

A watercolor illustration of a farm scene. On the left is a tall, white cylindrical silo with a red roof and a small square window with a white cross pattern. To the right is a two-story brown barn with a white door and several windows. The background shows green hills under a light blue sky.

Carlisle Master Plan

Carlisle, MA
April 2022



Old Home Day, 1913

Photo courtesy of the Carlisle Historical Society

Town center, early 1900s

Photo courtesy of the Carlisle Historical Society



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Acknowledgments

Finalization of Carlisle's Master Plan reflects countless hours of work on the part of volunteers, town officials, board and committee members, consultants, and other stakeholders, all of whom contributed in myriad ways over the course of the past five years. The members of the Master Plan Steering Committee wish to thank the numerous groups and individuals whose names follow, as well as the many unnamed participants who took part in discussions, forums, meetings and surveys.

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COVER PAGE ARTWORK CREDITS

Thank you to the many residents who shared their photography, paintings, and design work for consideration. The MPSC selected Debbie Bentley's watercolor painting of Clark Farm for the cover, but there were so many beautiful submissions from the community that we have included as many as possible in this document. The cover pages for each chapter feature these submissions and other photographs provided by the MPSC, and these contributions are credited below.

Cover

Outside

Clark Farm, Debbie Bentley

Inside

Old Home Day, 1913

Town center, around 1900

Photos courtesy of Carlisle Historic Society

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House on West Street, Debbie Bentley

Bog, Heidi Harring

Select Board Election Interview, Debbie Bentley

Chapter 1: Introduction

Meeting House, Gina Zizza

Chicken, Mary-Lynne Bohn

Gleason Library, Debbie Bentley

Fall, Heidi Harring

Victorian House, Town Center, Debbie Bentley

Chapter 2: Plan Framework

Blossoms, Katie Vachon

Sunset on Greenough Pond, Bonnie Yousefian

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Field, Heidi Harring

Chapter 3: Carlisle Character

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Greenough Pond, Bob Zogg

Minute Men, Debbie Bentley

Center Green, Mary-Lynne Bohn

Swamp Maples on Bingham Road, Betsey Johnson

Chapter 4: Fiscal Sustainability

Town Meeting, Debbie Bentley

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Carlisle Public School, Debbie Bentley

Highland Building, Debbie Bentley

Chapter 5: Connectivity & Access

Marker, Heidi Harring

Bike Rack, Debbie Bentley

Community Meeting, MPSC

Snowy Trail, Chris Chiapella

Russel Conservation, Sarah Schoff

Chapter 6: Environmental Stewardship

Tree Frog, Diane Troppoli

Heat Smart Banner, Bob Zogg

Solar Panels, Bob Zogg

Bog Herron, Mary-Lynne Bohn

Chapter 7: Caring Community

Washing Fire Truck, Debbie Bentley

CPS Spaghetti Dinner, Kerry Kissinger

Garden Club, Debbie Bentley

Poppy Heart, Debbie Bentley

Garrison Place SROSC, Mark Levitan

Chapter 8: Approach to Implementation

Rainbow, Heidi Harring

Boardwalk, Margot Frost-Stuart

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Old Home Day, Debbie Bentley

GlowHouse 2021, Kathleen Redman

Rock, Katie Vachon

Chickadee, Nancy Szczesniak

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Executive Summary



EXECUTIVE SUMMARY

Framework of the Master Plan

The Carlisle Master Plan has been in development since 2017, when the original Master Plan Steering Committee (MPSC) began exploring the steps necessary for developing a long-term plan that would reflect the goals and aspirations of the community. Informed by the robust community engagement process that spanned the course of this project, the Master Plan Steering Committee developed a plan vision statement and identified five core community values. These values were each developed into a chapter of this Master Plan and are described below.

- **Carlisle Character:** Carlisle values its natural, agricultural, historical, cultural, and educational resources. *(Chapter 3)*
- **Fiscal Sustainability:** Carlisle values the long-term fiscal health of the community and prioritizes keeping property taxes manageable for its households. *(Chapter 4)*
- **Connectivity & Access:** Carlisle values physical, geographic, digital, and social connections across the community. *(Chapter 5)*
- **Environmental Stewardship:** Carlisle values protecting the natural environment and minimizing its impact on the global climate. *(Chapter 6)*
- **Caring Community:** Carlisle values its sense of community and the well-being of its residents. *(Chapter 7)*

Questions to Consider

Carlisle has grown and flourished from a semi-rural farming community to a prospering upper middle-class town with excellent schools, a mix of very educated town residents, and relatively high taxes. However, like many communities, Carlisle's financial challenges are very real. Revenue growth is slowing in comparison to surrounding communities, and municipal expenses will likely continue to rise with inflation. There will be an ongoing need for diligent discussions regarding the Town's finances. In future decision processes, the Town may face options to: continue as-is; increase funding to address staff capacity and capital projects; reduce expenses through regionalization and other means; or investigate whether zoning changes to potentially increase

density could grow the tax base. Over a third of the land in Carlisle is protected open space¹ and will remain as such, an accomplishment that sets the town apart from its neighbors and has continually been cited as the top reason people choose to live in Carlisle along with its first-rate schools. For the land that remains, will the community move to protect it, shape its thoughtful development, or take no action? Some questions to consider:

- Should the Town move toward more comprehensive, long-term planning to address community needs rather than making decisions on a project-by-project basis? If so, what does the Town need to do to build capacity for long-range planning?
- How can Carlisle continue to protect its open space and natural resources while shaping the community's future development?
- Given the Town's small population, how can the Town balance costs against limited revenue sources, keep property taxes manageable for households, and maintain (or perhaps build) staff capacity?
- To what extent is the Town willing to invest in environmental stewardship in addition to its already-strong commitment to open space preservation?
- To what extent does the Town wish to become more socioeconomically diverse?

Moving Toward Strategic Planning

Because the essential purpose of master planning is to conduct and encourage long-range planning, the MPSC took a “yes” position to the first question above. While the plan includes a total of 88 recommendations, the MPSC identified key recommendations that further this goal of encouraging the Town to take a more proactive and comprehensive approach to decision-making. These recommendations that strongly align with effective long-range planning have been organized into four focus areas: **coordinated land use planning and policy development**, **coordinated fiscal planning**, **coordinated facilities planning**, and **planning for environmental sustainability**.

¹ Carlisle's protected open space includes of private, Town-, state-, and federally-owned land. A further breakdown can be found in Chapter 3, Carlisle Character.

COORDINATED LAND USE PLANNING & POLICY DEVELOPMENT recommendations encourage balancing and integrating multiple community needs and values such as open space protection, municipal facilities and infrastructure, agricultural uses, and housing alternatives. The primary recommendations that support long-range strategic planning in this focus area include **4D**, **7B**, **20A**, **20B**:

Recommendations	Chapter
4D. Develop comprehensive criteria for evaluating land for various purposes and community needs.	Ch.3, Carlisle Character
7B. Engage the community in the development of a conceptual plan for the Banta-Davis/Moseley land that incorporates multiple community needs.	Ch.4, Fiscal Sustainability
20A. Develop and implement a strategic plan for the Affordable Housing Trust that includes implementing a public education program about fair housing and affordable housing and consistently maintaining an up-to-date Housing Production Plan.	Ch.7, Caring Community
20B. Explore strategies to promote housing diversity and allow development of “missing middle” housing in specified areas.	Ch.7, Caring Community

COORDINATED FISCAL PLANNING AND MUNICIPAL HUMAN RESOURCES recommendations look to enable a strategy for understanding both Town finances and creating improved personnel efficiency and organization. The primary recommendations that support long-range strategic planning in this focus area include recommendations **6A**, **6B**, and **6C**.

Recommendations	Chapter
6A. Develop and make use of a comprehensive financial model and projection tool that enables the Finance Committee, Select Board, and Town staff to explore options and educate residents about the fiscal impacts of decisions.	Ch.4, Fiscal Sustainability
6B. Establish a committee to investigate the benefits and trade-offs of service regionalization, interlocal agreements, and participation in MAPC’s collective purchasing program opportunities.	Ch.4, Fiscal Sustainability
6C. Evaluate municipal organization and staffing structure based upon the findings of the 2021 Governance Task Force and regular assessment of departmental capacity needs.	Ch.4, Fiscal Sustainability

COORDINATED FACILITIES PLANNING recommendations encourage comprehensive long-term exploration of facilities needs and capital improvements rather than approaching on a project-by-project basis. The primary recommendations that support long-range strategic planning in this focus area include recommendations **7A**, **7C**, **7D**, and **21A**.

Recommendations	Chapter
7A. Develop and maintain a rolling long-term facilities plan that anticipates future municipal building needs, including space needs by department, maintenance and rehabilitation needs of existing buildings, and potential scenarios for siting new construction and reuse of existing structures.	Ch.4, Fiscal Sustainability
7C. Develop a planned preventive maintenance strategy for Town buildings, land, and other major facilities to clarify maintenance tasks and responsibilities.	Ch.4, Fiscal Sustainability
7D. Use the findings of the Public Safety Facilities Task Force to make decisions regarding necessary improvements to support the Town’s public safety needs.	Ch.4, Fiscal Sustainability
21A. Support intergenerational community needs by finding space for programs within the existing inventory of municipal properties <i>or</i> in a new Community Center to be evaluated as part of the Town Facilities Plan (7A) and Banta Davis conceptual study (7B).	Ch.7, Caring Community

PLANNING FOR ENVIRONMENTAL SUSTAINABILITY recommendations ensure that the Town plans in a manner consistent with the community’s strong environmental commitment and history. The primary recommendations that support long-range strategic planning in this focus area include recommendations **1C** and **15D**:

Recommendations	Chapter
1C. Develop and implement management plans to protect natural resources against ecosystem threats, including invasive species, plant diseases, contamination, and over-use.	Ch.3, Carlisle Character
15D. Develop a detailed implementation plan for achieving carbon-reduction goals and a framework for tracking and evaluating progress over time.	Ch.6, Environmental Stewardship

ADDITIONAL TOOLS to support the Town’s ability to conduct long-range strategic planning include *Increased staff and volunteer capacity* to oversee the implementation of this Master Plan, as described in recommendations **4A**, **13C**, **15A**, **15B**, and **20E**; and *technology resources*, as described in recommendations **4B** and **12B**:

Staff & Volunteer Capacity

Recommendations	Chapter
4A. Provide staff capacity to facilitate coordinated long-range planning efforts and if required hire a Town Planner or similar position.	Ch.3, Carlisle Character
13C. Establish a Master Plan Implementation Committee (MPIC) that is comprised of members from multiple town boards, committees, and commissions and reports to the Select Board and Planning Board for the duration of the implementation of this Master Plan.	Ch.5, Connectivity & Access
15A. Provide staff capacity to facilitate and support coordinated environmental stewardship and sustainability efforts and if required hire a sustainability coordinator or similar position.	Ch.6, Environmental Stewardship
15B. Establish an environmental sustainability volunteer committee to work with paid staff on implementation of sustainability and stewardship initiatives.	Ch.6, Environmental Stewardship
20E. Reorganize staff to support housing-related initiatives.	Ch.7, Caring Community

Technology Resources

Recommendations	Chapter
4B. Introduce integrated municipal use of GIS to explore and inform future land use, zoning, and other municipal decisions.	Ch.3, Carlisle Character
12B. Develop a Municipal Communication and Technology Strategy to address needs for information sharing, two-way communication, cybersecurity, and digital storage.	Ch.5, Connectivity & Access

Each of the above key recommendations, along with the other recommendations of this Master Plan, are described further in their applicable chapter as well as in Chapter 8, Approach to Implementation.



Chapter 1

Introduction



CHAPTER 1: INTRODUCTION

What is a Master Plan?

A successful Master Plan . . .

- Guides the preservation, growth, and development of a community;
- Includes an assessment of local trends, needs, and opportunities;
- Is developed with citizen involvement;
- Accurately reflects the values of the community; and
- Provides recommendations and an action plan, typically for a ten- to twenty-year implementation period.

In Massachusetts, under G.L. c. 41, § 81D, Planning Boards oversee the preparation and periodic update of their community’s master plan. The statute describes a master plan as “a statement through text, maps, illustrations, or other forms of communication that is designed to provide a basis for decision-making regarding the long-term physical development of the municipality....” In particular, the statute calls for a master plan to describe current and future needs, trends, issues, and opportunities relating to land use, housing, economic development, natural and cultural resources, open space and recreation, services and facilities, and circulation. Like many communities, Carlisle has included assessments (for demographics and energy & environmental sustainability) in addition to the topics outlined in § 81D. While the key takeaways from these assessments are included in each themed chapter of the plan, the full existing conditions reports can be found in Appendices A-I for the interested reader.

Creating a Master Plan begins with citizen input and the development of a Vision Statement that reflects the goals and objectives of the community. This vision then informs the development of the Master Plan’s goals, policies, and recommendations. For this Master Plan, the Master Plan Steering Committee¹ (MPSC) looked at the vision for Carlisle through the lens of five community values, explored further in the next chapter along with the vision statement. These values framed

¹ The Master Plan Steering Committee was originally established in 2017 to spearhead the process of developing a Master Plan for the Town.

the overall organization of this plan and include Carlisle Character, Fiscal Sustainability, Connectivity & Access, Environmental Stewardship, and Caring Community.

Community Context

Carlisle is a predominantly residential community located approximately 22 miles northwest of Boston in Middlesex County. As of the 2020 U.S. Census, its population was 5,237. Carlisle has an open town meeting form of government with numerous volunteer, elected, and appointed boards and committees, each responsible for specific areas of town governance. Within the compact town center are the Town Hall, the Gleason Public Library, the Carlisle Public School, three churches and a few small businesses, including a country store and an ATM. The Carlisle Public School serves students in grades pre-K through 8. Most students in grades 9-12 attend Concord-Carlisle High School, a regional school, located in neighboring Concord. Schools in Carlisle and Concord alike are noted for their consistently high-performance ranking within the state.

With a land area of 15.5 square miles, Carlisle has retained over 35% of its land — both public and private — under some form of permanent protection, hearkening back to its earlier days as a rural farming community. Unspoiled woods encompass an extensive network of trails, including those of the Great Brook Farm State Park. All of Carlisle’s residents rely upon private wells and septic systems, and there are relatively few buildable lots (although with significant acreage) available for home construction. Over the past twenty years, an average of 10 new homes have been built annually. These homes have averaged over 5,000 square feet in size.

Like many towns in New England, Carlisle’s population is aging and school enrollment is declining. Every year, the Town faces tough decisions about how to allocate its \$30M budget without over-escalating taxes. The tax base is nearly 100% residential; because property values in Town are higher for residential development than for the low-density type of commercial development currently found in Carlisle, this burden is unlikely to change without significant commercial development. Town-owned assets include public buildings, parkland, and several historic structures. The scarcity of buildable lots, the high costs of construction, the lack of infrastructure, the attractiveness of the public school system, and the rural ambiance have combined to create a highly desirable, though expensive, place to build or buy a home and raise a family.

Most houses in Carlisle are single family detached homes, and there are only a few alternative housing choices available. Condominiums have been built over the years totaling fewer than 30 units, and those wishing to downsize or otherwise avoid caretaking chores often must move out of Carlisle to find more diverse and more affordable housing options. There is one 12-unit age-restricted condominium community selling in the upper \$500,000 range and one 16-unit age-restricted condominium community selling in the upper \$800,000 range in addition to two subsidized age-restricted rental apartment communities totaling 54 units. Although many Carlisle

residents have expressed an interest in remaining in town as their needs for space have changed, there are few options open to them to do so.

Carlisle’s Town infrastructure consists of the Carlisle Public Schools, a Town Hall, a Library, a Police Station, a Fire House, a Department of Public Works with a Transfer Station, a vacant 7,200 square foot school building built in 1908 (the Highland Building), and a building that provides two units of rental housing for agricultural workers and family (the Cranberry Bog House). These buildings have suffered from deferred maintenance and nearly all of them have urgent needs to comply with regulatory requirements or provide safer and more efficient operating environments. The Carlisle Public Schools have a capacity of 750 students, yet the student population has held fairly steady at 600 for several years due to the declining number of households with children.

Looking forward, given the constraints for large scale development and current land use policies, Carlisle is likely to retain its rural look and feel. The MPSC identified approximately 1,000 acres of privately owned parcels that are either vacant or could be further developed according to current zoning and at the discretion of the owners.² This acreage, combined with approved building envelopes and other growth allowed by current zoning,³ could potentially add another estimated 375 households to the community; however, given the current average annual growth rate, this is unlikely to occur in a timeframe that would keep pace with inflation without commensurate tax increases.⁴

Carlisle’s slow growth and lack of scale will require that the community continues to seek effective ways to provide essential services in a fiscally sustainable way. Between 2010 and 2020, approximately 100 new single-family homes were constructed. During this time, average taxes have increased by nearly 37%, yet Carlisle continues to be a highly sought-after place to live and raise a family because resident’s median incomes have kept pace.⁵ Changes in the current zoning might allow Carlisle to grow more rapidly in terms of tax levy, but this was not formally studied as part of the plan and could be explored in greater detail.

² See Map C-6 in Appendix C, “Land Use and Zoning Existing Conditions Report” and Appendix J, “Land Use, GIS, and Development Potential MPSC Report” for detail.

³ Including accessory apartments and additional available development potential within Residence District M, Multi-Dwelling Housing for the Elderly. This is not factoring in additional housing possible through the 1962 two-family conversion bylaw. See Appendix J for detail.

⁴ See Appendix L, “Financial Projection Model MPSC Report.”

⁵ This increase is a function of both increased assessed values and tax rate, in addition to inflation. When adjusted for inflation, there was a 15% increase during the same period. See Appendix L, “Financial Projection Model MPSC Report” for detail.

Project Background

Prior to Carlisle's 1995 Study Plan⁶ the Town's last master plan had been drafted in the 1960s. The Master Plan Steering Committee (MPSC) was formed in the Spring of 2017 to begin the process of developing of a Master Plan and spent much of the year that followed codifying their mission and expanding their committee membership. Thirteen months later, in June of 2018, the MPSC held a daylong Ideas Workshop, at which 70 attendees broke into groups to discuss their concerns, hopes, and opportunities for the future of Carlisle.

The next step was to secure funding for the project. In conjunction with the Finance Committee and Planning Board, the MPSC drew up an estimated budget of \$160,000, most of which would go to a consultant and the rest to supporting meetings and additional Town Hall staff time. On April 29, 2019, Town Meeting passed Warrant Article 12, approving the requested amount of \$160,000 for the drafting of a Master Plan. Over the summer, the committee finalized an RFP (request for proposals) and put the project out to bid. Among the three responses it garnered, the committee selected the consulting firm Civic Moxie.



Figure 1-1. Town Meeting Presentation

MPSC Chair Janne Corneil presents Article 12, Funding for Town Master Plan, at the April 2019 Annual Town Meeting.

In the fall, a survey attracting 500 responses emphasized the importance of **open space** and **the quality of the schools** to residents. (See Figure 1-2.) Another community meeting convened in November of 2019, at which time attendees were asked about their most critical concerns for Carlisle. The features identified at that time were: environmental sustainability, financial stability/sustainability, gathering space/stronger community, housing diversity, facilities and infrastructure, natural and cultural assets, and transportation.

⁶ A Study Plan for the Town of Carlisle, 1995. Available at <https://www.carlislema.gov/DocumentCenter/View/293/Study-Plan-1995-PDF?bidId=>

Figure 1-2. Survey Results, Fall 2019

What makes Carlisle the place you want to live/play/work? (Choose up to 3)

Source: Fall 2019 Kick-Off Community Survey

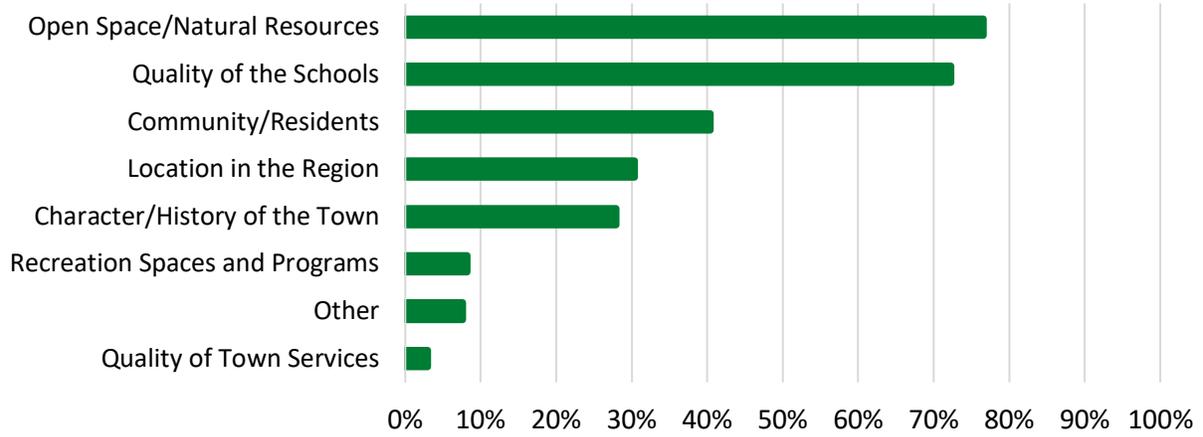
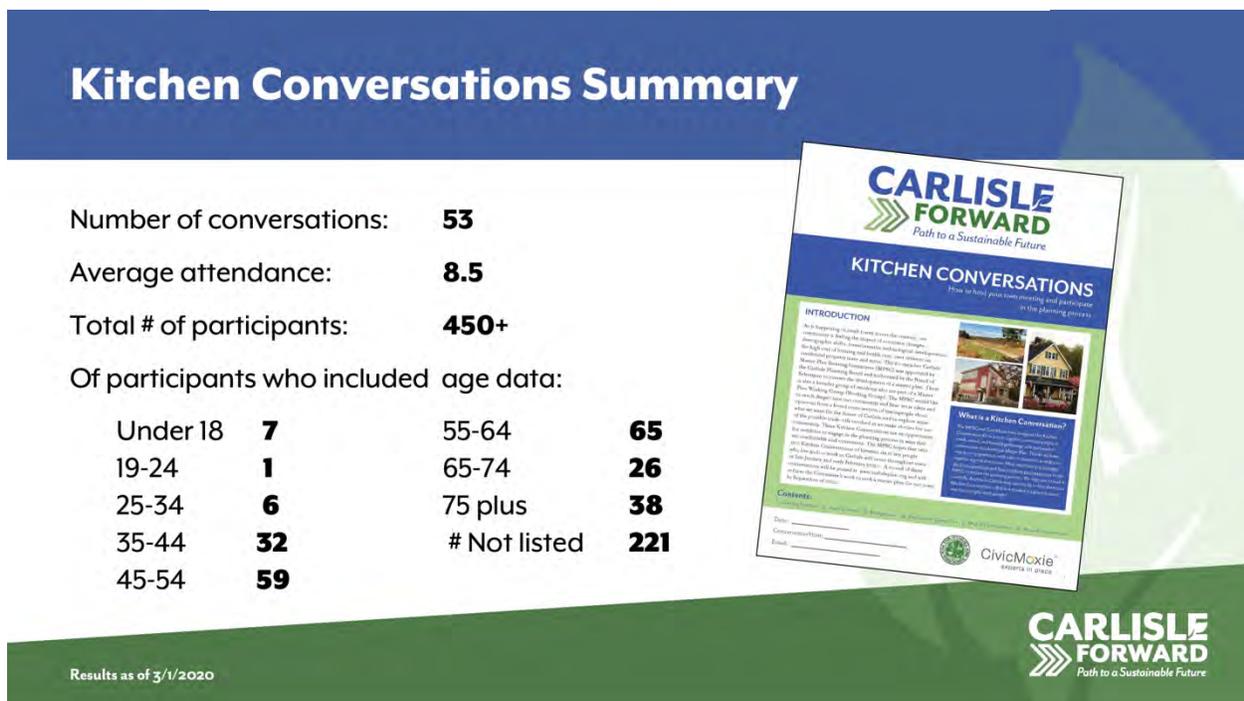


Figure 1-3. November 2019 Community Meeting

Table conversations at a November 7, 2019 MPSC Community Meeting

With momentum building on the endeavor, the MPSC developed a concept called Kitchen Conversations, envisioned to be a series of smaller gatherings held at homes around Carlisle to entice townspeople into the Master Plan discussion by providing an informal, sociable, welcoming environment at which to voice their opinions and share ideas. During the first two months of 2020, more than 50 such gatherings took place and attracted approximately 450 participants. (See Figure 1-4.) Venues ranged from a potluck luncheon to an afternoon tea to a poker night.

Figure 1-4. Kitchen Conversations Summary



The series of Kitchen Conversations culminated in a community gathering with significant response held in March in the Carlisle school cafeteria, at which event both the MPSC and the consultant provided updates on the planning process. More than 100 attendees perused posters describing key findings for each of the following master plan elements:

- Demographics
- Cultural & Historic Resources
- Economic and Tax Base
- Energy and Environmental Sustainability
- Housing
- Land Use & Zoning
- Open Space, Recreation, & Natural Resources
- Public Facilities & Services
- Transportation & Circulation

Unfortunately, the months that followed these well-attended meetings saw two unexpected developments that brought the MPSC's work to a temporary halt. First and most obviously, the COVID-19 pandemic and consequent shutdown of Town Offices put meetings and administrative work on hold for a short time. Second, in July of 2020, the consulting firm Civic Moxie withdrew from the project, providing key deliverables including existing conditions reports and draft maps to the MPSC to work from and continue to develop.

Over the next couple of months, the MPSC contemplated changes that would help the process move forward. Ideas included the development of a streamlined master plan with a narrower focus and restructuring the committee so that the chair would work closely alongside a paid planner/project manager, who together would oversee three content leads and an engagement leader responsible for public process and communications.

Early in 2021, newly appointed MPSC Chair Jack Troast received authorization from the Planning Board to seek a planner/project manager to provide professional third-party leadership, organization, and review as Carlisle's volunteer teams work to complete the Master Plan. By late spring, Barrett Planning Group had been hired to fill the professional role.

The MPSC's newly energized approach was highlighted at a public forum held over Zoom on June 10 and rebroadcast on June 13. Participants viewed a draft vision and community values for Carlisle based on data gathered by the 2019 survey and the 2020 meetings and discussions. Following a presentation recapping the Master Plan process and presenting the five draft values, participants were invited to join breakout sessions and provide feedback on the values and goals.

Building on growing interest, the MPSC collaborated with Epicenter Experience, who generously provided their services free of charge to distribute a second survey that ran from June 23 to July 16 and garnered just under 700 responses. The survey was available both online and in print at various public facilities including Town Hall and the library. It also benefited from the MPSC's presence at an Old Home Day booth in late June, at which committee members discussed their work with townspeople, heard their concerns, answered their questions, and encouraged them to take the survey.

On September 29, 2021, the MPSC held what its final community forum for presentation of draft recommendations developed from the goals that were presented in June. Following that meeting, a final survey was launched from October 27 through November 18 with the donated services of Epicenter Experience. Adding results to this final survey to all the data collected so far through surveys, forums, discussions, and existing conditions analyses, the MPSC has developed a master plan that encompasses the vision, values, goals, and recommendations developed over the past three years.

Community Engagement

From the time its work began, the Master Plan Steering Committee continuously looked for ways to bring in as many and as diverse a range of voices from the community as possible. Fostering genuine community engagement has been vital to the MPSC's mission to understand the substance and the tenor of the varying interests in town and to ensure the approbation of townspeople when votes are needed on key issues. Below are some of the ways the MPSC has solicited community engagement:

June 2018: Ideas Workshop attracted 70 participants who broke into smaller groups to discuss their concerns, hopes and opportunities for improving the town of Carlisle.

October 2018: The MPSC held an informational recruitment meeting for its recently announced Master Planning Advisory Committee (MPAC) to serve as a conduit between the community, the Steering Committee and consultants throughout the Master Plan's development. By the end of the month, the MPSC had received 13 applications for membership on this new advisory committee.

April 2019: A warrant was put before Town Meeting for approval of \$160,000 for consultant services and other costs associated with the preparation of a Master Plan. The chair of the MPSC briefly summarized the committee's work and future plans.

October 2019: A survey with over 500 participants highlighted the top three features of the town as open space and natural resources, the quality of the schools, and the community/residents. (These results are included in Appendix M.)

November 2019: Another community meeting convened for discussion of the survey results and updates on the Master Plan process. Attendees were asked about their current and future priorities for the town. The features identified at that time were: environmental sustainability, financial stability/sustainability, gathering space/stronger community, housing diversity, facilities and infrastructure, natural and cultural assets, and transportation.

January/February 2020: A wide range of townspeople hosted a total of 53 Kitchen Conversations, intended for informal discussion, sharing of ideas and expressing of opinions regarding numerous aspects of life in Carlisle. Approximately 450 people took part in these meetings.

March 2020: More than 100 people participated in the Master Plan community meeting. Posters describing nine different aspects of the town, such as housing, zoning, and recreational space, formed the foundation for the discussion that followed and provided a basis for the Master Plan.

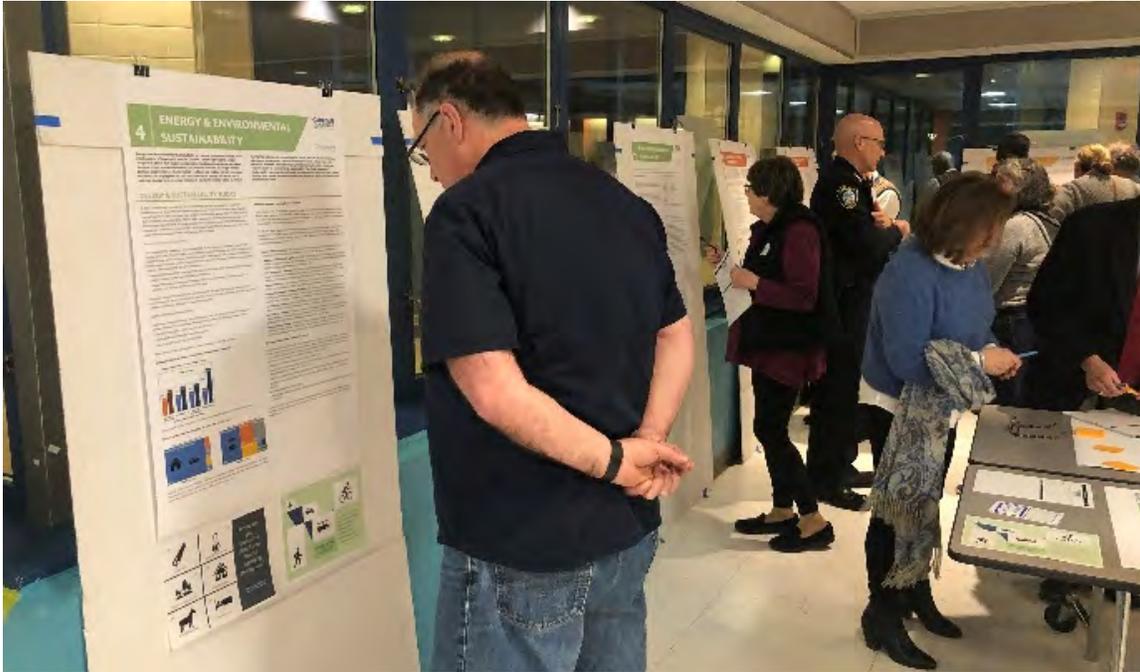


Figure 1-5. March 2020 Community Meeting

A participant reviews a poster highlighting key takeaways relating to Energy & Environmental Sustainability at a March 4, 2020 MPSC Community Meeting.

June 2021: After the MPSC was reorganized in early 2021, the MPSC designed a new survey to reengage the community in the process and determine whether draft values and goals of the plan resonated with the community. This survey was administered through the donated services of Epicenter Experience, with the intention of homing in on the community’s greatest values and highest priorities. When the survey closed in July, it had garnered 695 responses. On June 10th, the committee hosted a virtual forum, at which values identified as highest priority in the surveys were further discussed and clarified. Participants then met in virtual breakout groups for further discussion. The forum was rebroadcast on June 13th. Also in June, members of the MPSC staffed a booth at Old Home Day to raise awareness of the Master Plan, answer questions, solicit ideas, and encourage people to take the survey. (These results are included in Appendix M.)

September 2021: Project consultant Barrett Planning Group and committee chair Jack Troast held focus groups with Town department heads and separately with chairs from boards, committees, and commissions to review and discuss draft recommendations. On September 29, 2021, MPSC members held a final community forum, both live and virtually, to hold discussions on potential draft recommendations for the Master Plan.

October/November 2021: A final survey was designed and distributed, with services donated by Epicenter Experience, to assess resident perspectives on specific policies that would shape the plan’s final recommendations. Findings were used by the MPSC to revisit and update the plan’s

recommendations where applicable. (These results are included in Appendix M and highlighted with applicable recommendations throughout the report.)

February 2022: The MPSC led a presentation of the plan to the Select Board and Planning Board on February 1, 2022. A draft plan was made publicly available from February 23, 2022 to March 31, 2022. Members of the public were invited to share written comments for MPSC consideration through the month of March.

April 2022: The MPSC considered and responded to all comments received and made adjustments to the plan where appropriate. These comments and MPSC responses are included in Appendix N. The MPSC shared a final plan with the Planning Board on April 29, 2022 for the Board's consideration.

Balancing Priorities & Looking Forward

The questions for this “city in the woods” center around what kind of town its citizens wish for over the next twenty years. What trade-offs are worth making to maintain the character of this small country suburb situated on the outskirts of the Boston metro area? What level of services and facilities are residents willing to support at Town Meeting? Maintaining local control of services for a small town is costly due to the limited tax base and lack of economies of scale, and Municipal expenses will continue to rise with inflation as town employees have traditionally received cost of living increases of at least 2%.

Like many communities, Carlisle's financial challenges are very real. Revenue growth is slowing in comparison to surrounding communities, with the limited number of new houses (averaging around 10 single family homes per year compared to 20 per year in the 1980s). Municipal expenses will continue to rise with inflation as town employees require cost of living increases, and Carlisle has an aging infrastructure that needs repair. Projected capital costs for new facilities and deferred maintenance of existing facilities could easily top \$20 million over the next ten years. (See facilities analysis in Appendix J for more detail.)

Numbers and budgets only tell part of the story, which is why the community embarked on a town wide master plan to explore community values and aspirations. These recommendations necessary for effective long-range planning have been organized into four focus areas: **coordinated land use planning and policy development**, **coordinated fiscal planning**, **coordinated facilities planning**, and **planning for environmental sustainability**. To provide the Town with guidance regarding priority actions, the recommendations included in each of the four focus areas are described in both the Executive Summary of this plan as well as in Chapter 8, Approach to Implementation.



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Chapter 2

Plan Framework



CHAPTER 2: PLAN FRAMEWORK

Master Plan Elements

Preliminary research for this master plan was organized into the typical master plan framework, with existing conditions analyses prepared for the following topics:



While Demographics and Energy and Environmental Sustainability are not included in the statutory framework for master plans as standalone components (G.L. c. 41, § 81D), the latter is becoming increasingly common to include as communities look toward mitigating the impacts of climate change and reducing their impact on the environment. In this plan, the icons above are used to indicate each of the master plan elements for which existing conditions reports were drafted. These reports, drafted by Civic Moxie in 2020 and revised by the MPSC, are included in Appendices A-I of this plan. Because these analyses were initially drafted in 2020, not all the data is current to 2022. The MPSC acknowledges this gap in data and encourages the Town to continue to review the 2020 Census data as it becomes fully available and use those metrics to guide decision making.

Vision and Community Values

The Master Plan Steering Committee identified five core community values that reflected public input and centered around a vision statement for Carlisle. The findings identified through the existing conditions analysis were then sorted into these values, and they became the basis for the organization of this plan. Each community value was developed into a chapter of this Master Plan and includes key drivers, an overview of relevant community input, and a list of the goals and recommendations for the value.

A VISION FOR CARLISLE



Figure 2-2. Vision for Carlisle
Background artwork "Poppies on the Common"
by Debbie Bentley

Connection to the Master Plan Elements

The chart below (Figure 2-3) connects each of the five values to the master plan elements with which they primarily align. This connection is explained further in each chapter, but each value is summarized as follows:

Carlisle Character: Carlisle values its natural, agricultural, historical, cultural, and educational resources.

Fiscal Sustainability: Carlisle values the long-term fiscal health of the community and prioritizes keeping property taxes manageable for its households.

Connectivity & Access: Carlisle values physical, geographic, digital, and social connections across the community.

Environmental Stewardship: Carlisle values protecting the natural environment and minimizing its impact on the global climate.

Caring Community: Carlisle values its sense of community and the well-being of all its residents.

