



SUDBURY MASTER PLAN

MASTER PLAN VOLUME II

Adopted by the Sudbury Planning Board [date placeholder]





Prepared in consultation with:







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GLOSSARY

Below are terms and phrases used throughout the Master Plan.

Access to Opportunities – The ability to live in conditions that make it possible for people to lead successful lives. These conditions include safe, affordable housing; good-paying jobs; quality education; adequate health care; and convenient transportation.

Access Management – The coordination between roadway design and adjacent land development to ensure safe and efficient traffic operations on major arterial roads and intersections, while providing adequate access to abutting land uses.

Accessible Design – A site, building, facility, or portion thereof that complies with the minimum accessibility standards of the Americans with Disabilities Act (ADA), Architectural Barriers Act, or local building code. (National Center for Accessibility, Indiana University, Bloomington)

Accessory Dwelling Unit – Also referred to as an in-law apartment, an accessory dwelling unit is a separate residence that is within/attached to a single-family home, or part of an accessory structure (e.g., garage). These residences provide accommodations for independent living (separate entrance, full kitchen, sleeping area, and full bathroom facilities).

Age in Place – The U.S. Centers for Disease Control and Prevention defines aging in place as "the ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income, or ability level."

Community Engagement – Actively reaching out to members of a community, usually in an organized fashion, to create discussions about important issues and get feedback that will help shape public policy, regulatory change, or investment.

Cost Burdened Household – The condition of housing costs being high enough to cause financial stress to a household. As a rule of thumb, a household is considered to have a "housing cost burden" if no more than 30% of its income is spent on rent or mortgage, utilities, mortgage principle with interest, taxes, and insurance.

Development Density – The amount of building space per unit of land. This is often expressed as the amount of floor area or number of housing units per acre. For example: "20 housing units per acre" or "30,000 square feet of commercial per acre."

Economic Development – A change in a community that allows for greater production of goods and services, connects people to jobs, and can also create additional tax revenue. Economic development usually includes the growth of existing businesses or the addition of new businesses in a community. It can also include efforts to cultivate a strong workforce.

Education – Schooling or training including, but not limited to: job training, formal schooling, self-education, continuing or adult education, or people learning about each other's perspectives through discussion.

Green Infrastructure – The use of natural features and engineered systems to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife. (www.americanrivers.org)

Household – A household consists of all the people who occupy a housing unit. A house, an apartment or other group of rooms, or a single room, is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters; that is, when the occupants do not live with any other persons in the structure and there is direct access from the outside or through a common hall. (U.S. Census Bureau)

Housing Unit – A housing unit is where people live, such as a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters. (U.S. Census Bureau)

Inclusionary Zoning - a regulatory tool used by municipalities to increase the number of newly developed homes that are deed-restricted to be affordable to households of low to moderate incomes

Infill – Construction that "fills in" the gaps in already developed areas. Infill can occur on vacant land between buildings or on large parking lots. It can also include reusing or changing the use of an existing building by remodeling or through renovation.

Infrastructure – The framework or system of public facilities that meets the needs of a community. For example, roads, bridges, drinking water systems, sewer systems, treatment plants, sidewalks, buildings, etc.

Land Trust – A non-profit organization that protects land for public and environmental benefits.

Low Income Household - A household whose income is 80% or less of the area's median income.

Makerspaces – Also called "hackerspaces," "hackspaces," and "fablabs," collaborative spaces where people share workspace, equipment, and other resources. Sharing resources and exchanging ideas support entrepreneurs, makers, students, and artists. Products often include tools, machine components, and electronics developed using cutting edge technologies like laser cutting and 3-D printing.

Missing Middle Housing - a range of house-scale buildings with multiple units, compatible in scale and form with detached single-family homes, located in a walkable neighborhood. (https://missingmiddlehousing.com/)

Mixed-use Development – Development of a building or collection of buildings with two or more different uses, such as residential, office, retail, public, or entertainment. The term is most often used to describe developments that have a mix of commercial and residential use.

Modes of Transportation – The different ways we get around town: car, bus, walking, biking, rail, cab, etc.

Moderate Income - A household whose income is between 80% and 120% of the area's median income.

Multimodal – Accommodating different modes of transportation (see above).

Planning – Community planning. A process that develops goals, objectives, and strategies to guide community decision making over several years. The process often includes, community engagement, analyzing existing resources and conditions, developing a vision for how a place will look in the future, developing strategies or activities to create that vision, and passing regulations.

Services – This term is used to refer to municipal services such as veteran's assistance, assistance for the elderly, public safety/ emergency, and other similar items.

Social Determinants of Health – The economic, physical, and social environments in which we are born, live, work, and age. (U.S. Department of Health and Human Services)

Stormwater Management – Using structures or natural systems to remove pollutants in runoff (e.g. from melting snow, storm events) before it enters into groundwater, waterways, or wetlands.

Universal Design – The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaption or specialized design. (Center for Universal Design)

Vulnerable Populations/Residents – Residents that are either more susceptible to negative health impacts because of a physical condition or have been shown to suffer certain negative impacts disproportionately.

Zone II Protection Area – the primary recharge area of an aquifer for a public water supply well.

Zoning – Local regulations that specify uses that are allowed and the sizes and locations of buildings on a property.

ACRONYM

ACS American Community Survey **HDC Sudbury Historic Districts Commission**

ADA Americans with Disabilities Act HMP Hazard Mitigation Plan

AMI Area Media Income HPP Housing Production Plan

APR Agricultural Preservation Restriction HUD U.S. Housing and Urban Development

CDS Crash Data System LARC Land Acquisition Review Committee

CHAS Comprehensive Housing Affordability Strategy LHMC Local Hazard Mitigation Committee

CERT Sudbury Community Emergency Response Team LFPR Labor Force Participation Rates

CIP Commercial, Industrial, and Personal Property LID Low Impact Design

COA Council on Aging LINC Learning Intergenerational Community

CPA Community Preservation Act LSRHS Lincoln-Sudbury Regional High School

CPI Consumer Price Index MACRIS Massachusetts Cultural Resource Information

System

MBTA Massachusetts Bay Transportation Authority

MESA Massachusetts Endangered Species Act

MFI Median Family Income

MAPC Metropolitan Area Planning Council CWMP Comprehensive Wastewater Management Plan

MassDOT Massachusetts Department of Transportation

Mass Central Rail Trail (MCRT)

DHCD Massachusetts Department of Housing and Community Development

DEP Massachusetts Department of Environmental Protection

CR Conservation Restriction

DMH Massachusetts Department of Mental Health MCC Massachusetts Cultural Council

DOER Massachusetts Department of Energy Resources Metropolitan Council for Education Opportunity

(METCO) DPW Department of Public Works

EEA Massachusetts Executive Office of Energy and

Environmental Affairs

FEMA Federal Emergency Management Agency MGL Massachusetts General Laws

FISH Friends in Service Helping MPIC Master Plan Implementation Committee

FIRM Flood Insurance Rate Map MPH Miles per hour

GIS Geographic Information System MRC Medical Reserve Corps

GRP Gross Regional Product MSA Metropolitan Statistical Area

HAMFI HUD Area Median Family Income MVP Municipal Vulnerability Preparedness

HAP Housing Action Plan MetroWest Regional Transit Authority (MWRTA) NAICS North American Industry Classification System

NHESP National Heritage and Endangered Species Program

NPDES National Pollutant Discharge Elimination System

OSRP Open Space and Recreation Plan

PWD Public Works Department

RHSO Regional Housing Services Office

RMV Registry of Motor Vehicles

SCC Sudbury Cultural Council

SHC Sudbury Historical Commission

SHI Subsidized Housing Inventory

SOC Standard Occupational Classification System

SPS Sudbury Public Schools

SRF State Revolving Fund

STAR Students Thinking and Acting Responsibly in Sudbury

SuAsCo Sudbury-Assabet-Concord

SVT Sudbury Valley Trustees

TMA Transportation Management Association

TMDL Total Maximum Daily Load

UMDI University of Massachusetts Donahue Institute

USGS US Geological Survey

WMA Wildlife Management Area

WRPOD Water Resource Protection Overlay District



Sudbury Town Hall. Photo Credit: John Phelan.

INTRODUCTION

WHAT IS THE SUDBURY MASTER PLAN?

The Sudbury Master Plan sets the course for our future. It expresses our aspirations as a community to protect and support what we love about living in Sudbury and sets a course for the future. The Sudbury Master Plan looks at where we are, where we want to go, and how we are going to get there. It helps us be proactive and strategic about what happens in Sudbury over the next 20 years. Because it outlines our future path, it will be used to guide public and private investments. It shows what we want to preserve, where the community should be strengthened, and what could be transformed to meet current and future needs of residents and the business community based on community wide values.

WHO DEVELOPED THE MASTER PLAN?

The Sudbury Master Plan was shaped by the community. Led by the Master Plan Steering Committee, the Town used a variety of methods to gather feedback, disseminate information about the Master Plan and update residents, businesses, workers, and Town staff. These tools included:

- Larger public events, such as forums and open houses
- Smaller focus groups
- Online and paper surveys
- Interviews with stakeholders
- Attendance at local events
- Editorials and news articles in the Sudbury Town Crier
- The Master Plan Steering Committee website

Additionally, the Master Plan Steering Committee held, at a minimum, monthly meetings, which were open to the public and also were recorded and broadcast by Sudbury TV. Many residents took advantage of these meetings, offering their insights and personal experiences of living and working in Sudbury. Summaries of all the public events and input are found at https://sudbury.ma.us/masterplan/.

Who uses the Master Plan?

The Town uses it to...

- Help prioritize decisions
- Prioritize important projects
- Support funding and grant requests
- Justify capital improvements
- Place decisions in historical context
- Advocate for residents and local businesses

The Board of Selectmen and Town Boards, Committees, and Commissions use it to...

- Serve as a strategic framework for decision making
- Justify regulatory decisions and investment of public funds
- Guide regulatory reform

Residents and **Community Groups** use it to...

 Guide their volunteer activities to ensure everyone in Town is rowing in the same direction

The **State** uses it to...

 Learn about Sudbury's priorities and respect them in state plans

Private Developers use it to...

• Understand the community's vision

Everyone should use it as a reminder that Sudbury is a **great** place to live!

WHAT ARE THE PIECES OF THE MASTER PLAN?

The Sudbury Master Plan is made up of three volumes: *Baseline Report, Master Plan,* and *Action Plan.*

BASELINE REPORT

The *Baseline Report* is a snapshot of existing conditions as they relate to neighborhoods, parks, roadways, public services and facilities, the local economy, historic and natural assets, and other items that define the quality of life in Sudbury. It includes inventories across numerous departments and resources, as well as population and build-out projections. This information was collected through Town staff interviews, outreach to key stakeholders, and reviews of existing reports and other documentation. The purpose of Baseline Report is to provide the foundation for sound policy development moving forward.

MASTER PLAN

The *Master Plan*, this document, is the primary document for setting policies and strategies in Sudbury. It identifies the formative issues that will shape policy in all areas. It lays out the framework for how the Town will reach its vision. Public input from workshops, open houses, surveys, focus groups, and interviews guided its development. The Master Plan sets short-, mid, and long-term goals and will be used by Town leaders, staff, boards, committees, and other decision makers.

ACTION PLAN

The final volume, the *Action Plan*, details how the Master Plan is implemented. It includes individual action items needed to address community issues and needs. An advocate, such as a Town department, board, committee, or commission, is identified along with implementation timeframes. It is important to note that the Action Plan and Master Plan are companion documents and should be read together to understand the full context of action items.



Members of Sudbury's community participate in one of the Town's Master Plan Public Forums. Photo Credit: Horsley Witten Group, Inc.

HOW IS THIS DOCUMENT ORGANIZED?

This document, the *Master Plan*, is organized by topic:

ROUTE 20 CORRIDOR

Takes a comprehensive look at the future of Route 20, including issues related to housing, economic development, and infrastructure.

ECONOMIC DEVELOPMENT

Concentrates on building the Town's commercial tax base by supporting local businesses and building opportunities for new investments.

TRANSPORTATION & CONNECTIVITY

Addresses all modes of transportation to create safe and equitable access for all Sudbury residents.

HISTORIC & CULTURAL IDENTITY

Builds upon the Town's strong foundation for preserving and enhancing Sudbury's historic and cultural assets.

NATURAL ENVIRONMENT

Promotes the protection of the Town's important natural resources, including groundwater, surface water, forests, and wetlands.

CONSERVATION & RECREATION

Builds efforts to preserve important habitat and promote and climate change and the health lifestyles through active need for the Town to adapt. recreation opportunities.

TOWN FACILITIES, SERVICES, & **INFRASTRUCTURE**

Addresses municipal responsibility to provide high quality services to residents and businesses.

HOUSING

Focuses on housing diversity and affordability to meet the diverse needs of all ages and incomes.

RESILIENCY

Recognizes the potential impacts of natural hazards

PUBLIC HEALTH & SOCIAL WELLBEING

Focuses on resources in Sudbury that allow residents to be healthy and productive citizens.

Each chapter is divided into three parts:

- An overarching Goal of what the Town hopes to achieve.
- Opportunities, Challenges, and Needs describes important issues that impact Sudbury's future, as presented by data and voiced by the community.
- Policies and Actions provide direction on how the Town plans to address challenges, meet local needs, and build upon available opportunities.



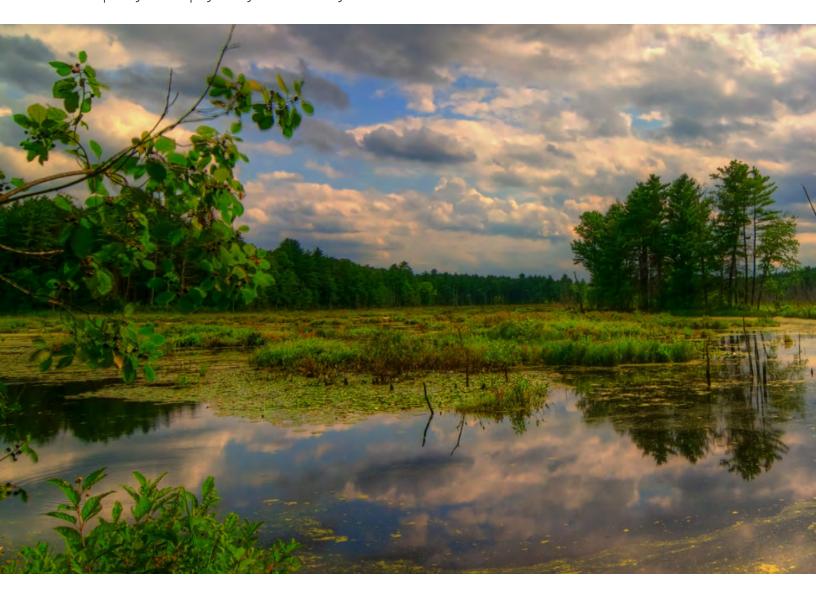
Master Plan Steering Committee. Photo Credit: Horsley Witten Group, Inc.

WHAT WE LOVE ABOUT SUDBURY

Sudbury residents are passionate about their community. During the development of this Master Plan, they continuously spoke of what they love about living in Sudbury and, if certain features were altered, the character and the quality of life in the Town would be damaged. These features are showcased below in no particular order.

OUR NATURAL AREAS AND OPEN SPACES

Residents treasure Sudbury as a place of natural beauty with abundant waterways, forests, and trails. The ample open space not only provides fresh air but shapes the Town's character, giving residents a sense of pride in their community. Natural areas, such as the National Wildlife Refuges, Sudbury Valley Trustees (SVT) properties, and Town-owned lands, provide recreational opportunities as well as habitat for plants and animals. Access to these areas allows people to enjoy activities such as hiking, birding, fishing, and boating, which in return helps to enhance the quality of life physically and mentally for all residents.



Puffer Pond, Assabet River NWR. Photo Credit: Jay Beeler (Cropped)

OUR LIVING HISTORY

The rich history of Sudbury is the cornerstone that gives the Town a sense of place and creates a unique experience for the people who live here and those who visit. Connections to the past are part of the experience in the historic Town Center and traveling among the hundreds of historic homes scattered about Town. Historic landscapes in the community include an array of historic homesteads, and remaining farmlands maintain living connections to Sudbury's rural past. Many of these sites are connected by scenic roads lined with old stone walls, mature trees, and fields. Sudbury has an impressive collection of noteworthy sites, many of which are listed on the National and State Registers of Historic Places such as the renowned Longfellow Wayside Inn, the Martha Mary Chapel and the Gristmill (all located on contiguous property, as well as the Goodnow Library, Hosmer House, Town Hall, and the Revolutionary War Cemetery).



Wayside Inn.
Photo Credit: Ted Fitzgerald, MA Office of Travel and Tourism.

OUR PUBLIC SCHOOLS

When asked why they moved to Sudbury, community members overwhelmingly responded that it was due to the quality of the schools. The public schools in Sudbury encompass two separate school districts, Sudbury Public Schools and Lincoln-Sudbury Regional High School. Sudbury Public Schools supports students from preschool through 8th grade. Four elementary schools and one middle school serve approximately 2,700 students including Boston students in the Metropolitan Council for Education Opportunity (METCO) Program. Sudbury Public Schools is committed to excellence in educating students to be knowledgeable, creative, independent thinkers who are caring, collaborative members of the school and wider communities. Sudbury Public Schools core values are:

- Enhance the learning and teaching process to enable and inspire students to achieve their potential
- Actively promote personal responsibility and integrity
- Seek and promote opportunities to advance equity
- Cultivate a lifelong commitment to community

Students in grades 9-12 attend Lincoln-Sudbury Regional High School along with students from the Town of Lincoln and Boston students who are part of the METCO program. Since its founding in 1954, Lincoln-Sudbury Regional High School has viewed itself as "a different kind of place" - a place that truly values diversity in style and substance. The school's four core values - fostering caring and cooperative relationships, respecting human differences, pursuing academic excellence, and cultivating community – constitute the foundation of the operation of Lincoln-Sudbury Regional High School.



Courtyard at Lincoln-Sudbury Regional High School. Photo Credit: John Phelan.

OUR EXCEPTIONAL VOLUNTEERISM

Small towns, like Sudbury, run on the hard work, selflessness, and dedication of volunteers. Residents give of their time to local organizations, being on boards and committees, coaching sports teams, and participating in community drives to provide for the needs of their fellow citizens. Volunteering offers vital help to people in need while creating and cultivating a community that cares. Residents of all ages contribute to the betterment of Sudbury --from the staff and members of the Senior Center to students from local Sudbury schools-- making Sudbury a caring community.



March 2018 Snowstorm. Photo Credit: Town of Sudbury.

OUR SMALL-TOWN FEEL AND SENSE OF COMMUNITY

With Boston, Lowell, and Worcester within a 25-mile radius, residents of Sudbury value its wooded and quiet environment – a respite of tranquility. It is a quiet and peaceful community where residents know and look out for each other, fostering a sense of welcome and inclusion. People support local businesses and schools, are quick to volunteer their time, and care about community events such as the Fourth of July Parade and Truck Day event at the Goodnow Library. Sudbury is a great place for people to live all stages of their lives: to experience childhood, to build a family, to retire and to enjoy growing old.



Sudbury Senior Center Repair Cafe. Photo Credit: Sudbury Senior Center.



Looking down to Town Center. Photo Credit: Parker Sorenson, FHI.

CHALLENGES IMPACTING SUDBURY'S FUTURE

Sudbury faces many challenges in the next 20 years, many of which are shred with other communities in the region and the Commonwealth. Because of this, both regional and state partnerships are developed to help tackle and solve these common issues. These issues are presented here in no particular order.

DEMOGRAPHIC TRENDS

Among the challenges that Sudbury shares with the nation as a whole is the predominant shift in age demographics. According to the University of Massachusetts Donahue Institute's 2015 population projections, the proportion of older residents (65 years and older, traditionally a smaller group) is growing, while the proportion of school-age children (18 years and younger, typically a larger group) is decreasing (see Community Profile in Baseline Report). There are two factors driving this shift. While there are certainly localized exceptions, most regions across the United States are seeing their populations become increasingly older as the Baby Boomer generation continues to age. In addition to trends in aging, families are having fewer children than in previous generations, thereby decreasing slightly the average size of households. These trends have important implications for Sudbury as it plans for public services, upgrades to facilities, programming, and housing strategies.

Sudbury needs to anticipate the needs of an aging population and how this will affect the demand for services requested from all departments in local government. Issues related to communication, mobility, recreational programming, accessibility, public health, housing choice, and safety will be affected. Policies and actions in this Master Plan will need to reflect this important demographic shift, while balancing the needs of young families who will still require excellence in education.

RISING COSTS OF LIVING IN SUDBURY

Sudbury is a very desirable community in which to live. High performing schools, bucolic historic settings, beautiful homes, and a general high quality of life attract families and young professionals. For people who already own homes in Sudbury, these conditions often make them want to stay. Unfortunately, the high demand for housing in Sudbury (and many other communities in the region) and limited developable open land has led to housing prices that are out of reach. Young families, first-time homebuyers, seniors looking to downsize, and households of modest financial means have limited opportunities to find a place to live in Sudbury.

Moving forward, Sudbury will need to consider different approaches to regulating and incentivizing a more affordable, diverse housing stock. To meet the needs of existing residents and ensure opportunities for future generations, Sudbury will need to adopt policies that pro-actively and purposefully increase the affordability of living in the community.

¹ University of Massachusetts Donahue Institute, Long-term Population Projections for Massachusetts Regions and Municipalities, 2015

TRAFFIC AND CONNECTIVITY

The issue of automobile traffic in Sudbury was a major focus point in the Master Plan process. During peak commuting times, major roads in Town can experience significant backups and many roadways are not equipped to provide safe routes for people traveling by foot or on bicycles. Importantly, sources of traffic in Sudbury are both local and regional, and the Town cannot mitigate these problems on its own. There are, however, steps Sudbury can consider that will increase options for walking and biking, to reduce the frequency of local automobile trips, and to increase services for people with mobility challenges.

In addition to traffic congestion, connectivity was also raised as a critical issue in the community. Like many towns that have agrarian roots, Sudbury developed in a way that leaves important destinations spread out in the community. Recreation areas, the Town Center, Route 20/Boston Post Road, conservation lands, the Goodnow Library, historic sites, schools, and established neighborhoods—many of these features are not well connected to each other, limiting access by any means other than a car. Creating physical connections or alternative means of travel will be a priority for Sudbury over the next two decades.

Moving forward, Sudbury needs to take steps to reshape the way residents are able to move throughout the community. A combination of new infrastructure investments, strategic roadway retrofits, public education, and regulatory amendments will be needed to provide new, safe opportunities to connect important areas of Town by foot or on bicycles. This will also take a change in perspective, and the Town must educate and encourage residents to think differently about how they get around Sudbury.

ACCESSIBILITY

The issue of accessibility in Sudbury deals with the potential for people of all abilities to have equitable access to facilities, programs, information, and services in the community. Residents who have hearing or sight impairments, developmental disabilities, mobility challenges, suffer from addiction, or have chronic health conditions often face insurmountable barriers to accessing the most basic services. While this has always been an important issue for local governments, the rising numbers of people aging into disability has drawn more attention to the issue for municipalities across the country. Population projections for Sudbury suggest that over 2,400 residents will be added to the 65 and older age cohort between 2020 and 2030.2

Moving forward, Sudbury will not only need to consider how the community's demographic trends will drive policy around accessibility, but it will also need to consider the future of its facilities. A significant number of Sudbury's existing municipal buildings are historic, built at a time when issues of accessibility were scarcely, if ever, considered. In order to meet its obligation to make Town facilities accessible to people of all abilities, Sudbury will need to retrofit existing structures in ways that may alter the physical appearance of these structures, and explore alternatives (i.e. Universal Design) to insure accessibility by all.

