1/2 of the map with an inset of Sudbury added at full resolution.

Topographical Map Of Massachusetts, Compiled From Astronomical, Trigonometrical, and Various Local Surveys Made By Order Of The Legislature. Simeon Borden, Superintendent. 1844. Engraved by George G. Smith, Boston. Entered ... 1844, by the Commonwealth of Massachusetts.

Sponsored by the State Legislature as a replacement for Osgood Carlton's map. Based on maps produced by cities and towns during the 1830s. The Osgood map is on page 6. The 1830 map used by Borden is on page 9.

A later edition was published by H.F. Walling in 1861.

Page 38

Title: Plan of Principle Triangles, 1846

Author: Simeon Borden

Used under JSTOR's permitted use of [Early Journal Content](#)

This is the only map without Sudbury in the book.

Page 39

Title: Topographical Map Of Massachusetts, 1844

Author: Simeon Borden

Used by Permission David Rumsey Map Collection,

www.davidrumsey.com

TOPOGRAPHICAL MAP
OF
MASSACHUSETTS.
COMPILED FROM



ASTRONOMICAL, TRIGONOMETRICAL,
AND
VARIOUS LOCAL SURVEYS.

MADE BY ORDER OF
THE LEGISLATURE.

Simeon Borden, Superintendent.
1844.



Sudbury Inset
Simeon Borden, Map of Massachusetts, 1844
Image courtesy of David Rumsey Map Collection,
www.davidrumsey.com.

My Odyssey with Henry F. Walling's Map of Middlesex County, 1856.

This is a 5x5 foot map assembled from 24 pieces printed separately and assembled on a cloth backing, either flat or on a roll. The map has great detail within Sudbury and throughout all of Middlesex County.

The author, Henry F. Walling (1825–1888), was prolific. For more information see: Henry F. Walling and the Mapping of New England's Towns, 1849–1857 By Michael Buehler of Boston Rare Maps. See excerpts on pages 8 and 10.

Sudbury is exactly in the middle, and unfortunately, it is on 4 different maps which never meet properly. In addition, any folded versions are missing a good chunk of Sudbury, the paper being worn away.



This is the story of my search for an image of the map and the process to create the ultimate result on page 11.

I first became aware of this map in the bookstore Bearly Read Books in Sudbury. I bought the 8.5x11 reproduction, printed by Old Maps of New England, from the image of the Harvard College Map Library, which granted Old Maps permission to copy their original map. It is a folded version, so there large missing parts along the fold in Sudbury. The copy of the map at the Norman B. Leventhal Map Center at the Boston Public Library has the same problem. Both the Harvard & BPL versions folded versions.

Searching online I found a copy of the map listed at the Watertown Free Public Library. After some negotiation, I was able to photograph there in December 2010. It is a lacquer coated map rolled up for wall hanging. The Sudbury area was mismatched and there was a tear in the north border. It was also in a very small space. I shot many, many images as if it were a panorama. And I spent many many hours trying to stitch it. I concluded I should find a map in better condition and be more precise about photographing it.

In July of 2011, I drove down to Dover, Mass. to see this map for sale by a dealer. The dealer had gone to considerable expense to restore the map onto a new canvas backing. It looked great over all, but it did not have good detail of Sudbury.

Lee Swanson, the Town Historian, advised me of versions in the Sudbury Town Hall and the Goodnow Library. The version in Sudbury Town Hall is in poor condition, but I photographed it just for future reference.



In November of 2011, I photographed the Sudbury section of the Walling Map at the Goodnow Library, which is in fair condition. (Thank you to Esmé Green and the Trustees for the permission to photograph.) After some time trying to stitch the more carefully shot images, I came to the conclusion that I would never get what I wanted from photographs, at least not without a significant improvement in equipment and methodology. So, I needed a map to scan instead.

Soon after, a copy of the map appeared on eBay. I drove out to West Boylston, Mass. in December, 2011, to find the Sudbury portion of the map in good condition. The map overall is in good condition - with a bit of water damage at the top. So, I bought it, moving me from hobbyist to investor.

A picture of my Walling is below to the left.

For images of the various maps and notes about "the odyssey", see jch.com/sudbury

My Walling

Here I describe the process of scanning, rectifying and restoring the map I bought from the Antiques dealer in West Boylston.