Figure 2-3. Relationship of Values to Master Plan Elements

Community Value	Goals	Recommendations	Master Plan Elements
	5 → 22	22	 <ul style="list-style-type: none"> • Open Space, Recreation, & Natural Resources • Land Use & Zoning • Economic & Tax Base • Energy & Environmental Sustainability • Cultural & Historic Resources • Housing • Public Facilities & Services • Demographics
	4 → 12	12	 <ul style="list-style-type: none"> • Public Facilities & Services • Economic & Tax Base • Land Use & Zoning
	5 → 14	14	 <ul style="list-style-type: none"> • Transportation & Circulation • Open Space, Recreation, & Natural Resources • Energy & Environmental Sustainability • Public Facilities & Services • Demographics
	5 → 19	19	 <ul style="list-style-type: none"> • Energy & Environmental Sustainability • Public Facilities & Services • Open Space, Recreation, & Natural Resources • Housing • Land Use & Zoning • Transportation & Circulation
	5 → 21	21	 <ul style="list-style-type: none"> • Housing • Public Facilities & Services • Demographics • Land Use & Zoning • Open Space, Recreation, & Natural Resources • Cultural & Historic Resources



Chapter 3

Carlisle Character



CHAPTER 3: CARLISLE CHARACTER

Overview

The community has long been proud of its iconic status as a formerly agrarian town that has evolved into a desirable country suburb with excellent schools and retained a significant amount of conservation land, along with farms that raise horses, cows, pigs, chickens, bees, and produce. Visually, this priority is reflected in Carlisle’s dense forests, wide-open fields, large residential lots, general lack of commercial development, and classic New England look and feel of its Town center. Recognizing the value of retaining the town’s character, this plan explores policies that the community put in place to preserve the natural, agricultural, historical, and cultural resources of the town while enabling growth that is consistent with the protection of these resources. Town leadership must consider the community’s evolving and diverse needs and balance them with protecting the qualities that make Carlisle unique.

Key Drivers

The list of drivers below summarizes the key points the MPSC considered in the development of the **Carlisle Character** goals and recommendations.

- ⇒ Community support for open space is very strong. This was identified as the top quality residents valued about Carlisle in two community surveys conducted as part of this process.
- ⇒ The total protected open space for the town is approximately 3,488 acres of land, or 35% of the total land in the town through a combination of private, non-profit-, Town-, state-, and federally-owned lands.⁷
- ⇒ The Town has acquired open space without putting plans in place to maintain, restore, or reuse structures and infrastructure on these lands (i.e., Cranberry Bog, Greenough Barn, and Greenough Dam, which was recently repaired), or to maintain the land itself. While the Town

⁷ This protected open space includes 783 acres of private land protected through conservation restrictions, 229 acres of non-profit-owned land, 1142 acres of Town-owned land, 998 acres of state-owned land (Great Brook Farm State Park), and 321 acres of federally-owned lands (Great Meadows National Wildlife Refuge). Source: *Town of Carlisle Open Space and Recreation Plan 2020/2021*, November 1, 2020, Tables 1, 3, 4, and 5. Tables available at: https://www.carlislema.gov/DocumentCenter/View/3316/2020-2021-OSRP_Sec13-Tables_06232021-003

has a recently completed and adopted its 2020/2021 Open Space and Recreation Plan,⁸ there currently is no integrated maintenance/improvements schedule for all open space and recreation resources.

- ⇒ The Town has not reached consensus regarding viable options for reuse of properties such as the Cranberry Bog, Highland Building, and Greenough Barn.
- ⇒ The Carlisle Historic Commission (CHC) completed an updated Historic Properties Survey in April 2010.⁹ Little to no action has been taken on the main recommendations and related action suggestions in that report.
- ⇒ Existing land use patterns, lack of public infrastructure including water and sewer, and limited commercially zoned areas hinder commercial development.
- ⇒ Many residents would like to see additional local businesses, with the strongest desire for restaurants. However, opposition to such development is also strong.
- ⇒ Responses during the community engagement process for the Master Plan (community meeting notes, survey open responses, Kitchen Conversations) as well as interview notes from the Town Governance Task Force indicate a sense that municipal decisions are siloed, and that volunteer turnover may create challenges for efficient decision-making.
- ⇒ Land acquisition and use decisions are not based upon a comprehensive evaluation of a variety of needs, including municipal use, housing, recreation, and open space conservation.
- ⇒ Support for schools is strong. This was the second highest value identified in two Master Plan surveys. However, there is an opportunity for improved resource coordination between Town Hall and Carlisle Public Schools.
- ⇒ Carlisle Public School currently operates below its maximum capacity. School enrollment was at 615 students in 2022, down from 846 in 2002. The school can accommodate 700-750 students.

⁸ *Town of Carlisle Open Space and Recreation Plan, 2020/2021*, November 1, 2020. Documents available at <https://www.carlislema.gov/580/Open-Space-Recreation-Plan>

⁹ Forbes, Anne McCarthy and Gretchen G. Schuler, *Carlisle, Massachusetts Historic Properties Survey, April 2010*. Available at <https://www.carlislema.gov/DocumentCenter/View/217/Historic-Properties-Survey-Final-Report-2010-PDF>

Supporting references for the above drivers and other relevant data points can be found in the existing conditions reports included in Appendices A-I of this master plan, particularly for the following Master Plan Elements:

Figure 3-1. Carlisle Character – Related Master Plan Elements

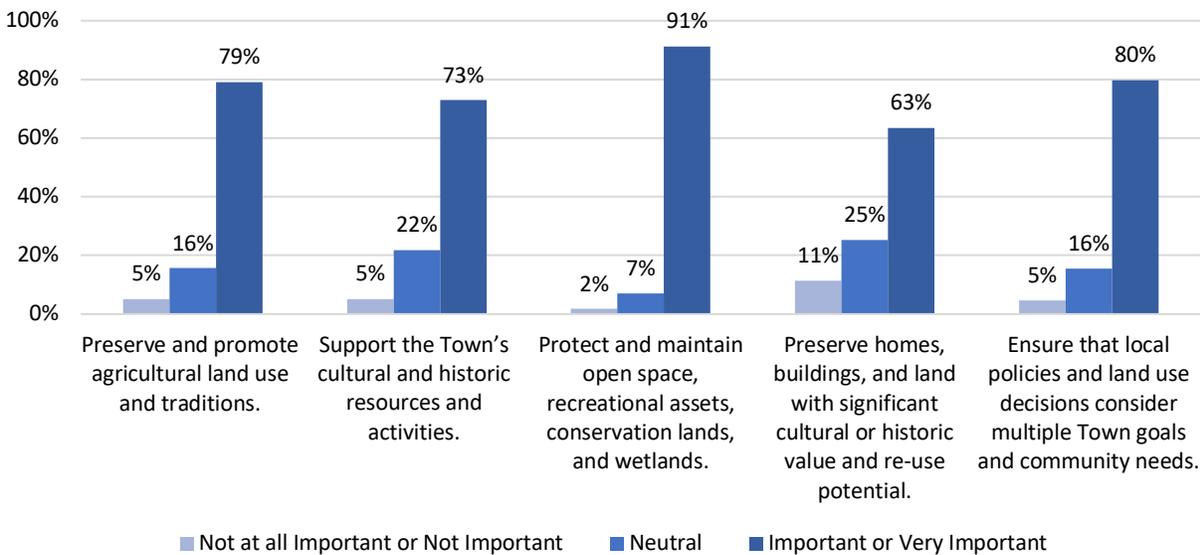


Community Voices

Summer 2021 Survey: A MPSC survey administered in Summer 2021 asked participants to indicate the importance to Carlisle of draft community values and related goals. Of the 695 respondents, 91% indicated that protecting and maintaining open space, recreational assets, conservation lands, and wetlands was “important” or “very important” to Carlisle, a sentiment strongly reflected in the preliminary survey administered in Fall 2019 and other past survey efforts.¹⁰

¹⁰ Goal 5 of Carlisle Character outlined in this chapter (“Continue to support Carlisle’s commitment to high-quality educational opportunities for all”) was included in the Summer 2021 survey under the **Caring Community** value, where it was ranked as “important” or “very important” by 85% of respondents. Following administration of the survey, the MPSC moved the goal to the **Carlisle Character** value, making it the second most supported goal for Carlisle Character.

Figure 3-2. Survey Results, Summer 2021
 Community Response to Preliminary Carlisle Character Goals
 (Total Responses: 695)



Fall 2021 Survey: A second MPSC survey generated 634 responses and asked more specific questions relating to potential recommendations and actions; the **Goals and Recommendations** section below addresses the results of that survey under the recommendations to which they apply.

Goals and Recommendations

1. Protect and maintain open space, recreational assets, conservation lands, and wetlands.

1A. As parcels become available, evaluate and consider for Town acquisition and protection in accordance with the current OSRP and other criteria developed as described in 4D. As part of the development of the 2020/2021 Open Space and Recreation Plan (OSRP), the OSRP committee engaged the community in a process to rank private parcels over 10 acres according to eleven criteria on a 0-4 point scale. Thirteen “Priority 1” properties were identified totaling 320 acres, along with 35 “Priority 2-4” properties totaling 542 acres.¹¹ These criteria can be folded into the comprehensive assessment and evaluation of land described in Recommendation 4D.

¹¹ *Town of Carlisle Open Space and Recreation Plan, 2020/2021*, Table 7, November 1, 2020. Available at https://www.carlislema.gov/DocumentCenter/View/3316/2020-2021-OSRP_Sec13-Tables_06232021-003

While this Master Plan recommends comprehensive examination of possible uses for land (see Recommendation 4D), the MPSC also recognizes that support for open space is the strongest community value identified through multiple engagement efforts, and that minimizing land disruption protects the natural environment. As such, future development of large, currently unprotected private parcels could include provisions for significant portions to become conserved as permanently protected open space, whether through direct acquisition, acceptance of conservation restrictions, or regulatory changes that provide for additional open space preservation in new development.

1B. Encourage residents to protect portions of their private land using Conservation Restrictions or Agricultural Preservation Restrictions if appropriate. In addition to advising the Town on the acceptance of new Conservation Restrictions, the Conservation Restriction Advisory Committee (CRAC) works to educate the public on the benefits of conservation restrictions. While the CRAC includes publishing periodic articles and reminders in the Mosquito as a priority initiative in the 2020/2021 OSRP, other community education opportunities can be explored, potentially with assistance from the Environmental Sustainability Committee proposed in Recommendation 15D and the development of educational materials for environmental stewardship described in Recommendation 15H.



Figure 3-3. Greenough Pond
Photo by Bob Zogg

1C. Develop and implement management plans to protect natural resources against ecosystem threats, including invasive species, plant diseases, contamination, and over-use. The priority initiatives of various groups provided for the 2020/2021 OSRP address the need for management of the Town’s natural resources and conservation properties. Most notably the Conservation Commission’s priority initiatives provide clear and specific actions relating to the management and protection of natural resources, although other groups including the Conservation Restriction Advisory Committee, Land Stewardship Committee, and Trails Committee also include applicable actions relating to this recommendation. Consideration should be given to managing protected open space as meaningful natural habitat. The management plans should consider the adequacy of current staff and volunteer resources and make appropriate recommendations accordingly.

2. Preserve and promote agricultural land use and traditions.

2A. Reestablish and build a robust Agricultural Commission. The Agricultural Commission is currently inactive and has not met since February 2020, but did prepare priority initiatives for the 2020/2021 OSRP as a final task. Reinvigorating the Agricultural Commission will allow for the successful implementation of recommendations that can strengthen community support for agriculture, including the pursuit of grants and other means that encourage farmers to engage in environmentally sensitive farming practices. Further, the Land Stewardship Committee and the proposed Environmental Sustainability Committee (see Recommendation 15B) can collaborate with the Agricultural Commission to promote environmentally sensitive agricultural practices in conjunction with Recommendation 19C.

2B. Support efforts to acquire land, including but not limited to current c.61A properties, and designate for environmentally sensitive agricultural use. Currently there are 19 c.61A properties (totaling 346 acres), a designation intended for landowners engaged in agricultural or horticultural use. In exchange for maintaining this use and agreeing to grant the Town the right of first refusal, an owner of a c.61A property is taxed based upon current use rather than the property’s development potential. While the Town is not required to retain the agricultural use of an acquired c.61A property, planning for continued or expanded agricultural use (perhaps most feasibly through a lease agreement) could be integrated into the land use criteria developed as part of Recommendation 4D.



Figure 3-4. Cark Farm Stand on Bedford Road
Photo by Debbie Bentley

2C. Pursue public and private grant opportunities to support “Grow Local” agricultural initiatives. The MA Department of Agricultural Resources can offer assistance with launching this effort.

2D. Utilize the Cranberry Bog’s 3-year restoration and maintenance plan to guide decision-making regarding the future use of this property. This plan is currently being developed under guidance of the Cranberry Bog Working Group and will specifically relate to the management and use — agricultural or otherwise — of the land itself.

3. Support the Town’s cultural and historic resources and activities.

3A. Create a comprehensive historic preservation plan that prioritizes, guides funding, and preserves Carlisle’s historical assets for conservation, public enjoyment, and educational purposes. This effort should build upon the recommendations of 2010 Historic Properties Survey and explore how to successfully implement the recommendations from that plan that have not yet been carried out, particularly planning for listing eligible properties on the National Register of Historic Places. Collaboration with the Carlisle Historical Society could increase capacity to develop such a plan, which would also be eligible for CPA funds.

3B. Evaluate the suitability of educational and regulatory options identified by the Massachusetts Historical Commission as tools for the protection of historic and cultural resources. While one such common tool (a demolition delay bylaw) was recommended in the 2010 Historic Properties Survey, many other regulatory tools exist for protecting Carlisle’s historic resources. The Historical Commission and Carlisle Historical Society could collaborate on a review of the Massachusetts Historical Commission *Preservation through Bylaws and Ordinances* guide (which includes Carlisle as a case study) to consider the suitability of specific measures for Carlisle.¹²

3C. Expand efforts to educate new and prospective owners of historic and notable properties about best practices and guidelines for historic building preservation and homeownership, including preparing a property for the effects of climate change. While the Carlisle Historical Society and Historical Commission already engage owners of historic homes to educate them about best practices for the care of their homes, these efforts currently do not include education specific to environmentally sustainable maintenance, weatherization, and energy efficiency of historic buildings. The National Park Service, US Environmental Protection Agency, and Advisory Council on Historic Preservation all provide resources relating to sustainable practices for historic preservation.

¹² Massachusetts Historical Commission, *Preservation through Bylaws and Ordinances*, October 2010. Available at <https://www.hingham-ma.gov/DocumentCenter/View/6735/preservation-through-bylaws-and-ordinances->



Community Example: Recognizing the importance of integrating historic preservation with environmental sustainability, in 2020 the Town of Concord enlisted the assistance of an intern from the UNH Sustainability Institute to develop a guide for owners of historic or older homes.¹³ This resource was created to provide guidance on retrofitting homes to reduce carbon emissions while preserving their historic character. The document includes case studies, including the Orchard House located in Concord. The property managers of the Orchard House, which was built in 1660 and currently serves as a historic house museum, have installed geothermal heat pumps, WaterSense toilets, and LED lighting in the interior and exterior of the building to improve the buildings water and energy efficiency while not compromising the historic significance of the building.

3D. If not recommended for municipal use as part of Recommendation 7A, explore public-private partnership opportunities to adaptively re-use Carlisle’s publicly-owned buildings with historic value, like the Highland Building and Bog House. Carlisle already recognizes the value of adaptive reuse and includes a “Distinctive Structures Preservation” provision in its zoning (3.2.4) to allow for the reuse of historic structures “for activities that make their preservation economically feasible....” In addition to honoring the historic value of buildings, adaptive reuse of Town-owned structures supports the Town’s fiscal sustainability recommendations relating to efficient use of facilities and is generally more environmentally friendly than new construction.



Community Example: The historic Wright Building in the Town of Duxbury, built in 1909 and formerly used as a library, was left unused after the Duxbury Free Library relocated in 1997. The building, which is situated next to the Duxbury Public School campus, was later rehabilitated using CPA funds and was rededicated in 2007 for use by a newly established nonprofit organization, the Duxbury Student Union. The Duxbury Rural & Historical Society also began to use building space for its archives. Both entities lease the space from the Town, providing mutual benefit and preserving the historic building, which was listed on the National Registry of Historic Places in 2007. Both uses are compatible for use near a school, and students are able to conveniently walk to the “DSU” to enjoy activities at the end of the school day.



Figure 3-5. Historic Wright Building, Duxbury, MA

The Duxbury Student Union, a local 501(c)(3) nonprofit student-centered organization, leases space in the formerly vacant Town-owned building, as does the Duxbury Rural & Historical Society. Photo from the Massachusetts Cultural Resource Information System (MACRIS).

¹³ Ahern, Abigail. *Concord’s Sustainability Guide for Historic and Older Homes*. Available at <https://concordma.gov/DocumentCenter/View/25928/Sustainable-Guidelines-for-Historic-Homes-2020?bidId=>

3E. Appropriate funds to maintain historically or culturally significant properties. While CPA funds can only be used for rehabilitation of historic properties, they cannot be used for routine maintenance. As such, the Town should include regular maintenance of Town-owned buildings with historic value in the planned preventative maintenance plan discussed in Recommendation 7C and ensure such maintenance is appropriately funded. The Town could also explore grants from the Massachusetts Historical Society and other groups to assist with this effort.

3F. Support the use and/or improvement of indoor and outdoor facilities that support the arts and culture community in Carlisle, reflecting existing and future needs for performances, lectures, and art exhibits. Carlisle has a relatively large and active community of artists, musicians, writers, lecturers, historians, scientists, and other people working in the humanities, who all fit under the Carlisle Cultural Council's (and the Massachusetts Cultural Council's) definition of cultural practitioners. Consideration for such spaces can be included in the development of a facilities plan as suggested in Recommendation 7A, and also be supported as part of Recommendation 21B to coordinate programming and available spaces to meet the needs of the community.

4. Ensure that local policies and land use decisions consider multiple Town goals and community needs.

4A. Provide staff capacity to facilitate coordinated long-range planning efforts and if required hire a Town Planner or similar position. The Town's part-time Planning Administrator's recent retirement provides an opportunity for the Town to consider expanding this role and facilitate greater land use coordination than current staff and volunteer capacity allow. While the Town Planner role varies from community to community, the position typically supports the comprehensive planning, land use, and development initiatives in Town. Given the Select Board's current goal of considering the environmental impact of Town decisions and the Planning Board's charge of preserving natural resources and minimizing the negative impacts of development projects on the community, this role could also include responsibility for environmental stewardship and sustainability initiatives.

4B. Introduce integrated municipal use of GIS to explore and inform future land use, zoning, and other municipal decisions. Currently GIS use in town is limited and fragmented, but there is growing recognition that its use is essential for evaluating land use decisions, both for the Town and residents. In January 2021, the Planning Board approved funding for the MPSC to develop a GIS database and online mapping tool with a consultant to explore development potential. Since then, the Planning Board and Building Commissioner have continued to explore how the Town could benefit from integrated GIS use and have solicited input from other departments and Town

bodies.¹⁴ The Town should continue to pursue streamlining and coordinating GIS data and access to ensure that staff, Town bodies, and the general public are able to utilize the tool.

4C. Pursue a commercial/mixed use zoning districting study that includes a robust community engagement process to explore interest, feasibility, and options for expanding light commercial activity in keeping with Carlisle’s character. Fall 2021 survey responses indicate substantial divide on the issue of expanded commercial activity in Carlisle, with 53% looking to see increased commercial goods and services and 32% opposed. To further explore this option, the Town could pursue a commercial or mixed-use zoning districting study that explores strategic locations for creation or expansion of a commercial district. This could include Town Center as well as small areas around other existing commercial uses along Bedford Road or other major roads closer to neighboring towns to increase market area.

4D. Develop comprehensive criteria for evaluating land for various purposes and community needs. Developing a set of guiding criteria for land uses including municipal use, recreation, affordable housing, open space preservation, agriculture, and other appropriate uses will enable the Town to objectively make coordinated decisions regarding the future of properties to:

- (a) guide the Town in considering action on c.61, 61A, and 61B properties as they become available,
- (b) include in the possible development of RFPs for land acquisition, and
- (c) facilitate decision-making regarding existing Town-owned land.

While connection to other Town-owned properties is one such logical criterion to guide decisions across potential uses, other factors could be developed by specific entities in Town. Just as the OSRP Committee developed criteria for ranking properties for conservation and protection, Town staff could develop criteria for land suited for municipal use and hazard mitigation and the CAHT could develop criteria for suitability for the creation of affordable housing. In addition, when property becomes available for the Town to consider for acquisition, all applicable boards and departments should be given the opportunity to provide comment.

¹⁴ Carlisle Planning Board, December 13, 2022, approved meeting minutes. Available at https://www.carlislema.gov/AgendaCenter/ViewFile/Minutes/_12132021-3477



Community Example: The Town of Dennis' Town-Owned Land Inventory Report (2020)¹⁵ evaluated all municipally held land according to a set of comprehensive criteria developed to guide decision-making. Wherever possible, these criteria were based upon existing planning documents, including the Town's Open Space & Recreation Plan, Housing Production Plan, and Hazard Mitigation Plan. The plan included overall guiding principles, one of which was that the Town should strive to accommodate multiple goals when reviewing municipal land, especially larger tracts. Other considerations included anticipating future municipal needs, appreciation for natural resources as the Town's greatest assets, and recognition that long-term positive tax generation is important to the Town. Ultimately, the criteria were used to make recommendations by parcel to (a) sell, (b) hold for further analysis, or (c) use for various purposes including municipal facilities, open space and recreation, hazard mitigation, affordable and workforce housing, economic development, and infrastructure. This report was produced in-house by the Town Planner in consultation with other departments, boards, committees, and commissions. While Dennis' inventory project was specific to existing Town-owned land, the criteria developed and process of soliciting input from appropriate stakeholders could also be applied when considering new acquisition.

4E. Review, assess, and revise local bylaws, zoning, and policies to evaluate their consistency with this Master Plan. The Master Plan Implementation Committee, suggested in Recommendation 13C, could commence this task as one of its initial charges, although this review would require coordination between multiple entities including the Select Board, Planning Board, Finance Committee, Conservation Commission, Carlisle Affordable Housing Trust, and Town departments. One such quick action the Town could address is to amend references to the 1995 Study Plan in Carlisle's zoning bylaw and Planning Board Rules and Regulations to instead refer to this Master Plan where appropriate. The charge of all elected and appointed groups should be examined in consideration of the goals of this Master Plan.

5. Continue to support Carlisle's commitment to high quality educational opportunities for all.

5A. Encourage, where appropriate, collaboration among the CPS and Town Hall administrations. While the Town Administrator and Superintendent engage in regular communication, the Superintendent could participate in the quarterly leadership meetings described in Recommendation 14A to build relationships between CPS and Town Hall staff.

¹⁵ *Town-Owned Land Inventory, Town of Dennis, 2020.* Available at https://www.town.dennis.ma.us/sites/g/files/vyhliif3016/f/uploads/town_owned_land_complete_final_report_inc_l_appendices.pdf

5B. Foster closer communication and understanding among elected school leaders, elected Town boards, and other boards and committees. The Select Board’s 2022 goals include strengthening ties between the Town and both CPS and CCHS, with a specific action looking to “work with the school committees to identify a shared vision and long-term goals for the education of Carlisle’s students.” Establishing a regular communication channel between the Select Board and both school committees is crucial for both this Master Plan recommendation and the Select Board’s related goal.

5C. Engage leadership from CPS and CCHS in the development of a long-term facilities plan. Past assessments of facilities needs in Carlisle have separated school and municipal buildings, yet successful capital planning requires an integrated approach, particularly in a small community concerned about the impact of costly facilities expansion on taxes. Recommendation 7A outlines the benefits of developing a facilities plan that includes all municipal building spaces, and the anticipated long-range capital needs of both CPS and CCHS should be integrated in this effort.

5D. Encourage shared programming among the Council on Aging, Gleason Library, Carlisle Public Schools, Recreation Department, Carlisle Cultural Council, Agricultural Commission, and other interested groups. A commitment to community education goes beyond the schools, and many of Carlisle’s volunteer groups include public education as a priority. Gleason Library’s mission to facilitate “lifelong-learning for all community members through free access to materials and services; collaborative partnerships; and opportunities to engage and learn from one another” resonates with this recommendation and the goal under which it is included, therefore placing the library as a key resource for facilitating shared programming and educational opportunities sponsored by specific groups.¹⁶ Cooperation among groups with similar or complementary missions can increase the capacity for educational and advocacy-driven initiatives. With this in mind, groups should discuss opportunities for such collaboration during the quarterly leadership meetings described in Recommendation 14A. Additionally, as part of the development of the State of the Plan report described in Recommendation 14B, the proposed Master Plan Implementation Committee can ask groups to report on the status and success of shared initiatives.

¹⁶ *Gleason Public Library 2021-25 Strategic Plan*. Available at <http://gleasonlibrary.org/wp-content/uploads/2020/12/FY21-25-Strategic-Plan.pdf>

Metrics

Metrics can be useful both for guiding decisions as well as assessing progress toward community goals. Below is a list of possible metrics the community could use to evaluate actions relating to **Carlisle Character**. Further development of these metrics through the work of the proposed Master Plan Implementation Committee and responsible implementation parties is encouraged if capacity allows. *Three metrics (budgetary and environmental impact and community consensus) are listed for all values to align with the Select Board's stated Strategic Goals for FY 2022.*

CARLISLE CHARACTER Metrics to Consider: A Starting Point

Land use breakdown by type and quantity

Acreage of protected open space

Number of large privately owned parcels

Acreage of land dedicated to active agricultural use

Comparison of potential revenue of land use decisions

Number of designated historic structures and landmarks

Budgetary impact of project or other expenditure

Environmental impact of project or decision

Community consensus regarding project or decision as evaluated through public process



Chapter 4 Fiscal Sustainability



CHAPTER 4: FISCAL SUSTAINABILITY

Overview

This Master Plan includes recommendations for both long-term financial planning and short-term prioritization of costs and investments. Ultimately the Town and its residents will need to consider trade-offs because many of the desires which have been identified as strong priorities of the community are in conflict.

One of the greatest challenges the town faces is balancing:

- The preservation of Carlisle’s character as a country suburb with very little commercial development, limited infrastructure, and abundant open space — and therefore limited opportunities to grow the tax base,
- The reluctance to regionalize services because of a concern for loss of local control and self-reliance,
- The wish for quality services, infrastructure, and facilities (including the schools) with costs rising against a slowly growing tax base, and
- The wish for property taxes to remain stable in relation to household income.¹⁷

Key Drivers

The list of drivers below summarizes the key points the MPSC considered in the development of the **Fiscal Sustainability** goals and recommendations.

- ⇒ Carlisle’s tax base growth is modest and just keeping up with inflation.
- ⇒ Carlisle has very little non-tax local revenue such as user fees compared to other towns.

¹⁷ Appendix L, “Financial Projection Model MPSC Report” provides detail on MPSC assumptions relating to keeping tax incidence stable through 2030.

- ⇒ Over 98% of Carlisle’s tax levy comes from residential taxes, the highest percentage in the state.
- ⇒ Housing production is limited; approximately 100 new houses were built between 2010 and 2019 in Carlisle.
- ⇒ Property values are greater for residential development than commercial development of the low-density type currently found in Carlisle. Thus, it would take significant expansion of commercial activity to shift the residential tax burden beyond a nominal amount.
- ⇒ The cost of maintaining local control for a community of Carlisle’s size while also accommodating residents’ desire for expanded services and facilities is unsustainable long-term. Key decisions need to be made about considering regionalization of some services, increasing the tax base, or controlling spending; however, all of those options involve trade-offs that are historically controversial within the community.
- ⇒ While the Town has made significant investments into large projects such as two big school projects and a new communications tower, it has deferred maintenance, renovation, and upgrades of other Town facilities.
- ⇒ There are current and forecasted municipal space needs in Town, but the Town currently lacks a longer term capital improvement plan or facilities plan to guide decision-making.
- ⇒ To maintain a constant or stable rate of real taxes, the town has limited incremental long term debt capacity – approximately \$15-20 million over the coming decade by MPSC estimates, depending on interest rates and maturity of debt.¹⁸

Supporting references for the above drivers and other relevant data points can be found in the existing conditions reports included in Appendices A-I of this master plan, particularly for the following Master Plan Elements:

Figure 4-1. Fiscal Sustainability – Related Master Plan Elements



**Public Facilities
& Services**



**Land Use
& Zoning**

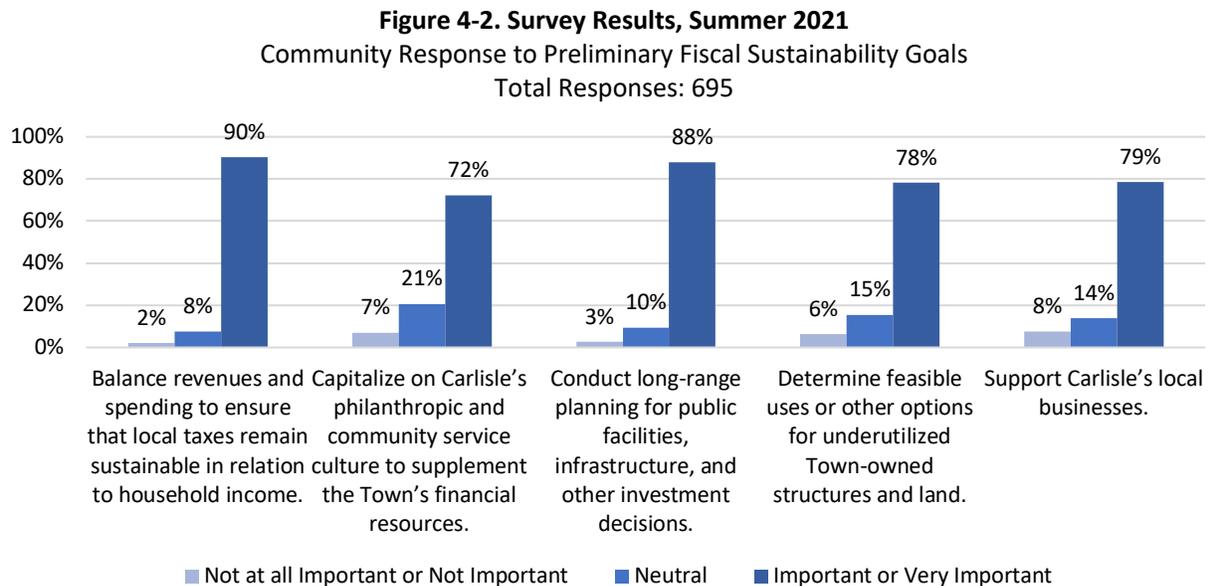


**Economic
& Tax Base**

¹⁸ See Appendix L, “Financial Projection Model MPSC Report.” This is an assumed constraint given Carlisle’s relatively high tax incidence. The Town could approve higher levels of debt.

Community Voices

Summer 2021 Survey: A MPSC survey administered in Summer 2021 asked participants to indicate the importance to Carlisle of draft community values and related goals. 90% of the 695 respondents indicated that balancing revenues and spending to ensure that local taxes remain sustainable in relation to household income was “important” or “very important” to Carlisle, making this the second-highest ranking goal in the survey behind protecting open space.



Fall 2021 Survey: A second MPSC survey generated 634 responses and asked more specific questions relating to potential recommendations and actions; the **Goals and Recommendations** section below addresses the results of that survey under the recommendations to which they apply.

Goals and Recommendations

6. Balance revenues and spending to ensure that local taxes remain sustainable in relation to household income.

6A. Develop and make use of a comprehensive financial model and projection tool that enables the Finance Committee, Select Board, and Town staff to explore options and educate residents about the fiscal impacts of decisions. This recommendation is supported by the Select Board’s 2022 goal to “Evaluate the expected growth and expenses over the next 5-10 years and develop a plan for addressing the gaps” and also aligns with community concerns about tax increases. In the Fall 2021 community survey, 38% of respondents indicated that they would not like to see taxes increase for any reason, 46% indicated they would consider with evidence of a specific need

presented, and 16% said that there are current needs for which paying more taxes would be worthwhile. (Open responses clarifying what community needs may be worth increasing taxes tended to focus on infrastructure improvements [including specific suggestions relating to a community center and public safety buildings], maintaining school quality, environmental stewardship, land acquisition [most commonly noted for conservation], and affordable housing.) These responses indicate that many residents are very concerned about rising taxes and understanding how costs will impact the overall fiscal health of the Town as well as the property tax burden for individual households. Such a tool can enable the Finance Committee to efficiently provide reliable projection scenarios to ensure residents are well informed about the impacts of possible scenarios that carry a significant cost. In a small town with a limited tax base, such decisions are felt more heavily by individual households and need to be considered carefully alongside other important community values.



Community Example: The Town of Concord’s Finance Committee conducts five-year projections based on “most likely scenario” (moderate spending, property taxes increase 2.3% to 3.5%, “alternate scenario 1” (below average expenditure growth, property taxes increase 1.9% to 3.1%), and “alternative scenario 2” (above average spending growth, property taxes increase 2.8% to 4.0%). Nonetheless, Concord’s 2018 Master Plan included a goal to take this proactive planning a step further and establish a longer term projection tool that looks out ten years, includes long-term capital spending and anticipated service costs by department, and corresponds to the three standard scenarios.¹⁹ In addition Concord currently provides an online calculation tool for a proposed middle school project, and this tool presumably could be updated for subsequent large capital projects, as well.

6B. Establish a committee to investigate the benefits and trade-offs of service regionalization, interlocal agreements, and participation in MAPC’s collective purchasing program opportunities. 63% of Fall 2021 survey respondents supported exploring regionalization and other interlocal agreements to cut costs and increase opportunities not currently available to Carlisle or available at a significant expense. Of those who did not support it, the most common reasons cited for concern centered around loss of autonomy, loss of character, and Carlisle’s needs potentially being considered a lower priority than those of the other communities involved. Establishing a committee to do further research on regionalization, collective purchasing, and other interlocal agreements could allow the Town to consider the pros and cons of such arrangements further and make recommendations to the Town.

¹⁹ *Evision Concord: Bridge to 2030*, July 30, 2018. Available at <https://www.concordma.gov/DocumentCenter/View/15250/Final-Evision-Concord-Plan-7-30-18-Full-Version-79MB>

6C. Evaluate municipal organization and staffing structure based upon the findings of the 2021 Governance Task Force and regular assessment of departmental capacity needs. At the time of this plan, the Town Governance Task Force has been working to complete a report to the Town based upon findings from a community survey, staff and other leadership interviews, and additional research. The task force was established by Town Meeting vote in 2021 and “charged with studying the form, organization and practices of Town government and making recommendations to improve the efficacy, efficiency, responsiveness, and transparent functioning thereof,” and its recommendations should inform policy decisions going forward about structural changes to Town government. That said, regular assessment of departmental capacity should continue through a formalized channel, perhaps as part of collaborative discussions taking place during convened leadership meetings suggested in Recommendation 14A or as part of an annual staff survey conducted by the Town Administrator.

7. Conduct long-range planning for public facilities, infrastructure, and other investment decisions/capital improvements.

7A. Develop and maintain a rolling long-term facilities plan that anticipates future municipal building needs, including space needs by department, maintenance and rehabilitation needs of existing buildings, and potential scenarios for siting new construction and reuse of existing structures. 60% of Fall 2021 survey respondents supported this measure, with reasons for *not* supporting it including project cost and a general opposition to facilities expansion. The MPSC Facilities Task Force estimates a deficit of municipal space over the next 20 years, even without the construction of a standalone community center discussed in Recommendation 21A.²⁰ Even without considering new facilities, the Town is facing significant capital expenses to address current needs including the police, fire, and DPW buildings. A comprehensive facilities plan or capital improvement plan would allow the community to consider all projects together and even potentially explore scenarios depending on the defined project scope.

The cost and scope of such a project can range considerably depending on what the Town wishes to include. The more upfront research the Town can conduct on its own, tighter the project scope (and therefore lower the cost) would likely be. As an example, the Town could work toward developing space needs assumptions on its own rather than asking a consultant to conduct that part of the work. The Facilities Needs Summary MPSC Report in Appendix K of this plan provides some preliminary work toward this effort that the Municipal Facilities Committee could continue with support from each department.

This plan should also fold in the findings of the Public Safety Facilities Task Force, whose work has recently commenced and will involve exploring scenarios for the Town to consider regarding

²⁰ See Appendix K, “Facilities Needs Summary MPSC Report.”

public safety facilities. It is also important to coordinate this effort with the research on regionalization recommended in 6B and potentially incorporate some findings into developing facilities scenarios. Development of a facilities plan should build upon needs identified through other planning projects such as the *2017 Existing Conditions Report and Program Analysis*²¹ and the *Gleason Public Library 2021-2025 Strategic Plan*.²² Additionally, the Carlisle Public Schools should be involved in this effort and the school facilities should be included in a comprehensive exploration of current and future facilities needs. Lastly, while such a plan could include cost projections, studying the direct impact on property taxes of each scenario would require further review of the Finance Committee. The financial modeling tool described in Recommendation 6A could help with this task.