2 Ibid.

OPERATING COSTS, ASSETS, AND MAINTENANCE

A recurring theme in Sudbury's Master Plan update process was the need for proactive planning related to municipal programs, assets, and facilities. The municipal budget is complex and comprehensive, covering the salaries of municipal employees and all expenses related to schools, roads, parks, buildings, fleet vehicles, equipment, and many other assets. Special projects may also be funded as part of the budgeting process depending on the needs of the community at a given point in time and funding abilities. Analyses performed during the early

stages of the process showed Sudbury's overall costs have risen by approximately 2% (average) every year since 2016. Whether this continues to be a trend remains to be seen, but discussions during the Master Plan process indicate there are growing needs for services and several facilities improvement projects that would benefit the community.

Moving forward, Sudbury must prioritize the planning and resources dedicated to maintaining and optimizing the condition of its assets. Not only will this provide for higher levels of service and better condition of its facilities, but it will also create a proactive approach to asset management that saves money over time.

CLIMATE CHANGE

In the decades to come, the issue of climate change will affect every community across the globe. Rising temperatures world-wide are creating shifts in weather patterns that have already started to affect the operations and planning of municipal governments. Participating in the Municipal Vulnerability Preparedness (MVP) Program, residents used climate projections of the Northeast Climate Center (2018)³ for the Sudbury/Assabet/Concord watershed to identify increased frequency and severity of storms with winds and ice, drought, and localized flooding as the primary threats at the local level. Sudbury has taken measures to plan for the impacts of climate change by participating in the MVP Program and updating its local Hazard Mitigation Plan. These efforts have helped Sudbury identify facilities, populations, and areas of the community that are vulnerable to natural hazards and develop and prioritize ways to address these vulnerabilities.

Moving forward, Sudbury must continue to track statewide and national data, and local impacts from climate change and natural hazards, and employ measures to respond, mitigate, and adapt to impacts in municipal operations. As a broad objective for its future, to the extent possible, Sudbury will continue do its part by reducing its carbon footprint by reducing its dependency on fossil fuels by using renewable energy and promoting energy efficiency of municipal operations and facilities.

³ See http://resilientma.org/ for current data on climate change projections and other resources for the Commonwealth.

THE RETURN OF ANOTHER PANDEMIC

During the development of this Master Plan, the world was being subjected to a global pandemic event that was truly historic and unforeseen. The onset and spread of the novel coronavirus (COVID-19) in the spring of 2020 shut down parts of our society on a scale that had never been experienced. It was a time of tremendous disruption and uncertainty, causing incredible stress to the nation's economy and the health care infrastructure.

At the local level, municipalities began to reflect on how government as well as the design of the physical and social systems of our communities have helped or hindered residents and businesses to be more resilient and manage through the COVID-19 pandemic. Long-term planning, as captured in Master Plans, can be an important tool for cities and towns to build capacity. As this plan looks ahead 20 years, the view is two-fold. For the long-term, it is very difficult to predict how the COVID-19 pandemic, and preparing for future pandemics, will affect each element of Master Plan because impacts and outcomes were still unknown when this plan was adopted. In the shorter-term, Sudbury can assess community needs and collect information to build knowledge for future decision-making. An obvious issue every community will need to assess is how it was (or was not) able to continue everyday municipal operations and services during COVID-19. Was the Town able to meet the needs of its residents and were there populations who were more vulnerable than others? How resilient were local businesses, and how did families cope with the loss of in-school learning and organized activities? How will recreation facilities and open spaces be used in the future? Answering these questions, and many others, will be important to Sudbury moving forward and this Master Plan will start that process.



Town Center. Photo Credit: Parker Sorenson, FHI.

HE INTENT OF THE MASTER

The following statement is adapted from the 2001 Sudbury Master Plan. It focuses on building and supporting Sudbury as an inclusive and sustainable community. These values still resonate with Sudbury residents today, and the 2021 Master Plan builds of these principles.. The adapted statement recognizes long-term challenges of climate change, social and economic resiliency, and social injustices that were not specifically articulated in 2001.

Key concepts behind sustainability are the inter-relatedness of issues, and a desire to seek a balance between the economic, social, and ecological aspects of a community. It also supports a community that can weather the storm and it is the goal of the Master Plan to expose the complex issues facing the Town today, and to explore multi-faceted approaches to problem solving. Sustainability seeks to:

- Work within nature's limits by protecting and restoring ecosystems.
- Use resources efficiently and productively.
- Minimize the use of fossil fuels and toxic materials.
- Support economic self-sufficiency to create a vibrant and strong local economy.
- Maximize fairness in the distribution of and access to municipal resources, programs, services, and facilities.
- Promote participatory decision-making and a healthy democracy.
- Engage diverse population groups in decision-making that are typically under-represented.
- Adapt to and mitigate the anticipated impacts of climate change.
- Call out social injustices and work to create a more inclusive community.

Sustainability implies that change is inevitable, but that change can be directed toward positive ends. Housing needs, environment protection, economic development, transportation, and social services are no longer isolated issues. Integrated strategies are now required to balance the effects of change in any one sector on the other sectors.

The concept of sustainability also gives the readers and users of the Plan a broader perspective of Sudbury's growth issues. Many communities across the state and the nation continue to experience rapid growth and loss of vacant land. Many common growth management techniques, such as cluster zoning, planned unit development, and phased growth bylaws, generally deal with one particular topic, such as managing the impacts on the natural environment, and do not promote sustainability by using these techniques to meet multiple community objectives. A more comprehensive approach must be taken to balance the impacts of growth with meeting local needs for housing, recreation, or services.

Sustainability in the context of land use planning focuses on balance between what is permitted by law and the impacts of development on the entire community—the economic, environmental, and societal aspects. Balancing competing interests (wetlands protection versus tax revenue), requiring a project to be of a scale that is in keeping with the character and environment, and gaining public acceptance of quiding principles and performance standards for development are key elements to sustainable planning. Sustainable development generally reserves land for open space, reduces lawn and other landscaped areas to decrease water consumption, and is of a scale that is accessible to pedestrians and decreases reliance on automobiles.

A primary goal of a sustainable community is to meet its basic resource needs in ways that can be continued into the future. A sustainable community seeks to maintain and improve its economic, environmental, and social characteristics so that its residents can continue to lead healthy, productive, and enjoyable lives. Sustainability is an attainable goal for a community and a desired goal for Sudbury.



Route 20. Source: Historic Route 20 Association.

ROUTE 20 CORRIDOR

GOAL

Create a destination that supports housing options, economic opportunities, and inviting and accessible public spaces.

OPPORTUNITIES, CHALLENGES, AND NEEDS

A UNIQUE OPPORTUNITY

The Town has been studying the Route 20/Boston Post Road corridor intermittently for approximately 20 years, recognizing it as a unique and important asset in the community. As leadership and residents in Sudbury continue to think about broad issues such as infrastructure, fiscal health, housing diversity, traffic mitigation, connectivity, and economic development, many discussions have included a focus on the Route 20 Corridor. A classic SWOT (Strengths-Weaknesses-Opportunities-Threats) assessment shows the diversity of important issues that come together along this corridor:

STRENGTHS

- High volumes of traffic along this corridor can result in high levels of commerce and send a positive message to business owners.
- Technical studies have identified some opportunities for regulatory reform and infrastructure investment. Ongoing town-wide wastewater planning will be important to encourage and support public and private investments on Route 20.

WEAKNESSES

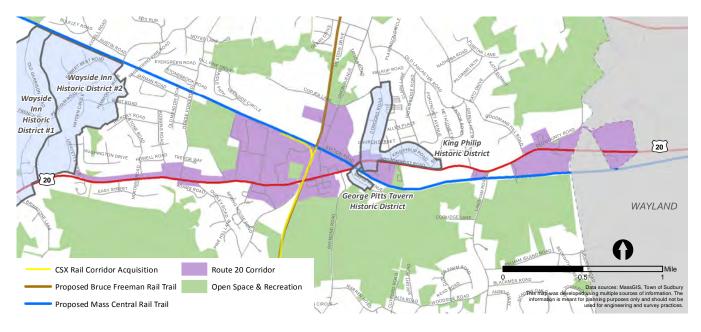
- While traffic is a potential strength for commerce, it is a weakness when considering environmental impacts and quality of life.
- In addition to traffic volumes, circulation patterns and the lack of any significant public transit options reinforce this area as "auto-dependent."
- A lack of infrastructure, particularly for wastewater disposal, make achieving the full development potential for this corridor impossible.

OPPORTUNITIES

- The market for clusters of higher density housing similar to Meadow Walk development is likely to remain strong and Sudbury could help achieve many of its housing goals through redevelopment along this corridor.
- The Bruce Freeman Rail Trail (BFRT), the recently acquired CSX rail corridor by the Town, and the proposed Mass Central Rail Trail (MCRT)⁴ will provide alternative ways to link Route 20 to other areas of Sudbury and to surrounding communities.
- With costs of municipal services continuing to rise, commercial space, mixed-use, and smaller housing units (studio and one-bedroom units) will have a positive fiscal impact on municipal revenue.



⁴ Note that during the development of this plan, the Town of Sudbury is opposed the current MA Division of Conservation and Recreation plan/partnership with Eversource and does not support its Mass Central Rail Trail plan as it stands.



The Route 20 Corridor focuses on commercial areas that extend from the Wayside Inn Historic District #2 east to the Town border with Wayland.

The Route 20 corridor includes two local and National Register Historic Districts along with historic buildings and structures representing Sudbury's evolution over time.

THREATS

The greatest threat to the Town from the Route 20 area would be a poorly researched, developed and executed vision and plan for the area. Without new regulations that are smartly crafted, future development would not improve circulation, aesthetic and historic appeal, nor the overall vibrancy of the corridor. Further, because much of the corridor lies in the Water Resource Protection Overlay District, without the proper development standards and enforcement, new development could pose threats to the Sudbury Water District water supply.

After years of study and some significant redevelopment, the Route 20 corridor is unquestionably the Town's primary target for growth and economic development. How this growth occurs, how it functions, and what it looks like will be critical to achieving the broader goals for this corridor and guide new development in that direction.

A CLOSER LOOK AT WATER RESOURCES

Water resources in the Route 20 corridor play a major role in limiting and shaping development in the area. In some areas, wetlands place obvious constraints on a property. Protecting these resources is a high priority for the community.

Local development standards, performance standards for construction practices and stormwater management establish buffers to wetlands. Where wetlands are not readily visible in the landscape, shallow groundwater tables can still make site development challenging. Regulations prohibit excavation or re-grading in these areas. Another challenge of high

groundwater tables is on-site disposal of wastewater. With no sewer service in the area, each site is generally responsible for installing and maintaining a private septic system. If the site is constrained by high groundwater tables, finding a suitable location for a leach field is very challenging and, in some cases, the engineered solutions can be unattractive and very costly.

The other significant water resource issue along Route 20 is the presence of Zone II protection areas for the Sudbury Water District water supply wells. The delineation of these areas is created through hydrogeologic modeling and approved by the Commonwealth's Department of Environmental Protection (DEP). Sudbury uses the Zone II (and Zone III) delineations as zoning overlay districts, which apply greater limitations on land use, stricter development standards, and more intense permit scrutiny. This overlay district, the Water Resource Protection Overlay District (WRPOD), has historically been a resource protection tool in Sudbury for many years.

A review of the regulations designed to protect water resources along Route 20 (and elsewhere in Sudbury) suggests substantive bylaw revisions would be beneficial. For example, while the WRPOD has been amended in some small fashion more recently, the last major upgrade to the bylaw took place in 2005. The Town may wish to revisit the WRPOD in its entirety and determine how this section of the Zoning Bylaw works with other protective standards for stormwater, grading, landscaping, and site development.

POLIC

See Groundwater and Water Supply Resources map in Natural Environment.

WASTEWATER INFRASTRUCTURE PLANNING

One of the strengths of Route 20 identified earlier in this chapter is the technical planning for wastewater management has already occurred and is being updated at the time this Master Plan was drafted. In 2001 and 2012, separate reports highlighted many of the environmental constraints already discussed (above) but also looked at potential solutions, including those that could anticipate some growth in the area. These reports were helpful as they confirmed predominant soil conditions and wastewater disposal challenges remain the greatest challenges to future development this area. Limited shared wastewater solutions may help to unlock the development potential of some larger parcels or those with favorable soils. The 2012 study found that a more centralized approach would likely be needed to meet different challenges in more intensely developed areas along the corridor. At the time this Master Plan was drafted, the Town had embarked on developing a Comprehensive Wastewater Management Plan (CWMP) for the entire town. While Route 20 is certainly a focus of the document, the intent is also to consider future wastewater needs throughout the community. What will be critical for success is an integration of this wastewater planning effort with any future planning and visioning for this area (see **High Quality Design** on the next page).

TRAFFIC AND CIRCULATION

Traffic congestion along Route 20 and other major roadways is a key issue for Sudbury. Finding alternative ways to reduce the volume of traffic on Route 20 can improve circulation and access to local businesses in the area. Because drivers are a mix of regional commuters passing through Sudbury and those with local destinations, strategies should address the impacts of both. For commuters and those passing through, the Town continues to work regionally to build transit options to commuter stations. Finding a designated stop for the Commuter Shuttle that travels from Marlborough to the Massachusetts Bay Transportation Authority (MBTA) Riverside Station will increase its access to Sudbury residents.

For those with destinations along Route 20, development design can help improve circulation (see **High Quality Design** below). Creating a single access point for multiple properties, a secondary road, and other elements can move cars off of Route 20. The area is very much car-oriented, however, increasing safe walking and biking alternatives can encourage local trips to Route 20 without a car. Connecting developments through safe and accessible walkways and sidewalks encourages people to park once and visit multiple places. The proposed BFRT, recently acquired CSX rail corridor by the Town, and MCRT will create both local and regional connections to the area.

Addressing traffic and circulation on Route 20 will take multiple approaches as well as a shift from away from a "driving" culture. Encouraging walking and/or biking for some trips that may have been done by car is progress towards this shift.



See "Traffic Circulation & **Engineering** Improvements" in Transportation and Connectivity.



See "Connectivity, Transportation, & Master Planning" in Transportation and Connectivity.

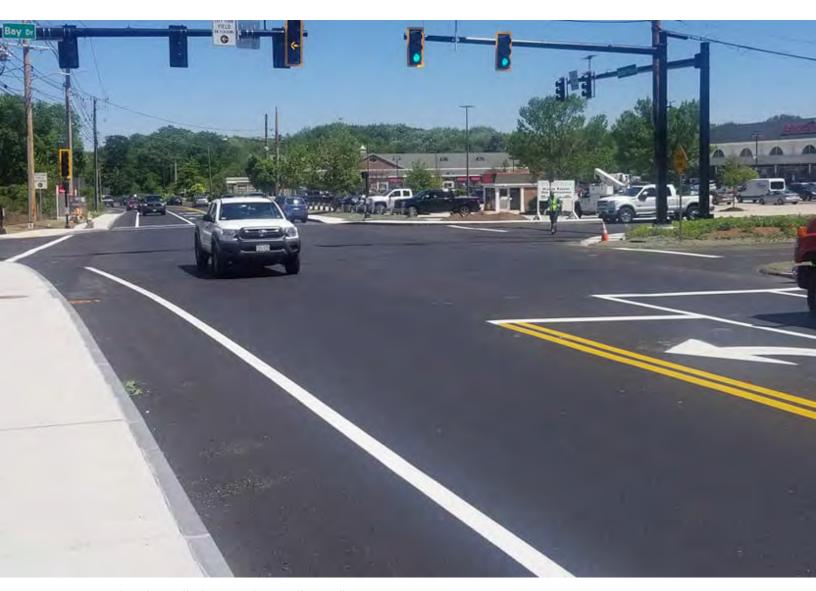
HIGH QUALITY DESIGN

The issues related to water resources and wastewater disposal are central and integral to the successful future of Route 20. If these challenges are successfully met, questions about what would be developed, how big it would be, and what it would look like still need to be addressed. The Master Plan process provides strong "high altitude" direction for future development proposals in this regard with participants favoring redevelopment of Route 20 as a mixed-use area that serves as more of a "destination" for people in Sudbury and surrounding communities.

Denser mixes of commercial and residential uses with connections between sites and other areas of Sudbury that do not require the use of automobiles was the predominant theme in small group discussions and reports from public meetings. A previous study performed in 2015 touched upon some design issues for specific sites that would meet these objectives. However, the study's focus area did not include the full extent of properties considered in the 2012 wastewater study.

Moving forward, the Town would benefit from a physical planning and design study that would illustrate detailed build-out scenarios for the full extent of Sudbury's redevelopment goals along Route 20. The benefits to this type of study include:

- **Public Discussion.** While there seems to be enthusiasm around the general redevelopment vision emerging in this Master Plan, the details of what is desirable in the future may be different among Sudbury residents. Developing physical plans for these areas, even if they are only illustrative in nature, will allow residents to develop a shared understanding of future possibilities.
- **Zoning Standards.** A previous study offered suggestions for amended Zoning Bylaw language related to Route 20 and these ideas should be part of future deliberations. However, developing representations for future development across Route 20 focus areas would help the Town visualize different zoning standards such as allowable uses, circulation, and dimensional controls. They may also help to develop a more form-based approach that focuses more on regulating design and performance.



Signal Installed at Meadow Walk - Sudbury. Photo Credit: Sudbury Police Department.

- Wastewater Flow. Visualizations of build-out can provide realistic numbers related to future wastewater flows. While conventional build-out analyses apply a basic set of spatial assumptions to individual lots, physical planning provides a more refined approach. With buildings in place, wastewater flows can be estimated, which will provide a greater level of detail to the town wide CWMP.
- Nitrogen Calculations. In addition to the ability to calculate more precise estimates of wastewater flows, visualizations of future development will allow the Town to examine nitrogen loading inputs. These calculations are one of the most important compliance points for the WRPOD, and future development scenarios will allow the Town to see how limiting these standards may or may not be.
- Traffic Volumes and Circulation Options. During the Master Plan process, participants showed interest in innovative solutions to the circulation problems on Route 20. Bypass options, rear lot connections, and other connectivity solutions were put forward as potential strategies. Developing physical plans for future development could be used to test these ideas and compare their performance with estimated future traffic volumes.





Landham Road Intersection. Photo Credit: Town of Sudbury.

COORDINATE AND EXPEDITE PLANNING EFFORTS

The implementation of infrastructure initiatives such as developing a public wastewater system that could service Route 20 (or more) is complex and time consuming. The Town will need to be aggressive if it hopes to see a project like this constructed in a 15-year time-frame. With many questions still unanswered, future investigations regarding wastewater, the future vision for Route 20, or other related work must remain a high priority and receive continued attention from all applicable departments. Municipal leadership should consider regular reporting mechanisms to keep efforts moving forward and should also ensure municipal staff from various departments have the capacity to continue study and work in the Route 20 focus areas.

POLICIES AND ACTIONS

The Town of Sudbury will implement the following policies and actions to meet the opportunities, challenges, and needs of the Route 20 Corridor.



Sudbury will work to develop a strong vision for the Route 20 Corridor and remove barriers to achieving that vision.

- **A.1** Complete a Comprehensive Wastewater Management Study that includes recommendations.
- **A.2** Fund and commission wastewater solution(s) for the Route 20 Corridor identified in the Comprehensive Wastewater Management Study. (See above Action A.1)
- **A.3** Fund and commission a Visioning Study for the Route 20 Corridor that will provide detailed build-out visualizations of future development scenarios. Identify preferred elements from each scenario.
- **A.4** Develop and adopt zoning for target areas on the Route 20 Corridor that will allow developers to build environmentally sustainable, accessible, and attractive projects.
- **A.5** Revisit the Water Resource Protection Overlay District to determine whether this zoning tool is still functioning as intended. Revise the Zoning Bylaw as appropriate.
- **A.6** Ensure housing proposed within the Route 20 Corridor, either as standalone developments or part of a mix-used project, follow policies outlined in Housing.
- **A.7** Continue to identify transportation improvement opportunities (policies, amenities, or new infrastructure) to connect Route 20 to other areas of Sudbury by means other than the car, such as proposed rail trails, walkway improvements, or shuttle services for commuters, seniors, and youth (see **Transportation and Connectivity Policy B).**



Identify ways to reduce congestion along Route 20 in order to connect the corridor with other key nodes in the community.

- Provide incentives for private commercial property owners on the Route 20 Corridor to incorporate site elements conducive to transit ridership. These could include interior circulation routes for shuttles and some dedicated parking spaces for shuttle riders.
- **B.2** Evaluate the potential for using a new "back road" or "access road" or other connectivity strategies to keep automobiles from re-entering the Route 20 Corridor when unnecessary.

- **B.3** Use incentives or requirements for new development along the Route 20 Corridor that connect Route 20 to future rail trails in Sudbury in a way that enhances local and regional access. This may include leveraging public and private investments for new infrastructure.
- **B.4** Revisit the Route 20 commuter shuttle and other regional transit programs to determine if it is meeting commuter needs.



144 North Rd Sudbury, MA. Source: LoopNet

ECONOMIC DEVELOPMENT

GOAL

Support development that is fiscally responsible, generates jobs suitable for residents, and offers opportunities to access desired retail, services, and other amenities within Sudbury.

OPPORTUNITIES, CHALLENGES, AND NEEDS

THE LOCAL ECONOMY IN CONTEXT

Sudbury residents love their community because of the high quality of life that comes with its quiet residential neighborhoods, and abundant green space, all within commuting distance of the Greater Boston region's major employment centers. The Town also has a number of businesses that cater to the community, providing services and amenities that contribute to the Town's local appeal. Private businesses not only provide job opportunities to residents, by they are also an important contributor to Sudbury's fiscal health. Supporting a diverse and competitive local economy makes the Town an attractive place for employers and residents alike. For example, offering a façade program can help businesses improve building exteriors, such as repainting, windows, siding, doors, lighting, or signage. Another example is a revolving loan program, which can support businesses by filling in financing gaps. These types of programs help with the purchase of property, equipment, or inventory.

Economic development relates to and is dependent upon all other elements in the Master Plan. Most directly, connectivity and housing are critical ingredients for sustaining and enhancing Sudbury's reputation as a place to do business. Businesses rely on an efficient transportation network to get employees to work, reach customers, and transport goods "from Point A to Point B." The better connected the town is, the more synergies can occur and contribute to the Town being an even more desirable place to locate businesses.

With regards to the local housing market, the healthy regional economy makes Sudbury an attractive place to live because access to job opportunities provides income for residents, while supporting robust property values allows homeowners to build wealth.

Beyond housing and transportation, economic development is also critical in providing the fiscal resources needed to deliver Town services, maintain infrastructure, and achieve goals related to sustainability, public health, historic preservation, and natural resource conservation.

The issues related to economic development highlighted in this Master Plan (below) were identified by the community as those needing special attention when looking at the economic and fiscal future of Sudbury over the next 10 to 20 years.

GEOGRAPHIC CONSTRAINTS AND OPPORTUNITIES

In many ways, Sudbury's geographic location shapes its economic development potential. The same factors that contribute to the Town's desirability as a quiet residential community also make it challenging to attract certain types of industry that rely on close proximity to workforce and consumer markets. Sudbury is geographically isolated; while it is surrounded by highways on all sides (Route 128 to the east, the Massachusetts Turnpike (I-90) to the south, I-495 to the west, and Route 2 to the north), the community is situated five to ten miles away from each of these arteries. This makes Sudbury harder to reach than many of its surrounding neighbors, all of which have more direct highway access, and in some cases, rail access. Larger companies relying on access to a significant labor force are more likely to locate in areas that are directly accessible to commuters. Likewise, regional-oriented retail and services must attract customers from a broad geographic area to sustain high sales level and therefore tend to locate closer to major highways.