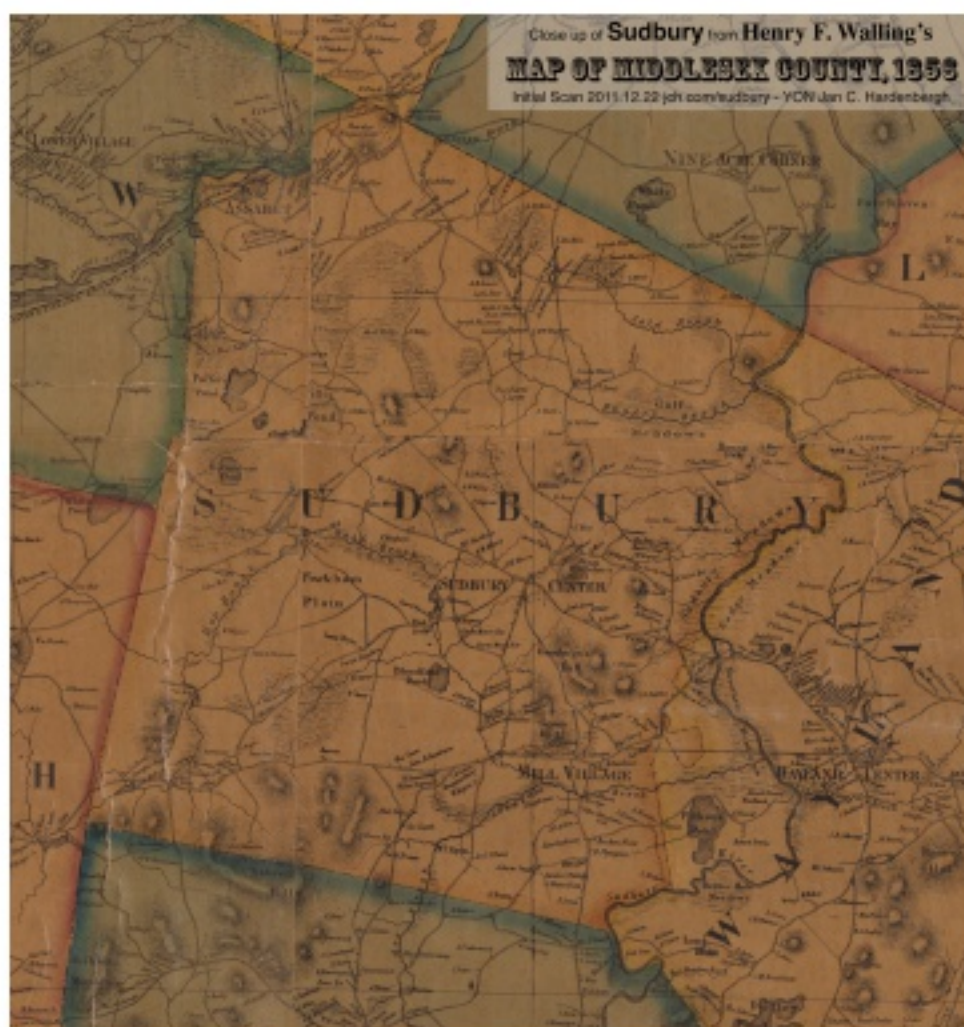
The final version consists of 4 major elements: the Sudbury portion of the Walling map itself, two insets from the map and a title box.

The two insets showing Sudbury Center and Mill Village were cleaned up slightly in Photoshop, but, otherwise they were not modified in any way.

The title box has text from the original title area: 1856, "Published by Smith & Bumstead", "Middlesex County" and Walling's name. In addition, I have added the following pieces of text: "The Town of Sudbury in", "from the Map of" and "Scanned 2012 Jan C. Hardenbergh". The other pixels are original pixels directly from the map, although some have been scaled more than others.

I also copied "Draughtsman" from the original map to just below the title box.

I have spent well over 65 hours on my Walling and many more hours on the 3 other versions that I created from photographs.



Phase 0: Scanning

When I scanned the map, I only had an all-in-1 scanner that does a little more than 8.5x11, so the idea of trying to fit the map in the scanner was crazy. So I put the scanner upside down on the map. That seemed to work quite well without stressing the map. The Sudbury portion took two scans. The insets were each done by themselves and the title was done in 2 pieces. The stitch was trivial.

The result is the image on the left - the Initial Scan. You can clearly see the East/West seam and the North/South seam. The map is made up of 24 separate pieces of paper, which makes a lot of sense since a 5'x5' printing press would be unwieldy. In my map, the southeast corner is over inked and the southwest corner is a little light. The crease along the Marlboro border is the worst of the damage, but not bad compared to other versions of the map.

Phases 1 & 2: Aligning & Rectifying

I thought that all I had to do was to line up the latitude and longitude lines and I would be done! However things never did quite line up and when I used a map of the town as an overlay, it became clear that the pieces would never line up properly, which was one the reasons for buying it and scanning it myself. In addition, some regions within the pieces were not aligned. So, in phase 2, I moved various pieces around to get a semi-reasonable match to the current Town of Sudbury map.

Phase 3: Restoring

No text was added or subtracted within the Town bounds. In a few instances I removed some distractions outside of the boundaries. The very large title SUDBURY is the only text that starts on one piece and ends on another. There are a few pieces of text from the western edge of the northeast quadrant that do not look great. I left them. Also, some text along the crease was illegible - a couple of Parmenters got crushed. Still, the text was sacred.