As noted in Recommendation 8A, the square footage of underutilized Town facilities and their capacity should be considered in the development of this facilities plan. The Town should consider preserving and using existing buildings wherever possible, as it is more environmentally sustainable to do so. Projects that use fewer new building materials have a lower embodied carbon footprint and using existing buildings reduces land disruption. Even if new construction is inevitable, the space freed up in existing buildings can be considered for other uses. For example, if the Town decides to construct a combined public safety building, the spaces freed up in the current police station and fire station should be considered for other identified community needs such as workforce or affordable housing.



Community Examples: Many communities conduct some form of facilities planning to guide decision-making, whether through a Capital Improvement Plan (CIP) or a more involved facilities planning process that involves scenarios for community consideration. Acton recently developed a Capital Improvement Plan that included a ten-year projection of their capital needs per project by department for each fiscal year. CIPs differ from comprehensive facilities plans because they also include other capital expenses such as vehicles and other equipment replacement. However, many projects included in a CIP will typically involve facilities expenses including building improvements or construction. In Acton’s case, for example, their current CIP includes the cost of rehabilitating an existing structure and converting into a new community center. A CIP can be developed in-house because it relies on departments to report their projected capital expenses, but the Town can also enlist consultant support; Acton worked with the University of Massachusetts Collins Center for Public Management, with a

²¹ *Existing Conditions Report and Program Analysis For The Town Hall, Fire Department, Police Department, and Department of Public Works*, TBA Architects, March 3, 2017. Available at <https://www.carlislema.gov/DocumentCenter/View/44/Town-Facilities-Condition-Study-Prepared-TBA-Architects-March-2017-PDF?bidId=>

²² *Gleason Public Library 2021-2025 Strategic Plan*. Available at <http://gleasonlibrary.org/wp-content/uploads/2020/12/FY21-25-Strategic-Plan.pdf>

project budget of \$25,000. They generally do not include comprehensive scenarios for communities to consider, but still have the benefit of laying out anticipated capital costs across fiscal years. Specific projects would still require approval at Town Meeting.

On the other end of the project sale, Andover (2016; see Figure 4-3),²³ Wilmington (2018),²⁴ and Middleton (2020)²⁵ have recent examples of scenario-based facilities plans that included a community engagement process. All three projects commenced with a needs assessment, involved the development of criteria to help ranking and prioritization, and culminated in the development of three scenarios. The cost for these planning efforts ranged from \$143,000 to \$250,000. As is the case for a CIP, specific projects would still require funding approval at Town Meeting.

Figure 4-3. Excerpt from Andover Facilities Master Plan (2016)

As part of this study, both municipal and school facilities were scored according to a rubric ranking building condition, functional suitability, technology readiness, and site/grounds condition. These findings helped inform the development of three facilities scenarios.

TOWN SCORES All Facilities						SCHOOL SCORES All Schools						
Site Name	Building Condition	Suitability Score	Technology Score	Site Score	Combined Score (50/30/10/10)	Site Name	Grade Config.	Building Condition	Suitability Score	Technology Score	Site Score	Combined Score (50/30/10/10)
Fire/Public Safety						Elementary Schools						
Ballardvale Fire station	41.75	34.76	60.00	49.73	42.28	Bancroft ES	K-5	98.46	98.17	100.00	100.00	98.68
Public Safety	89.23	82.20	100.00	90.00	88.27	High Plain ES	K-5	83.82	92.89	79.95	80.81	85.86
West Fire station	75.52	74.96	100.00	49.77	75.22	Sanborn ES	K-5	79.34	70.54	75.00	55.30	73.86
Fire/Public Safety Average/Total	68.83	63.97	86.67	63.17	68.59	South ES	K-5	83.57	78.28	92.50	64.53	80.98
Administrative/Sr. Center						West ES	K-5	69.42	62.48	75.00	65.18	67.47
Center at Punchard	72.44	37.78	100.00	60.45	69.59	Shawsheen Pre School	PK	62.72	57.89	65.90	52.48	60.57
Memorial Hall Library	87.02	82.94	100.00	75.22	85.92	Elementary School Average/Total		79.56	76.71	81.39	69.73	77.90
Old Town Hall	82.20	79.78	100.00	90.00	84.03	Middle Schools						
School Administration	76.72	72.88	97.50	60.45	76.02	Doherty MS	6-8	67.59	63.91	59.20	100.00	68.89
Town Offices	78.94	69.73	100.00	60.45	76.43	West MS	6-8	79.57	71.83	79.20	94.13	78.66
Water Treatment Plant	76.80	79.07	100.00	81.45	80.27	Woodhill MS	6-8	83.82	86.71	90.00	77.83	84.71
Administrative/Sr. Center Average/Total	79.02	73.69	99.58	71.34	78.71	Middle School Average/Total		76.99	74.15	76.13	90.65	77.42
Maintenance Facility						High School						
Red Spring Road Maintenance Bldg.	72.83	71.50	100.00	78.77	75.75	Andover HS	9-12	76.04	77.03	86.70	42.49	74.05
Spring Grove Cemetery	72.21	72.34	100.00	56.42	73.45	District Average/Total		78.44	75.97	80.35	73.28	77.37
Town Yard	47.34	27.81	53.30	46.98	42.04							
Maintenance Facility Average/Total	64.13	57.22	84.43	60.72	63.75							
Town Facility Average/Total	72.75	67.14	92.57	66.64	72.44							

²³ Andover Facilities Master Plan, MGT of America Consulting LLC, June 7, 2016.

<https://andoverma.gov/DocumentCenter/View/583/Andover-Facilities-Master-Plan-Final-Report-PDF>

²⁴ Facility Master Plan Report for the Town of Wilmington, Harriman, 2018. Available at

https://www.wilmingtonma.gov/sites/g/files/vyhli5221/f/uploads/wilmingtonfacility_master_plan_final_report_appendices.pdf

²⁵ Town of Middleton Municipal Center Master Plan Volume 1 and Volume 2, HKT Architects, September 2020.

Available at https://middletonma.gov/DocumentCenter/View/2686/HKT-Town-of-Middleton-Municipal-Center-Master-Plan_Volume-One_Planning-Report-20-11-03- and

https://middletonma.gov/DocumentCenter/View/2687/HKT-Town-of-Middleton-Municipal-Center-Master-Plan_Volume-Two_Suppleme_

7B. Engage the community in the development of a conceptual plan for the Banta-Davis/Moseley land that incorporates multiple community needs. Historically, Banta-Davis (Figure 4-4) has been proposed as the logical site for community projects ranging from additional athletic fields to affordable housing to a community center to reserving indefinitely for the potential need for a new school. The contours, size, and location of this land make it a desirable place to site projects, yet proposals have generally been for one project rather than for planning the strategic development of the site in a way that can meet multiple community needs. A site study could be developed with community input that lays out scenarios based on identified priorities, needs, and wants and includes preliminary site sketches for each option. Potentially the Town could undertake a similar process for the 54-acre Conant land, which has significant site constraints but does include at least a portion that has previously been identified as having development potential.²⁶

Figure 4-4. Banta-Davis, Aerial View
Aerial image from Google Earth; parcel boundaries from Mass GIS (February 2022).
Parcel lines are approximate.



Community Example: When the Town of Orleans sought to make an informed decision regarding acquisition of the Governor Prence Motel site in 2020, it hired a consultant team to conduct a preliminary future use study to develop scenarios involving affordable housing and other community uses.²⁷ The scenarios were developed through a community engagement process that included interviews, a community survey, and two community meetings. This study led to Town Meeting voting to acquire the property and the Town has since moved forward with a more detailed redevelopment plan for the site that will include multiple detailed scenarios and focus on co-locating housing with other public amenities. The preliminary future use study cost significantly less than the approved contract for the subsequent redevelopment plan (approximately \$30,000 versus \$95,000) because while the former included conceptual sketches of possible site scenarios, the latter will also include a more formal analysis of the housing market and infrastructure capacity.

In the case of Banta-Davis, a preliminary study closer to the Orleans Phase I study is probably more in line with Carlisle’s needs since other studies have already made conclusions about the

²⁶ “Conant Land affordable housing project debated at Town Meeting.” *Carlisle Mosquito*, May 5, 2000. Available at <https://www.carlislemosquito.org/index.php/search/?id=9119>

²⁷ *Town of Orleans Governor Prence Inn Future Use Study*. Barrett Planning Group LLC, available at https://www.town.orleans.ma.us/sites/g/files/vyhlf3631/f/uploads/orleans_govprencereusestudy_02022021.pdf

infrastructure constraints and capacity for Banta-Davis. Once a site concept can be developed that addresses multiple community needs for Banta-Davis, the Town can begin working on each specific project individually.

7C. Develop a planned preventive maintenance strategy for Town buildings, land, and other major facilities to clarify maintenance tasks and responsibilities. This idea was widely supported in the Fall 2021 community survey, with 82% of respondents agreeing with the suggestion. Such a plan could typically be developed in-house by the facilities manager with assistance from department heads familiar with specific building needs, and software options are available to help streamline the tracking of both regular and unanticipated maintenance tasks of the Town’s approximately 184,000 sq ft of building space. (See Appendix K, “Facilities Needs Summary MPSC Report” for detail.) Such a strategy could also include anticipated costs to enable allocation of reserve funding for building maintenance.

7D. Use the findings of the Public Safety Facilities Task Force to make decisions regarding necessary improvements to support the Town’s public safety needs. In considering municipal facilities needs as part of the suggested facilities plan in Recommendation 7A, the pressing needs of the police and fire should be considered a high priority. Of the four buildings examined in the 2017 Town Buildings Existing Conditions Report and Program Analysis, the police station was identified as having the most significant issues in terms of cost, with the fire station next. The need to address these building issues was again highlighted in the recent Hazard Mitigation Plan (2021), which identified upgrading or constructing new police and fire facilities as a high priority with a high community benefit.²⁸ (See Figure 4-5.) The Select Board has recently appointed a Public Safety Facilities Task Force to explore options, one of which would involve constructing a combined facility. The findings of this task force should be taken along with the recommendation of the Hazard Mitigation Report to prioritize these necessary public safety improvements when planning projects.

Figure 4-5. Public Safety Needs Identified in Hazard Mitigation Plan
Excerpted from Carlisle Hazard Mitigation Plan 2021 Update

Mitigation Prioritization for the Carlisle 2021 Plan Update				
Mitigation Measures	Geographic Coverage	Estimated Benefit	Estimated Cost	Priority
21) Upgraded or New Police and Fire facilities are needed to accommodate the workforce and efficient operations.	Town wide	HIGH	HIGH	HIGH

²⁸ *Town of Carlisle Hazard Mitigation Plan 2021 Update*, Metropolitan Area Planning Council, November 2021. Available at <https://www.carlislema.gov/DocumentCenter/View/3421/Carlisle-Hazard-Mitigation-Plan-Update-11-23-2021?bidId=>

8. Determine feasible uses or other options for underutilized Town-owned structures.

8A. Consider square footage of underutilized Town-owned buildings in the development of a scenario-based facilities plan (see Recommendation 7A) or find a reuse/tenant/owner that will put underutilized historic structures such as the Highland Building and Bog House into active use. The Highland Building in particular has 7,200 sq ft of municipal building space that should be considered in the development of a facilities plan. However, if no feasible municipal use is determined as part of that process, the building – which has significant historic value and is in sound condition — could be leased out for an appropriate use such as a student center (see example described in Recommendation 3B). The Bog House is currently used in part for housing as part of a lease agreement; any future uses will need to be navigated with the Conservation Commission and the Cranberry Bog Working Group, as the building is located on conservation property. The CBWG currently plans to keep the building occupied to prevent rapid deterioration, and the Land Stewardship Committee recently arranged inspections of the Bog House by the Building Inspector and Fire Department.

9. Pursue alternative funding sources to supplement the Town’s budget.

9A. During convened meetings of department heads and board and committee chairs (see Recommendation 14A), discuss shared priorities and plans for applying for grants, including the MAPC Technical Assistance Grant program. During interviews conducted as part of the Master Plan development process, both staff and volunteers reported the need for clarity about staff support available for handling grant applications and administration. Additionally, grant programs often consider whether an application ties into larger established community initiatives. Thus, careful and strategic planning regarding grant opportunities should involve staff and volunteers to ensure that the application addresses multiple identified community needs and that administration of awarded grants is feasible. While state, federal, and private grant opportunities abound, programs come and go and identifying opportunities can be challenging. Applying through steady channels such as the state’s Community One Stop for Growth and MAPC’s Technical Assistance Grant program may be the most efficient use of the limited staff and volunteer time, but allowing for continued collaboration between staff and volunteers can also be helpful for sharing information about lesser known or one-time grant opportunities. Generally speaking, being able to tie an application to identified community needs and collaborative community efforts only strengthens an applicant’s competitiveness.

9B. Conduct a regular review of current user fees. Carlisle’s non-tax local receipts make up a lower percentage of total revenue than surrounding towns. The Select Board could consider a process for conducting comparative reviews of fees from licenses, permits, and other sources at regular intervals, looking both at neighboring communities as well as other peer communities operating at a similar scale to Carlisle, such as Dover, Sherborn, and Lincoln. Such a review could

also include consideration of establishing fees for parking at Town-owned open space and recreational fields. This process of review should be done on an ongoing basis.

9C. Explore potential new revenue sources such as real estate transfer fees, voluntary “payments in addition to taxes” (PIATT), increased PILOT (payment in lieu of taxes) fees for tax exempt property owners, and additional user fees.

- **Real estate transfer fees** are one-time fees imposed upon the sale of property and currently require home rule petition in Massachusetts; several Massachusetts communities such as Concord and Arlington have recently passed home rule petitions to establish such a fee, with the intent that funds generated through the sale of real estate (typically over a certain amount) would support affordable housing efforts; their requests are pending at the state level. Although to date no such requests have passed through the legislature and this controversial strategy may not ultimately become available, the increasing interest in this potential tool led to the filing of Bill S.868/H.1377, “An Act Empowering Cities and Towns to Impose a Fee on Certain Real Estate Transactions to Support Affordable Housing” which is currently under consideration and would make it easier for communities to adopt such a fee. The Town should keep aware of any updates to this proposed legislation as well as the status of other communities’ home rule petitions awaiting acceptance.
- **Payments in addition to taxes (PIATT)** are a creative solution utilizing an existing legal channel (MGL c. 44 § 53A, see Recommendation 9D) to encourage residents who are able to pay an additional voluntary amount over their property taxes.
- **Payments in lieu of taxes (PILOT)** are (generally voluntary) fees paid to a municipality by tax-exempt property owners, although PILOTs are not always in the form of cash but rather other community benefits. Carlisle receives PILOT from Ameresco for the solar canopies at CPS; as of September 30, 2021, Carlisle is receiving \$11,277 per year in PILOT, plus \$22,500 per year in lease payments, for the next 20 years. The state also funds a state-owned land payment in-lieu-of taxes (SOL PILOT) program. According to the Town Administrator’s office, Carlisle currently receives such payments from the state for Great Brook in the amount of \$175,000 and has for many years. The Town should keep informed about changes to the SOL PILOT program, as the state’s 2020 report, *The Impact of the State-Owned Land PILOT and Solar Taxation Policies on Municipalities*, found that the SOL PILOT program was largely underfunded and recommended increasing funding for communities. However, the report also noted that eastern MA communities tend to benefit the most from the program compared to more rural western MA communities, so Carlisle might not be a top priority for increased PILOTs. Nonetheless, it may be worthwhile to keep informed of changes to the program and the potential for increased funding.



Community Examples: At its 2021 Annual Town Meeting, the Town of Brookline passed a measure to adopt a “Payment in Addition to Taxes” policy that would be overseen by a newly established committee charged with developing rules and regulations for the program. While Carlisle could explore whatever criteria it found appropriate, in Brookline’s case, the policy suggests that residents with a net worth of over \$10M would pay a suggested 1% over \$10M of household worth to the PIATT fund. Such payments are allowable as gifts to the town under MGL c. 44 § 53A.

Many communities in Massachusetts also have voluntary PILOT programs where tax-exempt property owners can voluntarily enter into an agreement with the Town to provide payments. Brookline is one such example and the town focuses on developing agreements with nonprofits as they acquire new land or expand real estate holdings rather than retroactively asking them to enter into such an agreement. While such a process would require management and oversight, it could be worth studying as an option.

9D. Promote community awareness of MGL c. 44 § 53A, which allows municipalities to accept tax-deductible gifts for public purposes and create dedicated trust funds for specific projects and services. Generally, such trusts are established by tax-deductible gifts from private citizens and are intended for specific purposes. The Town currently has twelve expendable trust funds totaling approximately \$675,000. It may be worthwhile to promote awareness of this opportunity to residents, as it is a mutually beneficial way to support the Town.

Metrics

Metrics can be useful both for guiding decisions as well as assessing progress toward community goals. Below is a list of possible metrics the community could use to evaluate actions relating to **Fiscal Sustainability**. Further development of these metrics through the work of the proposed Master Plan Implementation Committee and responsible implementation parties is encouraged if capacity allows. *Three metrics (budgetary and environmental impact and community consensus) are listed for all values to align with the Select Board's stated Strategic Goals for FY 2022.*

FISCAL SUSTAINABILITY Metrics to Consider: A Starting Point

- Comparison of potential revenue of land use decisions
- Tax rate compared to peer communities
- Average tax bill in relation to income
- Per capita spending by department
- Property value trends, both for commercial and residential
- Allocation of revenue sources compared to peer communities
- Municipal square footage needs by department
- Implementation of Planned Preventative Maintenance plan to track facilities maintenance
- Budgetary impact of project or other expenditure
- Environmental impact of project or decision
- Community consensus regarding project or decision as evaluated through public process



Chapter 5 Connectivity & Access



CHAPTER 5: CONNECTIVITY & ACCESS

Overview

Keeping a community connected means many different things in today’s world: some literal, such as walking trails and safe streets, others intangible, such as facilitating communication and collaboration so that Town boards can leverage one another’s resources. The Connectivity & Access value of this Master Plan addresses the physical, geographic, digital, and social connections across and among the community. This includes investing in safe streets and pathways; creating connected access to walking trails and recreation; strengthening communication among Town officials, staff, residents, organizations, and others; and prioritizing efficiency, security, and other improvements in digital communications and access. Improving collaboration and communication between town officials and residents will help continue to sow the seeds of community involvement and volunteerism, a priority discussed further in the Caring Community chapter of this plan.

Key Drivers

The list of drivers below summarizes the key points the MPSC considered in the development of the **Connectivity & Access** goals and recommendations.

- ⇒ The organic and unplanned evolution of the Town’s transportation system contributes to a road network that is constrained by its surroundings and local land use decisions.
- ⇒ The extensive trail network links conservation land, state, and national parklands, but it is fragmented with limited connectivity to the Town Center and to a town-wide network.
- ⇒ There are limited transportation options for Carlisle’s non-driving, non-senior population.
- ⇒ Carlisle has many home-based businesses and “telecommuting” employment is common; however, limited broadband access continues to be an issue in Carlisle.
- ⇒ The Town lacks IT staff support and comprehensive oversight for technology needs and improvements.
- ⇒ Carlisle’s cultural, educational, and recreational programming and initiatives are independent of one another and opportunities for organized collaboration are limited.

⇒ Conflicting interests and siloed decision-making have led to concerns about transparency as expressed in various community engagement channels.

Supporting references for the above drivers and other relevant data points can be found in the existing conditions reports included in Appendices A-I of this master plan, particularly for the following Master Plan Elements.

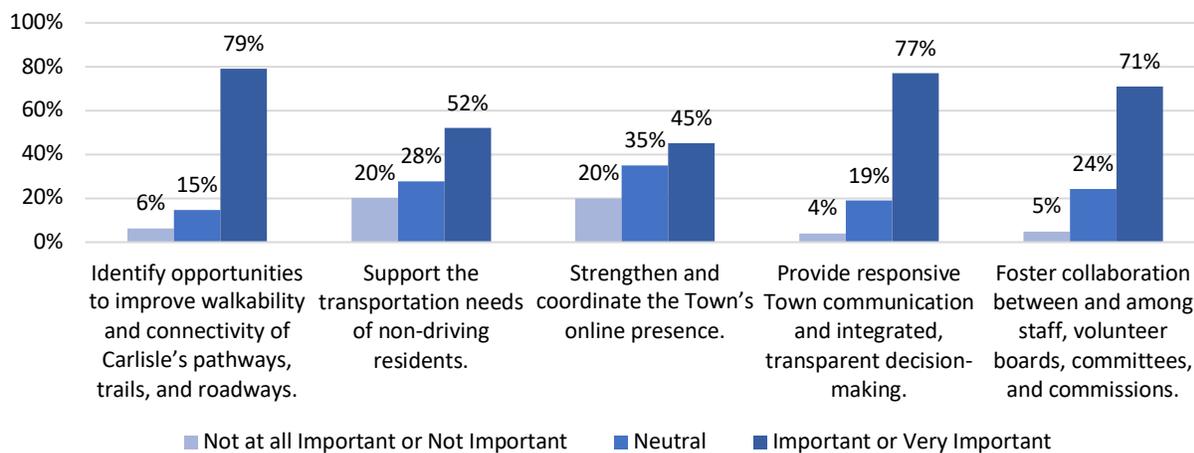
Figure 5-1. Connectivity & Access – Related Master Plan Elements



Community Voices

Summer 2021 Survey: A MPSC survey administered in Summer 2021 asked participants to indicate the importance to Carlisle of draft community values and related goals. Of the 695 respondents, 79% indicated that identifying opportunities to improve walkability was “important” or “very important” to Carlisle. Providing responsive Town communication and integrated, transparent decision-making was ranked as the second-highest priority for this value, with 77% considering this “important” or “very important.”

Figure 5-2. Survey Results, Summer 2021
Community Response to Preliminary Connectivity & Access Goals
Total Responses: 695



Fall 2021 Survey: A second MPSC survey generated 634 responses and asked more specific questions relating to potential recommendations and actions; the **Goals and Recommendations** section below addresses the results of that survey under the recommendations to which they apply.

Goals and Recommendations

10. Identify opportunities to improve walkability and connectivity of Carlisle's pathways, trails, and roadways.

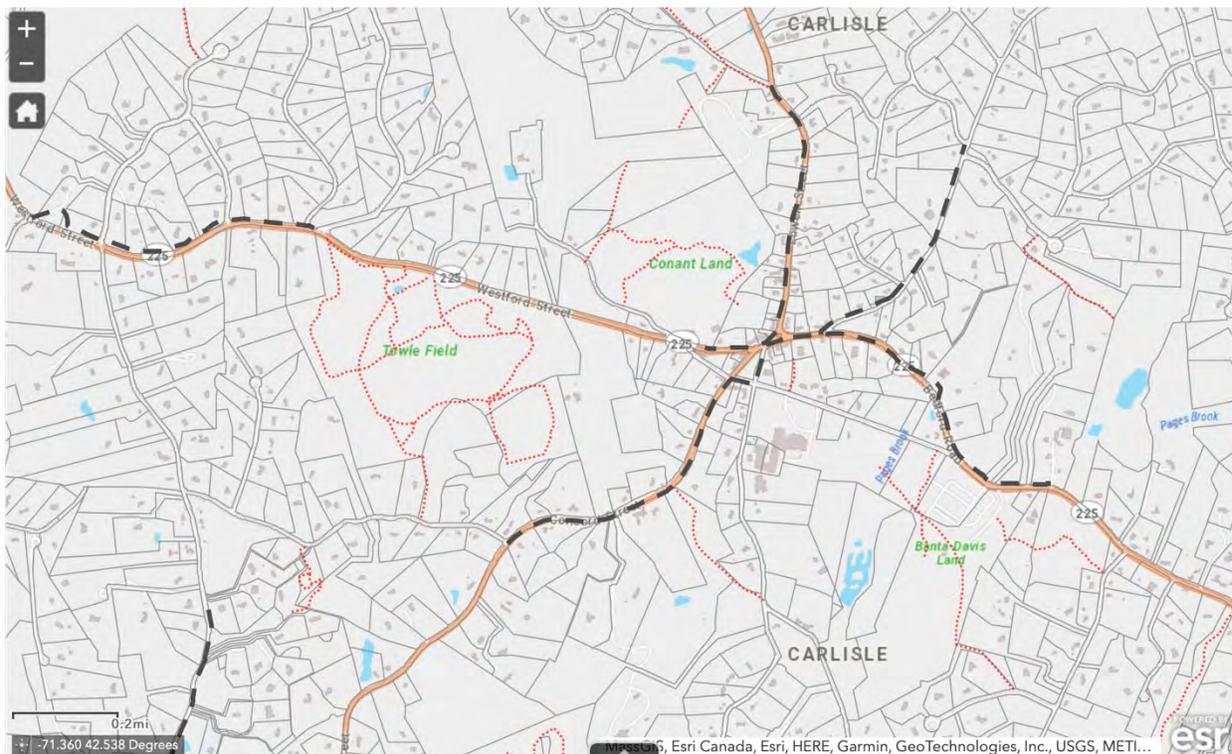
10A. Evaluate the Town's Complete Streets policy and prioritization plan. As part of the process of updating the OSRP, boards, committees, and commissions were asked to provide their priority initiatives for 2020-2027. The Traffic and Pedestrian Safety Committee (TPSC) included a goal of reevaluating the Complete Streets Prioritization Plan as a result of public input regarding pedestrian safety. If the TPSC moves forward with developing a new priority projects list, the community engagement involved should include public education about the program's

requirements, opportunities, and limitations since there has been some tension surrounding the three projects funded thus far. In addition, to the extent possible, the reevaluated plan should address concerns expressed about context sensitivity (as described in the current policy’s “Best Practices” section), and the Implementation and Performance Measures could be expanded to include consideration of the environmental impact of any proposed projects.

10B. Create/maintain GIS data layers of roadway, pathway, and off-road trail networks (by type and ownership) to assist in coordinated maintenance, planning, and funding. This requires the implementation of Recommendation 4B, which calls for integrated use of GIS for planning purposes.

Figure 5-3. Pathways and Trails GIS Layers

The image below is from the MPSC’s GIS tool, which includes pathway and trails GIS layers; black dashed lines represent the current pathway network, and red dotted lines represent trails. See Appendix J, “Land Use, GIS, and Development Potential MPSC Report,” for more detail about this tool.



10C. Plan and pursue funding for expansion of pathways in strategic locations. The Town’s Complete Streets Prioritization Plan²⁹ includes numerous proposed projects for sidewalk construction or repair. While the Bedford Road Sidewalk project (ranked #4 in the Prioritization

²⁹ Complete Streets Funding Program Project Prioritization Plan, February 2019. Available at <https://www.carlislema.gov/DocumentCenter/View/1735/Carlisle-Approved-Tier-3-CPrioritizationPlan>

Plan) was completed with \$65,000 in state funds awarded in 2018, no other sidewalk projects from this plan have been pursued at this time, yet the desire for more sidewalks was often mentioned in both the Summer and Fall 2021 survey open responses.

10D. Consider environmental impact when developing new or expanded trails. A collaboration of the Trails Committee, Land Stewardship Committee, Conservation Commission, and proposed Environmental Sustainability Committee could establish and document a standard procedure to be used for evaluation prior to the creation of any new trail on Town land. Considerations should include: benefits of the new trail; potential for handicapped-accessibility; the area’s ability to support a proposed trail without significantly degrading the land or its flora and fauna; trail-design features and locations that minimize environmental impacts and the potential for erosion. Such a practice would support the Select Board’s FY 2022 goal to “ensuring the environmental impact is considered for all town projects and purchases.”

11. Support the transportation needs of non-driving residents.

11A. Continue to support existing local transportation services for seniors and disabled residents and address identified gaps in service if the need arises. Currently the Council on Aging has a COA Transportation Line through which seniors and residents with mobility challenges can arrange transportation for medical appointments, shopping, and other errands. Additionally, the Town is piloting vendor services through the COA’s Carlisle Transportation Services (see Figure 5-4). The Town currently lacks shuttle services, although only 6% of Fall 2021 community survey respondents indicated they or a member of their household would regularly use such a service. The Town joined Crosstown Connect in 2019 but Carlisle is currently not participating in the program because their dispatch and geographic requirements do not fit well with Carlisle’s transportation program and current needs. Continued exploration of the demand for such opportunities — and promotion of their use as a means of reducing vehicle miles traveled — could be revisited, potentially by the Environmental Sustainability Committee suggested in Recommendation 15B.

Figure 5-4. Carlisle Transportation Services
Through an outside vendor, Carlisle Transportation Services (CTS) offers fixed costs for select destinations to all Carlisle residents. Seniors and disabled residents can purchase discounted vouchers through the COA. Information and image from carlislematransportation.com.



12. Strengthen the Town's IT capacity and support other technology needs to improve efficiency, internal and external communication, and resident quality of life.

12A. Increase broadband internet access to all Town residents. Such an effort will require continued conversations between the Select Board and Comcast to plan for the addition of necessary infrastructure for households currently without broadband. This could be a priority use of the Town's American Recovery Plan Act (ARPA) funds, although additional federal funding may become available with the recent passing of the Infrastructure Investment and Jobs Act.

12B. Develop a Municipal Communication and Technology Strategy to address needs for information sharing, two-way communication, cybersecurity, and digital storage. Participants in leadership interviews conducted early in this Master Plan development process noted a possibility of increased efficiency (time and costs) if some broader IT and other tech-data issues were dealt with at a higher level across Town functions. While Carlisle Public Schools has an IT professional who also provides some assistance to Town Hall, the Town lacks inhouse IT support as well as cohesive strategy for improving communication. The development of a strategy could include policies for improved accessibility (tying into Recommendation 22A to develop an ADA Action Plan); use of a shared community calendar; coordinated social media use and press communication; document storage and webpage control for boards, committees, and commissions; the use of technology for continued hybrid participation beyond the COVID-19 pandemic; opportunities for residents to do business with the Town online; cybersecurity; and more.



Community Example: The Town of Southborough established a Municipal Technology Committee in 2017. This committee is currently developing a Municipal Technology Strategy for the next five years and established guiding principles focused on the user experience (including residents and staff), shared services across departments, evaluation of technology options for data privacy and security, and more.³⁰ The most recent draft of this plan includes a description of existing conditions, plans for stakeholder engagement, and objectives and metrics for the plan's technology goals.

12C. Pursue digitization of archived records to increase public accessibility and reduce space needs for storage. (See Recommendation 7A.) While some records digitization appears to be underway in Town (namely, interments, deeds, and building permits), ARPA funds could potentially be used to expedite this process. Digitization of records will benefit the Town and its residents in a variety of ways – ease of records access, conservation of physical space, and for historic preservation purposes. While not explicitly mentioned in Gleason Library's current

³⁰ *Technology Strategy*, Town of Southborough Municipal Technology Committee, March 2021. Available at https://www.southboroughtown.com/sites/g/files/vyhlf7351/f/uploads/southborough_technology_strategy_v4_with_all_final_edits.pdf

strategic plan, Town Hall could look to collaborate with Gleason Library on this effort in the future. The Carlisle Historical Society has also played a role in preserving key historic resources for the Town and could be a partner in this effort. In addition, the Town could apply for a Massachusetts Roving Archivist grant through the state to help strategically plan for moving forward with this effort.



Community Example: Bridgewater Public Library is currently working with Town staff to collaborate on the monumental task of archiving Town records and recently hired an archivist to oversee this effort. While some municipal records will continue to be managed by specific departments, many key Town records will be digitized through this collaborative process between the library and Town Hall.³¹

13. Provide responsive Town communication and integrated, transparent decision-making.

13A. Continue to provide annual training to regulatory boards via Citizen Planning Trainer Collaborative (CPTC) or comparable entity. This option is already available and should continue to be encouraged, if not required.

13B. Continue to engage Town Counsel in providing training to regulatory boards on select topics as needed. This is already Carlisle’s practice and should continue to be exercised as a means of staff training included in the existing retainer agreement with Town Counsel.

13C. Establish a Master Plan Implementation Committee (MPIC) that is comprised of members from multiple Town boards, committees, and commissions and reports to the Select Board and Planning Board for the duration of the implementation of this Master Plan. Communities handle this practice in different ways; some have the MPIC report to the Select Board and some to the Planning Board. While the Select Board would likely be the appointing authority to whom the MPIC would officially report, it would be beneficial for the MPIC to also provide updates to the Planning Board, perhaps through a joint annual meeting for efficiency.

14. Foster collaboration between and among staff, volunteer boards, committees, and commissions.

14A. Convene department heads and representatives from committees and boards on a quarterly basis to facilitate collaboration and discuss implementation of Master Plan and other Town initiatives. Participants in leadership interviews conducted early in the Master Plan development process noted that there could be benefits to more consistent and formalized

³¹ “Archives FAQs,” Bridgewater Public Library. Available at <https://www.bridgewaterpubliclibrary.org/archives-faqs>

communication among staff, departments, and boards/commissions. Formal quarterly meetings would be one mechanism for creating this opportunity. If feasible, such meetings could certainly happen more frequently than quarterly; if not, ensuring that the proposed Master Plan Implementation Committee has representation from other boards, commissions, and committees can facilitate regular communication between groups. The Select Board’s 2022 goals already include plans to meet with each volunteer group once a year, as well as holding quarterly staff meetings, so this recommendation could support the Select Board’s existing goals. One such quarterly meeting could be handled as a wider community workshop to discuss the implementation of the Master Plan. The remaining quarterly meetings could be hosted by the proposed Master Plan Implementation Committee and should involve department heads as well as chairs of boards, committees, and commissions and allow for debriefing on the status of recommendations, providing a structured opportunity to discuss necessary updates to the Master Plan, and collaborating on shared initiatives. While department heads already generally meet monthly, elected and appointed groups do not have such an opportunity for collaboration at this time.



Community Example: The Town of Westford holds an annual summer “Strategic Planning Retreat” at Kimball Farm for the Town to share information with and gather input from its residents relating to community initiatives and priorities. This is typically a three-hour event and is well attended. Westford first launched this event in 2010 following the completion of the Town’s 2009 Comprehensive Master Plan.³²

14B. Develop an Annual “State of the Plan” report to update Town Meeting in writing on the status of implementation of the Master Plan recommendations. This report should include a discussion of the outcomes of the convened leadership meetings described in Recommendation 14A, including the status of recommendations as well as any recommended updates to the Master Plan. If this proves infeasible due to limited capacity, at the very least, the responsible parties of recommendations should provide status updates as part of their contribution to the Annual Town Report.

14C. Preserve institutional knowledge by creating manuals for departments, boards, committees, and commissions and updating regularly. While limited staff and volunteer capacity may make it challenging to implement this initiative, it would greatly benefit new staff as retirements continue. Feedback from in the leadership interviews conducted early in this process noted that there is little to no redundancy in staff skills, so if one person is out, there is no backup; having user-friendly departmental manuals that include guidance on how to perform some essential functions could help mitigate this problem. Community leaders noted in

³² “Strategic Planning Retreat,” Town of Westford, Office of the Town Manager. Information available at <https://www.westfordma.gov/1254/Strategic-Planning-Retreat>

interviews that misunderstandings linger about the authority, mission, and roles of some Town bodies. Such manuals could be helpful to clarify the individual responsibilities of each Town body, as well as the history of decisions so that group missions remain clear as membership changes. Lastly, the Select Board’s 2022 goals include conducting a review of committee charters, which this proposed recommendation could tie into and support.

Metrics

Metrics can be useful both for guiding decisions as well as assessing progress toward community goals. Below is a list of possible metrics the community could use to evaluate actions relating to **Connectivity & Access**. Further development of these metrics through the work of the proposed Master Plan Implementation Committee and responsible implementation parties is encouraged if capacity allows. *Three metrics (budgetary and environmental impact and community consensus) are listed for all values to align with the Select Board’s stated Strategic Goals for FY 2022.*

CONNECTIVITY & ACCESS Metrics to Consider: A Starting Point

- Connections between pathways
- Miles of connected trail networks
- Use of/demand for public transportation options
- Number of households with broadband internet access
- Post engagements on social media
- Number of unique visitors to website
- Percent of visitors to website who were able to find what they were looking for
- Use of website tools (applications, payments, subscriptions, etc.)
- Budgetary impact of project or other expenditure
- Environmental impact of project or decision
- Community consensus regarding project or decision as evaluated through public process



Chapter 6

Environmental Stewardship



CHAPTER 6: ENVIRONMENTAL STEWARDSHIP

Overview

While environmental stewardship continues to be a worldwide conversation, change cannot occur without the collective efforts of individuals, households, and communities to preserve natural resources, reduce carbon emissions, and slow further degradation of the environment. Some argue that we should leave combating climate change to state and federal governments, yet change at the community level is imperative because individual communities know best the specific opportunities within their borders. They have better access to their residents, businesses, and institutions for education and information-sharing. They adopt local policies that will be essential to influencing energy use and emissions; protecting water, flora, fauna, and funga; and promoting environmentally sustainable building practices. The impacts of these efforts at the smaller community level support larger-scale environmental initiatives at the state, federal, and global level — all of which must occur if we are to be successful not only in curbing energy use and carbon emissions to limit the impacts of global climate change, but also in protecting the natural environment.