This geographic issue helps to shape three important characteristics of Sudbury's local economy:

- 1. The local economic base is mainly local serving.
- 2. A notable component of the Town's economy is the Professional, Scientific, and Technical (PST) Services, which often include smaller businesses and sole proprietorships. These types of businesses are more adaptable to areas with a limited size labor pool.
- 3. Larger operations do gravitate to Route 20 to take advantage of local zoning and the community's most heavily traveled corridor.

A Local-Serving Economy

Among the town's largest employment sectors are Health Care and Social Assistance (nearly 20% of jobs), Retail and Restaurants (17% of jobs), and Government (accounting for about 15% of jobs).

A Focus on PST

Professional, Scientific, and Technical Services sector, which makes up 16% of jobs located in Town, and includes sub-industries such as architectural and engineering services, computer systems design services, scientific research and development, and others.

From an economic development perspective, Sudbury should look to capitalize on these characteristics within the community. Building a reputation as a Town where small businesses and entrepreneurs can thrive while enjoying the historic setting and a great school system would continue to attract small but vital levels of commerce and business development activity.

EVOLVING COMMERCIAL SPACE NEEDS

Global trends affecting the way people work and shop are having far-reaching impacts on the demand for commercial real estate. Conversations with Sudbury's business community pointed to substantial office and retail vacancies in Town. While the Town's existing businesses tend to hop between spaces as size requirements change, the overall amount of vacant space on the market remains high (estimated at 30%). Contributing to this is the fact the Town's commercial building stock is aging and many spaces are in need of upgrading, making them at this point less attractive and competitive in the market.

OFFICE SPACE

In recent years, innovative and talent-driven companies have led the charge of office tenants relocating from suburban office parks to city centers and other amenity-rich locations as these companies respond to employee demand for high-quality environments with access to food, retail, fitness amenities, and public transit within walking distance. Philosophies on what constitutes a high-productivity work environment have changed, and employers have realized that to gain an edge in attracting top talent, they must offer workplaces with amenities, both on- and off-site.

At the same time that workplaces are shifting toward amenity-rich environments, workers are increasingly being given the option to work remotely, a trend accelerated by the COVID-19 pandemic (see Entrepreneurs and Makers below). This means not only is the type and location of office space changing, but overall square footage demand is shrinking. With office space vacancies expected to increase in the short term, the supply glut means that the most desirable spaces will be filled. Alternatively, there may be an increase in demand for more flexible office space as a result of the COVID-19 pandemic. Employers may become more open to staff working remotely, but home might not be the best environment. Creating flexible co-workspaces gives employees a place to go separate from home locally without a long commute.

RETAIL SPACE

As online shopping volume continues to grow, brick and mortar retail disruption is happening guickly, another trend also being accelerated by COVID-19. To be sure, the vast majority of retail spending is still done in stores (e-commerce represents about 11.8% of retail spending nationally as of the first quarter of 2020⁵). Often, virtual and physical presence are now finding synergy rather than competition. In order to maximize the benefits of this model, retailers have been working to reposition stores, close unproductive units, and improve their mobile apps so people can shop from their phones anywhere—even in the store itself. The omni-channel approach is also causing some retailers to rethink their footprint and their number of locations especially in areas where real estate is expensive. Many of these companies are choosing to have a single well-located store. Encouraging customers to shop online also means retailers can keep less on-site storage, further reducing their footprints.

⁵ US Census Quarterly E-Commerce Report, Q1, 2020

The move towards experiential retail has had the most influence on the typical retail tenant mix. The sectors that have seen the most growth are fitness, food, entertainment, and services. The success of traditional gyms has spawned an explosion in recent years of boutique fitness studios. Yoga, Pilates, and spin studios were the trailblazers of this segment, while newcomers include dance workouts, personalized group training, and boxing. Entertainment concepts, such as trampoline parks, arcades, indoor sports, and other amusement activities, are backfilling a lot of second-generation box retail.

In summary, customers are looking for shopping experiences in interesting environments that offer more than just the physical goods they can order online. Much of the retail development currently in the pipeline in the Boston suburbs is planned as part of mixed-use projects, as exemplified by Sudbury's recent Meadow Walk development.

ENTREPRENEURS AND MAKERS

Before the COVID-19 pandemic, flexible co-workspaces focused on the accommodation of entrepreneurs and makers. For entrepreneurs and the self-employed, sharing office space can be a benefit if, as noted earlier, working from home is not the best situation for productivity. Equally, rental costs are lower than traditional office space, and some offer memberships with added perks, like administrative support or other features.

Makers can be crafters, artists, and inventors. Space and amenity needs vary, but typically more industrial-type spaces fit the needs of makers. Beyond space, technology and other amenities are also shared, such as equipment and tools. The Sudbury Public Library has a makerspace and offers planned programming, workshops, free play, and community groups time. Having this type of space available locally can help transition enthusiasts into entrepreneurs.

ASSETS AND CONSTRAINTS

In Sudbury, constrained land availability for commercial use combined with the lack of a wastewater management system presents challenges for attracting new office or retail development. However, there are opportunities for redevelopment of existing properties in a manner that aligns with evolving market trends, and in particular, potential for integration with Sudbury's vast natural, historic, and recreational assets. Moreover, the high consumer spending potential of Sudbury's households presents an opportunity to capture a greater share of spending that is currently leaking into surrounding communities.

ALIGNING SKILLS AND JOB OPPORTUNITIES

A common theme heard throughout the Master Plan process was the desire to better align skills and job opportunities among the Town's residents and workers. Many Sudbury residents commute out of town to their jobs (90%), and many workers employed in Sudbury commute in from other communities (88%).6 This high level of "cross-commuting" is explained by the mismatch between job opportunities and housing options in town. The median earnings for Sudbury residents are over \$81,000, while the median wage for jobs located in town is only \$44,000.7 The shortage of attainable housing in town for those

7 EMSI

⁶ US Census OnTheMap



Commercial spaces at Meadow Walk. Source: Meadow Walk - Sudbury.

employed in lower-wage positions means local businesses relying on these workers must hire outside the community. This significantly constrains the labor pool for local businesses since many lower-wage workers may be unwilling or unable to commute into Sudbury due to distance and limited transportation options. Lack of workforce accessibility may also dissuade future businesses from locating in town.

At the same time, the town's highly skilled residents are often challenged to find professional job opportunities in Sudbury and must commute to employment centers closer to Boston, Framingham, or Worcester. This leads to increased traffic congestion and consumer spending leakage as residents make more purchases closer to their places of employment. The lack of nearby jobs may also discourage prospective residents from purchasing homes in Sudbury.

THE ROLE OF HOUSING IN ECONOMIC DEVELOPMENT

The above discussions regarding Sudbury's economic setting describe many of the conditions and values that shape a very locally focused economy. Sudbury is not a community looking to put resources toward landing "big fish" business development opportunities or large-scale industrial operations that might employ hundreds at a single site. Business development in Sudbury, even in target areas on Route 20, will likely include mixes of smaller scale commercial operations. However, as described above, this focus on small to mid-scale opportunities does create challenges where markets for retail and office use are relatively soft.



Avalon Communities at the Meadow Walk in Sudbury. Source: Meadow Walk - Sudbury.

In market environments like these, developers will often look to create housing as part of their projects to create revenue that is both steady and, in the case of Sudbury, higher in value. The recent Meadow Walk development illustrates the complementary nature of housing and commercial development on a scale that is large for a community like Sudbury. But even on smaller lots, Sudbury should pro-actively identify areas where mixing housing with commercial development is desirable and ensure local zoning allows this to occur.

ECONOMIC DEVELOPMENT AND FISCAL HEALTH

Businesses in Sudbury rely on the Town to foster a business-friendly climate, provide critical services and infrastructure, maintain accessibility via roads and sidewalks, ensure employees and customers have safe places to live, and provide high-quality education. Likewise, the Town relies on businesses to create employment opportunities, provide goods and services to its residents, and critically, support the Town's fiscal health through taxes.

The Town is heavily reliant on its residential tax base for revenue, with over 91% of its total property tax levy coming from residential properties in 2019. It has a split tax rate, meaning commercial properties pay a higher tax rate than residential properties. Both rates are slightly higher than average when compared to surrounding communities. With considerable budget increases in recent years, and a number of important infrastructure investments on the horizon, it is safe to assume the costs of providing services in Sudbury are going to increase. This could lead to steep increases in tax rates across the board if Sudbury cannot find ways to increase overall tax revenue.

One important piece to fiscal health for a Town like Sudbury is identifying commercial properties that are vacant or underperforming. The Route 20 Corridor chapter of this plan discusses what is probably Sudbury's biggest opportunity to leverage an increase in tax revenue over the next 10 to 20 years. Notably, this opportunity has significant hurdles and the Town will need to invest in infrastructure before the full economic potential of the corridor can be realized. Shorter term strategies are therefore also important to increasing tax revenue and the Town should consider dedicating resources to business retention, regulatory reform, and capitalizing on its resources.



See "Continued Development of **Town Inventory** of Historic Resources" in Historic and Cultural Identity.

POLICIES AND ACTIONS

The Town of Sudbury will implement the following policies and actions to meet the opportunities, challenges, and needs for Economic Development.



Sudbury will develop capacity to support economic development efforts, including taking an active approach to business, attraction, retention, and expansion.

- **A.1** Hire an economic development planner tasked with managing projects specific to economic development and working on business retention, expansion, and outreach/relationship building. The economic development planner, through the Planning and Community Development Department, will lead the remaining actions under this goal.
- **A.2** Develop a comprehensive economic development strategy for the town.
- **A.3** Develop incentives to attract the types of businesses that Sudbury residents currently leave town to patronize, particularly food service, entertainment, private recreation, and recreation-oriented retail.
- **A.4** Survey existing businesses to understand issues and promote retention.
- **A.5** Partner with private property owners, businesses, and other economic development stakeholders to develop modern flexible office and meeting space that supports existing and new professionals within the town who may currently work from home.
- **A.6** Partner with private property owners, businesses, and other economic development stakeholders to develop a small-scale entrepreneurial/maker space to support light manufacturing/assembly businesses.
- **A.7** Work with local commercial real estate agents to assist existing businesses seeking to expand by helping locate appropriate space in Town.
- **A.8** Strengthen relationships with economic development stakeholders, such as the Sudbury Chamber of Commerce, to assist with capacity building for economic development efforts.



Sudbury will work with property owners and other stakeholders to ready sites for development or redevelopment.

B.1 Work with local commercial real estate agents to promote sites in Sudbury for commercial development, especially redevelopment sites along the Route 20 corridor.

B.2 Work with commercial property owners to modernize existing commercial spaces through façade programs, revolving loan funds, etc.

Sudbury will develop a strategy for its ongoing fiscal health.

- Develop strong fiscal strategies and policies that prioritize short- and long-term expenditures and balance costs against revenues.
- **C.2** Modify zoning to promote the type and scale of development aligning with current retail and office market trends, including mixed-use buildings, walkability, connectivity, integration with housing options, etc. Consider using an overlay district to implement this regulatory change. (See Route 20 Corridor).



Bruce Freeman Rail Trail Development. Photo Credit: Beth Suedmeyer.

TRANSPORTATION AND CONNECTIVIT

GOAL

Minimize the impact of traffic congestion and create a safe network of walking, biking, and public transportation options to get people out of their cars to travel around Sudbury.

OPPORTUNITIES, CHALLENGES, AND NEEDS

Sudbury faces transportation challenges that are characteristic of many suburban communities in Massachusetts within commuting distance to Boston. Historically, as the town transitioned from rural settlement patterns to a suburban "bedroom community," connections between the town and the region were built primarily for automobile travel. This approach continued through the highest growth periods from the mid to late 20th century. It was a primary influence in shaping the way Sudbury looks today, with its historic Town Center at the crossroads of Hudson Road/Old Sudbury Road (Route 27) and Concord Road. Development patterns branched outward away from the Town Center, transitioning to cul-de-sacs and neighborhoods that were no longer within walking distance of the core. The ease, affordability, and convenience of personal automobiles supported this type of development.

More recently, Sudbury is starting to recognize the urgency of expanding beyond a one-dimensional approach to transportation in the community. A number of factors continue to place pressure on Sudbury's roadways and impact everyday quality of life:

- Regional traffic congestion impacts local trips on Route 20.
- Commuter traffic is exacerbated by a mismatch between the jobs in Sudbury and the predominant skills of Sudbury's workforce.
- Development in neighboring towns contributes to regional traffic volumes, impacting local traffic on Routes 27 and 117.
- Access to transit options is limited.

Changing the course of traffic patterns and transportation choices in the region is not something Sudbury can do on its own, but there is an important role for the Town to play. Sudbury will require a systemic approach to addressing these issues, which will include engineered improvements, new local transit programs, bicycle and pedestrian amenities, interdepartmental coordination, and public education. While the challenge is great, the need for solutions is



See "Traffic & Congestion" in Route 20 Corridor.



Skills & Job Opportunities" in Economic Development.

greater and participants in the Master Plan process highlighted these issues as a top priority. Providing Sudbury's residents with multi-modal transportation options such as walkways, rail trails, and transit/shuttle service is well aligned with goals discussed in the Livable Sudbury: A Community Needs Assessment.

These goals are designed to make Sudbury a more livable community for residents of all ages. The following opportunities, challenges, and needs demonstrate the issues of mobility and connectivity that Sudbury is facing.

TRAFFIC CIRCULATION AND ENGINEERED IMPROVEMENTS

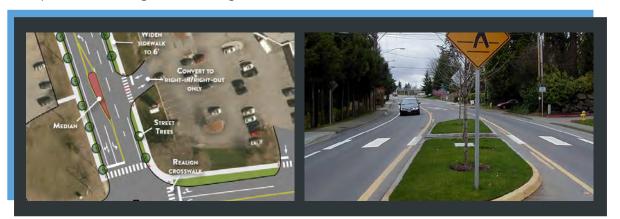
Perhaps the most obvious transportation issue facing Sudbury is the impact of increased traffic and congestion on its roadways. Major cross-town routes such as Routes 20, 27, and 117, and Union Avenue were identified as locations where traffic congestion is a problem at certain times of the day. A combination of local traffic, regional commuter traffic, and traffic from neighboring communities contributes to congestion along Sudbury's roadways. Commercial areas such as Route 20/Boston Post Road and the Town Center attract a combination of local and regional shoppers. For some of these roads, an added layer of complexity comes where the roadway is owned and maintained by the Massachusetts Department of Transportation (MassDOT). In these situations, the Town is in a position where advocacy and coordination with MassDOT are two of its best tools to implement improvements. Where the Town does own streets with traffic problems, individual design solutions can make measurable improvements related to public safety and traffic flow.

"Access management" is controlling and managing how and where vehicles enter a property from a roadway. Many access points can cause conflicts between drivers, leading to accidents and congestion. Strategies can include roadway design, site design, and technology improvements. For example, consolidating multiple driveways into one entry point for multiple properties is an effective access management strategy that directs vehicles to an internal circulation to access parking lots. This strategy can help alleviate congestion in commercial areas where many drivers are entering and exiting in high volumes.

Much of the time, traffic congestion is related to queuing lengths at signalized intersections and left turning vehicle movements. Synchronizing signalized intersection lights and incorporating raised median barriers/turn islands that block left turn movements can be utilized to help facilitate safer traffic flow. Raised medians can also be incorporated into locations where crosswalks are used. Medians act as refuge islands when a pedestrian is crossing the roadway. It provides a buffered location to stop and ensure it is safe to continue crossing a two-or-more-lane roadway.

Stay-at-home orders issued from the Governor's office in 2020 to reduce the impact of COVID-19 resulted in an extreme reduction in regional and local traffic for much of the year. These changes in everyday life, while temporary at the time, may affect where and how residents work in the future, for example continuing from home or moving into local shared workspaces. This, in turn, can affect transportation priorities, from managing traffic congestion to increasing more walking and biking opportunities to connect residents locally.

Example Access Management Strategies.



Left: Example turn island median. Source: FHI. Right: Example median and pedestrian refuge island. Source: NADTC

At the time the Master Plan was adopted, Sudbury was completing its second phase of the state-sponsored Complete Streets program. The product of this planning initiative was a list of priority street improvements designed to create safer conditions for pedestrians and bicyclists, often in high traffic areas of the community. Other communities that already finished this phase of the program have received hundreds of thousands of dollars in state funding for implementation.



Example Complete Street. Source: Alta Planning + Design.

TRANSPORTATION FOR SUDBURY'S VULNERABLE RESIDENTS

Sudbury is a sprawling community that covers nearly 25 square miles. With over 160 miles of roadways, most of Sudbury's residents rely on personal vehicles to travel to destinations such as places of employment, schools, shopping, and medical destinations. Sudbury has been classified by the Massachusetts Healthy Aging Collaborative Community Profiles as a "cardependent community with low walkability." These conditions are particularly challenging for Sudbury's more vulnerable populations. Transportation issues typically have a higher impact on quality of life for children, low-income households, and the elderly or disabled.

For children, the primary issue relative to transportation is safety. The ability to walk or bike safely for children is an important part of everyday life, particularly at a time when childhood obesity rates are climbing and we are promoting and encouraging kids to be more active. While general traffic calming measures and enforcement are fundamental, there are other issues specific in Sudbury worth consideration. First, while the network of walkways in Sudbury is an invaluable resource, it has critical gaps throughout that can create unsafe conditions for children to walk or bike to school. Traveling to and from school on a designated route represents a great opportunity to promote healthier lifestyles. Additionally, if children could walk and bike more frequently to school, there would be the additional benefit of reducing traffic congestion. Sudbury's current payment structure for school bus travel also provides incentives for parents to drive children to school, increasing commuter time and traffic and the associated safety concerns. Sudbury participates in the Safe Routes to School Program, and it should look for opportunities to build connections to residential areas, specifically to connect with the proposed rail trails and other options through municipally owned lands. Participation should be coordinated with other initiatives including restructuring the school bus fee structure, targeting walkway gap closures, and implementation of rail trail projects.

During the Master Planning process, engagement with stakeholders who live in or work on the issues of affordable housing discussed challenges related to transportation. While Sudbury has made considerable gains in providing deed-restricted affordable housing, the area housing prices are so high, homes that are priced as "affordable" can still place financial strain on qualifying households. Many of these individuals or families may forego owning a car in order to relieve financial pressure. However, in a community like Sudbury, not having a car can make it very difficult to access basic needs, educational opportunities, or employment. Without reliable shuttle service.

SAFE ROUTES TO SCHOOL

The Massachusetts Safe Routes to School Program works to increase safe biking and walking among elementary and middle school students by using a collaborative, community-focused approach that bridges the gap between health and transportation.

8 Massachusetts Healthy Aging Collaborative. See description of Sudbury features at https://mahealthyagingcollaborative.org/ data-report/explore-the-profiles/community-profiles/



Children participate in Massachusetts' Safe Routes to School Program. Source: Commonwealth of Massachusetts.

these residents are forced to rely on their personal support networks to access many important opportunities. These households are also more likely to suffer financial hardship in the wake of COVID-19. In April 2020, Massachusetts had an unemployment rate of 15.1%, an increase of approximately 12.3%.9 Additionally, when public transportation and other transit services were limited or halted all together. Many who were deemed essential workers and had limited transportation were put in further dire straits. These impacts are felt disproportionately by lowincome households.

The third vulnerable population in Sudbury that requires focused planning is people with living with disabilities, disabled veterans, trauma/accident victims, and the elderly who will age into disability. The scope of this challenge continues to grow, as Sudbury's population continues to age in the coming decades. Existing services available are already at capacity or may not be meeting current needs or demands. As identified in *Livable Sudbury*, expanded transportation options for specific segments of the community, such as individuals with mobility limitations will be needed. Improved access and availability of existing transit options such as the Senior Center Shuttle, Route 20 Shuttle, and other Dial-A-Ride options will continue to be a necessity.

ADDITIONS AND MAINTENANCE OF SUDBURY'S WALKWAY AND **BICYCLE NETWORK**

At the time this plan was developed, Sudbury was well positioned to add in the coming years a vital biking/walking infrastructure to the community, BFRT. It also acquired the CSX rail corridor in November 2020, which offers a potential southward extension to the BFRT from the Route 20 Corridor. While not a town supported project as presented, the Mass Central Rail Trail (MCRT) represents another possible opportunity for the Town. If successfully completed, these trails would be regional resources connecting over 30 communities across approximately 130 miles of multi-purpose trail. For both rail trail projects, it will be important for Sudbury to clearly understand its responsibilities regarding ongoing monitoring, accessibility, safety measures, and maintenance.



See "Major Infrastructure Investments in Town Facilities. Services, and Infrastructure.

Also important to Sudbury's efforts to create better connections throughout the community is its walkway network. As mentioned earlier, the Town already has a robust walkway network that connects many residential neighborhoods to commercial and civic destinations such as schools, the Goodnow Library, and Town Hall. Additionally, there are many open space properties that create additional off-road linkages and connect to existing walkway networks. Walkways provide multi-modal accommodations and can serve both recreational and essential trips. There are many benefits of walkways such as:10

⁹ U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, Unemployment Rates for States, Seasonally Adjusted, April 2020. Accessed May 18th,2020. https://www.bls.gov/web/laus/laumstrk.html

¹⁰ AARP Livability Fact Sheet - Sidewalks, Published 2014. https://www.aarp.org/content/dam/aarp/livable-communities/ livable-documents/documents-2014/Livability%20Fact%20Sheets/Sidewalks-Fact-Sheet.pdf

- People who live in neighborhoods with sidewalks are 47% more likely to be active at least 39 minutes a day.
- A well-constructed walkway for a typical 50-foot-wide residential property might cost a builder \$2,000, but it can return 15 times that investment in resale value.
- Retail properties with a Walk Score ranking of 80 out of 100 were valued 54% higher than properties with a Walk Score¹¹ of 20 and had an increase in net operating income of 42% for more walkable properties.

There are still gaps and "missing links" in the network. Many are because Sudbury has many narrow, winding roads, some have trees or stone walls lining the edge of the pavement. This lack of space makes it difficult to manage traffic and equally challenging to provide bicycle or pedestrian infrastructure. Additionally, many roadways that are classified as Scenic Roads are too narrow to accommodate pedestrian infrastructure. Even with these challenges there are some opportunities to build connections, particularly those linking to future rail trails. Importantly, new subdivisions require the construction of walkways within the subdivision or along the adjacent public ways leading to the subdivision.

Maintenance of existing walkways has been challenging as well, as Sudbury's Department of Public Works does repair and replacement and clears all walkways after winter storms. A walkway maintenance plan could ensure walkways are maintained and repaired on a recurring basis. A large percentage of communities in many states employ a sidewalk replacement program that cycles through a community, focusing on different neighborhoods over a number of years. Over a period of years, the entire community will be covered, and the cycle begins again. Other funding strategies include Adopt-a-Sidewalk programs which facilitate shared maintenance and snow removal of sidewalks after winter storms.