In two instances one piece had half of a hill and the other piece did not match it. One was on Willis Road and the other was in what is now Maynard, which did not split off until 1871. For these, I added the other half of the hill. Otherwise, all of the graphic elements are as they appear on the original.

Then, I removed the crease and cleaned up anything that was visually distracting. You can see images of each of the phases under "My Walling" at jch.com/sudbury. It is an interesting exercise to put the four phases in four tabs on your web browser and flip between them. You can clearly see what was changed.

The typeface in the title box is a mishmash, as is the type in the original map. The new text is in three typefaces chosen to attempt to match the original text: Times, Cloister Black and Deutch Zierschrift.



Top: Phase 0 scan

Middle: aligning to the current Town map. The white area is part of the overlay that has not been masked out.

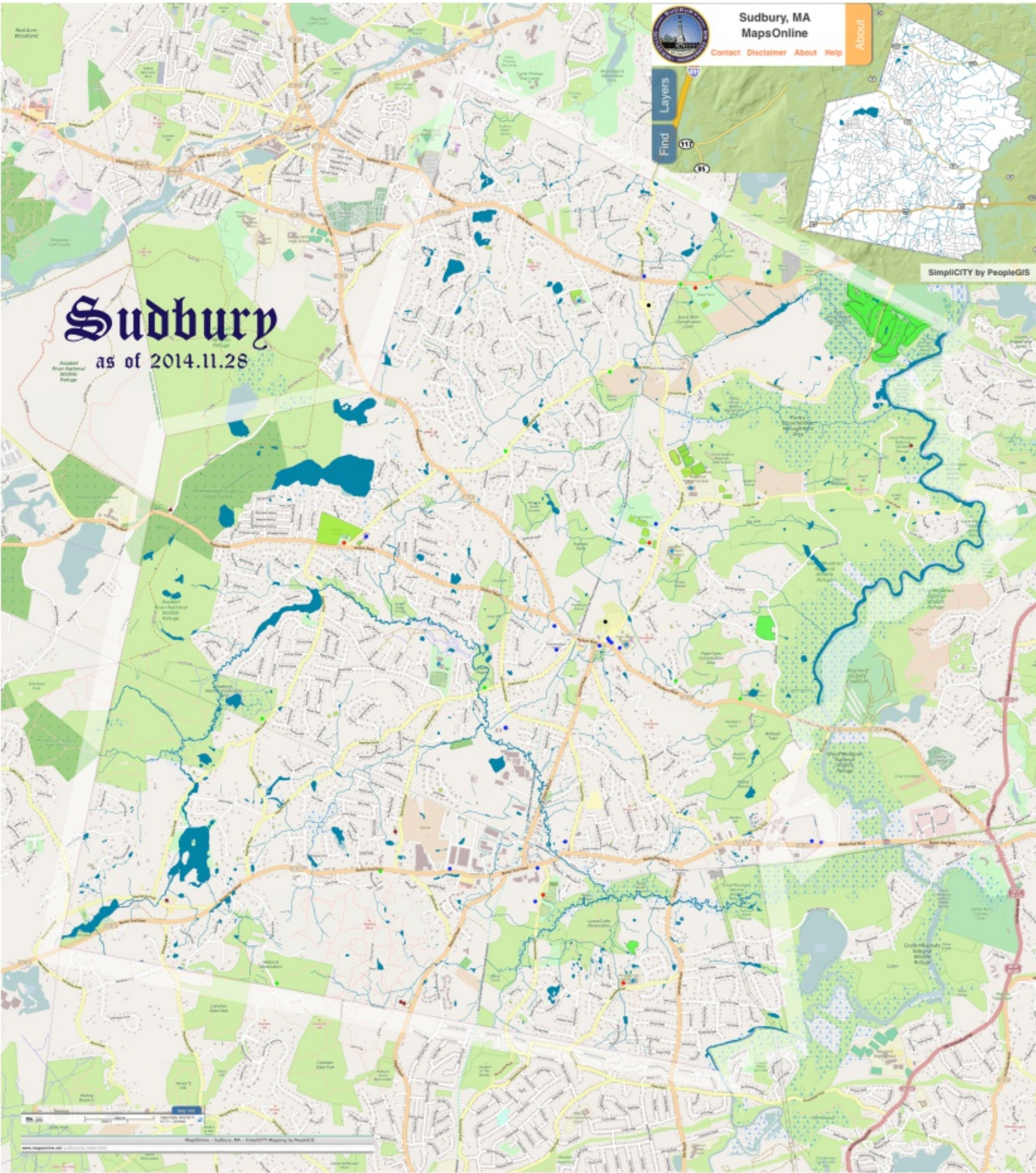
Left: scanning with scanner upside down.

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Title: Town of Sudbury, 2014

Author: Town of Sudbury, GIS

MapsOnline, click Maps on Town Website



Make you own map! go to sudbury.ma.us and click on maps at the very top of the page which gets you to www.mapsonline.net/sudburyma.