Key Drivers

The list of drivers below summarizes the key points the MPSC considered in the development of the **Environmental Stewardship** goals and recommendations.

- ⇒ The Carlisle Energy Task Force estimated in its *Path to Zero Emissions* report that Carlisle’s per-capita greenhouse gas emissions (GHG) were around 40% higher than the Massachusetts average in 2017.³³
- ⇒ Massachusetts has established aggressive goals and plans to reduce greenhouse gas emissions as outlined in its *Global Warming Solutions Act*, its *Clean Energy and Climate Plan for 2030*, and other acts/orders/plans/reports.

³³ *Path to Zero Emissions: Creating a Sustainable Carlisle*, Town of Carlisle Energy Task Force, March 31, 2020. Available at <https://www.carlislema.gov/DocumentCenter/View/2427/Report--Path-to-Zero>

- ⇒ While the Town has made some progress in lowering GHG emissions, it has relied primarily on volunteer efforts to date.
- ⇒ Carlisle’s ability to apply for grants to support our environmental sustainability efforts is significantly constrained by the lack of paid staff to: a) support grant applications and grant administration, and b) satisfy grant co-funding requirements.
- ⇒ While open space preservation as a means of environmental protection tends to be highly supported, stewardship efforts that go beyond this are more controversial. This includes measures to reduce water consumption, re-use/conversion of existing structures over building new structures (especially if on previously undeveloped land), allow for more environmentally sustainable building practices, reduce solid waste, and provide adequate staff resources toward environmental stewardship initiatives.

Supporting references for the above drivers and other relevant data points can be found in the existing conditions reports included in Appendices A-I of this master plan, particularly for the following Master Plan Elements:

Figure 6-1. Environmental Stewardship – Related Master Plan Elements

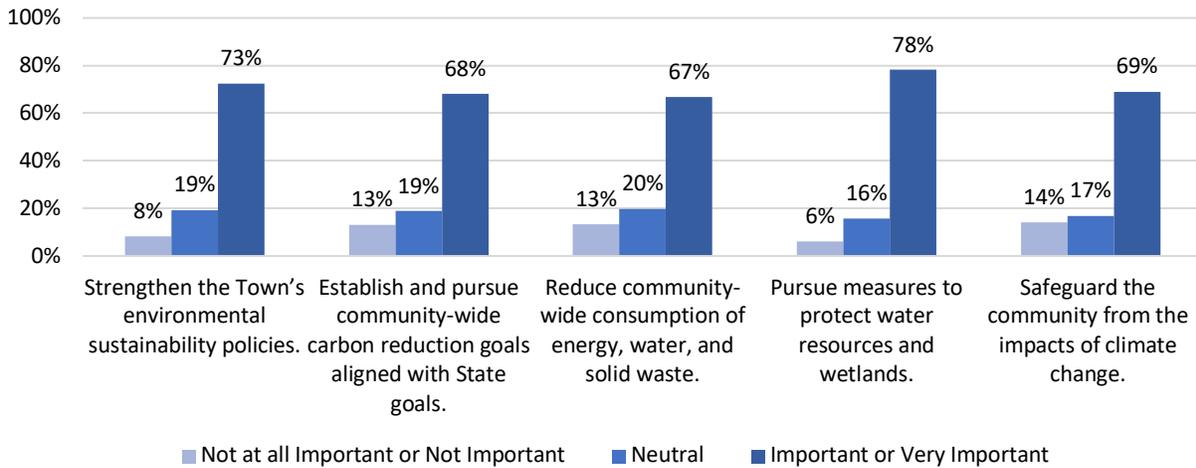


Community Voices

Summer 2021 Survey: A MPSC survey administered in Summer 2021 asked participants to indicate the importance to Carlisle of draft community values and related goals. Of the 695 respondents, 78% indicated that protecting water resources and wetlands was “important” or

“very important” to Carlisle. Strengthening the Town’s environmental sustainability policies received the second-highest level of support for this value.

Figure 6-2. Survey Results, Summer 2021
Community Response to Preliminary Environmental Stewardship Goals
Total Responses: 695



Fall 2021 Survey: A second MPSC survey generated 634 responses and asked more specific questions relating to potential recommendations and actions; the **Goals and Recommendations** section below addresses the results of that survey under the recommendations to which they apply.

Goals and Recommendations

15. Develop a framework to support Carlisle’s commitment to environmental stewardship.

15A. Provide staff capacity to facilitate and support coordinated environmental stewardship and sustainability efforts and if required hire a sustainability coordinator or similar position. While only 39% of survey respondents supported consideration of dedicating support for staff to sustainability efforts, another 30% indicated they would consider with additional information. Some short-term grant funding may be available to establish a new position, although the MPSC is unaware of grant opportunities that would cover salaries for sustainability staff on an ongoing basis. The time of sustainability staff, however, often qualifies as co-funding for grant applications. Communities that can offer co-funding have much expanded opportunities to apply

for and receive grant funding. Other Massachusetts communities offering sustainability staff as co-funding are receiving 4 to 8 times the salaries of those staff in grant funding.³⁴



Community Example: In 2020, The Town of Sherborn secured state funding and the Select Board expanded the hours of its part-time Town Planner for the specific purpose of addressing climate change mitigation and resiliency, and also approved hiring its first Sustainability Coordinator.³⁵ Since then, the Town has approved funding to continue the position. It is worth noting that Sherborn operates on a similar scale in terms of budget and tax base to Carlisle.

15B. Establish an environmental sustainability volunteer committee to work with paid staff on implementation of sustainability and stewardship initiatives. The Select Board’s FY 2022 goals include the establishment of an Environmental Sustainability Committee, so the recommendation to establish such a committee is already backed by Town leadership. What distinguishes this recommendation is that it involves providing staff support to such a committee to ensure its success. This volunteer committee, in conjunction with professional staff, should also act as a liaison to coordinate with local and regional partners and state agencies, as appropriate. Ideally, such a committee should also include membership and representation from other environmentally focused groups in Carlisle, such as the Conservation Commission, Land Stewardship Committee, and other interested groups. Additionally, this committee could consider hosting an annual or semiannual meeting of representatives from these groups to provide updates and discuss shared initiatives.

15C. Establish and pursue community-wide carbon reduction goals aligned with State goals. In 2020, the state published its *Decarbonization Roadmap*, which outlines how the Commonwealth can achieve net zero carbon emissions by 2050.³⁶ The success of this plan will require cooperation at the community level because the state is unlikely to achieve its energy use and carbon emissions goals without the full support and assistance of individual communities.

15D. Develop a detailed implementation plan for achieving carbon-reduction goals and a framework for tracking and evaluating progress over time. The Carlisle Energy Task Force published its *Path to Zero Emissions* report in 2020 and included recommendations relating to staffing for sustainability efforts, developing energy plans for existing homes; promoting weatherization of homes and buildings; encouraging electric vehicle use; establishing metrics for monitoring and reducing municipal energy consumption; adopting regulations to limit fossil fuel

³⁴ *Sustainability Director* presentation, Winchester Climate Action Advisory Committee, January 14, 2021. Available at: <https://www.winchester.us/DocumentCenter/View/5721/Sustainability-Director-for-Winchester>

³⁵ “About Us,” Sustainable Sherborn. Available at <https://www.sustainablesherborn.org/who-we-are>.

³⁶ *Massachusetts 2050 Decarbonization Roadmap*, Massachusetts Executive Office of Energy and Environmental Affairs, December 2020. Available at <https://www.mass.gov/doc/ma-2050-decarbonization-roadmap/download>

use, protect trees, encourage moderately sized homes, and more.³⁷ While several of these recommendations have been directly carried into this Master Plan, others can be developed further through the creation of a robust implementation plan for enhancing the community’s commitment to environmental stewardship.

15E. Incorporate environmental stewardship and sustainability impacts into municipal decision-making. In addition to supporting a primary *Path to Zero Emissions* goal, this recommendation directly supports the Select Board’s FY 2022 environmental stewardship goal, which states that “all future decisions should include a description of the environmental impact, whether beneficial or negative, with the goal of promoting beneficial outcomes.”

15F. Support and encourage state and federal policies that address environmental stewardship. Coordinate with neighboring communities and local partners on this effort. Achieving significant reductions in carbon emissions will require the combined and coordinated efforts of federal, state, and local governments. To inform federal and state policies, Carlisle may wish to work through the North Central Climate Change Collaborative (NC4), initiated in 2021 by Pepperell Select Board members and open to any community in the third Massachusetts Congressional District. Its draft mission is to foster and strengthen regional municipal collaborative efforts to combat climate change through 1) shared projects, educational efforts, and best practices, and 2) informing state and federal legislative actions.

15G. Leverage available state and federal resources that address environmental stewardship. As documented in the *Path to Zero Emissions* report, the state offers significant grant opportunities and other resources to support community efforts to lower carbon emissions. While congressional negotiations are currently stalled, the federal *Build Back Better* legislation (H.R. 5376) could offer substantial additional resources. Other federal resources may also be available, but they remain to be explored.

15H. Develop a comprehensive education program on behavioral practices that can lower environmental impacts. Such a program could be developed by the proposed Environmental Sustainability Committee and could include a variety of themes and topics including encouraging telecommuting and other strategies to lower household vehicle miles traveled, weatherization of homes, reducing use of harmful pesticides and herbicides, alerting residents to amphibian migration times and locations, using electric lawn and garden equipment/tools, reducing solid waste consumption and increasing recycling, composting, reducing water consumption, maintaining smaller lawn areas, and more. This program could involve creating online materials,

³⁷ *Path to Zero Emissions: Creating a Sustainable Carlisle*, Town of Carlisle Energy Task Force, March 31, 2020. Available at <https://www.carlislema.gov/DocumentCenter/View/2427/Report--Path-to-Zero>

housing online environmental information sources, holding workshops and community events, collaborating with other groups, and more.

16. Lower energy use and greenhouse gas emissions in transportation and the built environment.

16A. Explore options to restrict the use of fossil fuels in new construction or major renovations using a Home Rule petition or other means. According to the most recent community survey administered as part of this master plan, 61% of residents would support such a measure and 22% would consider with more information, so pursuing such a restriction in Carlisle is plausible.



Community Examples: At their 2020 and 2021 annual town meetings, the Towns of Brookline, Acton, Lexington, Arlington, and Concord passed measures to bring forth home rule petitions to the state that would restrict fossil fuel use in new construction. Brookline had previously established a bylaw restricting fossil fuel use in 2019, but this was overturned by Attorney General Maura Healy who determined that it interfered with other state laws and regulations. Advocates then pursued other legal means of establishing such a bylaw, including the use of a home rule petition. The need for a home rule petition will become unnecessary if H2167/S1333, “An Act to Reduce Greenhouse Gas Emissions . . .” passes and Carlisle and other communities can instead pass such a measure with a simple majority vote of the legislative body (i.e., Town Meeting in Carlisle’s case).

16B. Establish and maintain accountability (with performance metrics) for municipal energy use and emissions. This action comes directly from the *Path to Zero Emissions* report, which recommends that each department have energy use targets by fuel type and would monitor and report actual usage versus targets. Progress toward these targets would be prominently displayed online and could become a part of departmental performance reviews.

16C. Support the use of electric vehicles, both for individuals and municipal fleets where feasible. As a result of the work of the Energy Task Force, three dual-port electric vehicle charging stations were installed at the Carlisle Public School parking lot in December 2021. Although suitable locations may be limited for additional AV charging stations, the Town could explore other areas for installation. The *Gleason Public Library 2021-2025 Strategic Plan* included a proposed action to “Install at least one charging station for

Figure 6-3. Electric Vehicle Charging Stations at CPS
Photo by Bob Zogg



electric vehicles when repaving the parking lot.”³⁸ The proposed Environmental Sustainability Committee could explore other opportunities to encourage EV use including hosting a “ride and drive” community event. MAPC’s collective purchasing program includes a municipal vehicles program for electric and alternative vehicles (including passenger vans) that the Town could purchase at a lower cost to the community.

17. Lower the environmental impacts associated with solid-waste disposal.

17A. Establish policies to encourage recycling and reduce solid waste in accordance with the findings of the 2021 Transfer Station Task Force and Transfer Station Action Committee. Carlisle’s non-recyclable solid waste is incinerated, resulting in particulate emissions and exacerbation of the state’s ash disposal challenges. At the time of this Master Plan, the Transfer Station Task Force is continuing to research and consider best practices and strategies to encourage recycling, and has developed recommendations for the Select Board to consider. One such recommendation is to establish an implementation committee to implement the proposed actions of the task force. Ideally, the suggested Environmental Sustainability Committee (Recommendation 15B) will also play a part in this important initiative.

Figure 6-4. Transfer Station Entrance



17B. Encourage re-use of building materials, where appropriate. In addition to addressing this through community education (see Recommendation 15H) for renovations and home repairs, the Planned Preventative Maintenance Plan (Recommendation 7C) could include a policy about acquiring recycled building materials for municipal maintenance needs from a resource such as Habitat for Humanity’s ReStore or similar vendor wherever possible. Additionally, committing to reusing and adaptively reusing building spaces wherever possible as a Town policy reduces the use of new building materials by default.

³⁸ Gleason Public Library 2021-25 Strategic Plan. Available at <http://gleasonlibrary.org/wp-content/uploads/2020/12/FY21-25-Strategic-Plan.pdf>

18. Pursue measures to protect water resources and wetlands and reduce water consumption.



18A. Evaluate possible Town well sites and explore additional measures to protect these water resources and the land around them. Possible Town well sites have already been identified, including the Hart Farm land (although this site has not been tested), as well as the former O'Rourke Farm on which the Town holds water rights established as part of the 1999 sale to the US Fish and Wildlife Service. While these areas already have additional protection via the Town's Nonzoning Wetlands Bylaw and are either owned by the Town or the Federal Government, the Town could consider establishing a watershed protection overlay for the areas around these sites to ensure the water resources are optimally protected. Such an overlay could include tighter requirements for stormwater management, stricter limits for tree removal, specific septic guidelines, or other appropriate measures, and could require that future development follow an open space residential design model to reduce land disruption.

Figure 6-5. Potential Municipal Well Site: Great Meadows National Wildlife Refuge, Aerial View (Left)
Aerial image from Google Earth; parcel boundaries from Mass GIS (February 2022). Parcel lines are approximate.

Town acquired the former O'Rourke Farm in 1998 after exercising its right of first refusal under Chapter 61A. In 1999, the Town sold the property to the U.S. Fish and Wildlife Service, but retained rights to build a municipal well on the site. The Great Meadows National Wildlife Refuge consists of two land units totaling over 3,800 acres; this portion of the Reserve is part of the Concord Division.

18B. Encourage reduction of community-wide water use for irrigation/outdoor watering, especially during dry months. The Board of Health currently has an irrigation policy that requires metering of outdoor irrigation for multi-unit dwellings and business and flow estimates for new or modified systems on single family properties. However, the suggested community education curriculum referenced in Recommendation 15H could include education on the importance of reducing water consumption as a means of protecting water quality.

19. Protect land (both developed and undeveloped) and native flora, fauna, and funga.

19A. Consider adopting an additional or alternative open space residential development or conservation cluster bylaw. As part of this review, the Town could consider whether any new alternative or additional open space bylaw would include a smaller minimum acreage requirement than the requirements currently incorporated in the ROSC and SROSC bylaws. This research should be done in consultation with conservation organizations in Town (such as the Conservation Commission and Carlisle Conservation Foundation) and include reviewing examples from other towns as well as guidance from statewide conservation bodies. Additionally, this examination should involve a careful review of recent changes to Section 5 of MGL c. 40A relating to open space residential development.³⁹



Community Example: While many communities have Open Space Residential Design bylaws without minimum acreage requirements, Shutesbury is a good comparison community because it also lacks municipal water and wastewater. Shutesbury’s Open Space Design bylaw reads, “In order to encourage small subdivisions to follow Open Space Design principles, there is no minimum parcel size or number of lots required for an Open Space Design” (5.5-1).⁴⁰ The maximum number of residential units in an Open Space Design is calculated by a formula based upon the net acreage of the property, but there is also a density bonus for plans that include public benefit such as open space access, inclusion of affordable housing, and if they preserve additional open space in addition to that which is required. With regard to minimum size of created lots, the Town recognizes that the limiting factor on lot size in Open Space Designs is the need for adequate water supply and sewage disposal, but defers to the Board of Health rather than including a minimum lot size for zoning purposes. Shutesbury’s bylaw, along with those of a few other towns, was used to develop a model ordinance by the Pioneer Valley Planning Commission (PVPC).⁴¹

³⁹ <https://www.mass.gov/info-details/voting-threshold-guidance>

⁴⁰ Town of Shutesbury Zoning Bylaw, Article V, “Open Space Design.” Available at https://www.shutesbury.org/sites/default/files/180814%20Zoning%20Bylaw_rev.pdf

⁴¹ “Model Open Space Design/Natural Resource Protection Zoning,” Pioneer Valley Planning Commission. Available at <http://www.pvpc.org/sites/default/files/doc-municipal-strategies-increase-food-access2599.pdf>

19B. Explore options and possible methods for, and costs and benefits of, extending regulation of tree cutting to individually-owned parcels of land that would build upon the regulations in place. The importance of mature trees is becoming more widely recognized. Trees play a significant role in climate change mitigation and in protection against climate change hazards (such as preventing flooding and providing shading) while also supporting vital ecosystems. Recognizing that tree cutting is already regulated in certain Planning Board applications, that Conservation Commission already has the authority to regulate tree cutting in their jurisdictional areas, that the town already has a scenic road bylaw that requires consent by the Planning Board to certain removals of trees along scenic roads, and that the tree warden has certain authority as well over tree cutting, this recommendation suggests that the Town explore additional methods for discouraging removal of trees to the extent allowed by state law and consider whether any such additional efforts would outweigh the added cost of development. Given that Carlisle is wooded and that on many lots, homes and driveways could not be built without removal of trees, such research would need to define the goal of any proposed additional regulation and what the legal regulatory mechanisms would be.



Community Example: Both the Towns of Arlington and Concord have stand-alone tree bylaws that restrict the removal of trees when demolition, new construction, or major expansion of an existing dwelling takes place or require mitigation if protected trees are removed. In Concord’s case, “if it is not practical to save a particular tree, the owner or developer can remove it and plant new trees elsewhere to compensate. Alternatively, the owner can pay into a Tree Fund, which the Town will use to buy and plant trees in Concord’s residential neighborhoods.”⁴² In Arlington’s case, if a “protected tree” (any tree over 8” in diameter on private property) is removed during demolition, certain expansion, or new construction, the developer would pay into the Tree Fund.⁴³ In both examples tree removal is not *prohibited* but is discouraged (as it already is in Carlisle) and must be mitigated.

19C. Promote environmentally sensitive and sustainable agricultural, gardening, and lawn/recreational field care practices. This action can be addressed both as part of the community education curriculum recommended in Recommendation 15H and also through the Planned Preventative Maintenance plan referenced in Recommendation 7C, which could include a policy for environmentally friendly maintenance of recreational and other municipal lawns and gardens, including the exploration of environmentally sensitive alternatives to pesticides and herbicides. Guidelines can be established for multi-use land to balance the needs of humans and the protection of the environment.

⁴² Town of Concord, “Tree Preservation Bylaw.” Available at <https://www.mass.gov/doc/concord-0/download>

⁴³ Town of Arlington, “Article XVI, Tree Preservation and Preservation.” Available at <https://www.arlingtonma.gov/town-governance/laws-and-regulations/town-bylaws/title-v-regulations-upon-the-use-of-private-property#A16>

19D. Explore additional measures to reduce unnecessary noise and outdoor lighting. Noise and artificial light can be potentially harmful for humans and can impact wildlife as well. Further, excess lighting causes unnecessary emissions of greenhouse gases, which accelerate climate change. The Town’s zoning bylaw addresses lighting in commercial districts and on signs, and the Planning Board has existing regulations to consider the impacts of lighting in its site plan review, special permit ROSC and SROC bylaws, and subdivision rules and regulations. However, some communities specify the desired characteristics of outdoor lighting to reduce light pollution. An appropriate Town body, perhaps the proposed Environmental Sustainability Committee, could be tasked with developing a set of best practices for outdoor lighting. This topic could also be explored as part of the public education and outreach effort relating to environmental stewardship topics, as described in conjunction with Recommendation 15H.

In terms of noise pollution, Article XVI of the Town’s General Bylaws addresses noise resulting from ledge removal and roosters, and the Planning Board’s current Policy for Noise Control addresses noise from “construction activities pursuant to subdivision approvals, site plan approvals and special permits for development under the purview of the Board.” However, neither policy addresses noises from other sources such as lawn equipment. Again, an appropriate Town body could be tasked with exploring additional avenues for addressing noise pollution and reporting on measures that the community may consider.



Community Example: The Town of Concord has a standalone municipal outdoor lighting bylaw that includes specific requirements for height, illuminance, fixture coverage, and more for outdoor lighting of municipal properties.⁴⁴ This policy was adopted over 20 years ago following the work of an outdoor lighting committee. Additionally, Concord’s zoning bylaw specifically defines light pollution and includes guidance on reducing its impact. Also nearby, Acton’s site plan review guidelines include specific requirements designed to limit the impacts of outdoor lighting for both residential and non-residential buildings, and requires submission of a separate lighting plan.

⁴⁴ Town of Concord APP #38, Municipal Outdoor Lighting Policy and Guidelines, 2001. Available at <https://www.concordma.gov/DocumentCenter/View/2150/APP-38---Municipal-Outdoor-Lighting-Policy-and-Guidelines-PDF>

Metrics

Metrics can be useful both for guiding decisions as well as assessing progress toward community goals. Below is a list of possible metrics the community could use to evaluate actions relating to **Environmental Stewardship**. Further development of these metrics through the work of the proposed Master Plan Implementation Committee and responsible implementation parties is encouraged if capacity allows. *Three metrics (budgetary and environmental impact and community consensus) are listed for all values to align with the Select Board’s stated Strategic Goals for FY 2022.*

ENVIRONMENTAL STEWARDSHIP Metrics to Consider: A Starting Point

CO₂ or equivalent emissions – annual estimates by sector and fuel type for buildings and vehicles

Percent of land that is protected open space

Average weight of trash and recycling generated by households using transfer station

Percent of households purchasing the Green 100 product through the Community Choice Aggregation Program

Number of weatherized homes

Number of electrified homes

Annual grant funding received for environmental stewardship

Number of registered electric and plug-in electric vehicles, both among residents and municipal fleets

Community-member attendance at educational events

Water quality testing results

Budgetary impact of project or other expenditure

Environmental impact of project or decision

Community consensus regarding project or decision as evaluated through public process



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Chapter 7

Caring Community



CHAPTER 7: CARING COMMUNITY

Overview

Carlisle’s sense of community is strong, yet support for programs and services that meet the diverse needs of residents causes tension due to their perceived conflict with other town priorities. For example, the costs of projects, infrastructure, and services may seem at odds with the community’s prioritization of fiscal sustainability. There is also concern that allowing more development or increased housing choices may come at the expense of the community’s rural character (due to land use decisions that may lead to greater housing choice). This chapter explores the ways in which Carlisle can: become a more inclusive community through policies that encourage housing diversity, both for younger households and seniors wishing to age in their community; provide for the supportive needs, health, and well-being of Carlisle residents; and enable opportunities for community connection, all without unduly compromising the Town’s commitments to open space, rural character, and fiscal responsibility.

Key Drivers

The list of drivers below summarizes the key points the MPSC considered in the development of the **Caring Community** goals and recommendations.

- ⇒ Carlisle’s housing is primarily single-family owner-occupied, with a small number of multi-family and/or rental options. There is an expressed interest in the community to diversify Carlisle’s housing stock, although there is also opposition such changes.⁴⁵
- ⇒ A lack of consensus regarding housing policy remains a major barrier to developing a viable plan for increasing the community’s supply of affordable homes.
- ⇒ Despite relatively high incomes and education levels town-wide, some households struggle to afford their homes and there are residents who live below the poverty line.

⁴⁵ The MPSC Summer 2021 survey indicated that 52% of respondents considered increasing the community’s housing options important or very important, and 25% considered not important or not at all important. The MPSC Fall 2021 survey indicated that 65% of respondents would support allowing small multifamily (3-4 units) in select areas to increase “missing middle” housing.

- ⇒ There are still large tracts of land that could be developed with some amount of affordable housing. This includes both currently vacant parcels and parcels with a structure on them but that could support additional development.
- ⇒ Carlisle’s population lacks socioeconomic and racial diversity. Additionally, Carlisle’s population has been aging and the number of families with school age children has been declining over the last decade.
- ⇒ The Town currently lacks a comprehensive ADA Action Plan, although strides have been made in identifying accessibility needs as part of the 2020/2021 Open Space and Recreation Plan update.
- ⇒ There are ongoing demands for recreational spaces for all ages.
- ⇒ Some residents and groups desire a community center that would provide a gathering place for people of all ages to socialize, recreate, enjoy cultural activities, and take part in Town-offered programs, although direct support for this has not been measured.
- ⇒ Many among the growing senior population seeks a stronger sense of community and may need additional services and programming.
- ⇒ Despite being sited on minimum two-acre lots, Carlisle has experienced some water availability/quality and wastewater treatment issues.
- ⇒ The Town has recently completed a Municipal Vulnerability Preparedness report and Hazard Mitigation Plan, both of which include recommendations for protecting the community from the impacts of climate change and other natural disasters.
- ⇒ Carlisle celebrates its tradition of volunteerism.

Supporting references for the above drivers and other relevant data points can be found in the existing conditions reports included in Appendices A-I of this master plan, particularly for the following Master Plan Elements:

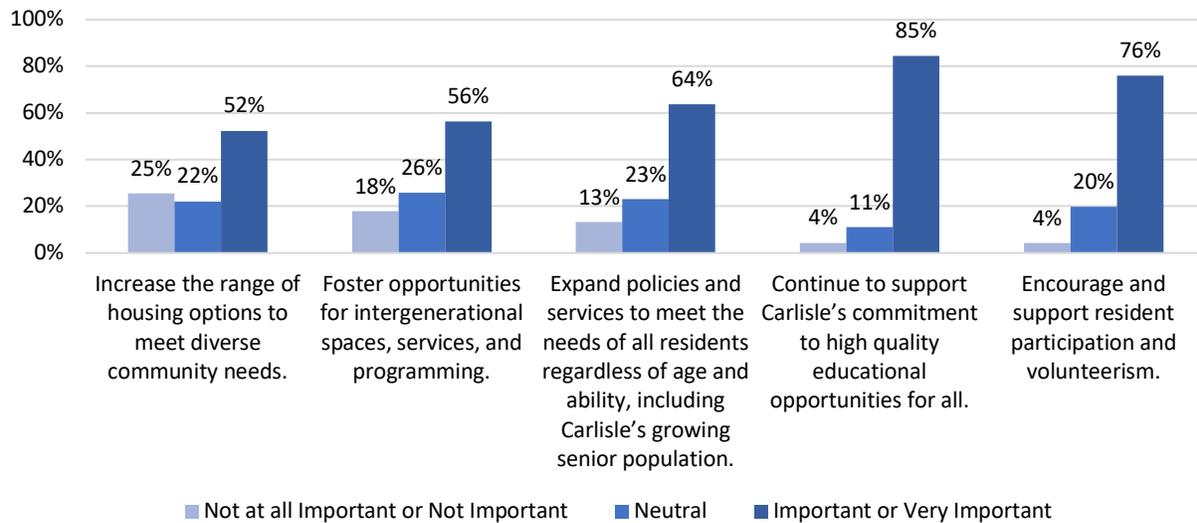
Figure 7-1. Caring Community – Related Master Plan Elements



Community Voices

Summer 2021 Survey: A MPSC survey administered in Summer 2021 asked participants to indicate the importance to Carlisle of draft community values and related goals. Of the 695 respondents, 85% indicated that continuing to support Carlisle’s commitment to high-quality education was “important” or “very important” to Carlisle. This goal was later moved to Carlisle Character, as some respondents pointed out that the Town’s commitment to education was an integral part of its character. Encouraging support for resident participation and volunteerism was the second-highest goal for this value, with 76% considering this “important” or “very important.” The goal of increasing housing options received the least support with only 52% considering this “important or “very important” and 25% considering “not important” or “not at all important.” Survey questions relating to housing options received somewhat more support in the Fall 2021 survey, with results described along with the related recommendations in this chapter.

Figure 7-2. Survey Results, Summer 2021
 Community Response to Preliminary Caring Community Goals
 Total Responses: 695



Fall 2021 Survey: A second MPSC survey generated 634 responses and asked more specific questions relating to potential recommendations and actions; the **Goals and Recommendations** section below addresses the results of that survey under the recommendations to which they apply.

Goals and Recommendations

20. Increase the range of housing options to meet diverse community needs.

20A. Develop and implement a strategic plan for the Affordable Housing Trust that includes implementing a public education program about fair housing and affordable housing and consistently maintaining an up-to-date Housing Production Plan. While community support for affordable housing has historically been lacking and affordable housing projects have been met with significant opposition, the community survey administered in Fall 2021 indicated that about half of respondents (51%) would support exploring zoning and other policy changes to encourage the development of affordable housing. The Carlisle Affordable Housing Trust (CAHT) should use the momentum from this effort and from its current work updating a Housing Production Plan to develop a strategic plan that outlines the Trust's mission, anticipated budget, and plan for a strong community education program. Collaborating with equity-focused groups and housing trusts from neighboring towns could lead to larger community discussions on the topics of housing choice and inclusion. The CAHT may require increased capacity to develop a strategic plan and work toward increasing support for affordable housing, workforce housing, and general

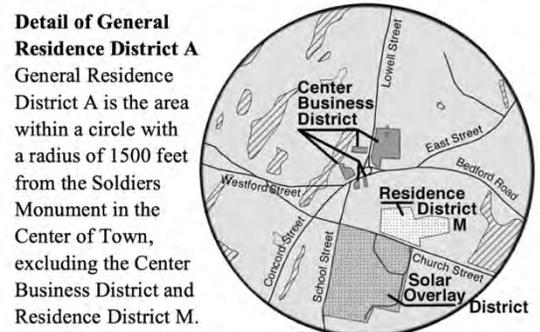
housing diversity; under the Trust’s declaration, it has the authority to use its funds to “to employ advisors and agents...as the Trustees deem necessary” and could potentially use its resources to fund the development of such a plan.

20B. Explore strategies to promote housing diversity and allow development of “missing middle” housing in specified areas. Missing middle housing refers to housing types between single-family and larger multifamily development, such as 2–4-unit homes, condominiums, town houses, and cottage court developments that cluster small homes around a shared court. 65% of respondents to the Fall 2021 survey indicated they would support allowing small multifamily buildings (3- to 4-unit homes) in select areas and with the outer appearance of a larger single-family home. While not directly tied to affordability, such options can create more naturally affordable housing options as compared to the large single-family homes typical in Carlisle, although affordability is not the only focus; smaller housing units require less energy and clustering households rather than sprawling results in less land disruption. The *Path to Zero Emissions* report recommends considering permitting of multi-family homes on a limited basis, including renovating existing single-family homes into two-family homes. In the case of a community with no municipal water or wastewater, the Board of Health’s role will be especially important in ensuring protection of water quality in any such development, but it is not an impossible feat.

Carlisle currently has a bylaw allowing the conversion of single-family homes built before 1962 to two-family homes. The Town could consider lifting the construction date constraint, allowing more homeowners to take advantage of this already-underused tool. It is unlikely that this would lead to explosive growth, as the market for single family homes remains strong and the cost of such conversions is significant. Rather, such a change would simply remove an existing barrier to missing middle housing. The Town could also consider allowing conversion of existing structures to 3- or 4-units, provided the outer scale of the building is still in keeping with the character of the surrounding neighborhood, as shown in the community example below. Lastly, the Town could also consider allowing new construction of smaller multi-family development in select areas outside of the Residence M district⁴⁶, which is only intended for

Figure 7-3. Residence District M

Map from 2020/2021 Open Space and Recreation Plan, Map 3 Zoning Map.



⁴⁶ Residence District M was established in 1980 on the northeasterly side of Church Street “... to provide for the demonstrated needs of the Town for housing the elderly by making provision for appropriately located, specially designed and appropriately priced housing for occupancy by elderly persons who otherwise would not have such

senior housing, with design requirements that ensure the outer building scale is in keeping with the character of the community.



Community Example: While likely converted prior to the town’s existing zoning or done through a variance petition, a residential building in the Town of Duxbury nonetheless provides an example of how existing large single-family homes can be converted to create new smaller units. This building, built in 1850, was converted to six smaller condominiums, yet the building still fits in seamlessly with the neighborhood of existing larger historic colonial homes. (See Figure 7-4.)



Figure 7-4. Conversion to Condominiums
Former single-family home in Duxbury, MA converted to six 1–2-bedroom condominiums.
Image from Google Maps.

20C. Explore strategies to promote housing affordability. This issue has the community split, with 51% of survey respondents indicated they would support the adoption of policies to increase the Town’s affordable housing stock and 24% indicating they would consider with additional information. This divide is not surprising based on the results of the Summer 2021 survey question relating to housing options. Nonetheless, the Town is significantly below the state’s target of 10% of a community’s year-round housing stock being eligible for inclusion on DHCD’s subsidized housing inventory (SHI). At 3.4%, the Town currently lacks *any* SHI-eligible affordable housing units not limited to senior households. In other words, there are no affordable options for income-eligible families with children to move to Carlisle. Various strategies exist for adopting regulatory and policy changes to promote housing affordability, and all would likely require community education on housing affordability.

The Planning Board identified renewing discussions about Local Initiative Project (LIP) guidelines with the Select Board as a key initiative in the 2020/2021 OSRP, as guidelines submitted in the past were not acted upon. LIP projects, often referred to as “friendly 40Bs,” differ from conventional Chapter 40B in that the Town and developer work together in securing a Project Eligibility Letter (PEL) from the Department of Housing and Community Development (DHCD), thereby ensuring that significant collaboration between parties has taken place before a comprehensive permit application is filed with the Zoning Board of Appeals. Keeping this goal on the agendas of the Select Board and Planning Board can help further the Town’s progress in this area.

housing opportunities within the Town.” The Carlisle Village Court development, which includes 18 units of affordable senior housing, was created in this district.

As described in Recommendation 4D, development of criteria to determine the most suitable use of land either currently held by the Town or land being considered for acquisition should include guidance from the CAHT on the potential use of such land for affordable housing. The Planning Board could also consider adopting an Inclusionary Zoning (IZ) option requiring the inclusion of a certain percentage of SHI-eligible homes in future development over a specified number of units. Although the Planning Board determined in 2015 not to pursue Inclusionary Zoning, this Master Plan recommends that this topic be revisited as a potential strategy for increasing the community's supply of affordable housing. As part of this review, the Town could consider whether a new IZ bylaw should include a provision for "payments in lieu of units" (PILUs), whereby developers can pay a fee to the Carlisle Affordable Housing Trust in lieu of providing the required number of affordable units. Alternatively (or in addition to IZ), the Town could enrich the ROSC and SROSC zoning to include density bonuses for including affordable units, as Shutesbury does in its OSD bylaw described under Recommendation 19A.

20D. Consider other opportunities to produce housing as outlined in the Housing Production Plan in effect at the time. The Carlisle Affordable Housing Trust is currently working with MAPC to update the Town's expired 2015 Housing Production Plan. While this process has just recently launched, the plan will include goals and strategies aligned with DHCD requirements under 760 CMR 56.03.

20E. Reorganize staff to support housing-related initiatives. Possibilities include a shared housing administrative position with another town, utilizing CPA funds on an annual basis to fund such a position, engaging a non-profit or other agencies for housing support on a project-by-project basis, or providing staff hours to the Trust, which could be a responsibility of a Town Planner as described in recommended in 4A.



Community Example: Since 2017, the Town of Brewster has funded a part-time housing coordinator position using CPA funds. While the Town must apply annually to the Community Preservation Committee to ensure funding for this position is replenished, the community has supported this measure and the allocated hours for this position have increased from 15 hours to 25 between 2017-2021.

20F. Annually designate Community Preservation Act (CPA) funds for use by the Affordable Housing Trust. The Trust could apply for CPA funds annually to use at their discretion for projects and uses allowable under the Community Preservation Act. This would allow for gradual but potentially steady growth of the Town's affordable housing stock, as the Trust could have funding at its disposal to acquire property and work with entities such as Habitat for Humanity to create opportunities for affordable home ownership sited throughout the community.