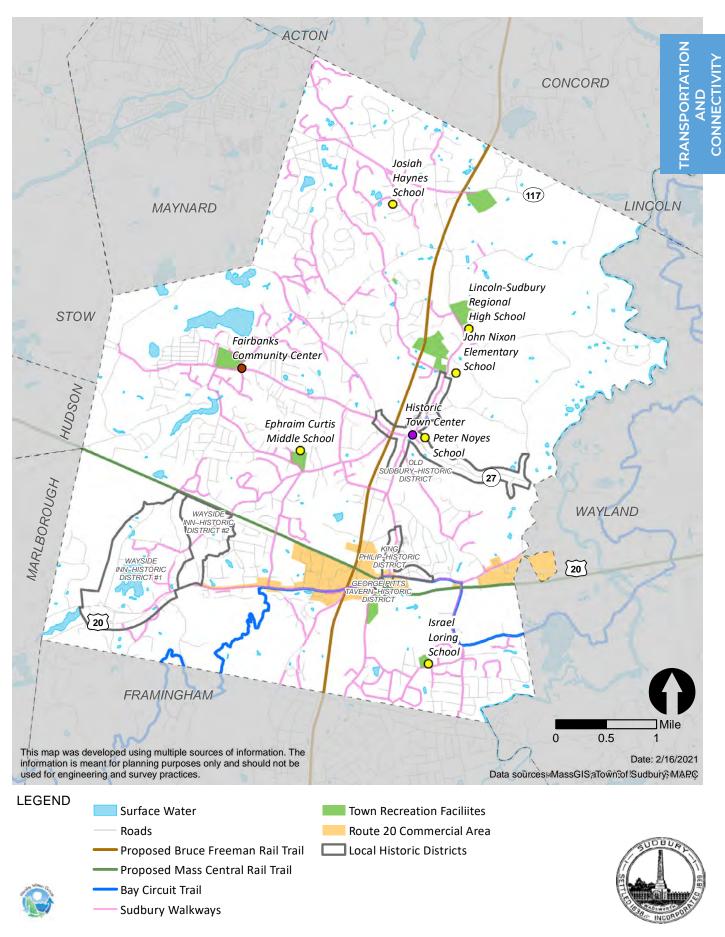
CONNECTIVITY, TRANSPORTATION, AND MASTER PLANNING

Transportation planning, in its most basic form, is the study of mobility and connection. Because of this, it is easy to see the direct physical and policy connections between this chapter and others in the Master Plan. Connecting people to jobs, goods, and services is essential for local economic health and has implications for housing development. Providing opportunities to walk and bike has direct impacts on public health, local traffic patterns, and everyday recreation opportunities. Our ability to shift away from traditional commuting patterns has implications for our global climate. How we plan for and design transportation solutions can be the deciding factor in whether residents with disabilities can visit with friends, participate in local government, and access important health services.

Because of these connections, Sudbury will need to reinforce an approach to local government operations that regularly considers the transportation implications of its decision making. How residents connect with important locations like schools, health care facilities, municipal government, recreational amenities, and commercial centers needs to be part of early planning discussions to ensure future development and municipal investment are supported by transportation choices that go beyond the automobile.

¹¹ Walk Score is a number between 0 and 100 that measures the walkability of any address. https://www.walkscore.com/

Moving forward from this Master Plan, implementation of initiatives related to Route 20, developing a local tourist economy, providing housing choice, and accessibility will require input and expertise from stakeholders in the community who can speak to the challenges of connecting resources and providing inclusive solutions.



Existing network of walkways and proposed rail trails and local destinations.

POLICIES AND ACTIONS

The Town of Sudbury will implement the following policies and actions to meet the opportunities, challenges, and needs for Transportation and Connectivity.



Sudbury will remain active in regional efforts to coordinate transportation planning across multiple municipalities.

- **A.1** Study the need for and establish park and ride locations.
- **A.2** Coordinate with the state, MassDOT, Metropolitan Area Planning Council (MAPC), Massachusetts Bay Transportation Authority (MBTA), MetroWest Regional Transit Authority (MWRTA), and adjacent towns to establish and enhance connections between key destinations.
- **A.3** Solicit support from legislators as needed to prioritize and implement regional connectivity projects.

Sudbury will continue to identify, design, and install physical improvements to its roadway system in a way that increases public safety and pedestrian/bicycle mobility and ensures compliance with state and federal accessibility regulations.

- Implement the projects in the Complete Streets (Phase II) Prioritization B.1 Plan. Coordinate and prioritize infrastructure improvements that support economic development and housing initiatives.
- **B.2** Study traffic signal synchronization opportunities along Route 20.
- **B.3** Evaluate appropriate strategies that can reduce vehicular traffic volumes (transportation demand management) in preparation for future larger development proposals.
- **B.4** Explore access management strategies to reduce congestion and improve safety along major roadways, particularly commercial areas along Route 20, including, but not limited to:
 - **a.** Identify opportunities for shared driveways and/or other connections between adjacent commercial properties.
 - **b.** Evaluate frontage of rear roads between multiple properties to create connectivity between adjacent commercial properties to better serve businesses with reduced driveways and road access
 - c. Study with MassDOT to determine if syncing signalized intersections can improve traffic flow.
- Prioritize streets for burying overhead utility lines and research state and **B.5** federal funding opportunities.



Sudbury will foster the continued creation of the Bruce Freeman Rail Trail (BFRT) and other walking and biking networks throughout Town.

- **C.1** Complete the construction of Phase I of the BFRT.
- **C.2** Conduct environmental studies, acquire required permits and approvals, prepare engineering designs and construction drawings, and construct the extension of the BFRT on the newly acquired CSXowned corridor.
- **C.3** Work with Friends of the BFRT on signage and wayfinding, safe roadway crossings, features, and amenities for those with disabilities, and trail maintenance policies.
- **C.4** Pursue grants to fund trail connections.



Sudbury will map key destination points within the community and will work to close gaps in the pedestrian and bicycle network accessing these destinations and creating and improving access for those with disabilities.

- **D.1** Work with community businesses and organizations to create marketing plans to attract rail trail users to visit local shops and amenities.
- **D.2** Create an inventory of destination points, including but not limited to civic institutions such as schools and libraries, commercial areas, recreational assets, and historical and cultural places in the community. Identify opportunities to connect destinations points with an expanded walkway and bicycle network (See also Route 20 Corridor A.7).
- **D.3** Update the walkway inventory conducted in 2000 by the Sudbury Walkway Committee and update the inventory of completed walkways. Identify locations of the existing network that are not accessible for those with disabilities. Along with D.2, prioritize future walkway segments.
- **D.4** Create an open dialogue with property owners with key frontage areas as a means of educating and engaging owners about benefits of closing gaps within the pedestrian and bicycle network.
- **D.5** Explore the possibility of creating a toolkit that can be given to property owners located in frontage areas so they may better understand some of the benefits of pedestrian infrastructure such as increased property values. Develop and implement an educational campaign with key stakeholders.

- **D.6** Pursue grant opportunities and funding available for the creation of walkways. Grant programs to pursue include but are not limited to Complete Streets Funding, Transportation Alternatives Program (TAP), Safe Routes to School, and others.
- Sudbury commits to be a community where people of all ages and abilities and financial means are able to get where they need to go locally and regionally without the use of personal automobiles.
 - Identify specific measures to address gaps in transportation services for E.1 persons with disabilities and identify funding sources required to ensure access.
 - **E.2** Rethink the existing school busing cost structure to encourage bus use and discourage car drop-off/pick-up of students at Ephraim Curtis Middle School and local elementary schools. Also see Actions D.2 and D.3.
 - **E.3** Manage parking resources and explore options for shared parking near trails.
 - **E.4** Continue to work with MAPC through their Making the Connections micro transit pilot project to identify and fill gaps in connectivity between modes and destinations.
 - **E.5** Continue to coordinate with Sudbury Senior Center and Commission on Disability in the evaluation of its transportation services to ensure that needs of the entire community are being met and identify gaps in services. Identify opportunities to expand existing services for older residents and persons with disabilities and investigate new types of services such as rideshare programs. Identify funding sources required to ensure access.
 - **E.6** Coordinate with MWRTA to expand accessible service along major roadways in Sudbury wherever possible.
 - **E.7** Ensure future housing development, particularly those with SHI units, include resources and access to existing local shuttle services, walking and bicycling amenities, and connections to regional transportation networks. Partner with the Sudbury Housing Authority and Sudbury Housing Trust in this effort.



Moses Brewer House. Photo Credit: John Phelan.

HISTORIC AND

ISTORIC AND CULTURAL II

GOAL

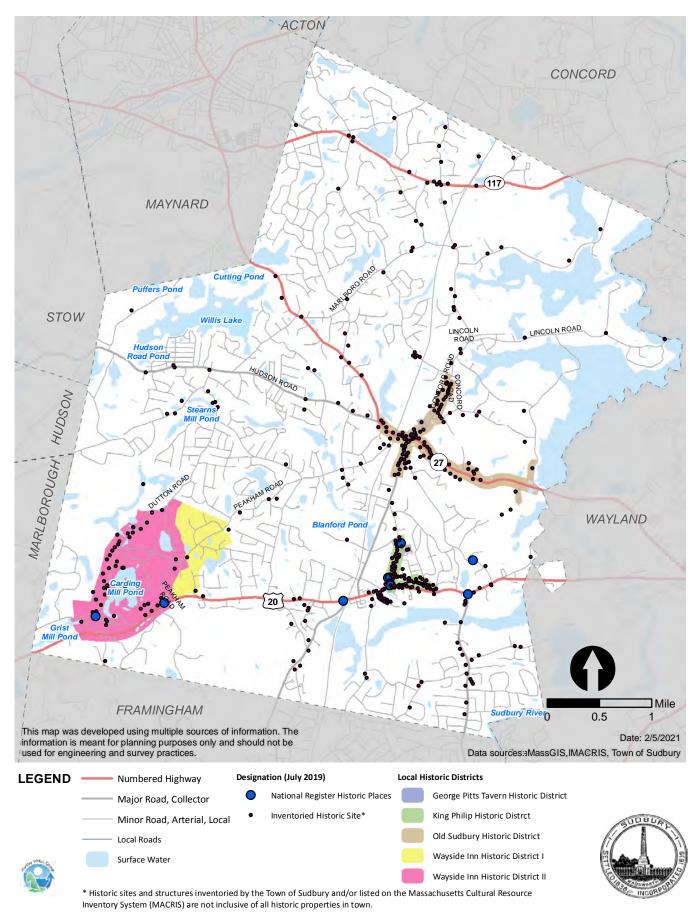
Preserve, protect, and develop the historical and cultural assets of Sudbury to foster appreciation of the Town's heritage for enjoyment today and by future generations.

OPPORTUNITIES, CHALLENGES, AND NEEDS

THE IMPORTANCE OF SUDBURY'S LIVING HISTORY

In this Master Plan, each chapter examines the different assets that help define Sudbury's community character and contribute to the everyday quality of life residents' experience throughout town. There is perhaps no asset so prominent and visually pervasive as Sudbury's historic and cultural resources. Preservation policies and protection continue to be a priority for Sudbury. Our historic sites, buildings, structures, and cultural landscapes are a tangible reminder of our past. Historic preservation is a source of civic pride, offers economic benefits by creating opportunities for heritage tourism, protects a variety of important buildings, and helps conserve natural resources by reusing existing structures rather than building new.

From the historic Town Center to the Wayside Inn, Goodnow Library, Hosmer House, and literally hundreds of historic properties throughout town, the collection of historic resources is diverse and brilliant. Cultural landscapes in the community include an array of historic sites and farms that tell stories of the birth of the United States and maintain living connections to Sudbury's rural past. Many of these sites are connected by scenic roads lined with old stone walls, mature trees, and fields for agriculture. There was a time when the presence and viability of these homes, buildings, farms, and fields were simply part of everyday life in Sudbury. The past few years, though, have seen an acceleration of partial or full demolitions of historically significant buildings and structures outside of Local Historic Districts. Due to rising land values, developers and property owners are choosing to tear down or significantly modify these historic homes, permanently eroding Sudbury's inventory of historic resources. Today, the preservation of these historic resources needs to be an ongoing partnership between private owners and the Town. Management requires the thoughtful use of preservation policy tools and an increased awareness and education of the important role preservation plays in our community.



Local Historic Districts and Places

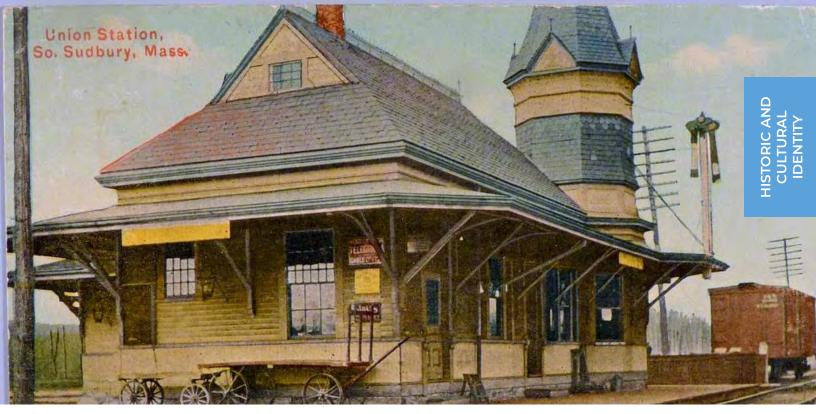
TOWN ORGANIZATIONS THAT SUPPORT, PROTECT, AND PROMOTE HISTORIC AND CULTURAL IDENTITY

Sudbury's broad inventory of historic structures, landscapes, and roadways remains intact today, in large part because of a number of Town boards and local organizations. The Town's bylaws provide a suite of regulatory and non-regulatory tools to help mitigate potential impacts to resources, or to help educate property owners about their options for restoration or home improvement that honors the architecture and materials of historic structures. While state and federal protection programs are important to use where possible, the local tools used in Sudbury provide a much greater scope of protection. Several organizations provide funding, resources, and develop programs. A detailed summary of the boards and organizations that support, protect, and promote historic and cultural Identity is provided in the Baseline Report, with a list provided below:

ORGANIZATION	DESCRIPTION
Historic Districts Commission	 Governed by Chapter 40 Section 8D of the Massachusetts General Laws (M.G.L.), the Historic Districts Commission hold hearings for applications for Certificates of Appropriateness. Approves or denies all requested changes to structures that are in an historic district that are visible from a public way. Rules on applications to demolish structures in an historic district. Supports the development, modification, and approval of new Local Historic Districts.
Historic Commission	 Advocates for the preservation, protection, and development of the historical and archaeological resources owned by the Town and/or fall outside of Local Historic Districts, per M.G.L. Chapter 40D. Administers the Demolition Delay Bylaw for Historically Significant Buildings, Structures, or Sites outside of historic districts. Provides oversight for the preservation, maintenance, and improvement of Townowned historic sites and structures, such as the Hosmer House, Loring Parsonage, Town Hall, and Carding Mill. Conducts historical research and develops inventories on Sudbury historic resources and prepares National Register nominations. Provides comments and input to MHC and Federal Agencies regarding impacts to historic or cultural resources in Sudbury.
Sudbury Historical Society	 Provides research into historic resources and develops/curates inventories of Sudbury-related objects, photographs, and records. Develops educational materials in a variety of media (e.g., website, films, etc.). Provides public programing on Sudbury's rich history.

ORGANIZATION	DESCRIPTION
Community Preservation Committee	 Presides over the money raised by Sudbury's adoption of the Community Preservation Act (CPA). Allocates a portion of CPA funds each year toward historic preservation initiatives or projects.
Scenic Roads Bylaw	The purpose of the Scenic Roads Bylaw is to protect the scenic quality and character of specific roadways in Sudbury. The Town uses the bylaw to review proposals that will involve the cutting or removal of trees, or the tearing down or alteration of stone walls.
Wayside Inn Historic Preservation Zone	This district is distinct from the Wayside Inn Historic Districts and adds development standards that are more typically regulated under the Zoning Bylaw (e.g., minimum lot size).
Planning Board	 Serves as one of the Town's primary development review authorities. Reviews Scenic Roads Applications and some developments in the Wayside Inn Historic Preservation Zoning District.
Goodnow Library Trustees	Curates the Local History Collection and various collections of official Town documents.
Sudbury Foundation	Philanthropic organization that supports a number of social issues, including the preservation of historic and cultural resources.
Sudbury Valley Trustees	Regional conservation group that can contribute to land preservation efforts in Sudbury (one of 36 member communities).

To ensure that preservation objectives are being met, the Town would benefit from a reexamination of how Town boards administer these tools and standards available. A review should identify areas for improvement and how best to move changes through the adoption process. One issue identified during the Master Plan update process was confusion over the most basic protocols for identifying a historic structure and applying the appropriate review process (if any at all). Additionally, despite having similar goals, these organizations remain largely isolated from one another, thereby negating opportunities to work efficiently and more effectively together. Creating opportunities for these organizations to work together can build support for shared goals.



Postcard of Union Station in South Sudbury. Source: Town of Sudbury

THE IMPORTANCE OF CONTINUED EDUCATION

Preservation of historic and archaeological resources in the community can be supported through local regulations, but a great deal of the continued investment in these resources begins with education. With approximately 300 historic structures located outside of historic districts, Sudbury relies on the capacity of local homeowners to protect many of its historic resources. However, as noted above, residents express a lack of understanding about the Town's Sudbury's inventory of historic and archeological resources and how they are regulated and protected. There is also a lack of local guidance for new homeowners of historic properties about resources and agencies that can help them make informed decisions about their properties.

While expansion of existing historic districts or the creation of new ones is an important tool to be considered for protecting local resources, it will never fully capture all of the historically significant structures in the community. Educational resources for these homeowners can provide an opportunity to learn more about the rich history of their properties and learn about strategies that can highlight and preserve that history when maintenance is required.

In addition to homeowners, members of organizations that fund preservation initiatives may also benefit from a better understanding of preservation standards and processes. The ability for these groups to acquire well organized, accessible information about individual properties is critical to determining the best course of action related to financial investment. Further, ensuring there are clear protocols for identifying, recording, and reviewing information about historically significant properties will ensure that permitting processes are predictable and uniform.

MANAGEMENT OF TOWN OWNED HISTORIC PROPERTIES **AND SITES**

The Town is the largest owner of historic resources within Sudbury. Sudbury owns and manages historic properties and sites including the Loring Parsonage, Hosmer House, Town Hall, Haynes Garrison site, Carding Mill, and several historic cemeteries (Wadsworth, Mount Pleasant, North, and Revolutionary War). Maintenance, restoration, and rehabilitation of these properties and sites must be addressed on an ongoing basis. Equally important is addressing accessibility issues to ensure that everyone has the opportunity to experience these places and use them as part of everyday municipal operations or special events. The town recognizes the historical value of these structures, but looks to maintain them as part of a "living history" in the community. This may require careful changes to the original design of historical structures to ensure accessibility for people of all ages and abilities.





The Hearse House. Source: Sudbury Historical Society

PROTECTION OF VULNERABLE HISTORIC SITES

Many of Sudbury's important structures remain vulnerable to demolition and changes not compatible with their historic character. A building, a street, and a neighborhood can quickly lose much of its historic character when this happens. Evaluating current tools can determine their effectiveness. The process for updating any of these tools should include an educational component for residents.

HISTORIC STRUCTURES NOT IN A DISTRICT

Of the approximate 400 pre-1940 houses in Sudbury, only a third are in an historic district. While not all of these structures rise to the level of historic significance, a sufficient number do warrant concern for their protection. These houses are at risk of losing their historic identity or even being demolished. The demolition of the Boker-Walker House in the 1990s. one of only two houses in Sudbury that were on the National Registry of Historic Places, serves as prime example of what can happen when structures are not adequately protected.

EFFECTIVENESS OF SUDBURY'S CURRENT DEMOLITION DELAY BYLAW

In 2004, in reaction to the rapid loss of historic properties, Sudbury adopted a six-month Demolition Delay Bylaw. Despite overwhelming support for the bylaw at Town Meeting, loss of historic fabric continues to occur. In recent years, the Town has seen the loss of some of the oldest extant properties and buildings, which necessitates an examination of Sudbury's current bylaw, its overall effectiveness, and other strategies to better stem these losses. A review of how similar towns administer demolition delay bylaws may offer insight. Sudbury should also examine how the Town can more pro-actively work with historic property owners to preferably preserve buildings, sites, and landscapes at greatest risk. In the case of archaeological resources, many of these sites remain unprotected, understudied, and/or unidentified.

PROTECTION AGAINST NEGLECT

While there are some tools to protect properties in and outside historic districts, Sudbury has no tool to protect them against neglect. In 2019, two of Sudbury's historic barns, each having a story to tell about Sudbury's farming past, fell victim to demolition by neglect. When structures are deemed dangerous or too costly to repair, there is little way to save them. Many of Sudbury's neighboring towns now have bylaws to protect against neglect and ensure their maintenance.

IMPROVED RESOURCES FOR HISTORIC PROPERTY OWNERS

Owners of historic properties often cited a lack of guidance and resources to make informed decisions about their properties and confusion about how to navigate the historic preservation regulatory processes. Creating clear protocols for identifying, recording, and reviewing information about historically significant properties will ensure that permitting processes are predictable and uniform for town staff, boards, commissions, and property owners. Sudbury should also consider more creative and visible ways to support homeowners through the use of Community Preservation Commission funding mechanisms, information resources and design guides, ongoing communication efforts, etc.

NEED FOR A TOWN-WIDE HISTORIC PRESERVATION PLAN

Sudbury would benefit from a town-wide Historic Preservation Plan to guide and coordinate its many historic preservation stakeholders towards shared priorities and goals. Optimizing the way these groups can work together, inform one another of their efforts, collaborate on specific initiatives, and integrate permit review will help make each group more effective and preservation overall more successful. A formal Preservation Plan should include an audit of existing historic preservation regulatory tools, how their effectiveness can be strengthened, suggestions of new preservation protections, and strategies for resident and community outreach.

Stakeholders agreed that communication could be improved, and collaboration would be more effective with a clearly documented town-wide strategy outlining shared preservation priorities and goals. There are many resources available to Sudbury regarding the content and approach to developing these plans.

Guidance has been developed and published in various forms by the Commonwealth of Massachusetts, Massachusetts Historical Commission, MAPC, and various historic resource groups across the country. In Massachusetts, many communities have developed these plans and Sudbury has easy access to the wealth of examples "to help start the process."

CONTINUED DEVELOPMENT OF TOWN INVENTORY OF HISTORIC **RESOURCES**

The development of a town-wide plan and the ongoing use of existing regulatory tools requires accurate and up to date information. The Town should pursue migrating the existing inventory of historic resources, particularly structures, to a more sophisticated and accessible database platform, distinct from the Massachusetts Cultural Resource Information System (MACRIS). While the exact format of this database would be determined in more focused discussions, the final product would be able to provide user-friendly, accessible online information for the complete inventory of historic structures, buildings, and sites in the community. This would not only be a great resource for the general public, but local boards would have ready access to standardized information related to individual properties at their disposal. Committees such as the Community Preservation Committee would use this information to help deliberate on potential investments in historic preservation efforts.

With the development of a Town Historic Preservation Plan and a new data platform, Sudbury would be in a much stronger position to leverage the richness of its historic resources for economic development. While there is no question some enthusiasts visit Sudbury to visit historic sites, Sudbury has the resources to develop a stronger cultural tourism brand in the region. With its vast inventory of structures, sites, landscapes, and scenic roadways, there is little guestion the town could be viewed as a "hot spot" for history enthusiasts. Using the Town's website, the websites of other groups, and potentially the development of tools like smart phone apps, self-guided local tours could be developed that lead participants through Sudbury's most prized resources as well as through local commercial areas where tourists could support local business. Building connections with conservation areas, which also attract visitors to Sudbury, can be a way to create a network of destinations.



Four Arch Bridge (left) and Native American Communal Grinding Stone (right). Source: Sudbury Historical Society.

ARTS AND CULTURAL RESOURCES

While Sudbury's historic resources are at the center of the town's cultural identity, there are many groups and institutions in Sudbury that work to cultivate other areas of cultural enrichment, adding depth and diversity to the core historic focus. Most obvious are the public schools, which provide Sudbury's youth with an outstanding education that includes exposure to visual arts, performing arts, and music within the curriculum and enrichment programming. While the Goodnow Library plays an important role in making historic records and collections accessible, it is also an important center for arts and culture education providing access to educational material, an incredible diversity of classes, and regular displays of artistic collections. In addition to these public institutions, a broad collection of religious, fraternal, and enrichment organizations provide additional layers of cultural education, awareness, and practice opportunities for Sudbury's residents (see Baseline Report).

One of the Town's most prominent cultural groups is the Sudbury Cultural Council, approved in 1982 by the Massachusetts Cultural Council. This organization works to develop and support cultural programming in Sudbury primarily by distributing money provided annually by the Commonwealth. In Sudbury, grants to local artists, the public schools, the Goodnow Library, and others are used to bolster events, projects, and awareness.

POLICIES AND ACTIONS

The Town of Sudbury will implement the following policies and actions to meet the opportunities, challenges, and needs for Historic and Cultural Identity.



Sudbury will address historic preservation needs and emphasize collaboration among its local historic preservation groups and coordinate their efforts town-wide.

- **A.1** Create a Historic and Archaeological Working Group comprised of preservation organizations, Town boards, committees, and commissions, Town officials, and citizens whose mission is to advance the protection, preservation, and development of historical and archaeological resources and town character.
- **A.2** Appropriate funding for and develop a town-wide Historic Preservation Plan with the involvement of stakeholders. Items addressed in the plan could include, but will not be limited to:
 - a. Ongoing survey and study of non-documented and underdocumented historic and archaeological resources and/or those not fully understood.
 - **b.** A clear description of the responsibilities of each historic resource stakeholder in the community, including the Town boards, committees, and commissions, historic property owners (homeowners and businesses), and the Town.
 - c. An assessment of needs and gaps in Sudbury's historic preservation administrative capacity, funding, and infrastructure.
 - **d.** An audit of existing historic preservation regulatory tools, how their effectiveness can be strengthened, and adopting new tools for preservation protections.
 - **e.** Identifying the appropriate situations for purchasing property, regulating property, and educating property owners to achieve historic preservation.
 - f. Developing a Town Center Master Plan.
- **A.3** Re-evaluate the purpose, scope, and adequacy of regulatory tools to protect Sudbury's historical and cultural resources.
 - a. Examine existing historic district policies: Determine the need to expand or reduce boundaries based on historic resources and the effect of these changes on area character. Define how historic district boundaries are drawn and if the 300-foot setback from the public right of way is an effective determinant of a boundary. Add provisions for landscape regulations.

- **b.** Examine the effectiveness of the Demolition Delay Bylaw to protect properties outside historic districts and lessen its impact on properties that have no historic value. Consider ways to update it.
- c. Consider establishing a Minimum Maintenance Bylaw or a Demolition by Neglect Bylaw to maintain historic properties and protect them from demolition.
- **A.4** Develop a sophisticated and accessible platform for the Towns historic and archaeological resources inventory that can be used to support local permit review and educate residents and property owners.
 - a. Create a complete digital inventory of historic structures, sites, landscapes, roads, and significant features (i.e. stone walls) throughout Sudbury.
 - **b.** Identify and inventory historic structures, buildings, sites, and landmarks that have not been inventoried or those inventories which are out of date.
 - **c.** Work with the Sudbury Historical Society and the Goodnow Library to include link historic photos of Sudbury with property addresses as part of the platform.
 - **d.** Link with GIS data to better inform and shape the effectiveness of preservation and planning policies.

Sudbury will continue to develop educational resources and materials related to historical and archaeological resources in the community.

- Develop a Historic Preservation Primer for all local boards, commissions, and committees that clearly describes the variety of historic preservation regulatory tools in the community, powers, and limitations, and how they function together.
- **B.2** Increase awareness and support among residents about the value and benefits of Historic Preservation tool protections. Consider an education campaign for local realtors, Chamber of Commerce, community leaders, and other stakeholders.
- Develop more robust resources for historic homeowners, such as a historic design library, better online resources the Town's webpage, and public seminars on how to preserve historic homes (how to restore historic windows, historic property maintenance, etc.), to encourage more proactive maintenance and restoration of properties.

- **B.4** Working in collaboration with the Historical Society, the Historical Commission, the Wayside Inn, the Sudbury Cultural Council, and other interested parties, develop materials focused on Sudbury's historical resources to support the local tourist economy. This would include connections to the rail trails, incorporating historical railroad elements and capitalizing on bicycle and pedestrian use to attract tourism.
- **B.5** Create a more descriptive and informative Historic Districts Design Guidelines. Review guidelines from other Massachusetts communities as a first step.

Sudbury will continue to foster a vibrant local arts and culture network.

- **C.1** Coordinate efforts between local arts and cultural groups and the Commission on Disability to increase access and offerings related to the arts for people with disabilities.
- **C.2** Encourage collaboration between local arts, cultural, historic organizations, and the local business community to create community-wide events and programming.
- **C.3** Continue to provide local artists and arts organizations with access to municipal facilities as appropriate to display art, hold classes, and publicize events.
- **C.4** Work with Sudbury Public Schools and Lincoln-Sudbury Regional High School on special projects that engage students with local historic resources and cultural entities.



Hop Brook. Photo Credit: Beth Suedmeyer.

NATURAL ENVIRONMENT

GOAL

Maintain and restore the environmental, economic, and social benefits of Sudbury's natural areas.

OPPORTUNITIES, CHALLENGES, AND NEEDS

This chapter of the Master Plan views natural resources from a broad perspective and highlights the management of entire ecosystems on both public and private property. Healthy and productive natural resources, whether on public or private land, have essential functions and values for the community at large, including wildlife habitat, clean drinking water, fish and game habitat, and food production. Natural resources are also the community's first line of defense against natural hazards like severe storms, storing floodwaters and limiting damage to life and property. The Trust for Public Lands refers to these as "natural goods and services" and they contribute important economic and social benefits to a community.

The Town has diverse natural resources that are protected by conservation tools, but many of these resources are found on private properties. Pressures from development and misuse are managed through local polices and regulations, but it is equally important these policies and public outreach also promote environmental stewardship and responsibility of residents and businesses to protect resources for future generations.



See "Traffic Circulation & Engineering Improvements" in Transportation and Connectivity.

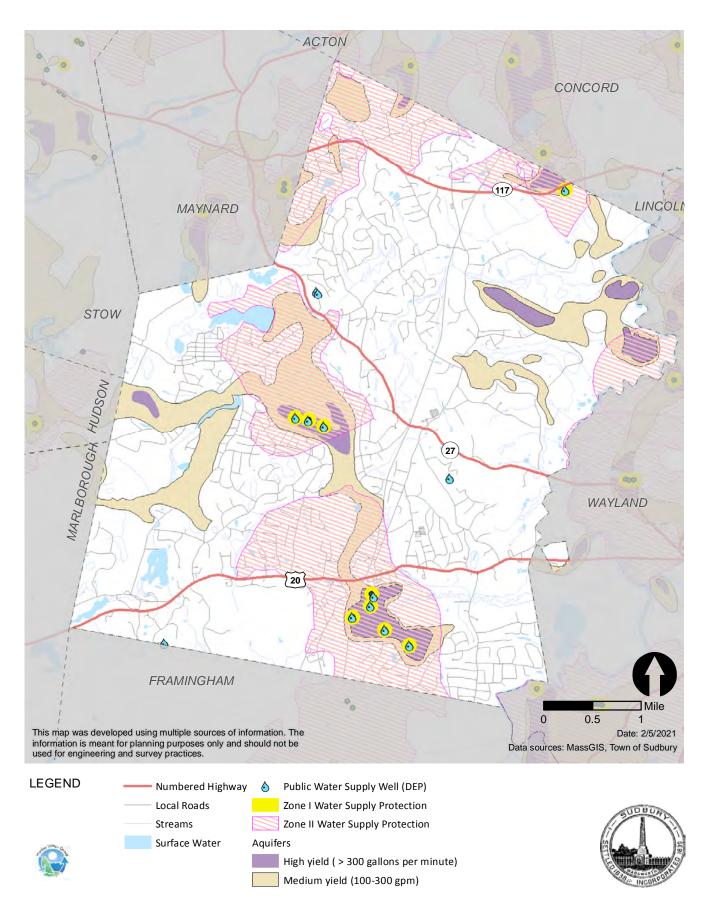


"Management & Usage of Conservation Land" in Conservation and Recreation.

WATER RESOURCES

SURFACE WATERS

The primary threats to surface water resources (streams, ponds, and rivers) are pollutants from current and past human activities that have led to excessive nutrients and metals in the water and sediment. Sudbury is located within the Sudbury-Assabet-Concord (SuAsCo) River watershed and activities along the three rivers and their tributaries have (and have had) a regional impact, including point (direct) discharges into these waterways. For example, both Carding Mill and Grist Mill ponds suffer from excessive phosphorus and algal growth as a result of discharges from the Easterly Wastewater Treatment Plant located in neighboring Marlborough. The Sudbury River, which travels along the Town's eastern border, has one of the most significant sediment contamination problems in the nation, specifically mercury primarily emanating from the Nyanza Chemical Company site in Ashland. Over the years, nutrients have entered the river from point sources such as other wastewater treatment plants as well.



Sudbury's Drinking Water Sources and Water Supply Protection Areas.

GROUNDWATER

The Town depends on groundwater from public wells associated with the Sudbury Water District, an independent public body responsible for the treatment and delivery of drinking water to town residents and businesses. The wells are located in three separate aquifers (see map).

Groundwater is threated primarily by the land use activities above it. Leaking storage tanks, unmanaged hazardous materials, and landfills are examples of activities that can contribute toxic substances directly to groundwater. Local and state regulations limit these activities in areas that are above aguifers which supply drinking water. Revisiting the Water Resource Protection Overlay District bylaw gives the Town an opportunity to identify areas of improvement to meet water quality protection goals and the challenges of future drought conditions.

Failing on-site septic systems also pose a threat and are especially of concern in areas where they sit above the aguifers. All residents and businesses in Sudbury use septic systems to manage waste. If not maintained or if used beyond their design capacity, these systems can fail and lead to contamination of the Town's drinking water supply. The Sudbury Health Department oversees the design and installation of systems and inspections when properties are sold; however, there is no regular monitoring of private septic systems, residential or commercial, to ensure they are serviced and maintained. This is the responsibility of the property owner.

WETLANDS

The town's wetlands are primarily found along its waterways, in isolated depressions, or low-lying areas where groundwater is near the surface. Wetlands capture and store rainwater as rivers and streams overflow during storm events. Wetlands filter and retain pollutants from runoff before making their way to surface waters or infiltrating into the ground towards aguifers. Wetlands also support diverse wildlife species, including birds, mammals, fish, insects, and amphibians, throughout their life cycle. These species, in turn, bring people outdoors for fishing, birdwatching, and hiking, among other recreational activities. The loss and degradation of wetlands reduces their value and capacity to perform important functions.

FLOOD-PRONE AREAS

Like wetlands, flood-prone areas are found along waterways and regulated as floodplains. Development within the floodplain reduces storage capacity, which can lead to increased property damage during flooding events. Local regulations limit construction in these areas, but older structures built before regulations were in place still impact the floodplain's ability to hold water. Reduced storage capacity also lessens the Town's resiliency to the impacts of climate change, where the region is expected to see greater swings in precipitation and stronger, more frequent severe storms...



See "Impacts of Extreme Weather & Climate Change" in Resiliency.

WATERSHED APPROACH

As part of the SuAsCo River watershed, the Town supports and participates in a watershed approach to water resource planning and management. This approach is more comprehensive, looking at the relationship of land use to water quality and quantity across an entire drainage basin, which requires collaboration with neighboring and regional partners. There are many regional organizations tackling issues around water quality and invasive species, as well as protecting habitat and increasing public awareness of the importance of these water resources to the economic, social, and environmental health of the region.

STORMWATER MANAGEMENT

Under natural conditions, a significant percentage of rainfall or snow melt soaks into the ground where it can be taken up by plants or replenish groundwater. Some of the rain will become runoff that either evaporates or makes it way to the nearest surface water body. These conditions, when they are in balance, maintain healthy habitats in both upland and aquatic areas. When the natural landscape is replaced with development, this balance can be disrupted. When stormwater runoff volumes are too high or too polluted, runoff can diminish water quality. Impervious surfaces like roadways and parking lots offer little resistance in capturing and holding runoff. As it travels across these surfaces, stormwater picks up salt, sand, and petroleum products, and carries them to local waterways. Runoff can also carry fertilizers and other chemicals from lawns and managed turf areas.

Where does the water go...when it rains?

There is very little surface runoff from undeveloped, vegetated land with most of the rainwater captured and used by trees or infiltrated into the ground. Once an area is developed, hard "impervious" surfaces such as rooftops, driveways, and roads increase runoff from the site.



Source: Three Bays Preservation and APCC.



Green infrastructure and low impact design include the use of rain gardens and plantings (left and right) and pervious pavers (center) to manage stormwater. Source: Horsley Witten Group, Inc.

The goal of stormwater management is to reduce and treat runoff. It can be achieved through the permitting process at the federal and state levels, municipal regulations and policies, and local initiatives lead by municipalities, watershed organizations, and other community groups. Sudbury implements stormwater management through public education, infrastructure projects, and regulations that require development to reduce runoff volumes and pollutants during and after construction. The Sudbury Stormwater Management Program Plan details best management practices the Town will implement to meet water quality goals.

Best management practices include the use of green infrastructure and low impact development (LID) techniques. These strategies use natural features and processes to improve water quality and manage water quantity. Green infrastructure includes rain gardens, pervious pavers, bioretention ponds, and swales designed and installed to meet stormwater management needs. LID is an approach to land development that promotes less impervious surfaces and incorporates existing natural areas into the site design to retain their functions to treat stormwater on the site. Green infrastructure and LID also help the town adapt to more frequent and higher intensity storms.



UPLAND RESOURCES

FORESTS

Sudbury's forested areas provide habitat, biodiversity, and ecosystem protection as well as recreational opportunities such as hiking and bird watching. They contribute equally to the local landscape and character of Sudbury's scenic roadways. Most of the forested areas are wooded with a mixture of oak, oak/white pine, white pine, and pitch pine forest types. Forests contribute to stormwater management by filtering and storing runoff, improve air quality through filtration and transpiration, and reduce air temperatures with their canopy.

Development pressure threatens local forested areas. The Town has worked with state and federal agencies and local conservation groups to protect larger concentrations of forested land to maintain wildlife corridors and preserve habitats.

Sudbury is also vulnerable to high wind-storm events, which bring down trees that block local roads and cause power outages. The Town manages trees in the public right of way and on public land. It will be important to educate private property owners how to balance the desire to remove trees on their properties to reduce the impacts of severe storm and wind events, and the need to protect the Town's forest resources.



See "Continued Development of Town Inventory of Historic Resources" in Historic and **Cultural Identity.**



See "Impacts of Extreme Weather & Climate Chanae" in Resiliency.

FARMLAND, FIELDS, AND OPEN LAND

Fields and open land are traditionally associated with agricultural activities. Some still are working farms, while others have been left unattended and taken over by grasses, shrubs, and successional trees. These fields become shelter and nesting areas for birds and insects as well as local favorites for bird watching enthusiasts. Fields and open lands are also a part of the scenic landscape and contribute to the rural character of Sudbury. The Town's lengthy list of designated scenic roadways attest to the value of these features to the community.

LANDOWNER PROGRAMS

In addition to acquiring land (through conservation restrictions by the Town and nonprofits), there are land management programs¹² offered to private property owners that help maintain the public benefits of the natural resources on their property while they still retain ownership and use. Programs have varying acreage limits and other qualifications for participation. Some examples include:



See "Continued Development of **Town Inventory** of Historic Resources" in Historic and Cultural Identity.

¹² https://masswoods.org/landowner-programs

PROGRAM	DESCRIPTION
Current Use Tax Program	The Current Use Tax Program (also referred to as Chapter 61, 61A, and 61B) values land of participating property owners based on the current use of the land, specifically agriculture, forest, recreation, or open space, rather than fair market rate associated with residential development. Lowering property taxes allows landowners to maintain their properties as undeveloped.
Forest Stewardship Program	The Massachusetts Forest Stewardship Program supports and encourages private forest landowners' efforts to manage, enjoy, and care for their land using a long-term approach. It is a program of the Massachusetts Department of Conservation and Recreation (DCR) Bureau of Forestry, which strives to provide education and periodic cost-share opportunities to forest landowners. The program is administered in partnership by DCR and the Massachusetts Woodlands Institute.
Foresters for the Birds	Also administered by DCR, Foresters for the Birds provides landowners with information about bird habitat on their land and recommendations about how to enhance it in conjunction with other forest management goals. The program provides funding assistance for a trained private forester to evaluate the existing and potential habitat for birds that rely on the forests of Massachusetts for much of their breeding habitat. The birds were selected by Mass Audubon as conservation priorities and cover a range of forest types.

POLICIES AND ACTIONS

The Town of Sudbury will implement the following policies and actions to meet the opportunities, challenges, and needs for Natural Resources.



Sudbury will take proactive measures to protect the town's drinking water supply.

- **A.1** Revisit the Water Resource Protection Overlay District to determine whether this zoning tool is still functioning as intended. Revise the Zoning Bylaw as appropriate. (see Route 20 Corridor).
- **A.2** Review all local regulations that govern development above the aguifer (e.g., Bylaws, Board of Health, Conservation, Subdivision) to ensure provisions protect water quality and allow for groundwater recharge to the greatest extent practicable.
- **A.3** Monitor lands above the aguifer for opportunities to implement conservation strategies, such as property acquisition and conservation restrictions (See Conservation and Recreation).
- **A.4** Continue coordination with the Sudbury Water District as it plans for future investments.



Sudbury commits to implementing best management practices for stormwater management.

- Identify opportunities to install green infrastructure on Town properties in **B.1** existing or planned infrastructure.
- **B.2** Where appropriate, incorporate language into the Zoning Bylaws and Subdivision Rules and Regulations that limits the area of alteration on a site, protects steep slopes, and limits the removal of existing native vegetation or trees on a site. Encourage these best practices in cluster developments.
- **B.3** Revise all local regulations (e.g., Zoning, Board of Health, Conservation, Subdivision) to encourage the use of porous/pervious materials to take the place of traditional impervious cover where appropriate.
- **B.4** Continue to support the implementation of the Town's Stormwater Water Management Program Plan with adequate staffing, equipment, and financial resources. (See Town Services, Facilities, and Infrastructure.)
- **B.5** Prioritize green infrastructure to manage stormwater as part of future public and private projects and investments. Add language to Sudbury's Stormwater Bylaw.



Sudbury commits to enhancing and maintaining the quality of surface water resources.

- **C.1** Monitor lands around ponds and waterways for opportunities to implement conservation strategies, such as property acquisition, conservation restrictions, and public education about the water quality impacts of fertilizer use, among other strategies (see Action E.2 above and Conservation and Recreation).
- **C.2** Continue to implement strategies in the Ponds and Waterways Master Plan.
- **C.3** Continue participation in regional planning and management efforts in the SuAsCo River watershed.



Sudbury encourages policies and development standards that protect and improve the town's natural resources.

- **D.1** Require the use of low impact design standards for projects near sensitive environmental resources and encourage town wide as appropriate.
- **D.2** Evaluate the effectiveness of Sudbury's Wetland Bylaw and Regulations and revise as needed to best protect wetlands.
- **D.3** Identify opportunities to restore the Town's floodplain areas to natural states wherever possible (see **Resiliency**).
- **D.4** Develop a forestry management plan to address publicly owned forested areas.
- **D.5** Develop a tree preservation bylaw that defines tree preservation and replanting standards for public and private properties. Consider mitigation requirements such as a tree fund or tree bank.
- **D.6** Monitor lands that support important wildlife habitat for opportunities to implement conservation strategies, such as property acquisition and conservation restrictions (see Conservation and Recreation).



Sudbury will educate private property owners about the community-wide benefits of healthy natural resources on their land.

E.1 Promote land management programs for private property owners, including Chapter 61 programs.

- **E.2** Continue to educate the public about how they can implement best practices for stormwater management on their properties. Examples include rain gardens, rain barrels, and reduced impervious surfaces.
- **E.3** Educate residents about the impacts of fertilizers and lawn chemicals on local waterways and promote and encourage the use of alternative environment-friendly options.
- **E.4** Educate residents about the importance of tree cover and the use of selective clearing of forested areas.



Nobscot Scout Reservation. Photo Credit: Town of Sudbury.

CONSERVATION

CONSERVATION AND RECREAT

Protect and maintain important natural areas and recreational resources.

OPPORTUNITIES, CHALLENGES, AND NEEDS

Viewed as one of Sudbury's defining assets, the collection of conservation and recreation lands were at the center of many Master Plan discussions. Conservation lands serve an essential role in preserving natural resources and wildlife habitat. They also provide clean water, air, and passive recreational opportunities for Sudbury residents. The Town has made significant resource protection gains through its land conservation efforts and other measures targeted at managing growth and development. However, Sudbury faces the ongoing need to protect its resources from development pressure, climate change, traffic, and other sources.

Recreational and active open spaces are planned and cared for by a number of organizations including the Parks and Recreation Department, Parks and Recreation Commission, Department of Public Works, and Sudbury Conservation Commission. However, many other departments and local organizations support the development, maintenance, and operations of recreational facilities and programming. At the time this Master Plan was developed, the Town was updating its official Open Space and Recreation Plan (OSRP), which sets a seven-year action plan to meet the evolving needs of residents. Because it is revisited every seven years, the OSRP is important for implementing short-term actions.

The Town owns several recreational resources that are available for residents to use, and as population demographics continue to shift, it is important for the Town to attempt to anticipate and to plan for these recreational needs for current and future residents of all ages and abilities. With the Master Plan, the Town can identify some long-range planning efforts.

While conservation and recreation resources bring the community many opportunities, there are still challenges and needs.

AWARENESS OF THE LAND ACQUISITION PROCESS

While Sudbury has been active in conserving and protecting important natural areas by acquiring lands or easements throughout the Town, these efforts require support from the community. From an administrative and technical perspective, several departments and boards are involved in land acquisition discussions.13 The Land Acquisition Review Committee advises the Board of Selectmen on the acquisition or preservation of properties as they become open to purchase. The committee evaluates the appropriateness for purchase or preservation by the Town, considering a list of potential needs (see inset). Another important group that directly connects to these acquisition efforts is the Community Preservation Committee, who decides how to allocate and contribute funds to a variety of important community objectives, including land acquisition. Sudbury was an early adopter of the Community Preservation Act and has therefore accrued a significant amount of funds, some of which can be used to purchase land or conservation easements.

CONSIDERATION OF THE LAND ACQUISITION REVIEW COMMITTEE

- Preserve the character of Sudbury so defined by the Master Plan.
- Provide alternative housing so defined by the Housing Plan.
- Preserve and protect open space for conservation and recreation purposes, utilizing the Open Space and Recreation Plan (OSRP).
- **Provide land for community** activities.
- Preserve land for future town/ school use.
- Enhance municipal revenue, including the commercial potential of properties.
- Protect natural resources, including water resources.

In many land acquisition opportunities, the Town may need approval from a committee, board, or Town Meeting. This due process and public vetting make it critical to keep residents informed of general opportunities and the general value of land such land acquisition has to Sudbury's environment, economy, and quality of life.

UPKEEP OF AND IMPROVEMENTS TO RECREATIONAL AREAS

Upkeep of and improvements to recreational areas is essential to keep Sudbury's public park and open area safe, clean, and operating efficiently to serve the evolving needs of its residents and visitors. The Town owns and manages seven parks and fields. The maintenance and improvements require technical, financial, and staffing resources.