Community Example: The Town of Hingham’s Community Preservation Committee awards funds every year to the Hingham Affordable Housing Trust for its Opportunity Fund. While the Trust must apply for funds every year, as is the case for any group seeking funds, the Town’s history of the CPC supporting the AHT is clear. Most recently in 2021 the Town awarded \$700,000 for use by the Trust, stating that “Often unknown opportunities to create new affordable housing units arise and require immediate responses.... Replenishing the ‘opportunity fund’ will allow the Trust to respond quickly to those opportunities.”⁴⁷ While Hingham’s CPA revenue is considerably higher than Carlisle’s due to the greater number of households paying into the fund, what matters is the annual commitment of funding directly to the Trust. The community understands that the HAHT needs funds at its disposal to meet opportunities as they arise even though the town has already passed the state’s 10% minimum of SHI-eligible units.

21. Foster opportunities for intergenerational spaces, services, and programming.

21A. Support intergenerational community needs by finding space for programs within the existing inventory of municipal properties or in a new Community Center to be evaluated as part of the Town Facilities Plan (7A) and Banta-Davis conceptual study (7B). The Council on Aging’s 2022-2023 Strategic Plan includes a goal of continuing to advocate for a dedicated senior space. While it is premature for this Master Plan to recommend a newly constructed community center without a more comprehensive analysis addressing space needs, available existing facilities and municipal land, integrated costs of the multiple facilities projects, and their impact on households, the plan does recognize the need for dedicated space for both COA and intergenerational programming, including recreational and cultural activities. A space study could also help evaluate a scenario involving a new community center which could be included in the suggested Facilities Plan, as well as options for utilizing space in existing buildings to provide context for comparison. Regardless of the community’s decision on a new community center, the Town should prioritize the development of dedicated spaces for senior and community programming, and such an assumption is included in the Facilities Needs Summary MPSC Report included Appendix K of this plan.

21B. Coordinate programming and available public and private space to meet the needs of community members and organizations. (e.g., the Recreation Department, Library, Schools, Cultural Council, etc.) The Town could look at the numerous options for event space booking software to allow Town groups and other organizations to easily “book” preferred spaces in a one-stop manner.

⁴⁷ Town of Hingham Warrant for the Annual Town Meeting, 2021, Article 15, p.34-35. Available at <https://www.hingham-ma.gov/DocumentCenter/View/11974/2021-Warrant-PDF>

22. Expand policies and services to meet the needs of residents regardless of age and ability, including Carlisle’s growing senior population.

22A. Build upon existing work done toward ADA (Americans with Disabilities Act) compliance and develop an ADA Action Plan for the Town. In Massachusetts, OSRPs must include an ADA self-evaluation of the properties under the jurisdiction of the conservation commission and recreation department. The OSRP Committee conducted an ADA Access Self-Evaluation as part of the 2020/2021 OSRP with assistance from Town staff, so much of the groundwork has recently been laid for this effort.⁴⁸ The work of the OSRP Committee could be expanded to include all Town facilities, programs, communications, and digital resources and developed into a comprehensive ADA Action Plan. The New England ADA Center provides user-friendly toolkits to assist communities in this process.⁴⁹ While the Town has an ADA Task Force comprised of staff, it could consider establishing a Disability Commission (allowable under MGL c. 40 § 8J) to help lead this and other related efforts.

22B. Conduct community health needs assessments or similar survey efforts at regular intervals to identify gaps in health and social services for residents, with targeted outreach to vulnerable populations including seniors, residents with disabilities, and financially stressed households and individuals. In July 2016, Carlisle was awarded a \$20,000 planning grant from its Community Health Network Area (CHNA) to engage in community needs assessment and identify priority community health needs.⁵⁰ The Town selected the Center for Social & Demographic Research on Aging at the Gerontology Institute of UMass Boston (UMB) to complete the needs assessment. The Carlisle Board of Health served as project lead, with the Gleason Public Library, the Council on Aging, and the Planning Board acting as partners. If resources are limited and the Town cannot replicate a large-scale community health needs assessment, the Board of Health could conduct smaller scale community surveys at reasonable intervals (perhaps every 3-5 years) to monitor changing priorities regarding community health issues. The COA, which also oversaw an extensive community survey effort in 2009, could potentially assist to ensure that vulnerable communities are reached in the administration of this survey.

22C. Ensure adequate staffing support for the Council on Aging to continue its delivery of social services to Carlisle’s growing senior population. The COA’s 2022-2023 Strategic Plan⁵¹ does not

⁴⁸ *Town of Carlisle Open Space and Recreation Plan, 2020/2021*, Appendix G, Self Evaluation, November 1, 2020. Available at https://www.carlislema.gov/DocumentCenter/View/3179/2020-2021-OSRP_Sec11-Appendices_05122021

⁴⁹ “Action Steps.” New England ADA Action Center. Available at <https://www.adaactionguide.org/action-steps>

⁵⁰ Coyle, Caitlin, *Caring4Carlisle: A Community Health Needs Assessment*, University of Massachusetts Boston, 2017. Available at <https://scholarworks.umb.edu/demographyofaging/34/>

⁵¹ *Carlisle Council on Aging Strategic Plan FY 2022-FY 2023*. Available at <https://www.carlislema.gov/DocumentCenter/View/3706/COA-Strategic-Plan-FY-2022-2023?bidId=>

include a current goal for increased staffing and instead points to applying for grants to fill service gaps and enhance programs. However, the Town should continue to monitor and consult with the COA to meet the increased need for services and resources. The COA's Strategic Plan also includes a goal to create and use surveys to solicit input and feedback throughout the year, which will provide the department with a helpful and consistent metric to assess future staffing needs.

22D. Where possible, consider revising the Town's existing property tax exemption and deferral opportunities for income-eligible households. While the Assessors page includes information about available exemptions and deferrals, any opportunities to strengthen these should be explored, as the COA notes in its 2022-2023 Strategic Plan. This plan includes a goal to research senior tax relief programs and propose a warrant article to expand eligibility and decrease interest rate.

23. Support the health, safety, and wellness of residents.

23A. Encourage monitoring and reporting of drinking water quality and consider appropriate actions for study and remediation as needed. Since 2001 the Board of Health has offered a bi-annual water testing program whereby households who wish to participate could choose from a list of vendors and pre-pay for testing, with results being reported to both the resident and the Board of Health. Participation in this program declined since its inception, with fewer than 30 households participating in 2018. The BOH could work to reinvigorate and encourage this program, perhaps with assistance from the proposed Environmental Sustainability Committee. Additionally, the BOH suggested developing a GIS data layer of results in its priority initiatives for the 2020/2021 OSRP, so this could potentially be involved in Recommendation 4B.

MassDEP recently launched a Private Wells PFAS⁵² Sampling Program focused on testing private wells in 85 Massachusetts towns. To date, 40 private wells in Carlisle have been sampled as part of this ongoing effort, with nearly 25% of those samples indicating levels of PFAS in excess of state guidelines.⁵³ While the state's work is ongoing and will eventually culminate in a final report, the Town should consider options for remediation and also use these findings to

⁵² PFAS, or per-and polyfluoroalkyl substances are widely used chemicals that break down very slowly. Per the United States Environmental Protection Agency, "Many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals." Source: "PFAS Explained," U.S. Environmental Protection Agency. Available at <https://www.epa.gov/pfas/pfas-explained>

⁵³ "Frequently Asked Questions about the MassDEP Private Wells PFAS Sampling Program," Massachusetts Department of Environmental Protection, November 29, 2021. Available at <https://www.mass.gov/doc/frequently-asked-questions-about-the-massdep-private-wells-pfas-sampling-program/download>
Program dashboard available at <https://www.arcgis.com/apps/dashboards/f15b2464024645ec8215be1685fe88f1>

encourage participation in the BOH bi-annual testing program to get an overall picture of drinking water quality in town.



Figure 7-5. Private Wells PFAS Sampling Program

Map from MassDEP's Private Wells PFAS Sampling Program online dashboard. (See footnote 48 for more information.) As of February 2022, the sampling process has started in 62 of the 85 towns eligible for the program. (Green towns have begun sampling; blue towns are eligible, but sampling has not begun.) To be eligible, 60% or more of a municipality's residents must be served by private wells.

23B. Conduct a feasibility study to explore comprehensive water and/or wastewater management options for the community to consider. According to the 2021 Fall community survey, support for such action is not strong, although the number of residents who affirmed this recommendation coupled with those who would consider with more information represents a majority of respondents. Because municipal water and wastewater have not appeared to be a significant community priority identified through this process, the Master Plan Steering Committee did not highlight this as a short-term recommendation. However, exploring possible municipal water supply sources was identified in the Hazard Mitigation Plan as a “medium” priority recommendation in relation to drought hazards, and the testing results described above indicate that, from a community health perspective, exploration of municipal drinking water may be a reasonable community need. Tying into the school’s wastewater treatment system received more support, presumably because the system already exists and is underutilized.

23C. Explore ways that the Town can help residents access funding for repair and replacement of private wells and septic systems and improve access to information regarding these resources. While the Board of Health provides information on licensed well and septic service providers, there is no information relating to funding for septic system repair, and state and federal resources are available. In addition to the state’s homeowner septic loan program, Massachusetts also has a Community Septic Management Program to help communities devise local septic management plans and provide financial assistance to homeowners using betterment agreements. The Federal Housing Administration (FHA) also offers low-cost financing for septic repair to qualified applicants.

23D. Continue to research and apply suitable best practices regarding protection against community health concerns and improve access to information regarding these topics. COVID-19 has become a top priority for Boards of Health everywhere and Carlisle’s BOH continues to provide ongoing information, guidance, and updates about the pandemic to residents through

their webpage. While this focus will likely continue for the foreseeable future as a top priority, the BOH reported in the 2020/2021 OSRP that it received a Community Health Network Area (CHNA) grant to do a public education campaign on how to prevent tick-borne illnesses and for the development of land management techniques to reduce tick exposure. The Board could use findings of the regular community health needs assessments outlined in Recommendation 22B to inform future priorities for best practice research and community education.

23E. Safeguard the community from the impacts of climate change through the implementation of the recommendations in the Town’s Municipal Vulnerability Preparedness Report and Hazard Mitigation Plan. These plans, both finalized in 2021, include important recommendations relating to protecting people and property from natural disasters and the impacts of climate change.^{54,55} The Hazard Mitigation Plan (HMP) includes a detailed recommendation plan that lays out recommendations according to hazard type (flooding, brushfire, wind, winter, geologic, drought, extreme temperature, and multi hazards). Twelve of the plan’s 21 recommendations are considered high priorities to protect residents and safeguard the community. The proposed Master Plan Implementation Committee should refer to the specific recommendations and responsible parties contained in the HMP for assessing the success of this recommendation.

24. Encourage and support community engagement, resident participation, and volunteerism.

24A. Expand on existing paths for citizen recognition. Currently, the Celebrations Committee presents an Outstanding (Most Honored) Citizen award dating back to 1971, and the Trails Committee has presented a Trekker Award since 2007. Individual boards, committees, commissions, and other volunteer groups based in Carlisle could consider such opportunities, and the Select Board could consider establishing a general Outstanding Volunteer award to supplement the staff-related objective in its



Figure 7-6. Trekker Award, 2019
Carlisle residents receiving the Trekker Award in 2019. Photo from Trails Committee, Trekker Award Recipients page

⁵⁴ *Town of Carlisle Community Resilience Building Workshop Summary Report*, Metropolitan Area Planning Council, June 29, 2021. Available at <https://www.carlislema.gov/DocumentCenter/View/3420/Carlisle-Municipal-Vulnerability-Preparedness-Report-6292021?bidId=>

⁵⁵ *Town of Carlisle Hazard Mitigation Plan 2021 Update*, Metropolitan Area Planning Council, November 2021. Available at <https://www.carlislema.gov/DocumentCenter/View/3421/Carlisle-Hazard-Mitigation-Plan-Update-11-23-2021?bidId=>

current goals to “create mechanism for celebrating excellence.” Additionally, the Town could work with CPS, CCHS, and the Youth Commission to establish awards honoring Carlisle’s youth. Old Home Day provides an excellent opportunity for presenting such awards, as would the annual community workshop suggested in Recommendation 14A.

24B. Review and improve the use of volunteer support for achieving Town goals to ensure their efforts are effectively utilized. Ensure adequate training, onboarding, and professional staff support for core volunteer boards, committees, and commissions. Several existing recommendations support this action:

- Recommendation 4A encourages the Town to provide staff capacity for long-range planning efforts and, if necessary, hiring a Town Planner position or similar position that would presumably include providing support to select volunteer groups, the Planning Board in particular. In addition, Recommendation 15A specifies ensuring staff support for sustainability initiatives and Recommendation 22E addresses professional support for housing-related initiatives.
- Recommendation 12B relates to the development of a Technology Strategy for the Town, which should include provisions for digital document storage for volunteer groups and other means of supporting their technology needs, as this has been an issue often left to individual committees to address.
- Recommendation 13A addresses training opportunities for volunteer groups.
- Recommendation 14A provides a much-needed opportunity for volunteer groups to collaborate with each other and staff.
- Recommendation 14C encourages the development of manuals for volunteer groups to ensure clarity and understanding of each group’s charter and mission.

24C. Connect with CCHS to encourage students to dedicate meaningful community service hours for service to the Town and establish procedures to ensure adequate support for students who partake. Concord Carlisle High School requires students to participate in community service hours, and Town staff reported some departments have worked with students as part of this requirement. The Town Administrator could consider where each department could potentially benefit from student volunteerism and reach out to CCHS to make students aware of these opportunities. This could also involve an award or other opportunity for student recognition as described in Recommendation 24A.

24D. Collaborate with and promote the efforts of community volunteer groups and non-profit organizations. Carlisle residents participate in many groups and organizations beyond those officially established by the Town. Examples include the Friends of Gleason Public Library, Friends of the Council on Aging, Carlisle Education Foundation, Carlisle Conservation Foundation, Carlisle

Historical Society, Garden Club, Concord Carlisle High School Parent Association, Carlisle Parent Teacher Organization, and more. While not a volunteer group, the *Carlisle Mosquito* is also an important community-based non-profit that also provides significant benefit to Carlisle residents. As much as possible, Town staff and elected and appointed Town groups should work with such entities and incorporate their involvement in their own strategic planning, as the COA has done in its current Strategic Plan that includes goals relating to communication with the *Mosquito*. The OSRP Committee also involved other volunteer groups in the development of its Seven Year Action Plan, including the Carlisle Conservation Foundation and the Sudbury Valley Trustees.

Metrics

Metrics can be useful both for guiding decisions as well as assessing progress toward community goals. Below is a list of possible metrics the community could use to evaluate actions relating to **Caring Community**. Further development of these metrics through the work of the proposed Master Plan Implementation Committee and responsible implementation parties is encouraged if capacity allows. *Note that the metrics for budgetary and environmental impact and community consensus are listed for all values in alignment with the Select Board's stated Strategic Goals for FY 2022.*

CARING COMMUNITY Metrics to Consider: A Starting Point

Funds available to the Affordable Housing Trust by allocated source

Percent of affordable (SHI-eligible) housing units broken down by age restriction, suitability for families, accessibility, etc.

Percent of cost-burdened households

Community-member participation in Town Meeting

Active use of available community spaces and programs

Accessibility of municipal facilities and recreational spaces

Participation in (and results of) community satisfaction surveys, health needs assessments, and other survey types.

Volunteer retention and vacancies

Concord-Carlisle High School community service hours used by department

Budgetary impact of project or other expenditure

Environmental impact of project or decision

Community consensus regarding project or decision as evaluated through public process



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Chapter 8

Approach to Implementation



CHAPTER 8: APPROACH TO IMPLEMENTATION

Overview

The success of any plan depends on its feasibility and a town's ability to balance near-term interests with long-term needs. The role of a Master Plan's implementation program is to provide balance by bringing all of the key recommendations into focus and organizing them into a plan of action. The timeframes suggested below for various actions can be changed if Carlisle needs to respond to unforeseen opportunities or challenges. Shorter timeframes indicate either higher priority, a logical order for action to occur, or simply that the recommendation can be addressed faster than most.

Several of the major Master Plan recommendations call for additional planning, which is not unusual for a long-term plan, particularly when a community is navigating issues that are either controversial or for which long-term planning has been deferred. As some areas may be ripe for change more than others, it will be important for the Town to focus resources first where change is likely to occur in the near term or when a specific recommendation enables the completion of subsequent related actions.

Carlisle may contend with master plan implementation challenges because the town is small and relies significantly on volunteers. The Town does not have enough staff, volunteers, or financial resources to juggle lots of initiatives all at once. As such, implementation will most likely require several years, patience, and periodic reassessments of the implementation schedule as local priorities change over time.

Like other towns, Carlisle has a history of tension surrounding how it should manage growth and change. On one level, Carlisle has a truly unique variety of resources that residents want to protect, including the Town's vast open space network, rural character, inventory of historic buildings, exceptional school system, and more. On another level, the Town has needs that have been deferred for financial, policy, or other reasons, and the constraints to development limit the ability to grow the tax base. Balancing these needs and wants is challenging for a town with limited capacity.

Despite these challenges, Carlisle has resources to bring to master plan implementation. Residents love their community, and this seems to apply just as much to long-time residents as newcomers who have settled in Carlisle for a variety of reasons. Even though Carlisle's small local

government limits how much can be done in any given year, the community's dedicated volunteers and staff can tackle implementation strategically — provided they commit to continued review and reassessment of this plan.

Keeping a Master Plan Alive – and Implemented

Establish a Master Plan Implementation Committee. One of the first steps for implementation will be to establish a Master Plan Implementation Committee whose first task would be to review this implementation plan approach and modify it, as appropriate. Some recommendations relate to efforts currently underway and may already have commenced by the time the plan is completed; other recommendations may quickly take precedence depending on evolving local priorities and needs. This committee's role will need to be carefully crafted, but generally a master plan implementation committee:

- Consists of members representing a variety of interests and backgrounds;
- Revises the responsible parties and timing of recommendations if needed;
- Expands on specific actions necessary for implementation if needed;
- Monitors and reports on progress toward the plan's recommendations; and
- Coordinates with responsible parties to assess whether the plan requires any updates as implementation unfolds.

While recommendation 14A suggests leadership convening quarterly, one such meeting could be a larger annual workshop to involve Town officials and interested residents in evaluating and adjusting the plan with the implementation committee. An annual workshop would help to institutionalize a process for affirming or revisiting Master Plan recommendations.

Annual Goal Setting: Elected Leaders. The Select Board and Planning Board both should make at least one master plan goal or strategy a priority in their annual goal setting process. The Select Board in particular can explore which recommendations advisory committees under their direction can assist with on an annual basis. Having the Town's primary political leaders use this plan as a basis for their own strategic planning helps ensure that the Master Plan continues to live on, evolve, and accommodate change over time.

Annual Goal Setting: Town Departments. Town departments should also take part in annual goal-setting that calls on staff to focus on at least one master plan goal or strategy as they plan their new year's operations and programs. The Select Board should first facilitate discussions with other elected boards and committees and the Town Administrator, who should work with department heads and staff to determine a subset of the Master Plan's recommendations that are to be worked on in a given year. A discussion that involves all department heads in the same

room at the same time could help determine which strategies have overlap across different Town departments. Decisions about funding, staff time, and roles and responsibilities should be discussed in this meeting as well.

Annual Report. The proposed Master Plan Implementation Committee should provide an annual report to the Select Board about the progress toward implementing this Master Plan, changes that have been or should be made to recommendations or responsible parties, needs that have changed since 2021, and any new needs that have arisen.

Look Ahead. The Master Plan is meant to be a flexible and evolving planning tool. Plan now – in 2022 – for launching a full update of this Master Plan in ten years. What resources will the Town need, and what does it need to do every year between now and 2032 to ensure that Carlisle will be ready to update this Plan?

Timeframe & Responsible Parties

The timeframe designations in this plan are suggestions developed by the Master Plan Steering Committee. The proposed Master Plan Implementation Committee may wish to revisit them in consultation with the Select Board and Planning Board. These timing designations do not indicate the length of time an action may take; rather they indicate when initial action should commence.

Short-Term: action should commence as soon as possible or within one year, whichever occurs first.

Near-Term: action should commence following the implementation of short-term actions or within one to three years, whichever occurs first.

Mid-Term: action should commence following the implementation of short-term and near-term actions or within three to five years, whichever occurs first.

Long-Term: action should commence following the implementation of short-, near-, and mid-term actions or in at least five years, whichever occurs first.

Ongoing: action may already be occurring or should become ongoing.

Responsible parties are comprised of departments and official boards, committees, and commissions. Other volunteer groups may be listed as resources for specific recommendations, but they are not designated as responsible parties. The proposed Master Plan Implementation Committee, in consultation with various responsible parties, may find it useful to designate lead and secondary parties, but this may not be necessary for all recommendations. Ultimately, this is meant to be a flexible document that allows for discretion from Town leadership, particularly as community priorities and available resources evolve over time.

Priority Recommendations for Strategic Planning

In addition to considering the appropriate timeframe for each recommendation, the MPSC identified recommendations that will enable the Town to move toward effective long-range planning as a general practice. These recommendations have been organized into four focus areas: **coordinated land use planning and policy development**, **coordinated fiscal planning**, **coordinated facilities planning**, and **planning for environmental sustainability**. While the plan has a total of 88 recommendations, the key recommendations that fall under each of the four comprehensive planning focus areas are outlined below.

- **Coordinated Land Use Planning and Policy Development** recommendations encourage balancing and integrating multiple community needs and values such as open space protection, municipal facilities and infrastructure, agricultural uses, and housing alternatives. The primary recommendations that support long-range strategic planning in this focus area include **4D**, **7B**, **20A**, and **20B**.
- **Coordinated Fiscal Planning and Municipal Human Resources** recommendations look to enable a strategy for understanding both Town finances and creating improved personnel efficiency and organization. The primary recommendations that support long-range strategic planning in this focus area include **6A**, **6B**, and **6C**.
- **Coordinated Facilities Planning** recommendations encourage comprehensive long-term exploration of facilities needs and capital improvements rather than approaching on a project-by-project basis. The primary recommendations that support long-range strategic planning in this focus area include **7A**, **7C**, **7D**, and **21A**.
- **Planning for Environmental Sustainability** recommendations ensure that the Town plans in a manner consistent with the community's strong environmental commitment and history. The primary recommendations that support long-range strategic planning in this focus area include **1C** and **15B**.

Additional measures to support the Town's capacity for long-range strategic planning include increased staff and volunteer support for plan implementation (**4A**, **13C**, **15A**, **15B**, and **20E**), the availability of essential technology tools (**4B** and **12B**).

CARLISLE CHARACTER

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
1. Protect and maintain open space, recreational assets, conservation lands, and wetlands.			
1A. As parcels become available, evaluate and consider for Town acquisition and protection in accordance with the current OSRP and other criteria developed as described in 4D.	Ongoing	Implementation of Open Space and Recreation Plan (OSRP) and Hazard Mitigation Plan (HMP) measures relating to land acquisition, Carlisle Conservation Foundation	Select Board, Planning Board, Conservation Commission, Recreation Commission, Trails Committee, Carlisle Affordable Housing Trust
1B. Encourage residents to protect portions of their private land using Conservation Restrictions or Agricultural Preservation Restrictions if appropriate.	Ongoing	Volunteer time, Carlisle Conservation Foundation	Conservation Commission, Conservation Restriction Advisory Committee, Agricultural Commission, proposed Environmental Sustainability Committee (see 15B)
1C. Develop and implement management plans to protect natural resources against ecosystem threats, including invasive species, plant diseases, contamination, and over-use.	Near-Term; Ongoing	Implementation of OSRP (most notably initiatives relating to natural resource protection and maintenance), Carlisle Conservation Foundation, Carlisle Garden Club	Conservation Commission, Board of Health, Land Stewardship Committee, Planning Board, Trails Committee, proposed Environmental Sustainability Committee
2. Preserve and promote agricultural land use and traditions.			
2A. Reestablish and build a robust Agricultural Commission.	Short-Term	Volunteer time	Select Board, proposed Master Plan Implementation Committee
2B. Support efforts to acquire land, including but not limited to current c.61A properties, and designate for environmentally sensitive agricultural use.	Near-Term; Ongoing	Local funding, community education, volunteer time, Carlisle Conservation Foundation	Agricultural Commission, Select Board
2C. Pursue public and private grant opportunities to support “Grow Local” agricultural initiatives.	Near-Term	Volunteer time to pursue applicable grants and establish program, MA Department of Agricultural Resources	Agricultural Commission

CARLISLE CHARACTER

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
<p>2D. Utilize the Cranberry Bog’s 3-year restoration and maintenance plan to guide decision-making regarding the future use of this property.</p>	Near-Term	Adoption and implementation of Cranberry Bog plan	Conservation Commission, Cranberry Bog Working Group, Agricultural Commission, proposed Environmental Sustainability Committee (see 15B)
<p>3. Support the Town’s cultural and historic resources and activities.</p>			
<p>3A. Create a comprehensive historic preservation plan that prioritizes, guides funding, and preserves Carlisle’s historical assets for conservation, public enjoyment, and educational purposes.</p>	Mid-Term	Local funding, Massachusetts Historical Commission grants, Carlisle Historical Society	Historical Commission, Gleason Public Library
<p>3B. Evaluate the suitability of educational and regulatory options identified by the Massachusetts Historical Commission as tools for the protection of historic and cultural resources.</p>	Mid-Term	Volunteer time, possibly staff time if planning staff is increased, Massachusetts Historical Society <i>Preservation through Bylaws and Ordinances guide</i>	Historical Commission, Planning Board
<p>3C. Expand efforts to educate new and prospective owners of historic and notable properties about best practices and guidelines for historic building preservation and homeownership, including preparing a property for the effects of climate change.</p>	Ongoing; Long-Term relating to effects of climate change	Volunteer time, Carlisle Historical Society, guidance from the National Park Service, Environmental Protection Agency, and other groups on environmentally sustainable historic preservation measures	Historical Commission
<p>3D. If not recommended for municipal use as part of Recommendation 7A, explore public-private partnership opportunities to adaptively re-use Carlisle’s publicly-owned buildings with historic value, like the Highland Building and Bog House.</p>	Near-Term	Policy development, volunteer time, Carlisle Historical Society, Historical Commission	Highland Building Committee, Cranberry Bog Working Group, Municipal Facilities Committee, Select Board, School Committee for Highland

CARLISLE CHARACTER

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
<p>3E. Appropriate funds to maintain historically or culturally significant properties.</p>	Ongoing	CPA funds for larger rehab projects, routine maintenance addressed through PPM plan in Recommendation 7C	Historical Commission, Municipal Facilities Committee, Community Preservation Committee
<p>3F. Support the use and/or improvement of indoor and outdoor facilities that support the arts & culture community in Carlisle, reflecting existing and future needs for performances, lectures, and art exhibits.</p>	Short-Term, Ongoing	Local funding, public & private grants	Select Board, Town Administrator, Council on Aging, Carlisle Public Schools, Carlisle School Committee, Carlisle Cultural Council
<p>4. Ensure that local policies and land use decisions consider multiple Town goals and community needs.</p>			
<p>4A. Provide staff capacity to facilitate coordinated long-range planning efforts and if required hire a Town Planner or similar position.</p>	Short-Term	Operational budget allocation, staff reorganization to coordinate land use staff/departments	Governance Task Force, Finance Committee, proposed Master Plan Implementation Committee, Planning Board, Select Board
<p>4B. Introduce integrated municipal use of GIS to explore and inform future land use, zoning, and other municipal decisions.</p>	Short-Term	GIS consultant or interlocal agreement, staff time	Planning Board
<p>4C. Pursue a commercial/mixed use zoning districting study that includes a robust community engagement process to explore interest, feasibility, and options for expanding light commercial activity in keeping with Carlisle’s character.</p>	Long-Term	Technical assistance; consider MAPC; planning staff	Planning Board

CARLISLE CHARACTER

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
<p>4D. Develop comprehensive criteria for evaluating land for various purposes and community needs (a) to guide the Town in considering action on c.61, 61A, and 61B properties as they become available, (b) to include in the development of RFPs for land acquisition, and (c) to facilitate decision-making regarding existing Town-owned land.</p>	Short-Term	Staff and volunteer time, planning staff, Carlisle Conservation Foundation	Planning Board, Conservation Commission, Select Board, Carlisle Affordable Housing Trust, Recreation Commission, Carlisle Cultural Council, Department Heads, Town Administrator, proposed Environmental Sustainability Committee
<p>4E. Review, assess, and revise local bylaws, zoning, and policies to evaluate their consistency with this Master Plan.</p>	Near-Term; Ongoing	Staff and volunteer time	Proposed Master Plan Implementation Committee, Planning Board, Carlisle Affordable Housing Trust, Conservation Commission
<p>5. Continue to support Carlisle’s commitment to high quality educational opportunities for all.</p>			
<p>5A. Encourage, where appropriate, collaboration among the CPS and Town Hall administrations.</p>	Near-Term; Ongoing	Staff and volunteer time	Town Administrator, Carlisle Public Schools
<p>5B. Foster closer communication and understanding among elected school leaders, elected Town boards, and other boards and committees.</p>	Near-Term; Ongoing	Staff and volunteer time	Town Administrator, Select Board, School Committee, Municipal Facilities Committee
<p>5C. Engage leadership from CPS and CCHS in the development of a long-term facilities plan. (See Recommendation 7A).</p>	Short-Term	Staff and volunteer time	Town Administrator, Select Board, Municipal Facilities Committee, School Committee, Carlisle Public Schools, Concord Carlisle High School
<p>5D. Encourage shared programming among the Council on Aging, Gleason Library, Carlisle Public Schools, Carlisle Cultural Council, Agricultural Commission, and other interested groups. (See Recommendations 14A/14B.)</p>	Near-Term; Ongoing	Organized opportunities for collaboration (see 14A)	Town Administrator, applicable groups, particularly Gleason Library

FISCAL SUSTAINABILITY

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
6. Balance revenues and spending to ensure that local taxes remain sustainable in relation to household income.			
<p>6A. Develop and make use of a comprehensive financial model and projection tool that enables the Finance Committee, Select Board, and Town staff to explore options and educate residents about the fiscal impacts of decisions.</p>	<p>Short-Term; Ongoing</p>	<p>Staff and volunteer time, financial modeling tool currently under development, potentially funding for consultant to help develop or review model, UMass Boston Collins Center, possible Warrant Committee tasked with educating residents</p>	<p>Finance Committee, Finance Director, Select Board</p>
<p>6B. Establish a committee to investigate the benefits and trade-offs of service regionalization, interlocal agreements, and participation in MAPC’s collective purchasing program opportunities.</p>	<p>Short-Term</p>	<p>Volunteer time</p>	<p>Select Board</p>
<p>6C. Evaluate municipal organization and staffing structure based upon the findings of the 2021 Governance Task Force and regular assessment of departmental capacity needs.</p>	<p>Short-Term</p>	<p>Staff time</p>	<p>Select Board, Town Administrator</p>
7. Conduct long-range planning for public facilities, infrastructure, and other investment decisions/capital improvements.			
<p>7A. Develop and maintain a rolling long-term facilities plan that anticipates future municipal building needs, including space needs by department, maintenance and rehabilitation needs of existing buildings, and potential scenarios for siting new construction and reuse of existing structures.</p>	<p>Short-Term; Ongoing</p>	<p>Funding for consultant</p>	<p>Select Board, Municipal Facilities Committee, Finance Committee, Facilities Manager, Carlisle Public Schools, Gleason Public Library, Fire Department, Police Department, Public Safety Facilities Task Force</p>

FISCAL SUSTAINABILITY

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
<p>7B. Engage the community in the development of a conceptual plan for the Banta-Davis/Moseley land that incorporates multiple community needs.</p>	Short-Term	Funding for consultant, local or grant (potentially Rural and Small Town Grants or MAPC DLTA grant)	Select Board, Town Administrator, Planning Board, Recreation Commission, Council on Aging, Carlisle Affordable Housing Trust, Carlisle Public Schools, School Committee, Carlisle Cultural Council
<p>7C. Develop a planned preventive maintenance strategy for Town buildings, land, and other major facilities to clarify maintenance tasks and responsibilities.</p>	Near-Term; Ongoing	Staff and volunteer time, potentially funding for consultant	Municipal Facilities Committee, Facilities Manager, Carlisle Public Schools, Dept of Public Works
<p>7D. Use the findings of the Public Safety Facilities Task Force to make decisions regarding necessary improvements to support the Town’s public safety needs.</p>	Short-Term	Policy development and leadership, volunteer time, staff input	Select Board, Municipal Facilities Committee, Public Safety Facilities Task Force, Fire Department, Police Department, Town Administrator
<p>8. Determine feasible uses or other options for underutilized Town-owned structures.</p>			
<p>8A. Consider square footage of underutilized Town-owned buildings in the development of a scenario-based facilities plan (see Recommendation 7A) <i>and/or</i> find a reuse/tenant/owner that will put underutilized historic structures such as the Highland Building and Bog House into active use.</p>	Short-Term	Policy development (i.e., SB commitment to adaptive reuse both from a sustainability lens and for the preservation of historic resources), volunteer time, MHC preservation grants, Historical Society	Select Board, Municipal Facilities Committee, Finance Committee, Highland Building Committee, Cranberry Bog Working Group, Conservation Commission, potentially Historical Commission
<p>9. Pursue alternative funding sources to supplement the Town’s budget.</p>			
<p>9A. During convened meetings of department heads and board and committee chairs (see Recommendation 14A), discuss shared priorities and plans for applying for grants, including the MAPC Technical Assistance Grant program.</p>	Ongoing	Policy development and leadership, organized opportunities for collaboration, staff and volunteer time	Select Board, Town Administrator, department heads and chairs of boards, committees, etc.