For recreation facilities, a long-term priority for the Town is future of the Fairbank Community Center, home of the Parks and Recreation Department (including Atkinson Pool), Senior Center and Council on Aging, and Sudbury Public Schools administrative offices. A number of issues have arisen with the building over time, including leaking roof portions, failing climate control, and lack of space for programming and administrative needs for the three departments.



See "The Issue of Maintenance"in Town Facilities. Services, and Infrastructure.

¹³ See Baseline Report for a more comprehensive list of land preservation groups and mechanisms available in Sudbury.



Nobscot Scout Reservation. Photo Credit: Town of Sudbury.

It also serves as an emergency shelter and lacks the necessary capacity and space to accommodate residents for overnight sleeping, storage of shelter supplies, and limited backup power, among other limitations. The Town looks forward to creating a new multi-generational center to meet current and future needs in the same location.

Making improvements to other areas can also expand recreational opportunities. Field enhancements will expand usage and playable areas. Davis Field is one example. Leveling and grading the existing playing area will make it more usable and playable for a longer period of time. Also, adding lighting to the town's artificial turf fields will also expand their usage, taking stress off of grass fields and reducing their maintenance. These are long-term objectives that require further study of costs and feasibility.

Addressing issues of maintenance of recreational resources requires a collective effort from various town departments. The Department of Public Works oversees the maintenance of Town-owned open space and conservation lands; while the Park and Recreation Department provide recreation activities, facilities, and general amenities to the public. These two departments work together to develop a cohesive and coherent plan for the management of recreational areas in Sudbury.



Broadacres Farm. Photo Credit: Jan Hardenbergh.

NEW RECREATION OPPORTUNITIES

Through the OSRP, the Town assesses the community's need for open space and recreational opportunities. In the long term, in addition to redesigning the Fairbank Community Center, many residents are looking for an outdoor community gathering place. The Parks and Recreation Department not only organizes active programming, but also can coordinate events that bring residents together, such as a movie night or concert. Sudbury currently has no space for these types of events.

The Town has also acquired two properties that have potential to increase recreational opportunities for Sudbury residents: Broadacres and Camp Sewataro. Broadacres has undergone a visioning process to link it with neighboring recreational resources and conservation areas. Camp Sewataro was opened to residents in the summer of 2020. The property has several existing amenities, such as walking paths, playing fields, and tennis and basketball courts.



Pantry Brook Farm. Photo Credit: Town of Sudbury.

MANAGEMENT AND USAGE OF CONSERVATION LAND

Town conservation areas could benefit from management plans to address ongoing maintenance and upkeep of trails, invasive species, and mitigating user conflicts. Land stewardship of Town conservation land is needed, either through Town staff or volunteers. The Town can work with local environmental groups who share similar conservation objectives, like the Sudbury Valley Land Trust, in the upkeep or improvements of these areas. Local scout troops and other youth organizations are also resources for volunteers to help maintain trails, repair bridge crossings, or develop and maintain trail signage.

There are also opportunities to increase programming in conservation areas that protects natural features while increasing awareness of resources. Examples might include guided walking tours, painting or other art classes, and environmental education programs for both adults and children.

ACCESSIBILITY OF OPEN SPACE AND RECREATION FACILITIES.

Commitment to promoting outdoor recreational facilities that are free of barriers and open to all throughout Sudbury will help meet the needs of all residents, including those with disabilities and the elderly who may be aging into disability. The accommodations made for these groups also benefit the entire Town by providing assistive measures that may also assist parents with baby carriages. Spending time outdoors has innumerable benefits to people's health, and ensuring that people with mobility challenges have opportunities to be outdoors is particularly important. People who spend time outdoors experience less depression and anxiety, and individuals who run, bike, or walk in natural settings have shown reduced risk of mental health problems compared to people who do their exercise indoors.



See "Accessibility" in Town Facilities, Services, and Infrastructure.

Strategies to make recreational facilities accessible to people of all abilities generally focus on retrofits to existing facilities or additions that expand participation opportunities. Advances in recreational equipment and site/building design incorporate principles of "universal design" to create facilities that are truly accessible to all. As part of the Town's OSRP, an ADA Self-Evaluation of town-owned recreation and conservation sites and programs is required and identifies access barriers. The resulting transition plan prioritizes structure improvements to increase access for people with disabilities. While the OSRP is limited in scope, it can provide an important resource to begin a more comprehensive efforts toward expanding access for people with disabilities. Note that the chapter Town Facilities, Services, and Infrastructure calls for the development of a transition plan that applies to all municipal facilities.

RECREATION AND CONNECTIVITY

Adequate trails and connectivity in a community help people of all ages and abilities incorporate exercise into their daily routines by connecting them with important places. While Sudbury has an extensive trail network that connects many of the Town's conservation areas, residents have vocalized the desire for enhanced trails and improved connectivity in Town for exercise and to use as a transportation alternative.

At the time this Master Plan was written, there were two potential rail-trail projects at different stages of planning/implementation that would pass through Sudbury: BFRT and the proposed MCRT. Enhancement of these trials could include connecting them to resources in Town like historic areas (see Historic and Cultural Identity), local parks, conservation areas, neighborhoods, shopping centers along Route 20 (see Route 20 Corridor), and schools (see Transportation and Connectivity).



See "Additions and Maintenance of Sudbury's Walkway and Bicycle Network" in Transportation and Connectivity.

With these connections, residents can have easier access to shopping to promote economic development, enable children to walk to school safely, increase the usage of conservation areas, and more engagement with historical resources. In addition to connectivity, the widening of trails is also important for accessibility and allows users to pass each other safely without contact.

Connectivity also focuses on transportation needs of recreation users beyond trail links. For example, getting youth to the Fairbank Center. Walking and biking connections are important, but another option might be a regular loop shuttle program at needed times. After school programming at the Fairbank Center is supported by youth staff. Getting students from the high school to the Fairbank Center requires coordination with parents to drive them. Having a scheduled shuttle that can meet them at school and bring them to the areas they need to be for work can help reduce traffic congestion during peak times. Coordinating a shuttle with other users such as seniors can also increase a program's adaptability.

POLICIES AND ACTIONS

The Town of Sudbury will implement the following policies and actions to meet the opportunities, challenges, and needs for Conservation and Recreation.



Sudbury will use existing plans to help address the conservation and recreation needs of the community.

- **A.1** Support the implementation of the Open Space & Recreation Plan Action Plan. Ensure the plan takes a big-picture approach to the design and programming of the Town's parks and open space resources.
- A.2 Encourage and support on-going updates of conservation plans like Ponds and Waterways Master Plan and Land Management Plan for the Watersheds of the Sudbury Reservoirs.
- **A.3** Be proactive to ensure that outdoor areas, such as athletic fields and trails, are accessible to all residents and that accommodations are in place to make this possible, using federal and state ADA standards and universal design principles.
- Sudbury will continue to be proactive about identifying and prioritizing lands of interest for recreation and conservation, planning for their potential community benefits and use.
 - **B.1** Continue the work of the Community Preservation Committee, the Sudbury Land Acquisition Review Committee, and regional partners like the Sudbury Valley Trustees.
 - **B.2** Promote opportunities for public use as part of property acquisition to ensure community benefits and continued support of land acquisition initiatives.
 - **B.3** Continue planning efforts to increase public conservation and recreational benefits of Sewataro and Broadacre properties.



Sudbury will work to increase programming to meet needs for organized activities.

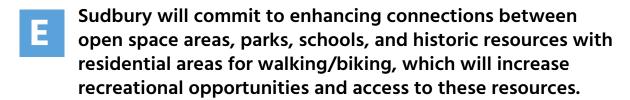
- **C.1** Make grading improvements to existing fields, such as Davis and Feeley Fields.
- **C.2** Add LED lighting to artificial turf fields to allow usage at night.
- **C.3** Ensure indoor and outdoor activities and programs for residents that are accessible and support the participation of those individuals living with disabilities.

C.4 Continue implementation of the Athletic Fields Needs Assessment and Management Plan.

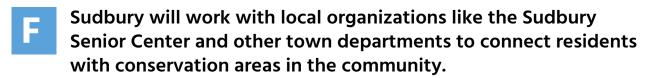


Sudbury recognizes the importance of communication between the Town and residents and will enhance the effort to inform people of conservation efforts.

- **D.1** Develop public education materials that explain the local acquisition process and promote conservation efforts.
- **D.2** Collaborate with the Land Acquisition Review Committee to improve acquisition process education in Sudbury.



- **E.1** Support the completion the BFRT and ensure accessibility in compliance with ADA regulations.
- **E.2** Continue the expansion of the BFRT through the CSX Corridor property. (See Transportation and Connectivity Action C.2).
- **E.3** Identify gaps and opportunities to link conservation and recreation resources, residential areas, schools, historic places, etc. by strategically expanding the existing network of walkways. (See Transportation and Connectivity).
- **E.4** Continue to discuss the design of the proposed Mass Central Rail Trail with regional and state partners.



Increase programming in conservation areas for all residents, particular seniors, youth, and those living with disabilities.

- **F.2** Create more community gardens or similar amenities that are accessible to people of all abilities, include seating and gathering areas for the multigenerational experience.
- **F.3** Work with Sudbury Public Schools and Lincoln-Sudbury Regional High School to incorporate awareness and direct experience of conservation areas into arts, science, and history curricula.



Goodnow Library in Sudbury. Photo Credit: John Phelan.

TOWN FACILITIES, SERVICES, AND INFRASTRUCTURE

GOAL

Provide sustainable accessible services and infrastructure to the community that supports a high quality of life.

OPPORTUNITIES, CHALLENGES, AND NEEDS

Providing high quality facilities, services, and infrastructure is the core function of local government. Whether it is public education, parks, public safety, record keeping, voting, maintenance of roadways, permitting, or a myriad of other service—Sudbury's obligations to its residents and business owners are numerous and complex. The practice of delivering services and maintaining facilities is always a 'work in progress' and the Town continually evaluates changing needs, opportunities for improvement, and ways to limit costs without compromising quality and accessibility.

This section of the Master Plan does not specifically address the needs or policies related to every municipal service, facility, or infrastructure asset. In some cases, other facilities or services are covered in more detail in other sections of the Plan. For example, readers interested in policies and future actions related to recreation should review Conservation and **Recreation**. In other instances, the Master Plan relies on departments with their own detailed plans to inform the efforts of the Town related to those services. For example, as a matter of policy, Sudbury is deeply committed to the success of its public safety departments and its local schools and supports their efforts to continue providing the highest level of service to the community. Sudbury Public Schools has its policies that guide its mission and vision. The issues related to services, facilities, and infrastructure highlighted in this Master Plan (below) were identified by the community as those needing special attention when looking at community needs over the next 10 to 20 years.

Of all the elements typically examined in a community Master Plan, Town Facilities, Services, and Infrastructure is most explicitly connected with all other elements. The following opportunities, challenges, and needs demonstrate the strong connection to issues of accessibility, housing, economic development, historic resources, and the natural environment.

THE NEEDS OF A CHANGING POPULATION

A recurring issue in the Master Plan is the anticipated shift in Sudbury's population demographics over the next two decades. Data suggest that these coming decades will be characterized by an increasingly older population. This is driven primarily by the aging of the Baby Boomer generation. Other issues that can exacerbate the challenge will be a shortage of affordable housing (both market rate and subsidized) and the trend of families having fewer children. As the number and percentage of senior residents increases, demands for services, programs, and facilities geared toward this age group will rise. In January of 2019, Sudbury completed *Livable* Sudbury: A Community Needs Assessment¹⁴, a local effort that contributes to a nationwide initiative designed to make communities more livable for people of all ages.

The Livable Sudbury assessment identifies eight priority issues related to the experience of seniors in the community, seven of which fall within the Master Plan discussion of Town Facilities, Services, and Infrastructure: 15 16

"Livable" defines a community that enables and engages residents of all ages—encouraging adults and children to enjoy, explore, and access the resources for staying involved with friends and neighbors, for learning and growing, for helping and being helped, and for interacting with their community in meaningful ways.

-Livable Sudbury

TRANSPORTATION

Transportation needs identified in *Livable Sudbury* include:

- Decreased traffic congestion, better walkability, and improved pathways.
- More convenient access to Boston and other locations where people work, seek services, or seek entertainment.
- Expanded transportation options for specific segments of the community, such as individuals with mobility limitations.
- Improved access to existing transit options, such as ride-sharing services, by making them more widely available and usable.
- New transit options, such as transit to local rail stations, improved medical transit, and afterschool transportation for families with children.
- Expanded network of sidewalks, improved lighting along walkways and paths, and adequate crosswalk sign.

¹⁴ https://sudburyseniorcenter.org/wp-content/uploads/sites/381/2019/02/Livable-Sudbury-Report.pdf

¹⁵ The eighth issue is Housing, which critical to the senior living experience in Sudbury and covered in more detail under the Housing Element of this Master Plan.

¹⁶ The text provided on the seven issues is adapted, and in some cases copied directly from the Livable Sudbury assessment.

OUTDOOR SPACES AND BUILDINGS

Needs identified in Livable Sudbury related to Open Spaces and Buildings include:

- Safe and accessible shopping, entertainment, and community areas for all residents.
- Ensured accessibility for outdoor spaces and public buildings, as well as community meetings and services.
- More public restrooms and for benches in strategic locations—these features improve access and encourage walking and use of Town amenities.
- Resolve inadequacies surrounding the Fairbank Community Center and the Sudbury Senior Center.
- Ensure the trend of increasing older population is addressed when planning for public spaces and accessibility.
- Improve knowledge and availability of public restrooms and benches, and expanded accessibility features throughout the community.

COMMUNITY AND HEALTH SERVICES

Survey work performed as part of *Livable Sudbury* suggested most residents were "neither satisfied nor dissatisfied" with the state of community and health services in town. Some potential needs identified in the assessment include:

- Improved community knowledge about the services already available.
- Increased efforts to improve awareness and access to those who could benefit from services the most, especially those with participation limitations and those with financial insecurity.
- Improved affordable and convenient respite to Sudbury residents and caregivers.
- Respond to the needs of people with dementia by promoting greater community awareness and developing dementia-friendly initiatives.

SOCIAL PARTICIPATION

Being engaged and participating in community events—through learning opportunities, fitness programs, and social activities—helps community members build and maintain social support, remain active, and avoid isolation. Needs identified in *Livable Sudbury* related to Social Participation include:

- Increased awareness of participation opportunities and bridging barriers posed by cost and accessibility.
- Strengthened and intergenerational programs led by the Town.

CIVIC ENGAGEMENT AND EMPLOYMENT

Civic participation, such as volunteering and involvement in local organizations, builds social capital and allows people to pursue interests and be involved in their communities; paid employment can yield these benefits as well as provide income. Needs identified in Livable Sudbury related to Civic Engagement and Employment include:

- Strengthened awareness and outreach around opportunities for civic engagement and volunteering.
- Strengthened involvement in local governance through resident education and facilitating access to public meetings.

COMMUNICATION AND INFORMATION

Promoting widespread awareness of local services, programs, and resources maximizes the impact of community assets. Needs identified in Livable Sudbury related to Communication and Information include:

- Strengthened communication strategies, ensuring that residents have access to needed information.
- Developing a communication plan as a means of creating integrated communication channels and ensuring materials are presented in appropriate formats.
- Developing dissemination partners such as medical offices, faith-based organizations, and others could be successful.
- Strengthened interdepartmental communication.

INCLUSION AND RESPECT

Feeling respected and included promotes participation in the community and facilitates effective use of services and amenities. Needs identified in Livable Sudbury related to Inclusion and Respect include:

- Ensured widespread access to information using accessible media to promote inclusion.
- Consider accessibility issues when planning community events, including taking into account the cost of participation.
- Consider opportunities to build a broad-based coalition to tackle the issue of inclusion, involving representatives from faith communities, disability organizations, the schools, the Senior Center, and other organizations committed to working collaboratively on this issue.

These recommendations and priorities outline a framework for Sudbury to ensure it is and remains an all-age and dementia-friendly community.



Sudbury Senior Center. Photo Credit: Sudbury Senior Center.

KEEPING PACE WITH TECHNOLOGY

Technological innovations are changing the way municipalities do business and deliver services. Devices and applications associated with information technology (IT), engineering, communication, permitting, and accessibility are evolving at a rapid rate. Municipalities can affect tremendous improvements with the right investments if they can identify the "right fit." Some of the new and evolving technologies available to municipalities include:

E-SERVICES

IT platforms can be used that allow for basic transactions between residents and local government to occur remotely. Most common among these transactions are basic registrations or payments such as taxes or licensing fees. Sudbury currently offers some of these basic payment options through its website, however, there may be opportunities to expand and streamline its offerings.

WIRELESS

Wireless communication networks are driven by private investment from communication corporations and this technology continues to evolve rapidly. The Town plays an important role in potentially enhancing service through local land use regulation. For example, Sudbury uses a Wireless Services Overlay District as a permitting mechanism for an array of technology forms (e.g., rooftop, free-standing, etc.). Sudbury recognizes that the ability to access high quality wireless service is important to the function of many other municipal services (e.g., emergency response) as well as economic development initiatives. As such, it must consider the financial, economic, environmental, and public health impacts of these investments.

DRONES

The availability of drones has potential application in municipal operations including inspection of construction sites, reconnaissance of natural areas that may be hard to access, and search and rescue operations. With the trend in pricing going down quickly, the Town may wish to assess the utility of having drones available to various departments.

AUTONOMOUS VEHICLES

Advances in automobile technology—including autonomous vehicles, connected vehicles (e.g., on board sensors, cameras, etc.), and vehicle-to-vehicle (V2V) connections—are occurring rapidly. While most experts agree that full scale deployment of autonomous vehicles will take time, connected vehicles and V2V technologies are already available and evolving guickly. The Town may wish to being long-term planning for these types of vehicles on Sudbury's streets and/or supplementing local transportation services.

GEOGRAPHIC INFORMATION SYSTEMS

Geographic Information Systems (GIS) have, for some time, played a role in municipal government. Sudbury presently uses GIS to assist in its mapping efforts related to zoning, land use, facilities, stormwater permit compliance (MS4), transportation networks, open space, and natural resources. The Town also provides an interactive GIS map online to allow residents to readily view available such spatial data. More sophisticated applications of GIS can seamlessly integrate spatial data with the Assessor's database, integrate with permit application review, and display important data related to emergency response calls and traffic issues.

ASSET MANAGEMENT SOFTWARE

While the term "Asset Management" is used to describe an organization's overall system for optimizing the value of its assets, technology can also play a vital role. Depending on the direction Sudbury takes regarding asset management (discussed below), a variety of software tools exist that can enhance the Asset Management capabilities of the Town. The Department of Public Works and Facilities Department, in particular, may benefit from exploring options for Asset Management system implementation.

MAJOR INFRASTRUCTURE INVESTMENTS

As a maturing suburb with a rural heritage, Sudbury does not have the inventory of large infrastructure holdings one might expect in more densely populated suburbs that lie closer to Boston or Worcester. It does, however, maintain the local roadway network and a significant number of municipal buildings (many of which are historic). Looking forward there are a small number of major infrastructure projects at different levels of planning and implementation.

At the time this Master Plan was drafted, BFRT and MCRT were at different stages of planning, with the former being much closer to implementation. Both trails would provide both local and regional assets and potentially provide critical "spines" in what would eventually become a more comprehensive network of trails in Sudbury. Development of these infrastructure assets represent critical milestones in the larger plan to make the community more walkable, bikeable and accessible.

Another potentially significant future infrastructure investment discussed in the Master Plan process is centralized sewer service for the Route 20 Corridor. Over the years, extensive study has been performed on both the future role of Route 20 in the prosperity of Sudbury as well as the feasibility of providing sewer service in this area.

If Route 20 is to become more of a mixed-use destination that supports the local tax base, provide much needed housing options, and generally improve the experience of this part of Sudbury, wastewater infrastructure is needed to unlock its full potential.

Investments in new infrastructure (wastewater management, BFRT, etc.) will also require sustainable investments in maintenance and upkeep.

THE ISSUE OF MAINTENANCE

Sudbury maintains a significant inventory of facilities and municipal infrastructure (many of which are historic) and many departments have detailed maintenance schedules and individual plans they follow in order to provide a high level of service to residents and business owners. Unfortunately, deferred maintenance and upgrades can lead to larger investments in the future to fix problems that if addressed earlier might not have occurred and may not have involved large expenditures to fix. This can make it very challenging for municipalities to be proactive in addressing maintenance issues, as many taxpayers and local officials often seeking to reduce spending. While a fiscally conservative approach to spending is an important perspective in budget planning, cuts to maintenance capacity can place communities like Sudbury in a position of being "penny wise and pound foolish." Deferred maintenance and upgrades can lead to larger investments in the future to fix problems that if addressed earlier might not have occurred and may not have involved large expenditures to fix.



Road paving on a Sudbury street. Photo Credit: Town of Sudbury.

Communities that address this issue most effectively generally have two important elements within their approach to maintenance. The first element is a well-informed, data driven approach to facilities management and upkeep. This often begins with the development of a comprehensive Facilities Management Plan that performs a detailed examination of all municipal facilities, lays out a reasonable program for maintenance, identified needs for upgrades or repair, and provides reasonably accurate cost estimates for implementation over time. It can also include the use of a broader Asset Management program, which may or may not include dedicated technology (see on previous page).

The second element found in other successful communities focuses more on public awareness, education, and iinstilling a sense of community pride in a well-maintained facility inventory. Communities that regularly disseminate educational materials on the day-to-day operations and maintenance costs of different departments increase the transparency of their operations, educate residents regarding the resources required to maintain amenities they value, as well as produce positive support for maintenance projects.

ACCESSIBILITY

The issue of accessibility is already discussed as part of this plan's emphasis on meeting the needs of all in the community who may require accommodations to access services, programs and facilities. Most people who live to be elderly will "age into disability" to varying degrees, which creates challenges for them to access services, historic structures, and participation in local government. Disability, however, is certainly not confined to the elderly. People of all ages in Sudbury experience a diverse range of disabilities. Importantly, the rights of these individuals to access services and information and to participate in local government is protected by the Civil Rights Law, the Americans with Disabilities Act (ADA). Specifically, Title II of ADA provides a series of requirements related specifically to local governments. Core Administrative Requirements for Sudbury include:

- Self-Evaluation: Develop and maintain an assessment of current policies and practices that identifies barrier and discriminatory practices.
 - Identify all relevant programs, activities, and services.
 - Review all policies, practices, programs, activities, and services for access problems.
- Structural Changes: Immediate remedial action to correct identified policies and practices that deny or limit the participation of individuals with disabilities.
- Notification: Information on Title II obligations must be made available to employees and the public.

Sudbury is committed to achieving or exceeding these requirements as it continues to plan for greater levels of accessibility in the community.

POLICIES AND ACTIONS

The Town of Sudbury will implement the following policies and actions to meet the opportunities, challenges, and needs for Town Facilities, Services, and Infrastructure.



Sudbury will plan for and implement changes to its services and facilities that anticipate the needs of an aging population consistent with Livable Sudbury: A Community Needs Assessment and the American's with Disabilities Act.