FISCAL SUSTAINABILITY

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
<p>9B. Conduct a regular review of current user fees.</p>	<p>Near-Term, Ongoing</p>	<p>Volunteer time</p>	<p>Select Board</p>
<p>9C. Explore potential new revenue sources such as real estate transfer fees, voluntary “payments in addition to taxes” (PIATT), increased PILOT (payment in lieu of taxes) fees for tax exempt property owners, and additional user fees.</p>	<p>Near-Term, Ongoing</p>	<p>Volunteer time</p>	<p>Select Board</p>
<p>9D. Promote community awareness of MGL c. 44 § 53A, which allows municipalities to accept tax-deductible gifts for public purposes and create dedicated trust funds for specific projects and services.</p>	<p>Near term</p>	<p>Staff and volunteer time</p>	<p>Town Administrator, Finance Director, Select Board</p>

CONNECTIVITY & ACCESS

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
10. Identify opportunities to improve walkability and connectivity of Carlisle’s pathways, trails, and roadways.			
10A. Evaluate the Town’s Complete Streets policy and prioritization plan.	Near-Term	Volunteer and staff time, MAPC, MassDOT, Historical Commission, Historical Society	Town Administrator, Dept of Public Works, Traffic and Pedestrian Safety Committee
10B. Create/maintain GIS data layers of roadway, pathway, and off-road trail networks (by type and ownership) to assist in coordinated maintenance, planning, and funding.	Near-Term; Ongoing	Staff time; GIS consultant or interlocal agreement	Planning Board, Town Administrator, Dept of Public Works, Trails Committee
10C. Plan and pursue funding for expansion of pathways in strategic locations.	Mid-Term	Funding (local and state— Rural and Small Town Grants, ch.90 funds, Complete Streets, etc.), policy development	Town Administrator, Dept of Public Works, Traffic and Pedestrian Safety Committee, Carlisle Public Schools
10D. Consider environmental impact when developing new or expanded trails.	Near-Term; Ongoing	Volunteer time	Conservation Commission, Trails Committee, proposed Environmental Sustainability Committee
11. Support the transportation needs of non-driving residents.			
11A. Continue to support existing local transportation services for seniors and disabled residents and address identified gaps in service if the need arises.	Ongoing	Staff time, funding if additional services needed	Council on Aging
12. Strengthen the Town’s IT capacity and support other technology needs to improve efficiency, internal and external communication, and resident quality of life.			
12A. Increase broadband internet access to all Town residents.	Short-Term	Funding (perhaps ARPA funds); contract negotiation with service provider, Gleason Public Library	Select Board, Town Administrator
12B. Develop a Municipal Communication and Technology Strategy to address needs for information sharing, two-way communication, cybersecurity, and digital storage.	Short-Term	Committee or IT working group to oversee/develop strategy	Select Board, Town Administrator, new committee or IT working group

CONNECTIVITY & ACCESS

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
12C. Pursue digitization of archived records to increase public accessibility and reduce space needs for storage. (See Recommendation 7A.)	Near-Term	Funding for archivist, ARPA funds, perhaps interlocal agreement, Historical Society, MA Roving Archivist program	Select Board, Town Administrator, Town Clerk, potential collaboration with Gleason Library, Historical Commission
13. Provide responsive Town communication and integrated, transparent decision-making.			
13A. Continue to provide annual training to regulatory boards via Citizen Planning Trainer Collaborative (CPTC) or comparable entity.	Ongoing	Administrative policy, funding	Town Administrator
13B. Continue to engage Town Counsel in providing training to regulatory boards on select topics as needed.	Ongoing	Administrative policy	Town Administrator
13C. Establish a Master Plan Implementation Committee that is comprised of members from multiple Town boards, committees, and commissions and reports to the Select Board and Planning Board for the duration of the implementation of this Master Plan.	Short-Term	Volunteer time	Select Board, Planning Board
14. Foster collaboration between and among staff, volunteer boards, committees, and commissions.			
14A. Convene department heads and representatives from committees and boards on a quarterly basis to facilitate collaboration and discuss implementation of Master Plan and other Town initiatives.	Near-Term; Ongoing	Administrative policy, staff and volunteer time	Town Administrator, proposed Master Plan Implementation Committee
14B. Develop an Annual “State of the Plan” report to update Town Meeting in writing on the status of implementation of the Master Plan recommendations.	Near-Term; Ongoing	Volunteer time	Proposed Master Plan Implementation Committee
14C. Preserve institutional knowledge by creating manuals for departments, boards, committees, and commissions and updating regularly.	Mid-Term; Ongoing	Administrative policy, staff and volunteer time, development of template for manuals	All dept’s, boards, committees, commissions under direction of Select Board and Town Administrator

ENVIRONMENTAL STEWARDSHIP

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
15. Develop a framework to support Carlisle’s commitment to environmental stewardship.			
15A. Provide staff capacity to facilitate and support coordinated environmental stewardship and sustainability efforts and if required hire a sustainability coordinator or similar position.	Short-Term	Political leadership, policy development, local funding	Select Board, Planning Board
15B. Establish an environmental sustainability volunteer committee to work with paid staff on implementation of sustainability and stewardship initiatives.	Short-Term	Volunteer time	Select Board
15C. Establish and pursue community-wide carbon reduction goals aligned with State goals.	Near-Term	Policy development and leadership, staff and volunteer time, toolkits (MAPC, state, other)	Select Board, Town Administrator, proposed Environmental Sustainability Committee (see 15B)
15D. Develop a detailed implementation plan for achieving carbon-reduction goals and a framework for tracking and evaluating progress over time.	Near-Term	Staff and volunteer time, policy development	Select Board for policy development, proposed Environmental Sustainability Committee
15E. Incorporate environmental stewardship and sustainability impacts into municipal decision-making.	Short-Term	Policy development and leadership	Select Board, proposed Environmental Sustainability Committee for direction in policy development
15F. Support and encourage state and federal policies that address environmental stewardship. Coordinate with neighboring communities and local partners on this effort.	Near-Term; Ongoing	Regional collaboration	Proposed Environmental Sustainability Committee
15G. Leverage available state and federal resources that address environmental stewardship.	Near-Term; Ongoing	Staff and volunteer time for grant applications and reporting	Proposed Environmental Sustainability Committee

ENVIRONMENTAL STEWARDSHIP

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
15H. Develop a comprehensive education program on behavioral practices that can lower environmental impacts.	Near-Term	Volunteer time, funding for production of materials, Gleason Public Library, Carlisle Garden Club	Proposed Environmental Sustainability Committee
16. Lower energy use and greenhouse gas emissions in transportation and the built environment.			
16A. Explore options to restrict the use of fossil fuels in new construction or major renovations using a Home Rule petition or other means.	Near-Term	Staff and volunteer time	Proposed Environmental Sustainability Committee
16B. Establish and maintain accountability (with performance metrics) for municipal energy use and emissions.	Near-Term	Staff and volunteer time	Town Administrator, Facilities Manager, proposed Environmental Sustainability Committee
16C. Support the use of electric vehicles, both for individuals and municipal fleets where feasible.	Mid-Term	Policy development, staff and volunteer time, Gleason Public Library	Select Board, Town Administrator, proposed Environmental Sustainability Committee
17. Lower the environmental impacts associated with solid-waste disposal.			
17A. Establish policies to encourage recycling and reduce solid waste in accordance with the findings of the 2021 Transfer Station Task Force and newly established Transfer Station Action Committee	Near-Term	Policy development	Select Board, Dept of Public Works, Transfer Station Action Committee, proposed Environmental Sustainability Committee
17B. Encourage re-use of building materials, where appropriate.	Near-Term; Ongoing	Development of PPM plan (7C), community education	Facilities Manager, Select Board, Dept of Public Works, Building Commissioner, Transfer Station Action Committee, proposed Environmental Sustainability Committee

ENVIRONMENTAL STEWARDSHIP

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
18. Pursue measures to protect water resources and wetlands and reduce water consumption.			
18A. Evaluate possible Town well sites and explore additional measures to protect these water resources and the land around them.	Mid-Term	Feasibility study (see 23B), volunteer and staff time	Board of Health, Health Agent, Planning Board, DPW, Conservation Commission Administrator
18B. Encourage reduction of community-wide water use for irrigation/outdoor watering, especially during dry months.	Near-Term; Ongoing	Volunteer and staff time, policy development, proposed Environmental Sustainability Committee	Board of Health, Health Agent
19. Protect land (both developed and undeveloped) and native flora, fauna, and funga.			
19A. Consider adopting an additional or alternative open space residential development or conservation cluster bylaw.	Near-Term	Volunteer time, Carlisle Conservation Foundation	Planning Board, Conservation Commission, Carlisle Affordable Housing Trust, Zoning Board of Appeals
19B. Explore options and possible methods for, and costs and benefits of, extending regulation of tree cutting to individually-owned parcels of land that would build upon the regulations in place.	Near-term	Volunteer time, policy development, Carlisle Conservation Foundation	Select Board, Conservation Commission, Planning Board, Land Stewardship Committee, Tree Warden
19C. Promote environmentally sensitive and sustainable agricultural, gardening, and lawn/recreational field care practices.	Near-Term; Ongoing	Volunteer time, policy development, Carlisle Garden Club	Agricultural Commission, Recreation Commission, Facilities Manager, proposed Environmental Sustainability Committee
19D. Explore additional measures to reduce unnecessary noise and outdoor lighting.	Mid-Term; Ongoing	Volunteer time, potentially staff time	Select Board, Facilities Manager, Dept of Public Works, proposed Environmental Sustainability Committee

CARING COMMUNITY

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
20. Increase the range of housing options to meet diverse community needs.			
20A. Develop and implement a strategic plan for the Affordable Housing Trust that includes implementing a public education program about fair housing and affordable housing and consistently maintaining an up-to-date Housing Production Plan.	Near-Term	Volunteer time, funding for consultant assistance to develop strategic plan if needed	Carlisle Affordable Housing Trust
20B. Explore strategies to promote housing diversity and allow development of “missing middle” housing in specified areas.	Near-Term	Staff and volunteer time, policy development	Planning Board, Council on Aging, Carlisle Affordable Housing Trust
20C. Explore strategies to promote housing affordability.	Near-Term	Staff and volunteer time, policy development	Carlisle Affordable Housing Trust, Planning Board
20D. Consider other opportunities to produce housing as outlined in the Housing Production Plan in effect at the time.	Near-Term	Staff and volunteer time	Carlisle Affordable Housing Trust, Planning Board
20E. Reorganize staff to support housing-related initiatives.	Near-Term	Policy development and political leadership, local funding	Select Board, Planning Board, Carlisle Affordable Housing Trust
20F. Annually designate Community Preservation Act (CPA) funds for use by the Affordable Housing Trust.	Ongoing	CPA funding	Carlisle Affordable Housing Trust to apply, Community Preservation Committee to support
21. Foster opportunities for intergenerational spaces, services, and programming.			
21A. Support intergenerational community needs by finding space for programs within the existing inventory of municipal properties <i>or</i> in a new Community Center to be evaluated as part of the Town Facilities Plan (7A) and Banta-Davis conceptual study (7B).	Near-Term	Policy development and leadership, funding, Friends of the Council on Aging	Select Board, Recreation Commission, Council on Aging, Carlisle Cultural Council, Gleason Library, Carlisle Public School

CARING COMMUNITY

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
<p>21B. Coordinate programming and available public and private space to meet the needs of community members and organizations. (e.g., the Recreation Department, Library, Schools, Cultural Council, etc.)</p>	Near-Term	Development of publicly viewable and accessible sign-up platform or calendar	Town Administrator to oversee, IT working group, Recreation Commission, Council on Aging, Gleason Library, Carlisle Cultural Council, Carlisle Public Schools
<p>22. Expand policies and services to meet the needs of residents regardless of age and ability, including Carlisle’s growing senior population.</p>			
<p>22A. Build upon existing work done toward and develop an ADA Action Plan for the Town.</p>	Mid-Term	Staff time	Town Administrator, Human Resources
<p>22B. Conduct community health needs assessments at regular intervals to identify gaps in health and social services for residents, with targeted outreach to vulnerable populations including seniors, residents with disabilities, and lower-income families and individuals.</p>	Near-Term; Ongoing	Volunteer and staff time, perhaps funding for survey development and distribution	Board of Health, Health Agent, Council on Aging, Town Administrator
<p>22C. Ensure adequate staffing support for the Council on Aging to continue its delivery of social services to Carlisle’s growing senior population.</p>	Ongoing	Evaluation of staff needs	Town Administrator, Human Resources
<p>22D. Where possible, consider revising the Town’s existing property tax exemption and deferral opportunities for income-eligible households.</p>	Mid-Term	Volunteer and staff time	Senior Tax Advisory Committee
<p>23. Support the health, safety, and wellness of residents.</p>			
<p>23A. Encourage monitoring and reporting of drinking water quality and consider appropriate actions for study and remediation as needed.</p>	Ongoing	Volunteer and staff time, consultation with DEP, state and federal grants depending on necessary mitigation measures	Board of Health, Health Agent, Select Board, School Committee

CARING COMMUNITY

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
<p>23B. Conduct a feasibility study to explore comprehensive water and/or wastewater management options for the community to consider.</p>	<p>Mid-Term unless need arises sooner</p>	<p>Funding — local funding, perhaps ARPA funding, DWSRF/CWSRF for infrastructure costs, other state grants including Rural and Small Town Grants, MEMA, USDA Rural Development Water and Environmental Program</p>	<p>Select Board, Board of Health</p>
<p>23C. Explore ways that the Town can help residents access funding for repair and replacement of private wells and septic systems and improve access to information regarding these resources.</p>	<p>Mid-Term</p>	<p>Volunteer and staff time</p>	<p>Board of Health, Health Agent</p>
<p>23D. Continue to research and apply suitable best practices regarding protection against community health concerns and improve access to information regarding these topics.</p>	<p>Ongoing</p>	<p>Volunteer and staff time</p>	<p>Board of Health, Health Agent</p>
<p>23E. Safeguard the community from the impacts of climate change through the implementation of the recommendations in the Town’s Municipal Vulnerability Preparedness Report and Hazard Mitigation Plan.</p>	<p>Ongoing</p>	<p>Oversight of HMP implementation, funding for specific actions, including MEMA/FEMA funding</p>	<p>Planning Board for oversight, multiple parties for actions - see implementation plan in HMP and priority recommendations list in MVP Report</p>
<p>24. Encourage and support community engagement, resident participation, and volunteerism.</p>			
<p>24A. Expand on existing paths for citizen recognition. Consider an award especially targeted for Carlisle’s youth.</p>	<p>Mid-Term; Ongoing</p>	<p>Staff and volunteer time, collaboration with local nonprofit/volunteer groups based in Carlisle</p>	<p>Town Administrator, Celebrations Committee, Youth Commission, Recreation Commission</p>

CARING COMMUNITY

GOALS & RECOMMENDATIONS	TIMEFRAME	RESOURCES	RESPONSIBLE PARTIES
<p>24B. Review and improve the use of volunteer support for achieving Town goals to ensure their efforts are effectively utilized. Ensure adequate training, onboarding, and professional staff support for core volunteer boards, committees, and commissions. (See Recommendations 12B and 13A).</p>	Ongoing	Staff time, policy development	Town Administrator, Select Board
<p>24C. Connect with CCHS to encourage students to dedicate meaningful community service hours for service to the Town and establish procedures to ensure adequate support for students who partake.</p>	Ongoing	Coordination of staff and volunteer time	Town Administrator, Concord Carlisle High School, all departments and Town bodies as appropriate
<p>24D. Collaborate with and promote the efforts of community non-profit organizations.</p>	Ongoing	Organized opportunities for collaboration (see 14A)	All groups and departments as appropriate



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Appendices



APPENDICES

Appendix A: Demographics Existing Conditions Report

Appendix B: Economic & Tax Base Existing Conditions Report

Appendix C: Land Use & Zoning Existing Conditions Report

Appendix D: Housing Existing Conditions Report

Appendix E: Public Facilities & Infrastructure Existing Conditions Report

Appendix F: Cultural & Historic Resources Existing Conditions Report

Appendix G: Open Space, Recreation, & Natural Resources Existing Conditions Report

Appendix H: Transportation & Circulation Existing Conditions Report

Appendix I: Energy & Environmental Sustainability Existing Conditions Report

Appendix J: Land Use, GIS, and Development Potential - MPSC Report

Appendix K: Facilities Needs Summary - MPSC Report

Appendix L: Financial Projection Model - MPSC Report

Appendix M: MPSC Survey Results (Fall 2019, Summer 2021, Fall 2021)

Appendix N: MPSC Responses to Public Comments

The Existing Conditions of this report were drafted in 2020 and therefore not all the data is current to 2022. The MPSC acknowledges this gap in data and encourages the Town to continue to review 2020 Census data as it becomes fully available and use those metrics to guide decision making.

DEMOGRAPHICS

EXISTING CONDITIONS REPORT

Introduction

The composition and trends of Carlisle’s population is a key consideration in planning for the town’s future. A growing population or changes in the age, income, or other demographic factors have implications for Town services, including education, recreation, and senior services. Changes in the size of households have implications for future housing and land-use policies.

The Town’s previous census surveys (see Table A-1.) show the population change in Carlisle from 1950, with significant growth occurring between 1980 and 2010. From 2010 to 2018, the town’s annual population has been more stable. The town’s 2018 population, according to its annual census, was 5,279.¹ The US Census also provides population and household counts, and according to the U.S. 2020 Census, Carlisle has a population of 5,237 residing in 1,845 households.²

Table A-1. Town Census Population Over Time

Year	Population	Year	Population	Year	Population
1950	876	2000	4,923	2014	5,195
1960	1,488	2010	5,602	2015	5,166
1970	2,871	2011	5,602	2016	5,356
1980	3,306	2012	5,282	2017	5,424
1990	4,379	2013	5,396	2018	5,279

Source: 2018 Annual Report of the Selectmen and Other Officers, Town of Carlisle

Decennial census data no longer covers some of the specific demographic topics discussed in this chapter, such as income and education levels.³ Additionally, at the time of the drafting of existing conditions reports, 2020 census data was not yet available. As such, American Community Survey (ACS) data is often used in this chapter. Recognizing that towns with smaller populations, such as Carlisle, have greater data deviations from projections and estimates, this section profiles the estimated composition of Carlisle’s population, and summarizes population trends from 2000 to 2018⁴, utilizing U.S. Census American Community Survey (ACS) data for the

¹ Annual Report of the Selectmen and Other Officers, Town of Carlisle, for the year ending December 31, 2018.

² US Census 2020 T1 (Total Population) and T3 (Housing Units).

³ Since the 2010 census, data sets formerly reported as part of the “Summary File 3” (SF3) have instead been reported through the American Community Survey. SF3 data was based on sample counts, whereas Summary File 1 (SF1) is based on a 100% sample.

⁴2018 Data for Carlisle is from the U.S. Census American Community Survey (ACS) pooled sample over a five-year period (2014-2018). These figures are estimates from a small sample, and due to the small sample, there is often a

purpose of comparing Carlisle’s population and demographic trends to those for Middlesex County and Massachusetts.

The information in this section includes:

- Demographic Profile
 - Key Trends and Characteristics
 - Carlisle’s Workforce
 - Household Characteristics
- School Enrollment Data
- Regional Population Trends and Projections
- What We’ve Heard
- Things to Think About

Demographic Profile

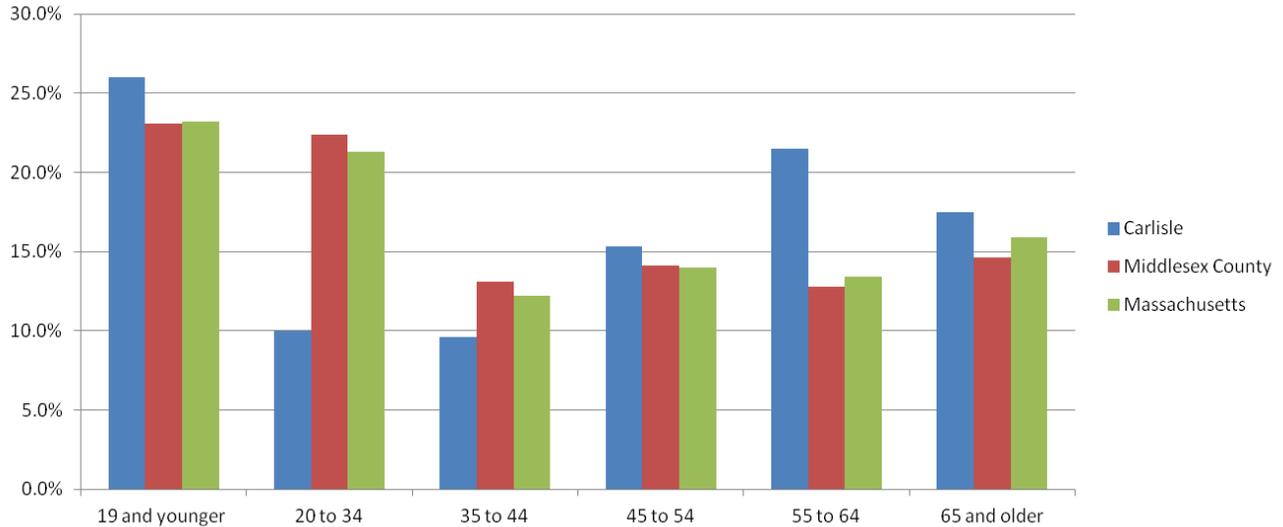
Carlisle’s population is older, very affluent, and largely white, and has been growing at a faster rate than Middlesex County or Massachusetts from 2010 to 2018. Table A-2 summarizes several well-being indicators for these three geographies, and Carlisle exceeds the county and state for all measures, except the unemployment rate, which at an estimated 3.4% was slightly higher than the 2.9% rate for Middlesex County in 2018.

Table A-2. Household and Resident Well-Being Indicators for Carlisle, Middlesex County, and Massachusetts in 2018

Indicator	Carlisle	Middlesex County	Massachusetts
Unemployment Rate	3.4%	2.9%	3.6%
Median Household Income	\$171,625	\$97,012	\$77,378
Poverty Rate - All Residents	3.0%	7.3%	10.8%
Child Poverty Rate	2.0%	8.2%	13.9%
Percent of Population 25+ with Bachelor’s Degree or Higher	84.5%	58.2%	42.9%
Self-employment Rate	9.4%	6.2%	5.8%
Employed in management, business, science, or arts occupations	76.0%	56.0%	46.0%

large range around the estimate for the true population. Despite this limitation, the ACS data provides information on demographic trends since the last full US census in 2010 and current population characteristic. However, the 2018 ACS figures should not be viewed as exact figures but rather estimates within a range that are useful for comparative purpose but not for precise values.

**Figure A-1. 2018 Population Estimates by Age
Carlisle, Middlesex County, and Massachusetts**
Source: ACS five-year sample, 2014-2018



Key trends and characteristics for Carlisle’s population based on US Census and ACS data include:

- Carlisle’s ACS estimated 2018 population was 5,186, a 9.9% increase from 2000, with most of this growth occurring since 2010. This differs slightly from the Town census, which shows an 11.9% population increase to 5,279 in 2018 over the same time period.
- Massachusetts and Middlesex County grew by 7.6% and 8.9%, respectively, since 2000.
- The town’s racial diversity has increased but residents remain an estimated 86.5% White in 2018, a drop from 93.5% in 2000. The increased racial diversity is largely due to growth in the Asian population with its share of the town’s population increasing from 4.8% in 2000 to an estimated 11.2% in 2018.
- Carlisle’s estimated median age was 48 years old in 2018 compared to 39 years old for the county and state with 17.5% of town residents being 65 or older versus 14.6% and 15.9% for the county and state, respectively.
- Carlisle has a lower cohort (about 10%) of young adults, ages 20 to 34, than the county and state, with 22% and 21%, respectively, but it grew by 60% from 2010 to 2018.
- Based on ACS estimates, the share of the town’s 65 and older population more than doubled from 8.4% to 17.5% from 2000 to 2018. Even at the low end of the 2018 ACS estimate range, the share of the town population 65 or older increased to 13.4% of the town’s population. This trend is similar to the Town’s annual census which shows an increase in the percent of residents 60 and over from 18.2% in 2008 to 27.5% in 2016.

Figure A-2. Change in Share of Population 65 and Older, 2000 to 2018, Carlisle, Middlesex County, and Massachusetts
Source: ACS five-year sample, 2014-2018

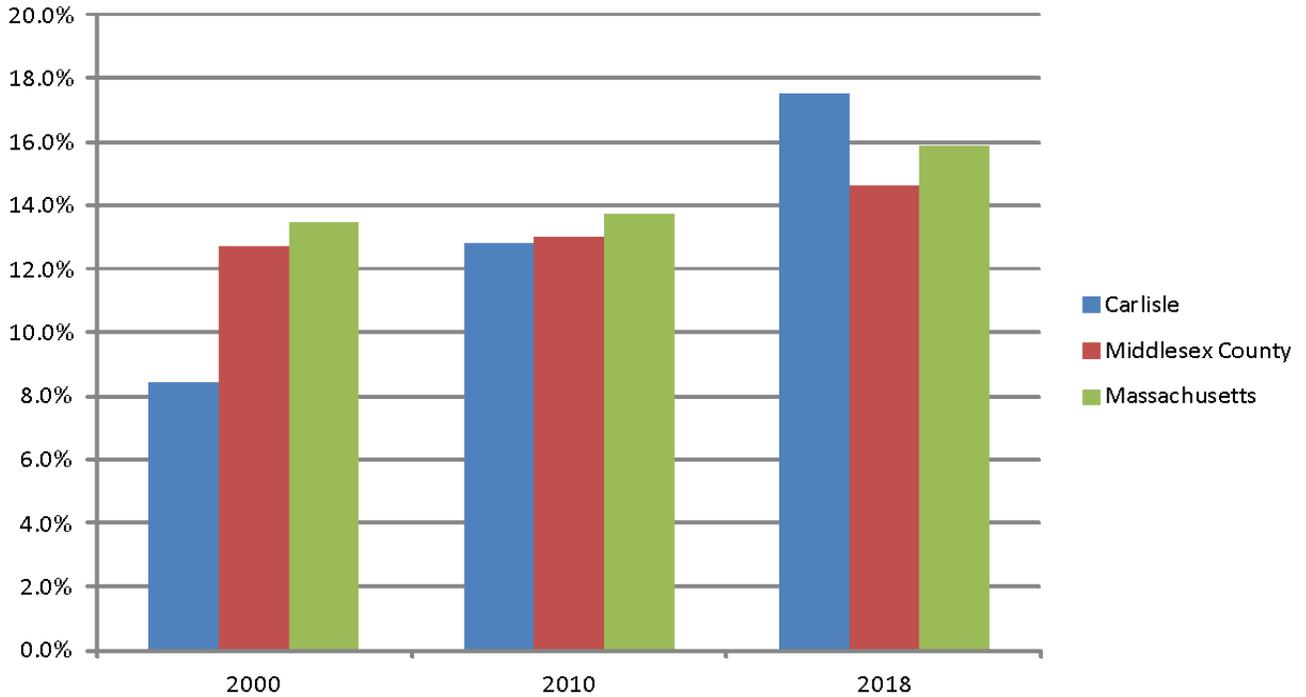
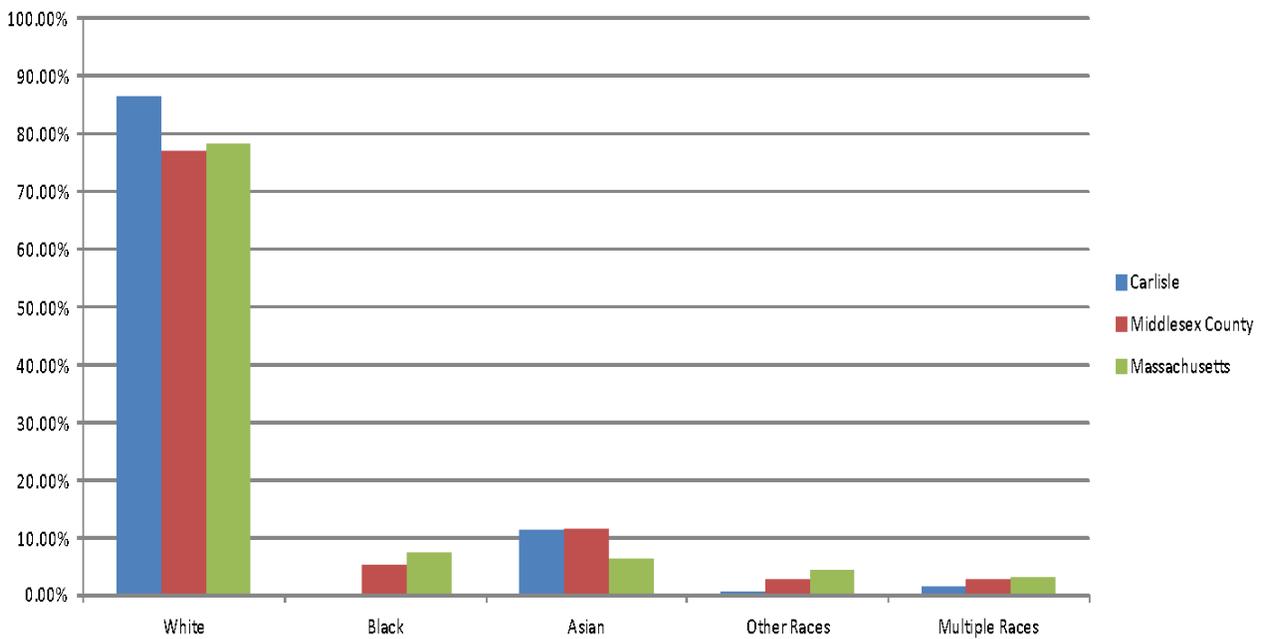


Figure A-3. Estimated 2018 Population by Race, Carlisle, Middlesex County, and Massachusetts
Source: ACS five-year sample, 2014-2018



Carlisle's Workforce

Carlisle has a highly educated population with the town's workforce primarily employed in well-paying occupations. Almost 85% of Carlisle residents 25 and older had a bachelor's degree in 2018; this level of educational attainment has been consistent since 2000 and is much higher than Middlesex County (58%) and Massachusetts (43%).

Of the almost two-thirds of Carlisle's working age population (16 or older) in the labor force as of 2018, almost 97% of them were employed and 3.4% unemployed. Among the town's estimated labor force of 2,575, approximately 76% worked in management, business, science, education, and arts occupations, about 12% in sales and office occupations, and the remaining 12% split between service positions and blue-collar construction, maintenance, production and transportation occupations. Estimated self-employment among Carlisle workers is relatively high at approximately 9.4% in 2018 compared to 6.2% for Middlesex County and 5.8% for the state.

Figure A-4. 2018 Percent of Residents with Bachelor's Degree or Higher, Carlisle, Middlesex County, and Massachusetts

Source: ACS five-year sample, 2014-2018

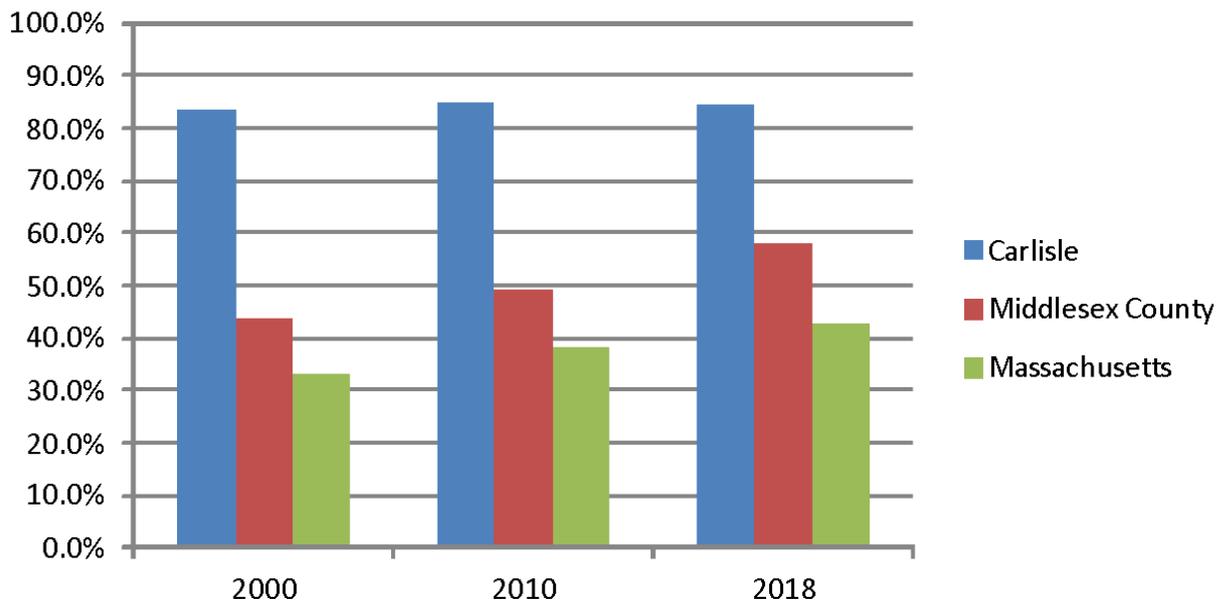


Figure A-5. 2018 Occupations for Workers Living in Carlisle, Middlesex County, and Massachusetts
Source: ACS five-year sample, 2014-2018

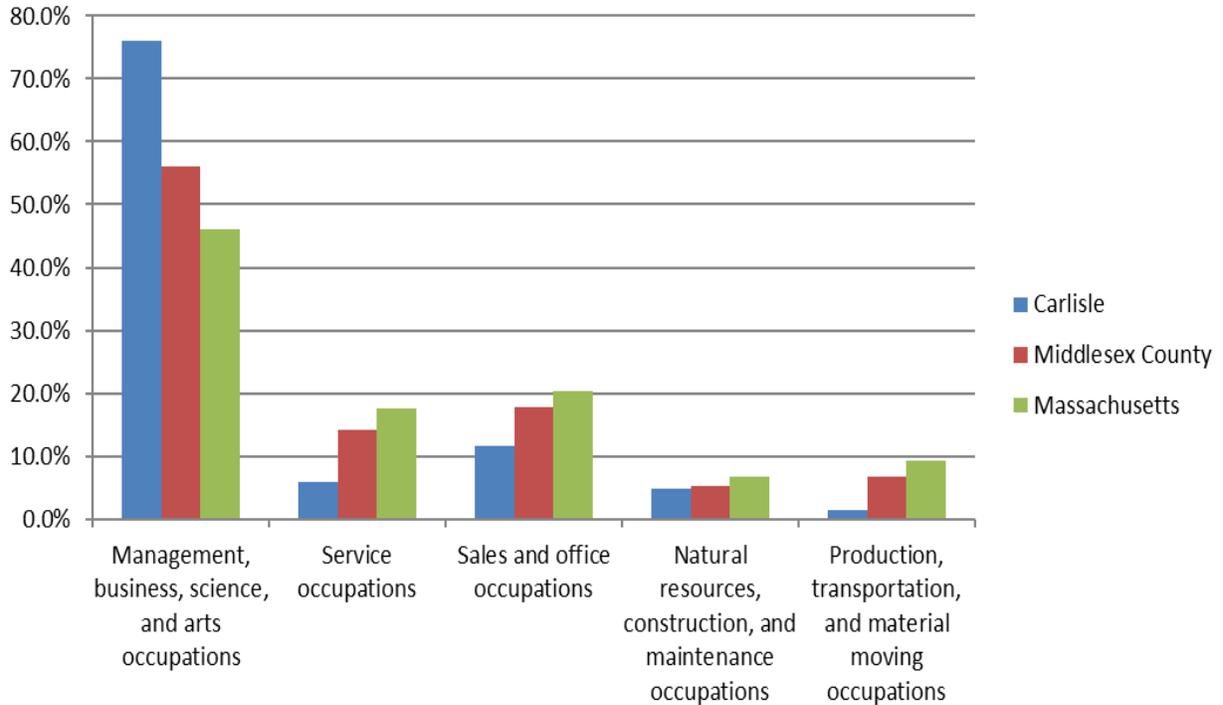
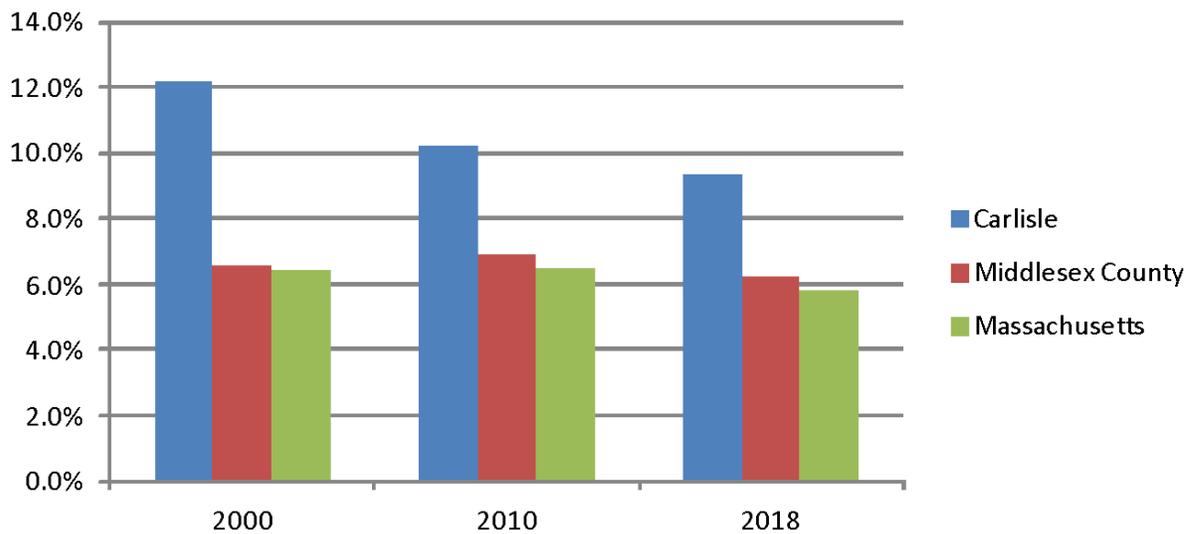


Figure A-6. Estimated Self-Employment Rates, 2000 to 2018, Carlisle, Middlesex County, and Massachusetts
Source: ACS five-year sample, 2014-2018



Household Composition

Carlisle had an estimated 1,823 households in 2018, a 13% increase since 2000, and an estimated average household size of 2.84. Carlisle's households, on average, have much higher incomes with a large proportion being homeowners and family households than Middlesex County and Massachusetts. Carlisle also has a higher share of households with children and older adults than the county and state but a smaller share of persons living alone.

Key household characteristics for Carlisle are:

- Carlisle's estimated homeownership rate was 94.2% in 2018, compared to 62% for both Middlesex County and Massachusetts.
- Families⁵ constituted approximately 80% of Carlisle households versus 64.6% for the county and 63.5% for the state.
- Among Carlisle households, about 33.4%, included persons 18 or younger, compared to 30.5% and 29.4% for Middlesex County and Massachusetts, respectively.
- For households with a person over 60, Carlisle had an estimated 2018 share at 54.5%, much greater than Middlesex County at 37.3% and Massachusetts at 39.7%.
- Carlisle's estimated median household income in 2018 was \$171,625, 77% higher than Middlesex County (\$97,012) and over twice that of Massachusetts (\$77,378), making it one of the wealthiest communities in Massachusetts⁶.
- 2018 ACS estimates approximately 45% of Carlisle households had incomes \$200,000 or greater.
- Despite its concentration of high-income households, Carlisle has a set of households with annual incomes of less than \$50,000. While the ACS 2018 estimate is 17.5% of households, there is a large range to this estimate so that it may be as low as 5% and as high as 21%.
- Consistent with its high incomes, Carlisle's estimated poverty rate was very low at 3.0% in 2018, compared to 7.3% for Middlesex County and 10.8% for Massachusetts. Unlike the county and state, Carlisle has a lower child poverty rate (2%) than its overall adult poverty rate.

⁵ The Census defines a family as "two or more people residing together, and related by birth, marriage, or adoption.

⁶ Based on the 2017 five year ACS, Carlisle had the 6th highest median household income in Massachusetts (<https://www.bostonglobe.com/metro/2018/12/11/full-list-massachusetts-median-household-incomes-town/eZpgJkpB1uF2FVmpM4O8XO/story.html?event=event12>)

Figure A-7. 2018 Estimated Households in Owner-Occupied Units, Carlisle, Middlesex County, and Massachusetts
Source: ACS five-year sample, 2014-2018

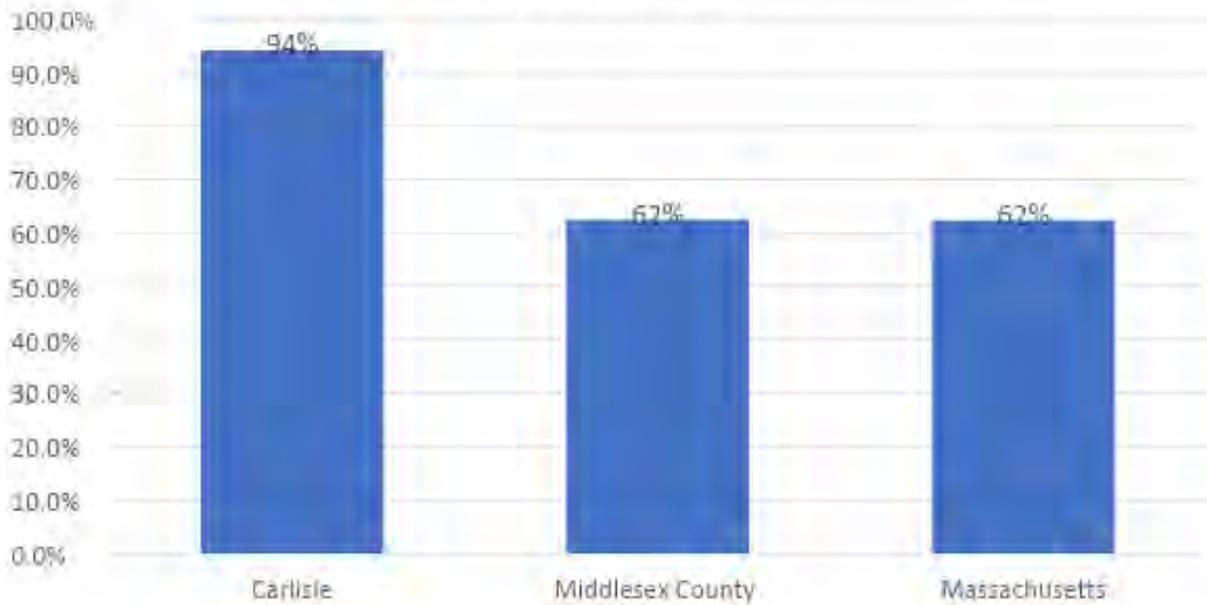


Figure A-8. 2018 Estimated Household Composition Characteristics, Carlisle, Middlesex County, and Massachusetts
Source: ACS five-year sample, 2014-2018

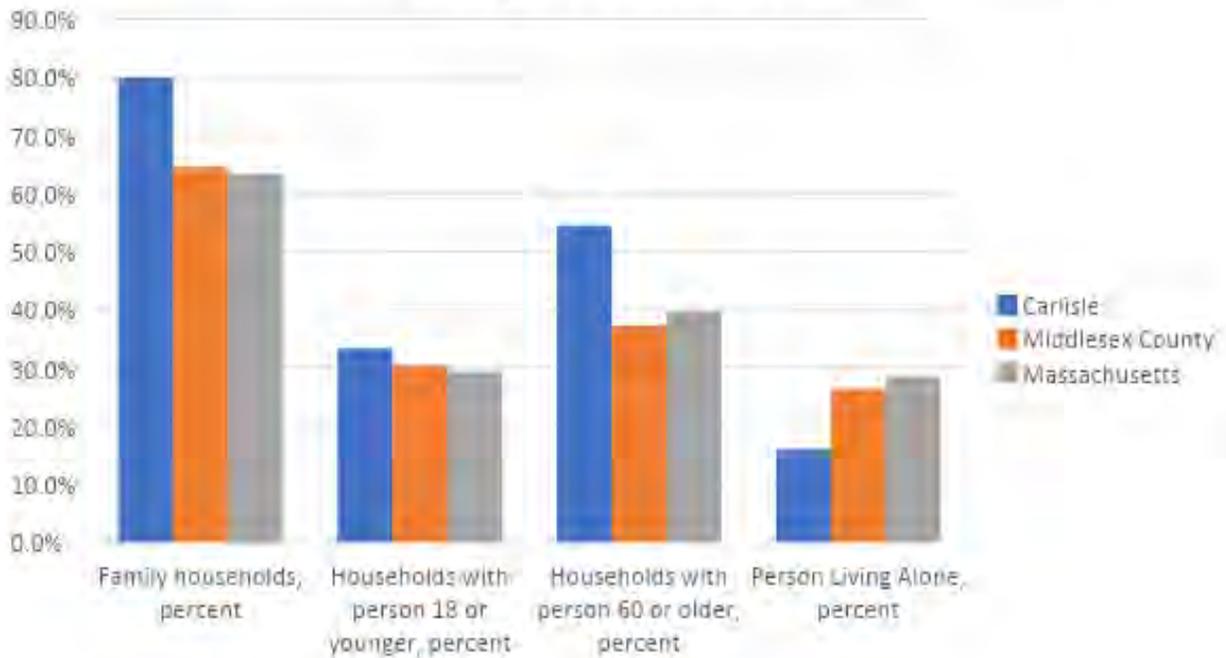
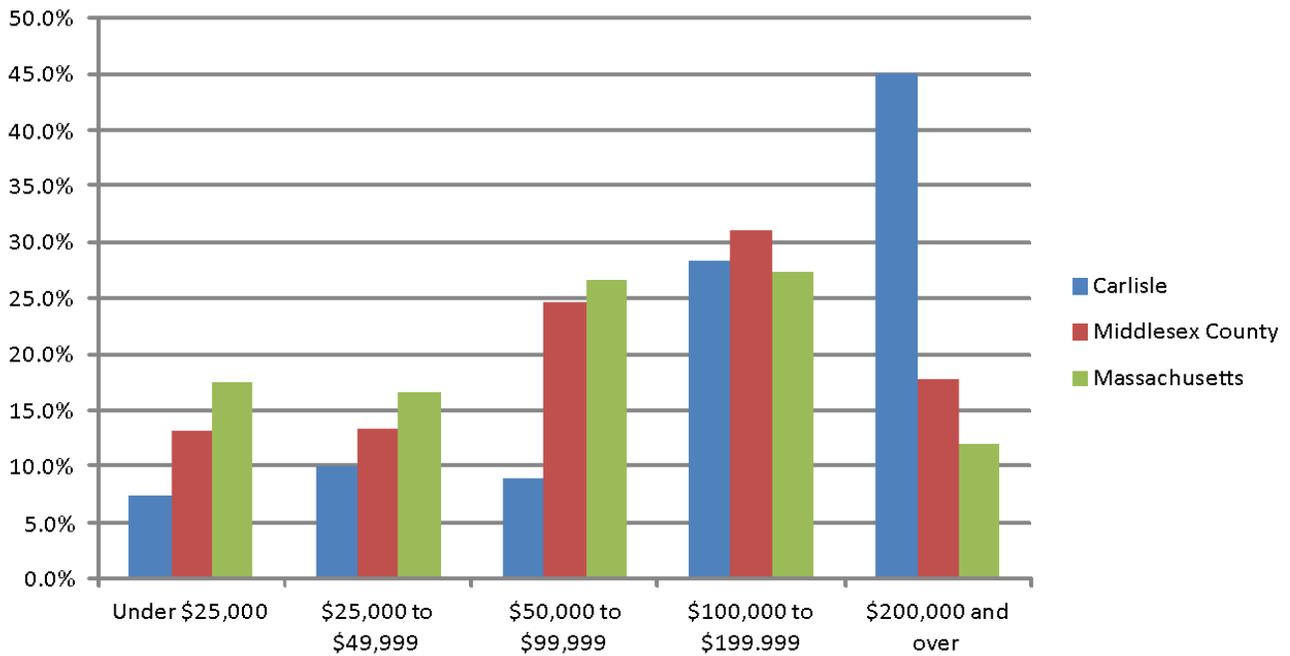


Figure A-9. 2018 Estimated Household Income Distribution, Carlisle, Middlesex County, and Massachusetts



School Enrollment Projections

The Carlisle Public Schools (CPS) Pre-K to grade 8 enrollment is currently at 600 students (2019-2020 school year), down from a peak of 846 students in 2002-2004. After a steady increase in enrollment from 1990 to 2002, this decrease and lower enrollment trend is expected to continue. (See Figure A-10.)

The reasons for this decrease in enrollment include a decrease in move-ins to the community, as well as decrease in Carlisle births. (See Figure A-11.) The capacity of CPS is approximately 750 students and, according to CPS leadership, much of the current infrastructure and staffing model can accommodate an increase in enrollment with only a small increase in costs.

Figure A-10. Carlisle Public School Enrollment

Source: Carlisle Trends: Demographic and Financial, presentation by John Ballantine 3/27/19

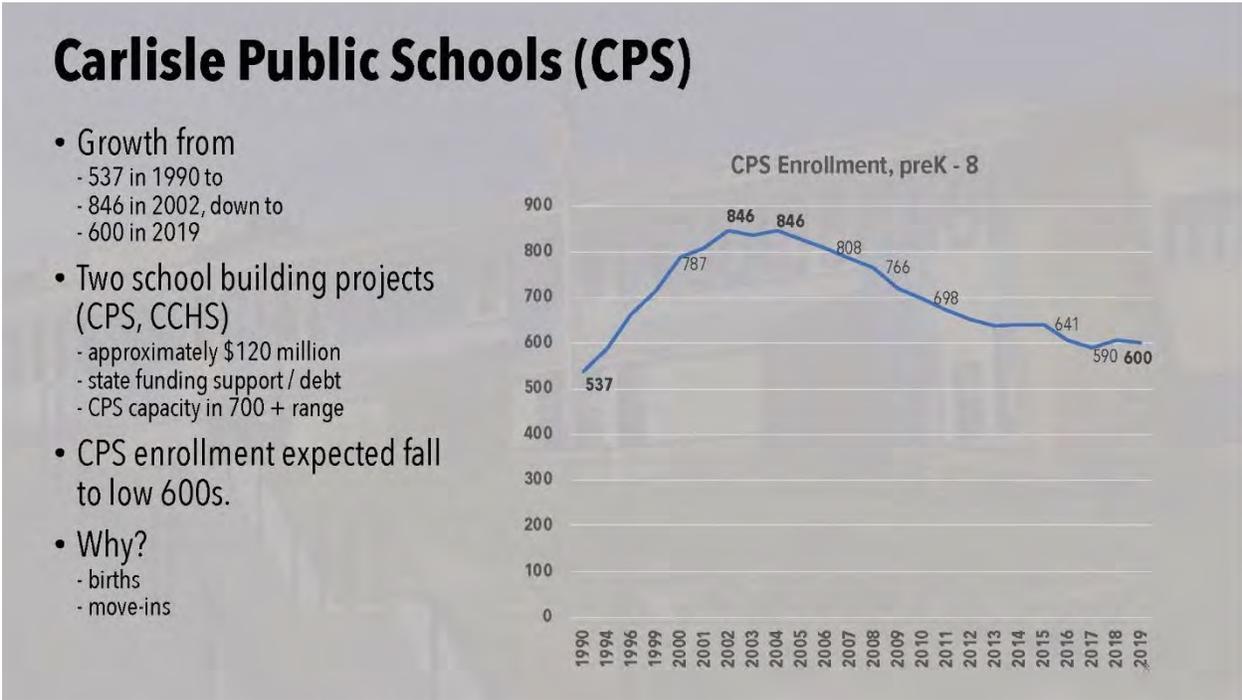
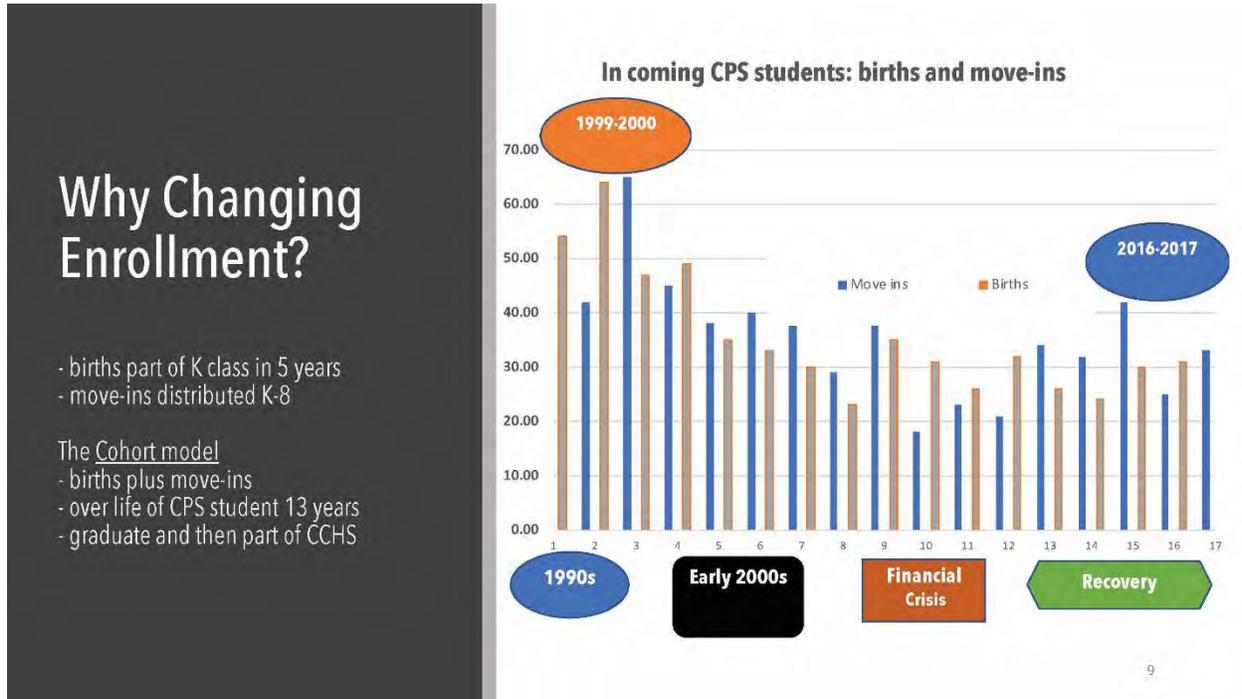


Figure A-11. Carlisle Public Schools Reasons for Changing Enrollment

Source: Carlisle Trends: Demographic and Financial, presentation by John Ballantine 3/27/19



Regional Population Trends and Projections

Putting Carlisle in the overall context of regional population trends and projects will be important when setting master plan goals and priorities. The Boston Region Metropolitan Planning Organization (MPO) is responsible for regional transportation planning, and the agency conducts ongoing studies of population trends and projections. The MPO's *Destination 2040: The Long-range Transportation Plan for the Boston Region* lays out expected trends in population growth and characteristics, including workforce composition and housing choice. The MPO's work on population trends was conducted in coordination with the Metropolitan Area Planning Commission (MAPC), the Massachusetts Department of Transportation (MassDOT), and other relevant state agencies.

An overview of the MPO's key Population and Housing Demand Trends is adapted from the *Destination 2040* plan and is included here:

1. Demographic shifts, even without changes in household formation preferences, will fundamentally change the type of households living in our region in 2040. The aging of the population will have large impacts, not just on the number of households in the future, but on the type of households that will exist. In 2010, the majority of households in the region were headed by someone born before 1965, with the baby boomers comprising the largest share of householders. By 2040, the majority of the region's households will be headed by someone born after 1980. While it is hard to say exactly what location and travel preferences these households will exhibit, it is likely that the habits of these householders, shaped by a near-lifelong availability of the internet, mobile devices, and on-demand mobility, will differ substantially from their predecessors. As this demographic transformation takes place, the projections suggest that the number of households with children under the age of 18 will remain relatively stable. However, families with children will comprise a smaller share of total households (28 percent in 2010, 26 percent in 2040), and the average number of children per family will decline 15 percent from 1.8 to 1.6 across the same time period.

2. New housing demand will outpace population growth due to declining household size. The region's population is projected to grow by 20 percent from 2010 to 2040 while the number of households will grow by 30 percent. Since seniors comprise a larger share of households, the region's demand for housing units will outpace its population growth. A large part of this demand is due to the increase in single-person households, which are projected to grow from 362,000 in 2010 to 514,000 in 2040. Average household size would likely decline by 8.4 percent from 2010 to 2040 as the number of one- and two-person households increases by 41 percent and 48 percent, respectively. This change is driven largely by the growth in smaller senior households, which occur as baby boomers age out of their family-rearing years into their senior years.

3. The Boston region will have a labor force with more formal education than the labor force of today. Labor force projections for the region anticipate larger increases in those with a

Bachelor's degree or higher (23 percent) than labor force participants with either an Associate's degree or less (7 percent). This could benefit the region as both retail and basic employment opportunities shrink.

4. A larger share of Metro Boston's households will be low income. Households earning less than \$35,000 in 2012 dollars are projected to increase 41 percent from 2010 to 2040 while the total household growth is only projected to increase by 30 percent. This is largely due to the increase in senior-headed households, which are largely composed of retired workers on a fixed income. These projections do not trend forward any continued wage polarization in the region, which could dramatically alter these projections and make the growth in low-income households even greater.

An overview of the MPO's key Location Choice Trends is adapted from the Destination 2040 plan and is included here however, **it should be noted that these trends were formulated well in advance of the Covid-19 pandemic:**

1. There will be a continued resurgence of urban communities. Past trends show that many urban municipalities - both in the Inner Core and outlying regional urban centers - experience a large influx of young people but lose them to suburban communities as those residents form families. However, those trends have changed in recent years. When compared to the 1990s, more young people have been moving to urban communities, and only a slight number have moved out once they turn 20. An increasingly diverse population attracted by the job proximity, transit access, vibrancy, and cultural assets of urban areas will likely drive continued population growth in urban centers.

2. It is difficult to predict winners and losers in the decline of basic and retail employment. Losses are projected for both basic and retail employment in the region between 2010 and 2040. Due to the difficulties in predicting which industrial and retail centers are better positioned to weather the coming economic changes, and which are more likely to see substantial declines, MAPC adjusted basic and retail employment downward across the region. As a result, no specific employment center is projected to experience catastrophic decline or revival. Instead, this land use scenario reflects the thought that all retail and basic sites will experience slight declines with the overall decline in regional employment.

What We've Heard

The following is a summary of feedback received during public meetings, focus groups, interviews, Kitchen Conversations, and the Master Plan Fall 2019 Survey:

- There are questions about excess school capacity, and residents wonder how that affects the Town's policies and fiscal health.
- Relative to other communities, fewer people move out of Carlisle after their children finish school. This would result in a lower turnover in housing and households over time,

however there is no data to support this assertion relative to other communities or in absolute terms.

- There is growing demand for support services as the over-70 population of the town grows.
- There is anecdotal evidence of income stress for a small population of Carlisle residents based on interviews and meeting comments. The Carlisle Council on Aging has estimated that there are about 100 families over the age of 60 with annual incomes of \$50,000 and below, who are vulnerable to life-altering incidents including catastrophic illness and/or the need for major house repairs. Families and individuals with less than \$40,000 annual incomes are very vulnerable.

Things to Think About

An existing conditions analysis and feedback from community outreach efforts have led the MPSC and consulting team to articulate key issues or questions that should be considered in the master plan:

- Are there special or additional services needed to serve the town's growing older adult population?
- Will the perception that older adults will remain in Carlisle after their children graduate the school system become realized? If so, how can Carlisle policies and initiatives benefit these residents?
- Does the growth in households, families, and the young adult population pose any new challenges to the town?
- Are there special challenges faced by the town's low-income and moderate-income households to consider in its future plans? What policies might be adopted to aid these households?
- Can Carlisle's self-employed residents represent an opportunity for future economic development?
- Are there additional ways that Carlisle can further capitalize on its highly educated population and skilled workforce to enhance its economic base?



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ECONOMIC AND TAX BASE EXISTING CONDITIONS REPORT

Introduction

Carlisle is part of the larger Boston metropolitan economy, which is a key source of jobs and income for Carlisle's households. For the purpose of local planning, it is useful to understand the size and composition of the town's economic base. While Carlisle has limited commercial activity and a small economic base, there is interest in how the town can grow its tax base and add new services and amenities for residents. This section profiles Carlisle's current business mix and tax base along with trends in business and employment growth and the Town's tax base.

The information in this section includes:

- Economic and Tax Base Today
 - Key Trends and Characteristics
 - Economic Base
 - Property Tax Base
- What We've Heard
- Things to Think About

Economic and Tax Base in Carlisle Today

Key Trends and Characteristics

Key trends and characteristics for Carlisle's Economic and Tax Base include:

ECONOMIC BASE

- Carlisle has a very small economic base with 154 formal business establishments that employed 529 workers during 2018 with Professional and Business Services, Construction, and Education/Health Services accounting for 63% of these jobs.
- Carlisle's business activity is growing as the number of business establishments grew by 31%, and employment grew by 27% from 2009 to 2018.
- The absence of commercially zoned areas and development limits the ability of business growth to contribute to Carlisle's tax base.

- Carlisle has utilized public-private partnerships to support economic activity on town-owned land.

TAX AND REVENUE BASE

- Carlisle’s tax base is far smaller than those of neighboring communities, almost exclusively dependent on residential property, and growing at a slower rate than surrounding towns.
- Carlisle relies on local taxes for 86% of its budget (FY2019), the highest share among surrounding communities, and has the lowest share of non-tax local receipts (5.7%), which is one-half to one-third that of its neighbors. Residential taxes constitute 95% of the total tax levy.

Economic Base

Carlisle has a very small private sector economic base that included 154 formal business establishments that paid unemployment insurance taxes in 2018 (referred to as “covered” businesses and employment). In total, these businesses employed an average of 529 workers during 2018, an average of 3.4 employees per establishment. According to Town records, there are also 93 businesses that have filed certificates as operating in Carlisle in 2019. While many of these are self-employed individuals who are not counted in the formal business statistics, there may be some duplication between the two counts. Thus, Carlisle has between 200 to 250 businesses with employment in the range of 500 to 600, inclusive of self-employed business owners.

The small size of Carlisle’s economic base is highlighted when the town’s share of Middlesex County private sector employment is compared to its share of county population: Carlisle’s share of Middlesex County 2018 population (0.323%) is over five times that of its proportion of employment (0.063%).

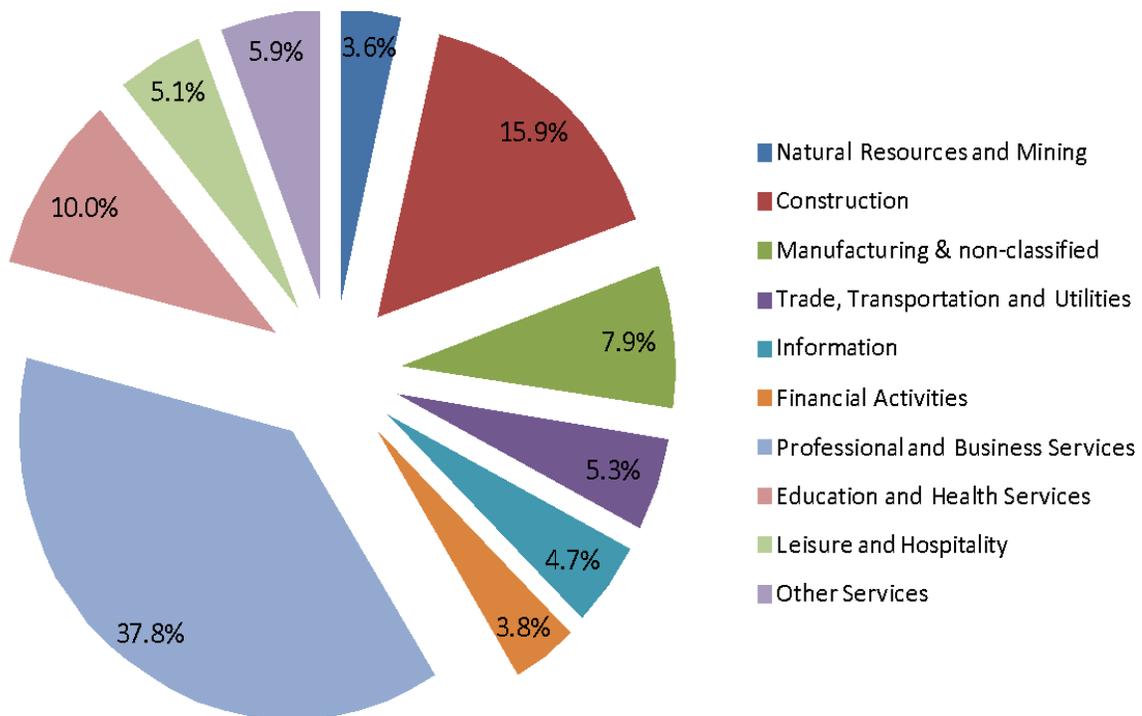
Carlisle’s largest business sectors by employment are Professional and Business Services, Construction and Education and Health Services, which together accounted for approximately 63% of the town’s 2018 covered job base. The remaining employment is spread among seven other sectors, each of which accounted for between 3% and 8% of covered private sector employment in 2018. (See Figure B-1.)

Despite its small size, Carlisle’s business activity has grown since 2009. The number of covered business establishments increased by 35, or 31%, while covered employment grew by 111 jobs or 27%. Almost three-quarters of this job growth occurred in the Construction and Professional and Business Services sectors.

Carlisle has successfully used public-private partnerships to support economic activity on town-owned land. The Cranberry Bog was operated successfully for several years under a rental agreement between the Town and a farmer. The Town currently has no such arrangements.

Figure B-1. 2018 Private Sector Employment by Sector of Businesses in Carlisle

Source: Quarterly Census of Employment and Wages



Property Tax Base

Carlisle’s tax base is far smaller than those of neighboring communities, almost exclusively dependent on residential property, and growing at a slower rate than surrounding towns (see Table B-1). These factors have resulted in a relatively high tax rate and tax burden for residential property owners. Key features and trends for Carlisle’s tax base include:

- Carlisle’s FY2019 Assessed Valuation totaled \$1.5 billion, 38% of its next lowest neighbor (Bedford) and less than 25% of the highest communities, Billerica and Concord. Note that taxes are assessed on the value of real estate, not on business revenue or value.
- Residential property accounts for approximately 98% of Carlisle’s Assessed Valuation compared to an average of 84% among its neighbors.
- Carlisle’s total Assessed Valuation increased by 15.9% from FY2011 to FY2019 – lower than any of its neighbors by a significant margin. Acton, with the next lowest growth rate, increased by 22.3% while Bedford had the highest growth rate at 43.8%.
- Carlisle’s 15.9% growth in assessed values just kept pace with the 15% increase in the Boston area Consumer Price Index from July 2011 to July 2019.

- Carlisle has captured little tax base growth from the town’s increase in businesses and employment over the past decade. While the number of covered businesses increased by about 21% and employment by 13.5% from 2010 to 2018, the town’s commercial, and industrial property (CIP) assessed values grew by 3.2% over this period. (FY2011 to FY2019)
- Carlisle’s tax levy grew by 31.4% from FY2011 to FY2019 – below the average growth of 33.4% among its neighbors.
- Carlisle’s \$18.29 per thousand residential property tax rate is the second highest among its neighbors, behind Acton at \$19.37. The low residential tax rates in Bedford and Billerica reflect their large CIP tax rates and adoption of a higher CIP tax rate allowed under state law.
- The communities surrounding Carlisle experienced increasing residential tax rates from FY2011 to FY2014 with stable or declining tax rates over the subsequent five years. Carlisle had a large drop of \$1.60 in its tax rate from FY2015 to FY2016 with increasing tax rates since then.
- Carlisle had the highest average single-family tax bill among its neighbors in FY2018 at \$14,701. When measured as a percent of median household income, a common measure of tax impact, Carlisle, at 8.6%, is second behind Concord (10.3%) and slightly above Acton (8.0%). See Table B-2.
- Carlisle relies on local taxes for 86% of its budget (FY2019), the highest share among surrounding communities, and has the lowest share of non-tax local receipts (5.7%), which is one-half to one-third that of its neighbors.

Table B-1. Assessed Valuations and Tax Levy, Carlisle and Surrounding Communities

Source: Massachusetts Department of Revenue

Property Tax Measure	Acton	Bedford	Billerica	Carlisle	Chelmsford	Concord	Westford
Total Assessed Value, FY2019 (\$000)	\$4,451,502	\$3,956,756	\$6,966,100	\$1,508,196	\$5,857,450	\$6,447,034	\$4,727,014
Residential Share	88.9%	78.8%	75.1%	98.2%	82.1%	91.9%	87.1%
Assessed Value Percentage Growth, FY2011-FY2019	22.3%	43.8%	31.0%	15.9%	28.3%	27.8%	25.8%
Percent Levy Growth, FY2011-FY2019	31.0%	28.7%	33.8%	31.4%	33.3%	37.2%	36.7%
CIP Share of Assessed Value Growth	3.4%	19.6%	28.7%	0.4%	10.6%	3.5%	9.7%
CIP Share of Levy Growth	5.6%	32.8%	49.8%	1.1%	31.1%	4.7%	10.6%
Residential Tax Rate, FY2019	19.37	12.96	13.48	18.29	16.35	14.19	16.56

Table B-2. Average FY2018 Single Family Residential Tax Bill as Share of FY2018 Median Household Income, Carlisle and Neighboring Towns

	Acton	Bedford	Billerica	Carlisle	Chelmsford	Concord	Westford
FY 2018 Average Single Family Tax Bill	\$10,974	\$9,265	\$5,087	\$14,701	\$7,175	\$14,494	\$8,420
2018 Median Household Income (MHI)	\$137,910	\$129,726	\$103,129	\$171,625	\$109,955	\$141,293	\$141,173
Tax Bill as % of MHI	8.0%	7.1%	4.9%	8.6%	6.5%	10.3%	6.0%

Source: Massachusetts Department of Revenue

Figure B-2. FY2011-FY2019 Residential Tax Rates per \$1,000, Carlisle and Neighboring Towns

Source: Massachusetts Department of Revenue

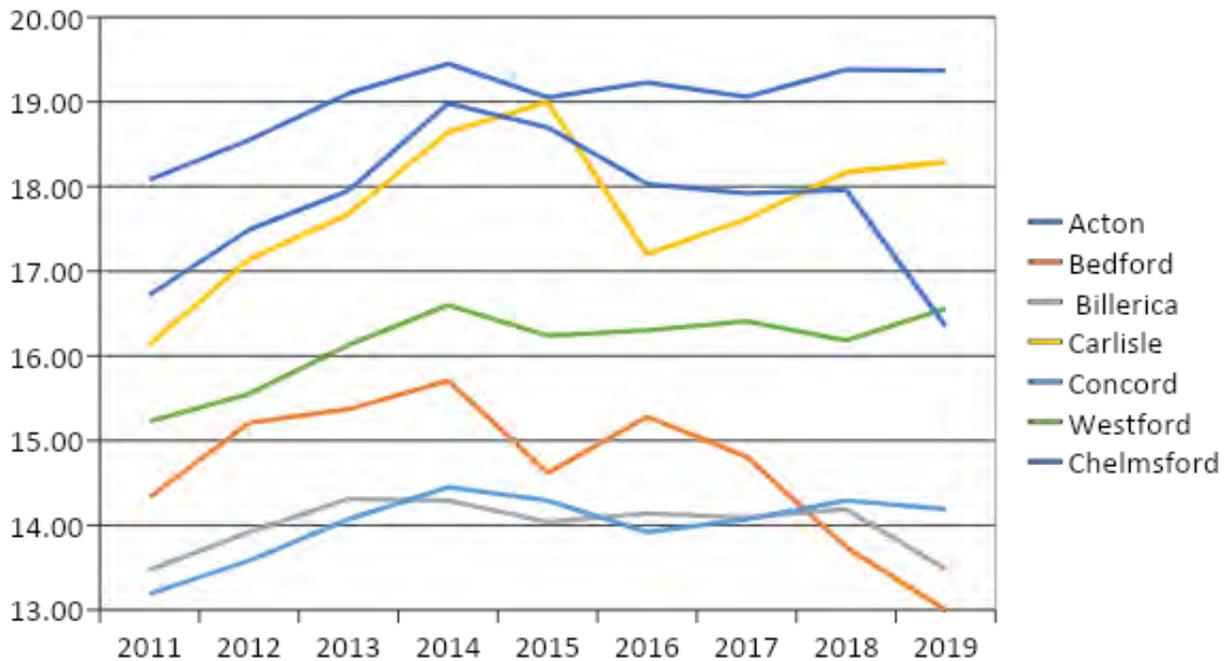
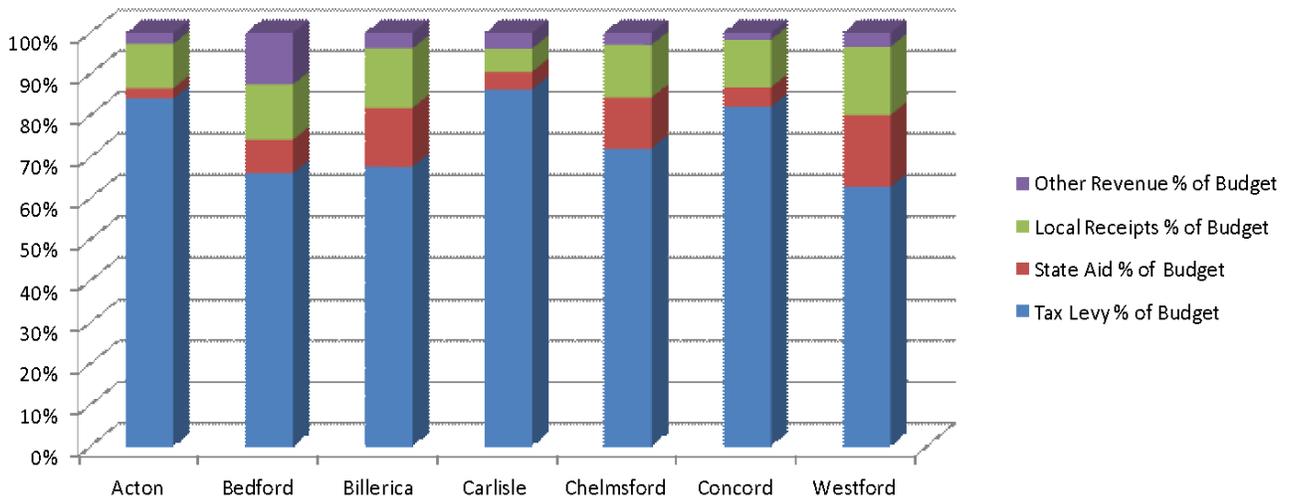


Figure B-3. FY2019 Town Revenue by Source, Carlisle and Neighboring Towns

Source: Massachusetts Department of Revenue



Carlisle Real Estate Taxes

Tax information is shown here so that the master plan addresses the tax base of the Town and the role of the tax base in Town finances. (See Table B-4, Table B-5, and Figure B-4.)