- **A.1** Convene a Livable Sudbury Working Group with leadership from the Council on Aging, Senior Center, and Livable Sudbury Ambassador, and representation from public safety (Police, Fire, EMA), Planning and Community Development, the Library, and the Commission on Disability among other municipal departments, to prioritize and implement the potential action items in Livable Sudbury.
- Sudbury will commit to research and, where appropriate, invest in technology that will enhance municipal services.
 - **B.1** Invest in upgrades to GIS data that will help visualize and, where applicable, analyze data for the Assessor's Office, Planning & Community Development, Dept. of Public Works, public safety, the Historical Commission, and others.
 - **B.2** Dedicate resources to explore the coordination and implementation of new technology across multiple departments to produce reports for each department on possible investments and returns.
 - **B.3** Explore the possibility of using Asset Management software as part of planning for facilities maintenance and capital expenditures.
 - **B.4** Continue to study the ongoing evolution of wireless technology and supporting infrastructure and dedicate funds to this type of study if needed. Revisit the Wireless Service Overlay District as necessary.
- Sudbury will commit resources to increasing revenue to the Town.
 - **C.1** Hire an economic development planner tasked with managing projects specific to economic development and working on business retention, expansion, and outreach/relationship building. (See Economic **Development**).

C.2 Evaluate the most effective way to increase grant writing capacity for the Town and commit resources accordingly. This may or may not include additional staffing.



Sudbury recognizes the value of well-planned maintenance and asset management programs and include these practices into the everyday provision of municipal services.

- Develop a comprehensive Facilities Assessment and Maintenance Plan that includes a Capital Needs Assessment for every municipal building.
- **D.2** Consider the development of a more formal Asset Management Program that emerges from the Facilities Assessment and Maintenance Plan.
- **D.3** Ensure the Facilities Assessment and Maintenance Plan addresses any state or federal compliance requirements (e.g., MS4 stormwater program).
- **D.4** Develop educational materials for the public to raise awareness of the need for maintenance related to municipal facilities.
- **D.5** Develop sustainability goals for Town facilities, infrastructure, and operations.



Sudbury is committed to be a community where people of all ages and abilities enjoy access to municipal services, facilities, and public discussions.

- Ensure all digital material developed by the Town and posted on its **E.1** website is accessible to people with disabilities (see Public Health and **Social Wellbeing Policy C).**
- **E.2** As part of the Self Evaluation of Town facilities, properties, and services, develop a Transition Plan to meet the regulatory requirements outlined in ADA. Coordinate the Transition Plan with the State Historic Preservation. Office and the State Architectural Review Board for all facilities located in in the Town.
- **E.3** Ensure the Town achieves and maintains compliance with Title II of ADA.



Home in Sudbury. Source: Zillow.

łOUSING

GOAL

Allow for a wide range of housing options that accommodate the diverse needs of Sudbury residents at all stages of life.

OPPORTUNITIES, CHALLENGES, AND NEEDS

THE ISSUE OF AFFORDABILITY

At the beginning of this Master Plan, "Challenges Impacting Sudbury's Future" introduces several issues directly tied to housing in Sudbury (see inset). In addition, the Baseline Report provides a wealth of information on the current conditions in Sudbury and documented needs. Highlights from the Baseline report include:

- When compared with other communities in the region, Sudbury has the highest percentage of resident owned and occupied housing stock as well as the highest percentage of homes with three or more bedrooms.
- The cost of home ownership is high with the median sales price of a home in Sudbury in 2018 being \$749,900.
- Sudbury relies almost exclusively on on-site septic systems for managing wastewater, which is a significant barrier to developing housing types other than singlefamily homes.

In the face of these challenges, the Town of Sudbury has made tremendous progress in implementing successful strategies to mitigate the impacts of an expensive housing market. Strategic development initiatives have created pockets of higher density housing, providing options that simply did not exist prior to their development. These initiatives also placed Sudbury's Subsidized Housing Inventory (SHI) above the State statutory threshold of 10%, now giving the community greater control over development proposals under Chapter 40B. With all of this progress, there are still issues (i.e., price points) that still need to be considered, such as affordability for prospective buyers and renters,

CHALLENGES RELATED TO HOUSING

- Seniors looking to age in place may have difficulty finding suitable housing for this stage of their lives.
- Most of Sudbury's housing is not affordable for households of modest means.
- **Neighborhoods lack** connectivity requiring homeowners to rely on cars to get anywhere.
- Many of Sudbury's homes were constructed long before modern building codes were in place and are ill-equipped for climate change.

ASSUMPTIONS ABOUT THE FUTURE MARKET

A significant challenge with developing a Master Plan is trying to forecast and make assumptions about conditions 10 to 20 years in the future. This is particularly difficult for Master Plan chapters that need to consider market conditions. Whether considering issues related to economic development, fiscal health, or housing, markets can be volatile and sometimes respond in unpredictable ways to events that we could never have foreseen

One of the driving forces behind the powerful housing market in Sudbury is the Town's proximity to the global economic engine of Boston. In the years leading up to the development of this Master Plan, Boston experienced an

Looking ahead, barring anything completely unexpected, the assumptions built into this Master Plan include the future housing market in Sudbury will experience fluctuations over time but remain strong.

unprecedented economic surge that reverberated across the region, with measurable impacts on the real estate markets as far away as Worcester and Providence. Looking ahead, it is unclear whether this level of growth is sustainable and there are a number of important challenges that remain to be addressed. Impacts from COVID-19 also remain to be quantified and it is unclear what type of net impact this event may have on major cities. On one hand, the density of urban environments with the everyday "elbow-to-elbow" lifestyle may be difficult to maintain, while the successful development of a vaccine may soon make this experience nothing but a bad memory. Further, the surge in using remote technologies may, in the long run, make companies more resilient and could help answer the issue of commuter traffic, which had reached a tipping point in the greater Boston area before the global pandemic.

Another uncertainty linked to the housing market relates to the more traditional aspects of predicting demand. In addition to the regional economic forces working on Sudbury's housing market, the national population trends can also exert considerable force. Even with the Baby Boomer generation retiring, demand for housing in affluent communities like Sudbury is still strong. Further, as this generation ages into disability, the demand for smaller, more accessible housing options could drive new development trends. If these smaller units are constructed in Sudbury, some raise questions as to their long-term market viability. Importantly, approximately 20 years from now, the Millennial cohort will be at the height of its wealth and, if current trends continue, will bring a preference for smaller housing options to the market. Looking ahead, barring anything completely unexpected, the assumptions built into this Master Plan include the future housing market in Sudbury will experience fluctuations over time but remain strong.

LOCAL CAPACITY TO PLAN, FINANCE, AND ADMINISTER

The Town of Sudbury has made significant progress increasing its stock of diverse housing over the years leading up to this Master Plan. The redevelopment of the former Raytheon site into a mixed-use center made a significant positive impact on the community from a variety of perspectives. The development consists of four project components:

- A vibrant 75,000 square-foot village retail center of approximately 15 stores anchored by a Whole Foods Market grocery store developed by National Development,
- A 250-unit luxury apartment community developed by AvalonBay Communities,
- A 57-unit active-adult condominium community developed by Pulte Homes, and
- A 48-unit assisted living community developed by National Development/Epoch Senior Living.

This development could not have occurred without the technical support of the Planning and Community Development Department, and the leadership of the Planning Board and the Board of Selectmen. The Town has also continued to make progress through the efforts of the Sudbury Housing Authority, which owns and operates 64 apartment units for elderly and disabled residents at the Musketahquid Village, and 28 other units of single-family and duplex rentals that house low-income families. These rental units fill an urgent need in the community that simply could not be met without the continued work of the Sudbury Housing Authority. Sudbury is fortunate to be part of a Regional Housing Services Office (RHSO), which provides assistance to eight communities in the area with planning and administration related to their SHI inventories and other housing issues.



The Coolidge at Sudbury Senior Apartments. Photo Credit: The Coolidge at Sudbury.

In addition to the technical and administrative capacity Sudbury has to implement housing strategies, it also has access to local funding mechanisms. In 2002, Sudbury adopted the Community Preservation Act, which provides access to a fund that is, in part, dedicated to advancing the Town's housing goals. As a second source of funds, the Town established the Sudbury Housing Trust in 2006, which generates funds by providing support services within Sudbury and neighboring communities. Looking forward, the Town is considering other mechanisms to increase funding to the Sudbury Housing Trust, such as a "fee in lieu" contribution associated with Inclusionary Zoning (see inset next page).

The recent success of these groups in Sudbury's efforts to increase housing diversity were, in part, informed by the Town's most recent Housing Production Plan (2016, see inset). With the update to the Master Plan, the Town should also consider an update to the Housing Production Plan. It is worth noting the Housing Production Plan is a state-certified document which has numeric benchmarks for production that help a community reach the 10% statutory threshold. With Sudbury exceeding the 10% threshold, the Town may wish to pursue a broader Housing Strategy that will still be used to maintain its 10% but can also address housing diversity without obligations to annual production targets. Regardless of which plan Sudbury pursues, a regional perspective will be important to the Town's success. Understanding regional job forecasting, transportation planning, and regional market preferences will help Sudbury better anticipate opportunities and pressures from the housing market. Continued collaboration with the Regional Housing Services Office (RHSO) represents an important partnership in this regard.

Sudbury's Housing Production Plan (HPP) was approved by the Massachusetts Department of Housing and Community Development (DHCD) in 2016. It is the Town's strategy to plan for and develop affordable housing to meet needs in the community in a manner consistent with the Chapter 40B statute and associated regulations. Communities in the Commonwealth are required to meet the 10% threshold of affordable housing, which is measured by the number of eligible Subsidized Housing Inventory (SHI) units as a portion of total year-round housing in 2010. Through the HPP, annual housing production goals are established, increasing units at a minimum of 0.5% of the total units per year for five years (the timeframe of the HPP). After five years, a town can revisit its HPP and decide if it wants to update its current HPP or write a new one.

INCLUSIONARY ZONING

In 2020, Sudbury passed Inclusionary Zoning, a regulatory tool used by municipalities to increase the number of newly developed homes that are deedrestricted to be affordable to households of low to moderate incomes. These regulations are usually implemented through zoning and require a percentage of newly developed units to have these restrictions. For example, for any development with over 10 residential units, the zoning requires a minimum of 10% of those units to be deed-restricted for affordability. Inclusionary Zoning is not tool for producing large numbers of affordable homes but is better used to maintain the percentage of subsidized housing in a community. There are many ways to craft Inclusionary Zoning requirements, but Sudbury's newly adopted bylaw shows consistency with many best practices. The Town will monitor the performance of the bylaw over time and re-visit the provisions as necessary to ensure it performs as intended.

OPPORTUNITIES TO BUILD

The Town's greatest opportunity to increase its housing diversity lies on Route 20, and this is discussed in its own Master Plan chapter (see Route 20 Corridor). To look beyond Route 20, during the Master Plan process an examination of unprotected land zoned for residential use was performed. This assessment suggests there is limited capacity for the Town to significantly increase the number of single-family homes. Within the predominant zoning scheme, the ability for the Town to construct new homes on empty lots could be, for all practical purposes, exhausted over the next 20 years. Additionally, the review of unprotected land showed only a limited number of tracts that might support new subdivisions of significant size. While these tracts will likely be developed at some point, the majority of new single-family development will probably occur as small one- or two-unit developments scattered throughout the community. This small-scale, piecemeal growth in Sudbury's residential areas will help to retain the rural suburban character many residents called out as one of the more desirable characteristics of the community.

Looking forward, while the predominantly residential neighborhoods will experience small levels of development, Sudbury can think strategically about increasing housing diversity with strategies tailored to specific "on the ground" conditions. The Town has a history of successful implementation with strategic projects like Heritage Commons, Cold Brook Crossing, Frost Farm, and the Sudbury Housing Authority properties. The small number of sizeable parcels that remain in Sudbury should be examined to determine if neighborhoods with different types of housing might be a more viable choice than the standard single-family subdivision. Providing property owners with a broader palette of housing types could result in an increase in housing diversity both complementary to Sudbury's character and suitable to unmet needs in the community. Further, higher-density, smaller units routinely demonstrate a more beneficial fiscal outcome for the Town.

NEW HOUSING TYPES

With limited land available for new development, high levels of local capacity, and a history of successful strategic housing development, Sudbury will continue to advance a thoughtful, sustainable housing approach. A fundamental component of this approach will be careful consideration of new housing options in specific areas of the community. While architects have been designing high quality, small-scale multi-unit housing in New England for centuries, it is only recently that planners have made strides in gathering this work into cohesive guidance that helps municipalities think about this from a "land use" perspective. The term "missing middle housing" is now a common term for a range of types that can be woven into predominantly single-family communities in a way that enhances character and meets housing needs, including in some cases market-rate affordability. Missing middle housing gets its name from the premise that many communities provide single family homes and the occasional large multi-family complex...but nothing in between.¹⁷



This diagram helps to illustrate the concept of missing middle housing, illustrating the diversity of housing types that are generally unaccounted for in local zoning bylaws. By including some of these options in a Use Table, a town like Sudbury would be able to consider more precisely where different housing types might be appropriate. Opportunities for larger developable parcels or for small parcels scattered across town could help Sudbury meet the needs of older residents and first-time homebuyers.

Missing Middle Housing. Source: Opticos Design.

¹⁷ This term was first coined in 2010 by Daniel Parolek of Opticos Design. www.missingmiddlehousing.com

COTTAGE STYLE COMMUNITIES





Cottage Communities provide homes with footprints that typically range between 900 and 1,500 square feet. As the name suggests, these developments are designed to be more community oriented with a small number of homes clustered around shared green space. Parking is usually centralized off to the side of the development. Enabling these through zoning usually involved a stand-alone section in the bylaw similar to Cluster Development.

Examples of cottage-style communities. Source: Union Studio.

TRADITIONAL DUPLEX AND TRIPLEX





Duplex and triplex housing have been part of traditional New England architecture for centuries and provide a way to increase density at a modest scale with structures that resemble singlefamily homes. These homes can be built in a standalone fashion within single-family districts or as part of more coordinated neighborhood-scale proposals.

Examples of traditional duplexes and triplexes. Source: Union Studio.

SINGLE UNITS ON SMALLER LOTS





Another effective yet simple way to diversify housing is to identify areas where small lots may be appropriate as transitional areas between higher density areas (e.g., Route 20) and more sparsely developed districts. Enabling lot sizes at 10,000 square feet or less, couples with floor to area ratio limitations and design guidelines, can be used to resemble classic mid-20th century neighborhood development patterns common in many historic New England suburbs.

Examples of single units on smaller lots. Source: Opticos Design

An important consideration for Sudbury when planning for missing middle housing is the strength of the local housing market. Other communities that have enabled the development of these housing types have been surprised at the sales prices and overall demand. It is natural to think a home which is one third the size and has one third of the land might cost one third the price of a typical single-family home. However, experience in other communities suggests this may not be the case, with cottages and bungalows on small lots commanding well more than half the typical sales price for a single-family home. These lessons further illustrate the need for tools like effective Inclusionary Zoning to create a truly diverse set of price points in future development.

POLICIES AND ACTIONS

The Town of Sudbury will implement the following policies and actions to meet the opportunities, challenges, and needs for Housing.



Sudbury will actively pursue housing strategies that will diversify its housing stock in ways that are consistent with the character of existing districts.

- **A.1** Prepare for future development proposals by identifying areas where missing middle housing (market-rate options that meet the demand for housing types other than single family homes or larger multi-family complexes) could serve as a transition between mixed-use/multi-family developments and surrounding residential neighborhoods. Explore zoning changes.
- **A.2** Prepare for future development proposals by identifying larger developable parcels where missing middle housing types may be appropriate as part of a town-wide Housing Strategy to provide both home ownership and rental opportunities.
- **A.3** Adopt new or revised zoning bylaws to enable development consistent with A.2 above.
- **A.4** Pursue regulatory changes (potentially an overlay district) and infrastructure investments that will allow for higher density housing within the Route 20 Corridor area (see Route 20 Corridor).
- **A.5** Ensure zoning allows or requires the inclusion of housing types that will be much more affordable than typical single-family homes in Sudbury. Where a new Housing Production Plan or Housing Strategy is developed, new development should be consistent with the strategies in that plan. Partner with the Sudbury Housing Authority and Sudbury Housing Trust in this effort.



Sudbury will continue to support a sophisticated local network of organizations committed to meeting local housing needs.

Develop a town-wide Housing Strategy (or revise the current Housing **B.1** Production Plan) that will enable the Town to meet local needs and maintain its SHI stock above 10%. Ensure that the needs of those who require accommodations and accessible housing are addressed. Develop a Housing Strategy which would include active engagement of the Housing Trust, Sudbury Housing Authority, and Regional Housing Services Office (RHSO).

- **B.2** Provide resources for the continued training and education of municipal staff and board members on issues related to housing.
- **B.3** Continue active support for and participation in the RHSO.



March 2018 Snowstorm. Photo Credit: Town of Sudbury

RESILIEN

GOAL

Plan for, adapt to, and mitigate the impacts of natural hazards, climate change, and other events that can impact the community as a whole.

OPPORTUNITIES, CHALLENGES, AND NEEDS

A resilient community plans for responds to, adapts, and recovers from adverse situations such as the impacts of climate change, severe storm events, or public health crises like the COVID-19 pandemic. Through resiliency planning, the Town can assess the capacity of facilities and infrastructure that the community depends upon to provide services, perform economic functions, meet social needs, and determine how they will be able to respond and adapt to anticipated impacts and changes. Sudbury has participated in several planning initiatives that focus on building resiliency, which are discussed in more detail below.

IMPACTS OF EXTREME WEATHER AND CLIMATE CHANGE

Extreme weather and climate-related incidents are an increasing concern for communities. Recent storms affecting Sudbury and the region have drawn attention to vulnerabilities municipalities face in trying to prepare for, deal with, and recover from these types of events. Climate modeling indicates hazards are expected to increase in frequency and intensity. The Commonwealth has produced the Resilient MA Climate Clearinghouse website¹⁸ to ensure continued access to information and provide communities with the best science and data on expected climate changes, information on community resiliency, and links to grant programs and technical assistance. Researchers from the Northeast Climate Science Center at the University of Massachusetts-Amherst developed downscaled projections for changes in temperature and precipitation for the Commonwealth for each major basin. Sudbury falls within the Sudbury/Assabet/Concord basin, which is expected, by the end of the century, to experience warmer days, and more variable precipitation is projected, as shown in the tables on the next page.

Projected Temperature for the Sudbury/Assabet/Concord Basin, 2050 and 2090

CLIMATE PARAMETER	BASELINE (1971 - 2000)	MID-CENTURY (2050s)	END OF CENTURY (2090s)	
TEMPERATURES				
Average Annual Temperature (°F)	48.7	51.6 - 55.0	52.5 - 59.6	
Maximum Annual Temperature (°F)	59.6	62.3 - 65.9	63.0 - 70.5	
Minimum Annual Temperature (°F)	37.9	41.0 - 44.3	42.0 - 48.9	
Annual Days with Max Temp over 90°F	8	18 - 42	22 - 84	
Annual Days with Min Temp below 32°F	143	103 - 124	78 - 119	

Source: Northeast Climate Science Center, March 2018. Massachusetts Climate Change Projections. University of MA Amherst. Published by MA Executive Office of Energy and Environmental Affairs.

Projected Precipitation for the Sudbury/Assabet/Concord Basin, 2050 and 2090

CLIMATE PARAMETER	BASELINE (1971 - 2000)	MID-CENTURY (2050s)	END OF CENTURY (2090s)		
PRECIPITATION					
Total Precipitation (Inches)					
Annual	45.4	50.0 - 51.5	46.6 - 53.4		
Winter	11.2	11.3 - 13.8	11.6 - 15.3		
Spring	11.6	11.6 - 13.7	11.8 - 14.2		
Summer	10.8	10.3 - 13.0	9.7 - 14.0		
Fall	12.0	10.7 - 13.7	10.5 - 13.4		
Annual Days with Precipitation Over 1 Inch	7	8 - 10	8 - 11		
Annual Days with Precipitation Over 2 Inches	1	1 - 2	1 - 2		
Annual Days with Precipitation Over 4 Inches	0	0 - 0	O - O		
Annual Consecutive Dry Days	17	17 - 19	16 - 20		

Source: Northeast Climate Science Center, March 2018. Massachusetts Climate Change Projections. University of MA Amherst. Published by MA Executive Office of Energy and Environmental Affairs.

With this data in hand, the Town participated in the Municipal Vulnerability Preparedness (MVP) Program, administered by the Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs (EEA). The EEA provides technical support and a prescribed process for municipalities to plan pro-actively for resiliency and prioritize climate change adaptation actions. In May of 2019, Sudbury brought together key stakeholders for an MVP workshop to identify hazards that are being exacerbated by climate change, and to prioritize actions the Town can take to prepare for such hazards.

Representatives from the Board of Selectmen, utility providers, area hospitals and home healthcare agencies, regional transportation authorities, several local watershed authorities, local business owners, and a wide variety of municipal department staff and volunteers from local boards, committees, and commissions, among others, were invited to the workshop. Participants determined, at that point in time, the hazards most relevant to Sudbury are winter storms/extreme cold; wind/hurricanes/tornadoes/micro-bursts; flooding/intense rain; and drought/extreme heat. Discussions identified both features of Sudbury either vulnerable to these climate-related hazards, or considered to be an asset that could help strengthen the community's ability to cope with them. Many actions were suggested and discussed, and through a dot-voting process, participants prioritized the following six key actions to address vulnerabilities and strengthen assets:

- 1. Tree Maintenance and Forest Management
- 2. Power/Utility Line Management
- 3. Improve Emergency Response Planning and Communication
- 4. Update Existing Regulations
- 5. Improve Drainage Infrastructure and Capacity
- 6. Strengthen Emergency Shelters (Schools, Libraries, Community Center)

The Sudbury MVP Workshop Summary of Findings provides more detail on these actions. After completing the workshop process, the Town is now eligible for funding to implement its priority projects.

Concurrent with the MVP workshop, the Town had its existing regulations reviewed and specific areas were identified where adjustments could be made to strengthen the resilience of the Town in the face of anticipated climate changes. Many of these are to maintain and improve the functionality of the town's natural resources (see Natural **Resources**). Recommendations addressed the following:

- Enable the Town to require additional stormwater management design volumes or greater stormwater capacity in areas that drain to an already strained municipal stormwater system. Doing so would allow the town to mitigate or avoid additional impacts to the Town's drainage system and roads.
- Require recharge of roof runoff from non-metal rooftops within Zone II to boost the annual volume of recharge into the aguifer and improve drought resilience of the Town's water supply.

- Allow and encourage sidewalks to be constructed of porous/pervious pavers in the Village Business Districts.
- Define limitations to the disturbance of land, removal of vegetation, and development on certain slopes to preserve natural features of a site and reduce stormwater runoff and
- Develop a tree preservation bylaw with tree preservation standards and mitigation requirements (such as a tree bank or tree fund) for all existing properties and trees across town. Included would be the establishment of a Tree Commission or Tree Warden responsible for enforcement and planning responsibilities.

The Town also uses its 2020 Hazard Mitigation Plan (HMP) to plan for and respond to natural hazards.¹⁹ The HMP aassesses the events to which the Town is most vulnerable, and outlines mitigation strategies that would reduce loss of life, injury, and property damage. The HMP identifies flood-related hazards (flooding and heavy rain), winter-related hazards (snow and nor'easters), and wind-related hazards (hurricanes and strong winds) to be major causes of risk to the community.

In the development of the 2020 HMP, the Local Hazard Mitigation Committee (LHMC) considered projects and actions that would reduce Sudbury's vulnerability to these natural hazards. Mitigation strategies focus on:

- Public Education and Awareness
- Property Protection
- Natural Resource Protection
- Structural Projects
- **Emergency Services**
- Planning and Prevention

The LHMC prioritized these strategies through a ranking process, which considers social, technical, administrative, political, legal, economic, and environmental criteria, and created a mitigation action plan.

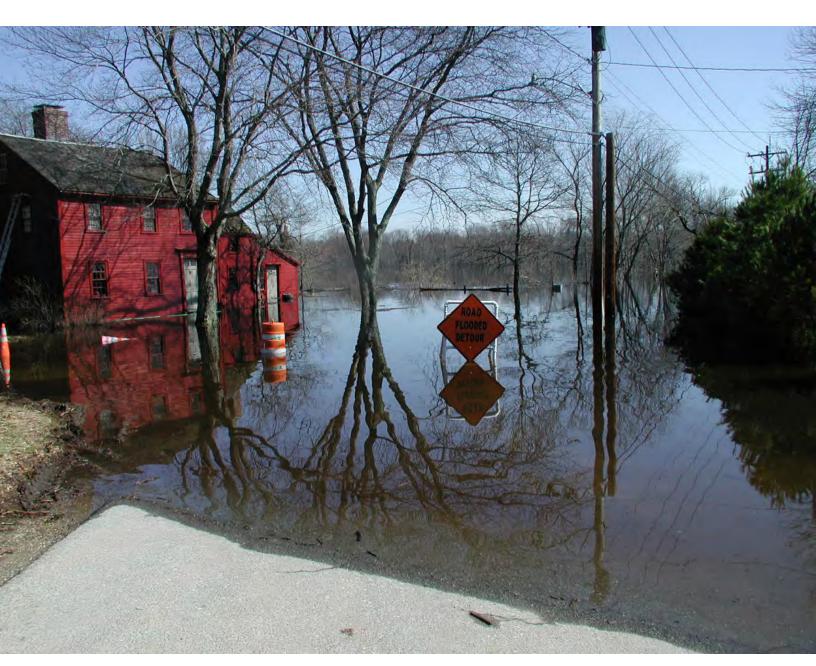
ENERGY CONSERVATION AND EFFICIENCY

Conserving energy and being more efficient in its usage can help Sudbury reduce its carbon footprint and reach resiliency objectives. The Town has made a commitment to lowering its energy usage and promoting clean energy. In 2009, it performed an energy audit of four Town buildings: Town Hall, Flynn Building, Fairbank Center, and the Department of Public Works (DPW) building. The following year, Sudbury was one of the first in a group of 35 municipalities to be designated as a Green Community.²⁰ The Town received incentives to fund energy conservation measures, lighting, weatherization, and rooftop unit replacement in municipal facilities including Goodnow Library, the DPW Building, the Public Safety Complex, Town Hall, and the Flynn Building.

¹⁹ The Massachusetts Emergency Management Agency reviews and approves HMPs. Communities must update their plans every five years to remain eligible for funds from the Federal Emergency Management Agency (FEMA).

²⁰ https://www.mass.gov/files/documents/2019/05/02/map-summary-green-communities-240.pdf

The Energy and Sustainability Committee has led the Town towards renewal energy investments as well. These include the photovoltaic solar facility on the Town's closed landfill (2013) and the Lincoln-Sudbury Regional High School Solar Canopy which was installed over the school's primary parking lot (2015). In 2017, the Town of Sudbury approved a Town-Wide Electricity Aggregation Program for residents and businesses to purchase electricity from different renewable energy options. The primary goal of this program is to provide annual savings and rate stability. After a competitive bid process, a private company was selected as the Town's electricity supplier for 36 months effective August 2017 through August 2020.



Localized Flooding. Water Row at Old Country Rd in Sudbury. Photo Credit: Town of Sudbury.

The Town should revisit the program to determine if it did result in savings and rate stabilization as projected, and if so, consider extending the program to continue savings and support new investments in renewal energy. There may also be opportunities for the development of small grid systems powered by solar to meet energy demands during power outages associated with storm events.

The Town is also creating opportunities for residents and businesses interested in making their own investments in energy efficiency and renewal energy sources. The 2020 Solar Bylaw allows small-scale ground mounted solar energy systems in all zoning districts. Installations must go through the site plan review process to address public safety and minimize undesirable impacts to neighborhoods as well as scenic, natural, and historic resources. Roof-mounted installations on single and two-family homes are allow by right, and those on multifamily structures and non-residential buildings must go through the site plan review process. The Town could also be a resource to connect businesses and homeowners to the many state and federal programs for that offer incentives for the installation of solar electric systems.

COVID-19 PANDEMIC AND SIMILAR EVENTS

The impacts of the COVID-19 pandemic during 2020 have showed us that being resilient and adaptable is imperative for the economic and social wellbeing of our communities. In modern times, as a society, we have not faced a crisis that so deeply affected every aspect of our daily lives. On March 10, 2020, Governor Charles Baker issued a State of Emergency, which was followed by Order No. 13 on March 23, 2020, ordering the closure of all non-essential businesses and prohibiting the gathering of more than 10 people through April 7, 2020. This order was extended to May 18, 2020 and subsequently June 1, 2020, at which time select businesses were opened in phases and under strict protocols to protect public health. In late April, the Governor also announced public schools would remain closed and virtual learning would continue through the end of the school year. While Town government continued to provide services during this time, Town Hall and other municipal facilities were closed to the public.

The COVID-19 pandemic impacted all residents, but certain groups were more at risk, including the elderly (people 65 years and older), those with disabilities, those with chronic health conditions such as asthma, diabetes, obesity, and heart disease, and those struggling with mental health issues and social isolation. These groups as wells as lower income residents and communities of color are also more likely to experience continued hardships as a result of the pandemic. Many existing socioeconomic conditions, particularly barriers to access health care, secure employment, quality housing, healthy foods, and transportation exacerbate these vulnerabilities 21

As this Master Plan was drafted, there were many unknowns. The extent of the economic impact to local businesses, particularly the service industry and the self-employed, was unclear and it was unknown how many would have the financial ability to reopen. It was unclear how successfully the community's most vulnerable residents were accessing basic needs and services while under stay-at-home orders. Another unknown was if the Town had been successful in keeping business moving forward. For example, boards, committees, and commissions held virtual public meetings, but had access and participation been equitable? Had communication with the Town's residents been adequate and had the Town's policies and procedures been effective?

As the Governor and state agencies worked together to reopen the Commonwealth, the Town began to think about how it can be better measuring local impacts from the current pandemic and plan for how it can be better prepared for a similar event in the future. Some topics to consider as they relate to community planning and the Master Plan are:

- Ensuring virtual public engagement is accessible and equitable.
- Identifying ways to support local businesses as they adapt to public health restrictions in the near and long term.
- Rethinking public spaces, such as parks, streets, and sidewalks, to accommodate new uses that support businesses, expand recreational opportunities, and increase capacity of public health services.
- Revamping public transit services for workers that are essential.
- Modifying the delivery of needed Town services to the most vulnerable and at-risk residents
- Town wide communications

From this list, it is obvious a public health crisis such as a pandemic impacts all aspects of community planning. Many of these topics and issues were also highlighted in the conversations portion of the MVP Workshop and HMP development. Collaborating with diverse state and regional partners will be important to have access to financial, technical, and human resources.

POLICIES AND ACTIONS

The Town of Sudbury will implement the following policies and actions to meet the opportunities, challenges, and needs for Resiliency.



Sudbury recognizes it is vulnerable to the impacts of natural hazards and climate change and will build capacity to be more resilient.

- **A.1** Hire municipal resiliency staff that can work with multiple departments, boards, and committees to plan for and implement strategies that will build the Town's resiliency to the impacts of natural hazards and climate change.
- **A.2** Maintain the network of stakeholders that participated in the Municipal Vulnerability Preparedness (MVP) process to continue implementation of the workshop outcomes. Consider periodic update meetings to evaluate progress and revisit priorities as needed.
- **A.3** Develop outreach programs and materials to educate residents and businesses about the efforts the Town is doing to be more resilient and how they can contribute and be a part of the process (see Natural **Environment**).
- **A.4** Continue to pursue implementation funding from the MVP program to implement the MVP workshop outcomes. Research additional federal, state, and regional funding sources that can support these initiatives.
- **A.5** Continue to stay current on climate change data as it becomes available. Incorporate changes to address these new issues into local policies and regulations as appropriate, including the Hazard Mitigation Plan (HMP).
- **A.6** Monitor lands with natural resources, such as wetlands and others with flood storage capacity, for opportunities to implement conservation strategies, such as property acquisition and conservation restrictions (see **Conservation and Recreation).**



Sudbury understands the Hazard Mitigation Plan (HMP) is an important document to help it prepare for and recover from natural hazard events.

B.1 Update the Sudbury HMP every five years to measure progress of the plan's goals, to update new goals into the plan and thereby remain eligible for Federal Emergency Management Agency (FEMA) funding.

- **B.2** Develop a Historic Preservation Primer for all local boards, commissions, and committees that clearly describes the variety of historic preservation regulatory tools in the community, powers, and limitations, and how they function together.
- **B.2** Coordinate annual updates from the HMP Committee with annual updates from the Master Plan Implementation Committee.



Sudbury is committed to conserving energy and using renewable energy sources to reduce costs as well as its carbon footprint.

- **C.1** Research and develop carbon and climate related goals and create a carbon reduction plan.
- **C.2** Create informational mechanism(s) to connect businesses and residents with renewable energy resources. Examples include: a page on the Town's website, developing and/or distributing pamphlets and informational materials available through regional and state entities, such as the Massachusetts Clean Energy Center to the Town.²²
- **C.3** Continue to upgrade Town facilities and buildings to improve the energy efficiency.
- **C.4** Continue to identify opportunities to install solar electric systems on Town properties.



While the impacts of the COVID-19 pandemic are still unknown, Sudbury recognizes the need to understand the current snapshot of the Town's social and economic situation as a result, and plan for future public health events that impact its ability to deliver Town services and will have social and economic effects on the community.

- **D.1** Identify data that can help explain the impacts of the COVID-19 pandemic, including data the Town already collects and new data points as needed.
- **D.2** Identify where the Town has been successful in delivering Town services and functions, and where gaps existed during the COVID-19 pandemic, and design plans to address these short falls.
- **D.3** Collaborate with neighboring communities and state and regional partners to collect and analyze data that will help measure the impacts of COVID-19 and develop policies to address future pandemics.



Sudbury youth participating in one of Sudbury's Senior Center's activities. Photo Credit: Sudbury Senior Center.

PUBLIC HEALTH AND SOCIAL WELLBEING

GOAL

Ensure equitable access to public health and social wellbeing resources, and opportunities for all residents, with a focus on the Town's most vulnerable residents.

OPPORTUNITIES, CHALLENGES, AND NEEDS

Discussing public health and social wellbeing in the Master Plan allows Sudbury to demonstrate the connections between our built and natural environments, and our emotional and physical health. Focusing on public health and wellbeing enables our policymakers to see these connections which are not always readily apparent. Understanding these links allows our local government to be proactive by developing strategies that prevent public health issues rather than treating them once they have occurred. Historically, addressing negative trends at the local level focused on issues related to community development and local planning. Today, this focus has expanded across many departments and policy decision-makers, including the Board of Health, Public Works, Recreation, Police, Fire, and Schools, among others.

Through the examination of public health issues, we recognize that local policies and programs can have multiple benefits. For example, a new sidewalk connecting a neighborhood to a park encourages residents to walk instead of driving their cars, which produces less air pollution, results in fewer vehicles on the roads (reducing traffic congestion), and gets people to be more active. Public health policy discussions also help community leaders and planners recognizes that the benefits and explicitly who benefits from these new policies or projects.

Social determinants of health are the economic, physical, and social environments in which we are born, live, work, and age. They are influenced by policies, programs, and institutions at all levels—public and private. During the COVID-19 pandemic, Americans have seen how public health and social determinants play out in realtime, disproportionately impacting seniors, minorities, people with disabilities, and lowcome income populations.



Adapted from U.S. Dept. of Health & Human Services "Healthy People 2020"

For example, homeless families are at higher risk of viral transmission because of crowded living spaces, and limited access to virus screening and testing facilities. Also, the disabled, elderly, minorities and low-income people are adversely impacted by the virus. These groups often live in areas with dense substandard housing, have less access to health care, open space and natural resources, healthy foods, and have underlying health issues.

Looking ahead, focusing on social determinants can help identify the root causes of disease, prepare for public health crises such as COVID-19, address health equity, and create prosperity and security in our community.²³ COVID-19 has reminded us the most vulnerable members of our society are the ones that will fall victim to a public health crisis first.

MENTAL HEALTH AWARENESS

The incidence of mental health problems has increased across the Commonwealth in recent years, affecting people of all ages. People struggling with mental health issues are not just those more dramatic cases treated in hospitals or in therapeutic programs. Friends, neighbors, teachers, municipal officials, and everyone in their everyday lives are susceptible to some level of struggle. Despite the increase in mental health issues, only a small number of people receive treatment, often because of the stigma attached to it. Untreated, mental illness can contribute to substance abuse, social isolation, poor performance at school and at work, fewer employment opportunities, career advancement and increased risk of suicide.

In Sudbury, increasing awareness across departments of the training opportunities related to mental health issues may be beneficial. For example, the Police Department recently developed the Jail Diversion Program as a tool to battle cases involving substance abuse, mental health crises, and social welfare issues. Livable Sudbury: A Community Needs Assessment recommends dementia-friendly training for drivers of ride-sharing services, but this can also be applicable for other municipal services that work with older residents on a regular basis. As mental health issues continue to surge, demand for services provided by the Town's Social Worker is expected to grow around hidden/arising problems of domestic violence, substance abuse, social isolation, homelessness, and others.

Increasing awareness of mental health issues in Town is critical in gaining support for services needed for all residents. Educating residents about mental health issues enables people to recognize the signs, understand the impact, and allow for more a more open conversation.



Sudbury residents participate in an activity at the Senior Center. Photo Credit: Sudbury Senior Center.

ENVIRONMENTAL PUBLIC HEALTH

Environmental public health focuses on protecting the community of people from threats to their health and safety posed by their environments. For example, outdoor air quality, water contamination, toxic substances, hazardous waste, fertilizers, herbicides, pesticides, and vector-borne diseases are examples of issues that can affect Sudbury residents. Maintaining a healthy environment is central to increasing and enhancing the quality of life. Poor environmental quality has its most significant impact on people whose health status is already at risk. Therefore, environmental health must address the societal and environmental factors that increase the likelihood of exposure to disease.

The Board of Health and Health Department in Sudbury work together to address the health needs in town, including environmental health issues such as housing code violations, mosquito control, hazardous waste, animal/rabies control, groundwater supplies, and emergency preparedness. As climate change continues to be a challenge, Sudbury is becoming increasingly vulnerable to vector-borne diseases. While the departments are working to educate residents about these diseases and how to take precautions to reduce the risk of infection, it is crucial to continue to ensure equity in the distribution of education and resources.

LOCAL SERVICES AND SUPPORT FOR OLDER RESIDENTS

Sudbury, as many places in the nation are, is becoming an aging community. The Sudbury Senior Center mission is to support the older residents of the community by providing programs and services which address their needs. They provide various social, recreational, and educational programs and activities, as well as support services such as transportation services for elderly to do their shopping and attend their medical appointments. Many community volunteers make these services available and at little to no cost. The Livable Sudbury: A Community Needs Assessment report discusses the importance of addressing local services and support for older residents. A more detailed discussion of this report and its potential impact on local services is discussed in Town Facilities, Services, and Infrastructure.

SOCIAL ENGAGEMENT

Being engaged and participating in community events helps residents build and maintain social support through networking with those of similar interests. A sense of trust is also built as the elderly remain active, and thus avoid isolation. There are opportunities for social engagement in Sudbury, including programs at the Goodnow Library, recreational activities through the Park and Recreation Department, Sudbury Public Schools, and Senior Center. While these are enjoyed by many members of the community, for some residents, the cost of activities or remote location can serve as barriers for participation. Further, residents want to see more activities bring the community together, such as creating a community shared space for residents to assemble and get to know each other, and events that increase town spirit.

COMMUNICATION IMPROVEMENT

Communication is essential to building community, ensuring residents stay connected, and allowing them to understand the problems confronting others in their community. To communicate information effectively, the Town needs to understand that different groups and individuals use varied mode of communication to obtain information, i.e. newspapers, television, mailed newsletters. The elderly is a group who may not be comfortable nor in some case proficient in using electronic formats such as Facebook and online websites. Those with low vision may need to have accommodations made to Town websites so that they can access them. All have information needs and their preferred modes of access to the information and it is important for these needs to be addressed by the Town.

In Sudbury, many residents are not aware of the Town services available to them. Strengthening communication strategies and ensuring residents have access to needed information must be a priority given the increase of mental health needs and the accommodation required by an aging population. Communication is also essential, especially finding a way to connect to the hard-to-reach segments of the town, including elderly who are homebound, low-income households, and minority populations. The Town needs to develop a plan to integrate communication channels and ensure that materials are presented in appropriate formats to improve access to information.



Sudbury Senior Center hosts a community archery program. Photo Credit: Sudbury Senior Center.

POLICIES AND ACTIONS

The Town of Sudbury will implement the following policies and actions to meet the opportunities, challenges, and needs for Public Health and Social Wellbeing.



Sudbury will work to build capacity and support existing networks of municipal departments such as the Department of Health and Board of Health that are working on public health issues, including opioid addiction, mental health, social isolation, dementia, etc.

- **A.1** Increase staffing to support public health work and utilize volunteers in the community to assist with educating and serving residents.
- **A.2** Identify opportunities to work with neighboring communities and regional networks to share resources and information to address common public health issues.



Sudbury will consider social determinants and integrate health policies into other aspects of municipal planning decisions.

- **B.1** Conduct community needs assessments to identify gaps in health and social services for residents, particularly seniors, residents living with disabilities, and low-income families and individuals. Use Livable Sudbury as a starting point to expand an assessment of needs to other populations in the community.
- **B.2** From the outcomes of the community needs assessment, engage the community to prioritize strategies to address gaps and strengthen opportunities.



Sudbury will work to diversify and expand communication tools and strategies about public health issues and locally available services.

- **C.1** Create integrated communication channels and ensure that municipal digital materials are accessible to people with disabilities (see Town Facilities, Services, and Infrastructure Policy E).
- **C.2** Collaborate with local organizations such as the Senior Center, the Commission on Disability, and the Town Social Worker to share/ disseminate information with its constituents as well as the community in general.



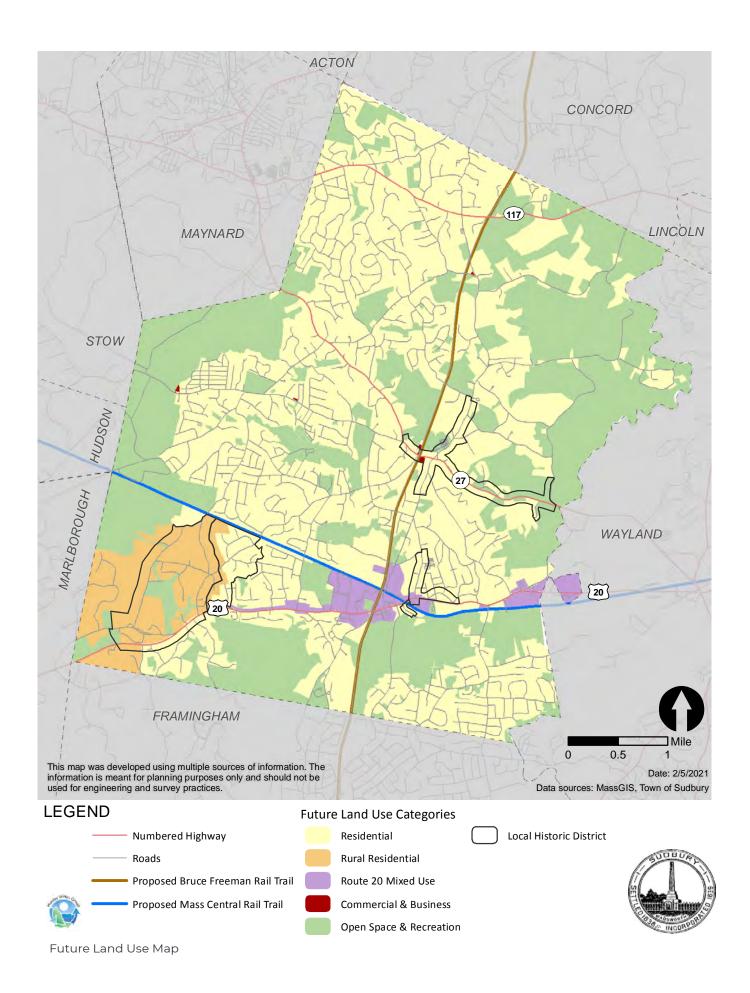
Sudbury will work to connect public health resources with transportation options.

- **D.1** Continue to support the Council on Aging/ Senior Center to enhance transportation services such as Sudbury Connect and FISH (see **Transportation and Connectivity).**
- **D.2** Include access to public health resources in the "Making the Connections" pilot study (see Transportation and Connectivity).



Sudbury will work to strengthen social and civic engagement to bring residents together.

- Evaluate such opportunities based on participation costs and consider including free events or costs based on a sliding scale.
- Explore ways to create an outdoor accessible community common space for residents to utilize for activities like outdoor picnic and summer concerts and events.
- **E.3** Ensure the civic participation, such as participation in Town Meeting and other Town-sponsored events for public input and engagement, continues to be accessible, inclusive, and equitable.
- **E.4** Continue to find opportunities through the Parks and Recreation Department, Library, Senior Center, and local organizations to create family-friendly, all-ages and all abilities community events year-round.



JTURE LAND USES

The Future Land Use Map illustrates future land use patterns that will meet the issues and needs described in the Master Plan. Please note this is not a zoning map. The Future Land Use Map is a broader planning tool designed to provide context for future bylaw amendments and other land use policies. The land use descriptions below accompany the map and should be consulted by local decision makers and others who use the Master Plan.

FUTURE LAND USE CATEGORIES

OPEN SPACE AND RECREATION

Open Space and Recreation are areas with publicly accessible passive and active recreational opportunities as well as land dedicated to protecting natural resources (conservation). These areas are owned and/or managed by either the Town of Sudbury, a state or federal agency, or non-profit organization or land trust.

COMMERCIAL AND BUSINESS

Areas categorized as Commercial and Business focus on activities that provide goods and services to local residents. They are primarily small establishments dispersed throughout Town.

ROUTE 20 MIXED-USE

Route 20 Mixed-use is a focal point for economic and housing opportunities for Sudbury. Activities could include goods and services, flexible office space, and diverse housing options, such as multi-family dwellings, smaller units, and more affordable priced living options. Improving walking and biking safety are high priorities for these areas. The area should connect to the BFRT and MCRT as these amenities come to fruition. Public infrastructure investments, including wastewater treatment and roadway circulation improvements, are critical to attracting private interests. There should be opportunities to access regional public transportation that support Sudbury residents commuting out of town as well as employees who live outside the Town but work in establishments along or connecting to Route 20.

RESIDENTIAL

Residential areas cover most of the Town. For the most part, these areas consist of are singlefamily homes many on lots between one and two acres. Where acreage is available, clustering homes to preserve natural areas could be considered. Changes in Zone bylaws could also offer an alternative solution to this issue.

RURAL RESIDENTIAL

Rural Residential areas consist primarily of single-family homes on lots five acres or more. This district is concentrated around the historic Wayside Inn. Where acreage is available, clustering homes to preserve natural areas is preferred as well as zoning changes to the land requirements with consideration to preserving natural areas.

HISTORIC DISTRICTS

Historic Districts are noted on the Future Land Use Map to ensure development within these districts or adjacent to them complement these resources and are linked to planned accessible walking and biking amenities that connect these areas to other destinations such as open space and recreation, residential neighborhoods, commercial areas, schools, and other public spaces. These may be updated based on actions within this Master Plan, therefore, the most current boundaries should be confirmed with the Department of Planning and Community Development.