Table B-4. Carlisle Taxes: 2010 to 2019

Source: Data from Carlisle Assessor’s Office, Chart from Carlisle Trends: Demographics and Finances, presentation by John Ballantine, 3/27/19

Carlisle Taxes: 2010 to 2019

Carlisle Assessors Office

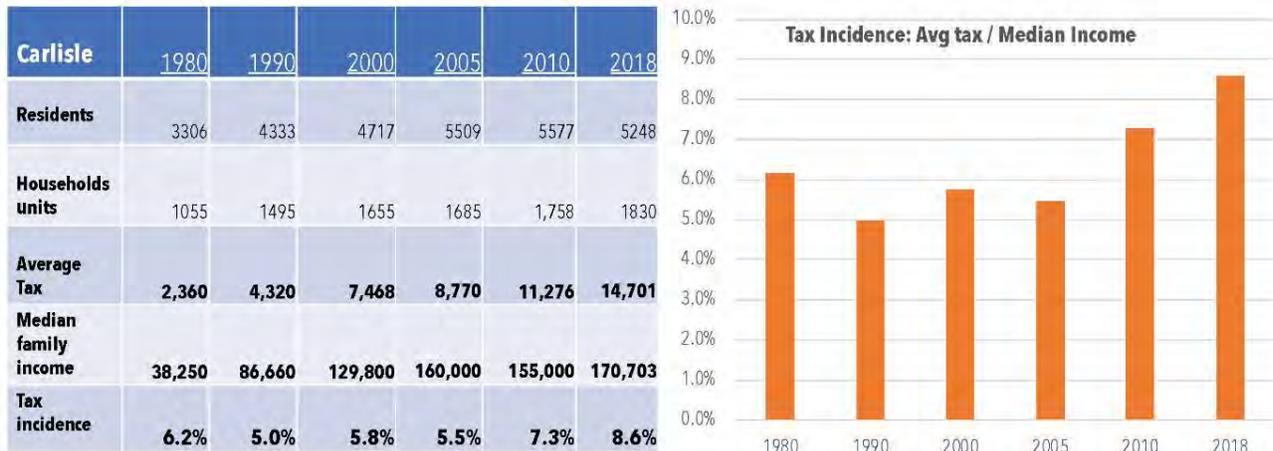
	2010	2011	2012	2013	2014	2015	2016	2017	2018	% change
Population	5577	5601	5332	5418	5438	5308	5235	5419	5248	(5.9)
Avg. home assessed value	\$ 771,254	\$ 722,226	\$ 694,276	\$ 676,475	\$ 683,051	\$ 690,884	\$ 790,001	\$ 798,061	\$ 809,094	4.9
Tax rate	\$14.62	\$16.13	\$17.14	\$17.68	\$18.64	\$19.00	\$17.20	\$ 17.62	\$ 18.17	24.3
Avg tax bill	\$11,276	\$11,650	\$11,900	\$11,960	\$ 12,732	\$13,127	\$13,588	\$ 14,062	\$14,701	30.4

- Average tax somewhat higher than projected \$14,701 vs \$14,568
- Town budget expenditures slightly higher \$31,100,000 vs \$30,692,000
- Debt service (CPS, CCHS and town) higher \$2.7 million vs \$1.8 million (higher cost school projects)
- Cost per pupil CPS \$ 15,370 for 2010 to \$ 18,016 for 2017 with declining enrollment - 17.2% increase (w/o debt)
- Cost per pupil at CCHS \$ 18,872 for 2010 to \$ 25,844 for 2017 with stable enrollment - 36.9% increase (w/debt)

Table B-5 and Figure B-4. Carlisle Tax Incidence over Time - What Percentage Residents Pay

Source: Chart from *Carlisle Trends: Demographics and Finances*,
presentation by John Ballantine, 3/27/19

Tax incidence over time – what percent we pay: Your actual tax depends on house value and income



The increase in taxes is primarily driven by the two school projects, which pushed tax incidence from 6% to 8.5%, which was expected. The Town’s debt burden will not decrease in any significant measure until 2030, impacting the Town’s ability to add new capital expenses.

What We’ve Heard

The following is a summary of feedback received during public meetings, focus groups, interviews, Kitchen Conversations, and the Master Plan Fall 2019 Survey:

- Residents have expressed a desire for businesses that can provide local amenities and services.
- Carlisle lacks areas that are zoned to allow for businesses and commercial development.
- There is interest in economic development as a means to grow the town’s tax base.
- Carlisle has been responsive and supportive of Assurance Technology (largest employer in town) location and expansion in the town.
- Some residents are concerned about the financial health of the Town and want more information about budgets, trends, and challenges the Town may face in the near future.

- Residents have asked for more civic education about how town taxes work, including a glossary of terms, and an explanation of Town uses and sources of funds so that they understand the current fiscal situation better.
- Some residents would like more information about how Carlisle could or would benefit from increasing commercial space or activities in town. There are also resident questions including: Is commercial use taxed at a different rate? Is there another way besides property tax that the town could profit from commercial activity? Would the town have to engage in the commercial activity itself?
- On the expense side, some residents have noted that 80% of Carlisle's budget goes to fund the school, but that the Select Board only controls the remaining 20% of the budget.
- There is a misunderstanding of some residents that the Town tax assessment applies to business value or revenues. Town tax assessments only apply to the residential / property value.
- The master plan will need to estimate how much developable land remains and how that translates into new homes and residential growth; this is a key part of the Town's economic/fiscal condition. (See Land Use and Zoning for relevant buildout maps.)

Things to Think About

An existing conditions analysis and feedback from community outreach efforts have led the MPSC and consulting team to articulate key issues or questions that should be considered in the master plan:

- Carlisle has a small but growing business base, but this growth is occurring largely in home-based businesses and existing properties without expanding the non-residential tax base. Can this growth provide a market for small-scale office properties to house some of this business activity and add modestly to the town's tax base through tax on the commercial property value and potentially meals and lodging sales (not other business revenues or profits which the State does not allow to be taxed locally)?
- Can Carlisle's successful model of using town-owned land for private business and economics be used to support additional businesses and generate revenue?
- Non-residential development is unlikely to provide substantial relief to Carlisle's dependence on residential taxes since there is limited available land and uncertain public support for the scale of non-residential development needed to provide sizable tax revenues.

- Carlisle’s tax base growth is modest and just keeping up with inflation. Consequently, increases in tax rates would be needed for any real increase in Town services and budget.
- Town staff report challenges in addressing staffing, maintenance, and other needs/demands under the current fiscal environment.
- Carlisle stands out for its low use of non-tax local revenue and may want to reconsider its current policies on user fees. The Town may want to investigate other potential fees related to new development (residential or non-residential) and potentially tied to size and energy use.
- The town’s relatively high taxes may pose a burden to low- and moderate-income homeowners and warrant consideration of policies to address it. Initiatives may be needed to offset tax impact on these households.
- Residents will need baseline budget numbers for the next ten years that show a cost-of-living budget for the Town in order to understand the context for the master plan.
- While residents knew that the schools would lead to a 25% increase in taxes (8.5% tax incidence) and that Carlisle would have few degrees of freedom for many years, it would be useful to think about potential budget savings to give the Town some flexibility in choices in the next decade.



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LAND USE AND ZONING

EXISTING CONDITIONS REPORT

Introduction

The Town of Carlisle is located less than 19 miles northwest of Boston and eight miles southwest of Lowell, and occupies approximately 9,935 acres (estimate from Town Assessor's 2019 data) or 15.5 square miles of land. Carlisle is a largely residential community set within a mix of agricultural land, forests, and other open and recreational spaces. This is in keeping with Carlisle's early history as a rural village and later as a desirable suburb. According to the *2013 Open Space and Recreation Plan (OSRP)*, over one-third of the land in town is permanently protected with ownership spread between Town, state, and federal government, private and nonprofit entities, and institutions. To preserve the historic character of the town while also acknowledging the existing conditions of the land and Town's infrastructure because each home relies on its own well and septic / leaching system, 2-acre zoning has been considered important to Carlisle's water quality; except for the town center, Carlisle's residential areas are zoned for 2 acres.

Carlisle is located between circumferential highways I-95 and I-495 and radial Routes 2 and 3. No major highways pass through town, a historical fact that continues to influence land use. Carlisle has a classic geographical shape, being almost circular, with five main roads converging at the Town Center. The Center area includes churches, the Carlisle Public School, recreation fields, the public library, the fire station, the police station, Town Hall, a post office, the Village Green, a few commercial enterprises, and single-family homes. As described in Economic Base existing conditions, Carlisle has only one store and few businesses. Residents generally shop in neighboring communities, such as Chelmsford, Bedford, Concord, and Acton that have grocery and national stores, as well as local retail, services, restaurants, and entertainment.

Land use regulations have implications for the other elements of Carlisle's master plan. As one of the Town's main tools to maintain and direct uses the community wants, zoning can be utilized to protect those things residents wish to preserve while being proactive about directing desired change. The goals and recommendations from other sections should be integrated and complementary to land use so that Carlisle can determine the best regulatory approach to achieve the desired land use patterns in the coming years that also protect the existing physical character of the town.

The information in this section includes:

- Land Use and Zoning in Carlisle Today
 - Key Trends and Characteristics
 - Zoning

- Land Use
- Potential Growth in Land Use
- Environmental Sustainability in Land Use Policy
- What We Have Heard
- Things to Think About

Land Use and Zoning in Carlisle Today

Key Trends and Characteristics

Key trends and characteristics for Carlisle’s zoning and land use include:

- The majority of Carlisle is zoned residential, predominantly for single-family homes on lot sizes of two or more acres. Carlisle has small business districts in the town center and along Bedford Road.
- There are seven zoning districts in Carlisle’s Zoning Bylaws: General Residence Districts A, B, and M, Business and Carlisle Center Business Districts, Wetlands / Flood Hazard District, and Solar Photovoltaic Facility Overlay District.
- The Wetlands/Flood Hazard District occupies approximately 21% of the town’s overall land area.
- Carlisle’s Zoning Bylaw provides for the following types of development on special permits:
 - Section 5.5 Conservation Clusters
 - Section 5.7 Senior Residential Open Space Community
 - Section 5.12 Residential Open Space Community
- Other existing Zoning Sections encourage interested property owners who may be adding to the town’s housing diversity include:
 - Section 5.1 Residence District M – Multi-Dwelling Housing for the Elderly (fixed area, but may have additional capacity)
 - Section 5.6 Accessory Apartments (AA)
 - Section 3.2.1.2 under General Residence District Uses - Pre-1962 By-right Conversion Bylaw

- Carlisle was a small agricultural community that saw substantial residential growth from the 1960's through the 1990s'.
- As defined herein, "open space" includes both protected open space and recreational space. When referring to *protected* open spaces, the text indicates as such.
- Carlisle has greater vehicle dependence than towns that have slightly denser residential or commercial clusters or access to commuter rail.
- There are approximately 1,000 acres of privately-owned land that is either vacant or could be developed further, although fewer acres may be developable based on other site restrictions such as wetlands, topography, etc.¹ Much of this potentially developable land represents large parcels; of the 10+ acre private parcels that are either not majority wetlands or are held in common ownership with adjacent non-majority wetland parcels, the MPSC identified 31 parcels that are either vacant or not fully developed (i.e., the parcels have a structure but could be subdivided). Together, these parcels total nearly 600 acres.

Zoning

There are seven zoning districts in Carlisle's Zoning Bylaws: General Residence Districts A, B, and M, Business and Carlisle Center Business Districts, Wetlands / Flood Hazard District, and Solar Photovoltaic Facility Overlay District. Carlisle's residential zones include General Residence Districts A, B, and M, discussed below. District A allows one-acre zoning within a 1500-foot radius of the memorial statue in the center rotary. General Residence District B, created in 1956, encompasses approximately 98% of land in town. In Residence District B, building lots must either be two acres with 250 feet of frontage, or four acres with 40 feet of frontage. According to the Town's Zoning Map (see Map C-1), over 99% of land in town is zoned for residential use. Maps C-2 and C-3 show other non-zoning regulatory constraints including Conservation Restrictions, Chapter 61, and Open Space, which is not a zoning category.

Certain uses are allowed by-right in Carlisle's residential zones, including use for single-family homes; certain accessory uses that are incidental and secondary to the main use, such as use of a portion of the home for a professional office; and agricultural uses. Other uses, such as for a nursery school or dog kennel, are allowed on special permits. Section 6 of the Zoning Bylaw allows certain non-conforming prior uses to continue. In 1969, Carlisle established a Historic District to preserve the architectural aesthetics and historical vista in the Town Center.

Although proposals to amend Carlisle's Zoning Bylaw can originate outside the Planning Board, in most instances, the Planning Board has been the body to propose new and amended zoning. The Planning Board is required to hold a noticed public hearing on any proposed new or amended

¹ See Appendix J, "Land Use, GIS, and Development Potential MPSC Report" for detail.

zoning bylaws. Under Massachusetts state law, no Town Meeting vote can take place until either the Planning Board issues a report with recommendations about the proposed bylaw, or 21 days elapses without a report. The Town Meeting vote must take place within six months of the public hearing. At Town Meeting, a two-thirds majority vote is necessary to pass a zoning bylaw. Several recent amendments were related to new technologies and changes in state laws, such as amendments updating wetlands and flood hazard areas and, regarding wireless communication and service facilities. In accordance with state law, the Town also enacted a Medical Marijuana Bylaw.

ZONING FOR HOUSING & OPEN SPACE

The Town has taken steps to encourage different types of housing that would also protect open space. The current special permit exceptions to standard two and four-acre zoning include the following:

Section 5.5 Conservation Clusters. A Conservation Cluster is “...a division of land into building lots and Open Space,” with the purpose of providing a method to preserve natural resources that may not have otherwise been preserved in the development of private property. Criteria to apply to the Planning Board for a parcel to be designated as a Conservation Cluster include, but are not limited to, a minimum land area of ten acres or more, each building lot to be at least two acres with specific siting criteria, and at least 30% or more of the land parcel to be preserved open space (with no more than 50% of that open space being within a Wetland/Flood Hazard District). Other requirements include details on setbacks and the use of common driveways. The Conservation Cluster Bylaw provides for a “density bonus” of one lot.

Section 5.7 Senior Residential Open Space Community. In 1994, the Town adopted the Senior Residential Open Space Community (SROSC) bylaw “...to encourage residential development which meets the physical, emotional and social needs of senior citizens, and to encourage the preservation of rurality, open areas and natural settings, and to encourage energy efficient and cost-effective residential development.” Criteria for a Special Permit include, but are not limited to, a minimum land parcel size of ten acres, a number of dwelling units not greater than 1.5 times the number of allowed lots and below maximums based on parcel size and town-wide numbers, and conserved open space of at least 1.2 acres per dwelling unit. Additional criteria include types of and conditions to the open space, the size and appearance of the dwelling units, including access and parking, and an age restriction of at least one household member reaching the age of 55 years and no household members under 18, among other specifications.

Section 5.12 Residential Open Space Community. The purpose of the Residential Open Space Community (ROSC) bylaw adopted in 2018 is similar to the SROSC but is intended to meet the needs of the broader community, which includes seniors but is not exclusive to older adults. Parcels of land in Residence District B may be considered eligible for this special permit, provided specific criteria are met. The minimum parcel size is 15 acres, and the maximum number of

dwelling units must be less than two times the number of lots that would be allowed according to the Rules and Regulation for the Subdivision of Land and less than half the number of acres of the parcel. Other criteria include a minimum of 1.8 acres of Open Space (as defined in SROSC) per dwelling unit, a variety of units with specified size, design, and configuration requirements, encouragement of “net-zero” structures, parking and other setback and access standards, among others.

ZONING FOR HOUSING DIVERSITY

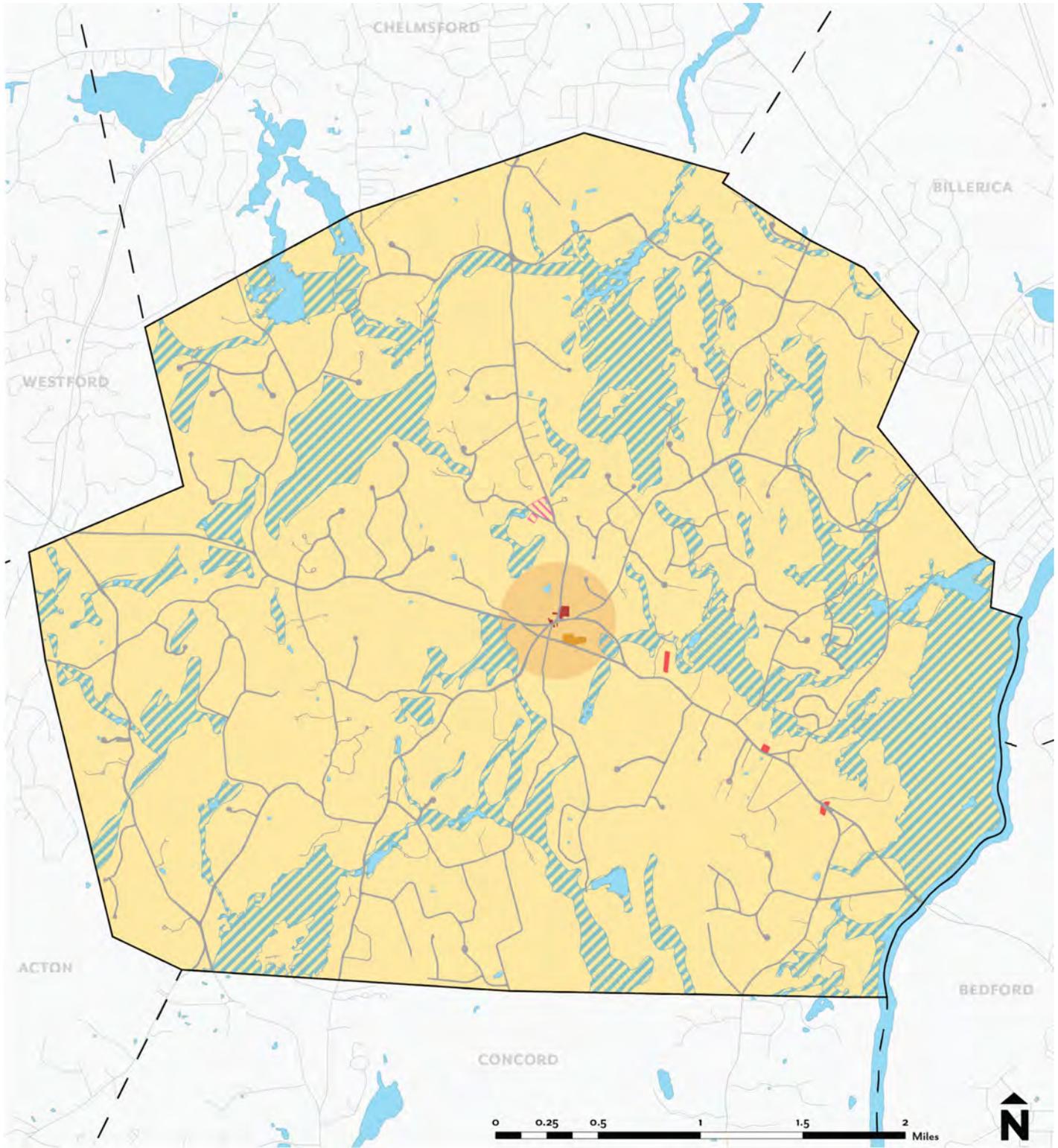
Other existing Zoning Sections that may encourage interested property owners to consider modest additions to the town’s housing diversity include:

Section 5.1 Residence District M – Multi-Dwelling Housing for the Elderly. In 1980 the Town created Residence District M on the northeasterly side of Church Street “... to provide for the demonstrated needs of the Town for housing the elderly by making provision for appropriately located, specially designed and appropriately priced housing for occupancy by elderly persons who otherwise would not have such housing opportunities within the Town.” Within this district, multi-dwelling housing for the elderly could be permitted through special permit. The Carlisle Village Court development, which includes 18-units of affordable senior housing, was created in this district. Unlike other Supplementary Regulations, this is a fixed district area; however, there may still be additional capacity within the district.

Section 5.6 Accessory Apartments. The 1989 Accessory Apartments Bylaw was adopted to encourage an increase in the supply of moderately priced housing for “...town employees, the young, the elderly, people of low and moderate income, and dependent relatives of town residents by permitting the creation of accessory apartments...” within existing neighborhoods. An accessory apartment (AA), is defined as a “distinct portion of a single-family dwelling, having its own kitchen and bathroom facilities, and subordinate in size to the principal part of said dwelling.” In 2006, the bylaw was amended to include the affordable accessory apartment (AAA), which also has to meet the affordability requirements under MGL Chapter 40B. Subsequent amendments were made in 2013 and 2017, as detailed in the Housing Element Section.

Section 3.2.1.2– Pre-1962 By-right Conversion Bylaw. Under General Residence District uses, this provision permits “...the alteration and use of a single-family dwelling existing on the effective date of this bylaw (May 11, 1962) as a dwelling for two families, provided that the lot on which it is located conforms to the area and width requirements for new lots in the same district.” Few property owners with homes older than the date of the bylaw have used this provision, though it is still an opportunity allowed through this bylaw to increase housing choices.

Map C-1. Carlisle Zoning Map

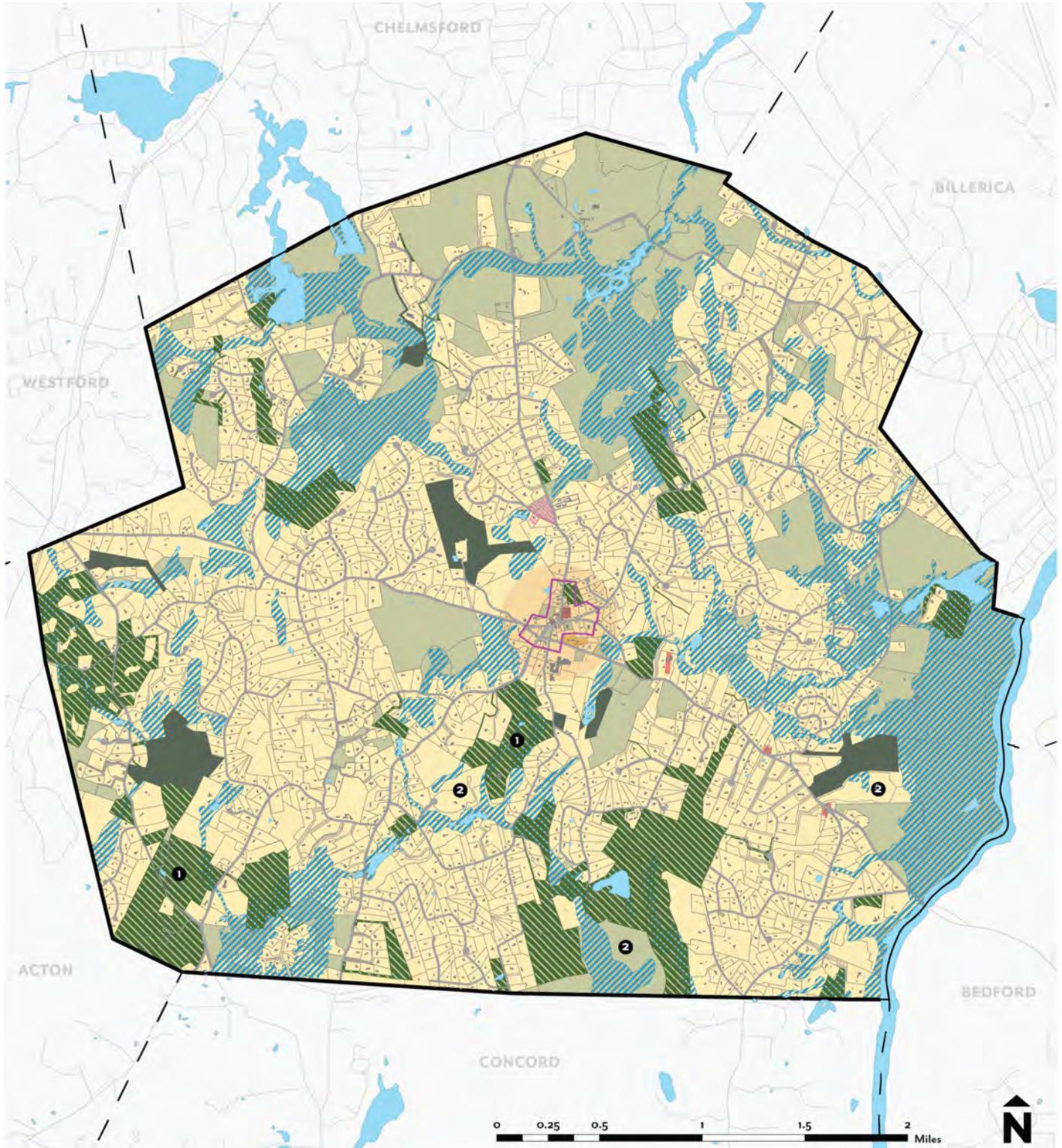


Zoning

- | | | |
|--|--|---|
|  General Residence District A |  General Business District |  FEMA 1% Annual Flood (Overlay District) |
|  General Residence District B |  Center Business District | |
|  Residence District M |  Solar Photovoltaic Facility Overlay District | |

Map produced July 2020 by CivicMoxie using Assessor's data from John E. O'Donnell & Associates and 2014 FEMA National Flood Layer.

Map C-2. Town of Carlisle Regulatory Map



Town Regulatory

- | | | |
|------------------------------|--|-----------------------------------|
| General Residence District A | General Business District | FEMA 1% Annual Chance of Flooding |
| General Residence District B | Center Business District | Conservation Restriction |
| Residence District M | Solar Photovoltaic Facility Overlay District | Chapter 61 Land |
| Historic District | Open Space | |

NOTES

- 1** Conservation restrictions are missing building envelopes
- 2** Check conservation or Ch.61 status.

Map produced July 2020 by CivicMoxie using: Assessor's data from John E. O'Donnell & Associates, 2014 FEMA National Flood Layer, 2013 Open Space and Recreation Plan, and MPSC updates based on its assessment and site surveys. The MPSC added categories in the Town Regulatory Map to include constraints not included in the Town's official Zoning Map. These categories include Conservation Restrictions, Chapter 61, as well as Open Space.

Map C-3. Town of Carlisle Regulatory Map – Town Center Zoom-In



Town Regulatory - Downtown

- | | | |
|------------------------------|--------------------------|-----------------------------------|
| General Residence District A | Center Business District | FEMA 1% Annual Chance of Flooding |
| General Residence District B | Open Space | Conservation Restriction |
| Residence District M | Historic District | Chapter 61 Land |



Map produced July 2020 by CivicMoxie using: Assessor's data from John E. O'Donnell & Associates, 2014 FEMA National Flood Layer, 2013 Open Space and Recreation Plan, and MPSC updates based on its assessment and site surveys. The MPSC added categories in the Town Regulatory Map to include constraints not included in the Town's official Zoning Map. These categories include Conservation Restrictions, Chapter 61, as well as Open Space.

CARLISLE BUSINESS DISTRICTS

Areas zoned as Business Districts comprise approximately 0.06% of Carlisle’s land area (see Table C1.). Carlisle has two business districts: the Center Business District, and the General Business District, which sits along Bedford Road. Both business districts are small, irregularly shaped, non-contiguous, and in many instances comprise only a portion of a lot. Most of the business districts are surrounded by existing homes. These business districts probably arose for historical reasons, as in many instances it appears that the lines for the districts were drawn around then-existing businesses. Most of the business districts have ongoing business uses situated on them.

The Carlisle Zoning Bylaw also includes a Distinctive Structures Bylaw, allowing barns and outbuildings no longer in agricultural use to be renovated for other purposes such as office use.

While community comments have included suggestions that Town Center be the natural area for more activity (whether commercial or public), it may also make sense to allow more commercial activity around existing commercial uses along Bedford Road or allowing along major roads closer to neighboring towns to increase market area.

Table C1. Carlisle Land Area by Zoning Category

Zoning Category	Acreage (Estimate)	Percentage (Total)
Residence A	159	1.55%
Residence B	10,090	98.36%
Residence M	3	0.03%
Residential Total	10,252	99.94%
Central Business	2	0.02%
Business District	4	0.04%
Business Total	6	0.06%
Total (Estimate)	10,258	100.00%

Source: Town of Carlisle GIS data used for acreage estimates. This discrepancy is not unusual, and the focus should be on the Percentage of the Total

WETLANDS AND SOLAR

While the Wetlands/ Flood Hazard District is not technically a land use category, it does restrict development. The district, which follows the 2014 FEMA flood map data, encompasses approximately 2,170 acres, or about 21% of the town’s overall land area. The areas shown in this district are important in understanding the areas within Carlisle that are critical to climate issues, particularly areas that are already susceptible to flooding, and protection of wetlands as well as other water resources. Pursuant to the town’s solar bylaw, a solar facility has been developed over the parking lot at the Carlisle Public School.

Land Use

Land Use is distinct from Zoning and refers to the manner in which land is currently used. While zoning can be changed through actions of the town, doing so does not automatically cause changes in the use of privately held land.

Carlisle was a small agricultural community that has seen residential growth, particularly from the 1960's through the 1990's. However, the town has visually maintained its agricultural and low-density character while also becoming a highly desired suburban community. According to the *2020 Open Space & Recreation Plan*, approximately 35% (about 3,488 acres) of Carlisle's total land area is protected open space, which was an increase of 126 acres since the last OSRP update in 2013.

From the 2019 Town Assessor data (see Table C2.) of the existing land in Carlisle, approximately 5,439 acres (55%) is residential. The second most common land use by tax assessment category is a combination of Open Space, Chapter 61, Agricultural, US Federal, Commonwealth of Massachusetts, Department of Conservation and Recreation, and Undevelopable at an estimated 1,953 acres (20%). The amount of land taxed as commercial is approximately 24 acres (0.2%). It is also important to note that due to the size of parcels in town, protected land may not cover an entire parcel, meaning the parcel may fall under residential or civic/ institutional tax categories because of another use on a portion of the parcel.

Figure C-1. 2019 Existing Land Uses by Tax Assessment Category

Source: 2019 Town of Carlisle Assessor Data

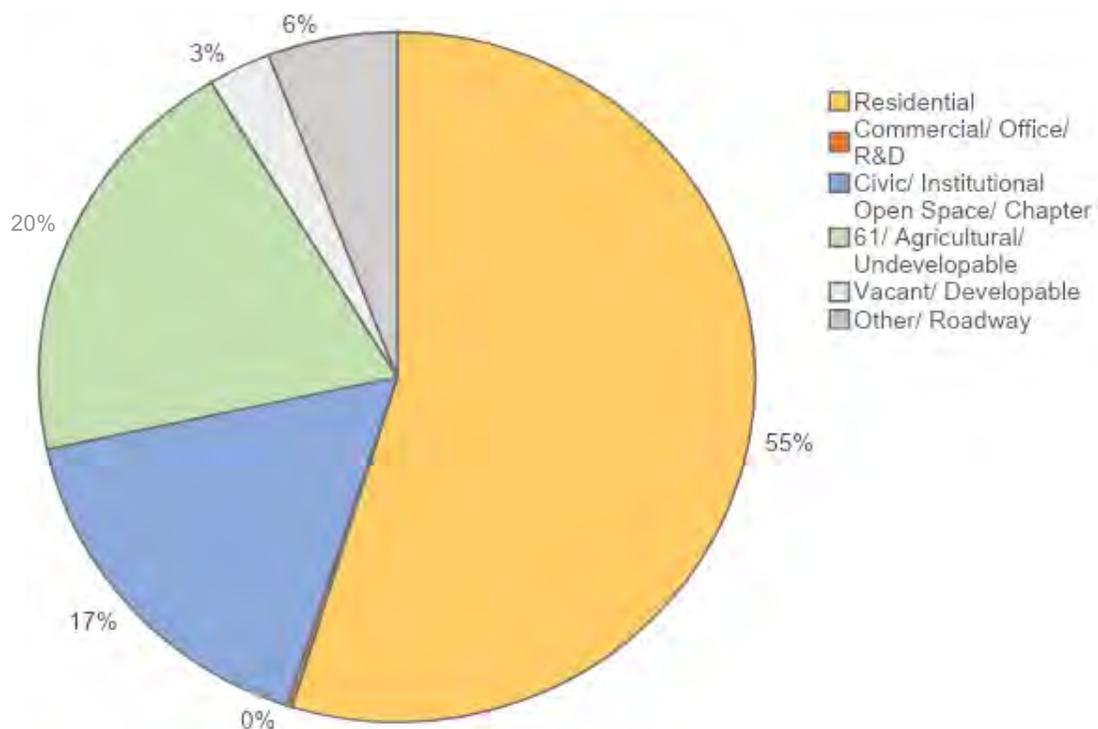


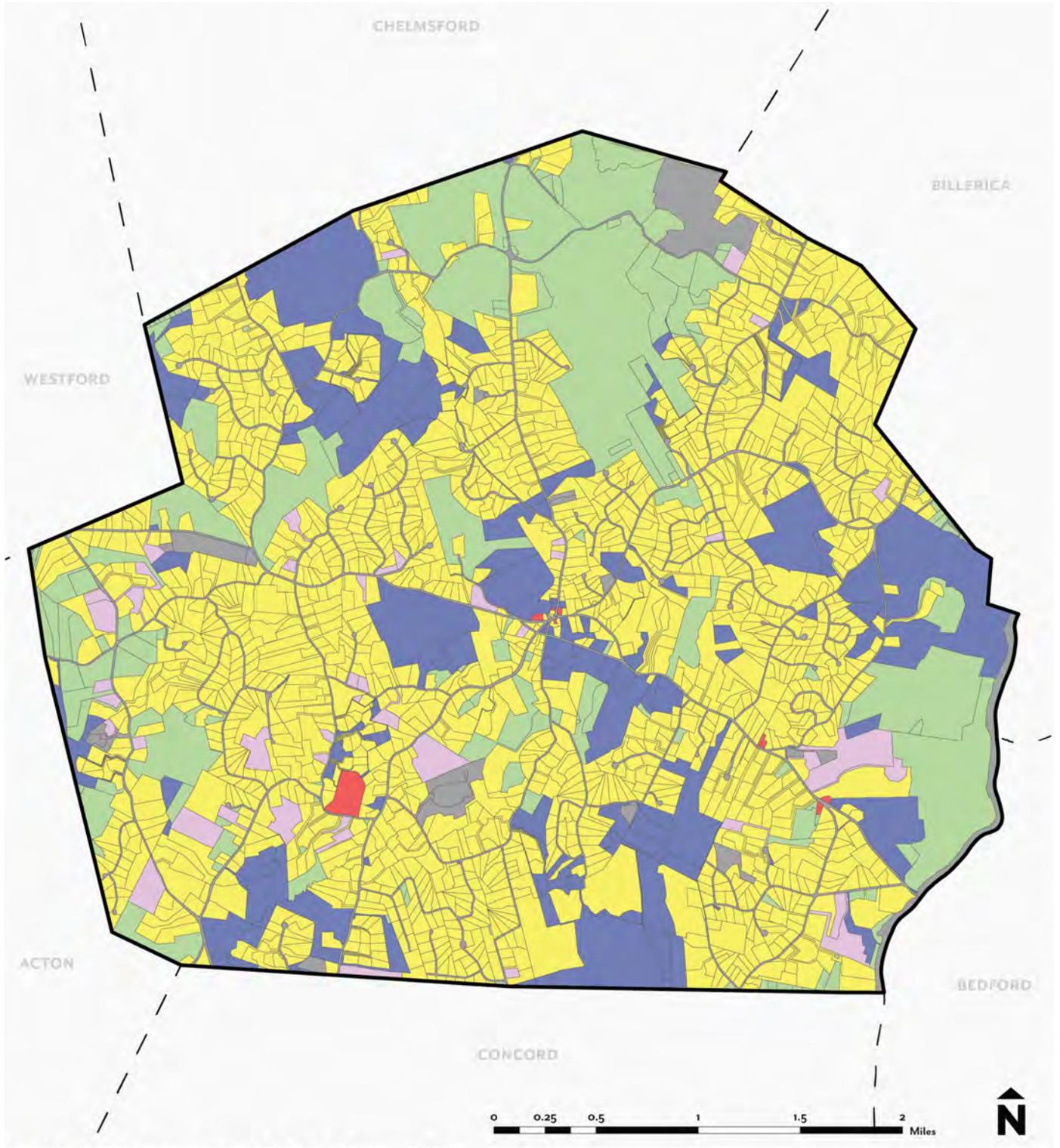
Table C-2. Carlisle Land Use in Acres by Tax Assessment Category*
(Colors correspond to Figure C-1)

Tax Assessment Category	Acreage (Estimate*)	Percentage (Estimate*)
Residential	5,439	54.7%
Commercial/Office/R&D	24	0.2%
Civic/Institutional	1,655	16.7%
Open Space/Chapter 61/ Agricultural/US Federal/ Commonwealth of MA; DCR/ Undevelopable	1,953	19.7%
Vacant/Developable	284	2.9%
Other/Roadway	581	5.8%
Total (Estimate*)	9,935	100.0%

*Source: 2019 Town of Carlisle Assessor Data; Town of Carlisle GIS data from John E. O'Donnell & Associates, Inc. *Totals may equal more than sum of each category due to rounding of numbers.*

The following **Carlisle Land Use Map by 2019 Tax Assessment Category** (Map C-4) shows the land uses throughout the town based on Town Assessor's data, whereas the Land Use Map (Map C-5) includes revisions made by the MPSC following review and field work to verify the actual current uses. This may vary from the land use categories and data from the Town Assessor's Office. For the purposes of land use calculations, however, the original Assessor's data for the land uses has been used since those figures are the base for the Town's property tax assessments and revenues.

Map C-4. Carlisle Land Use Map by 2019 Tax Assessment Category

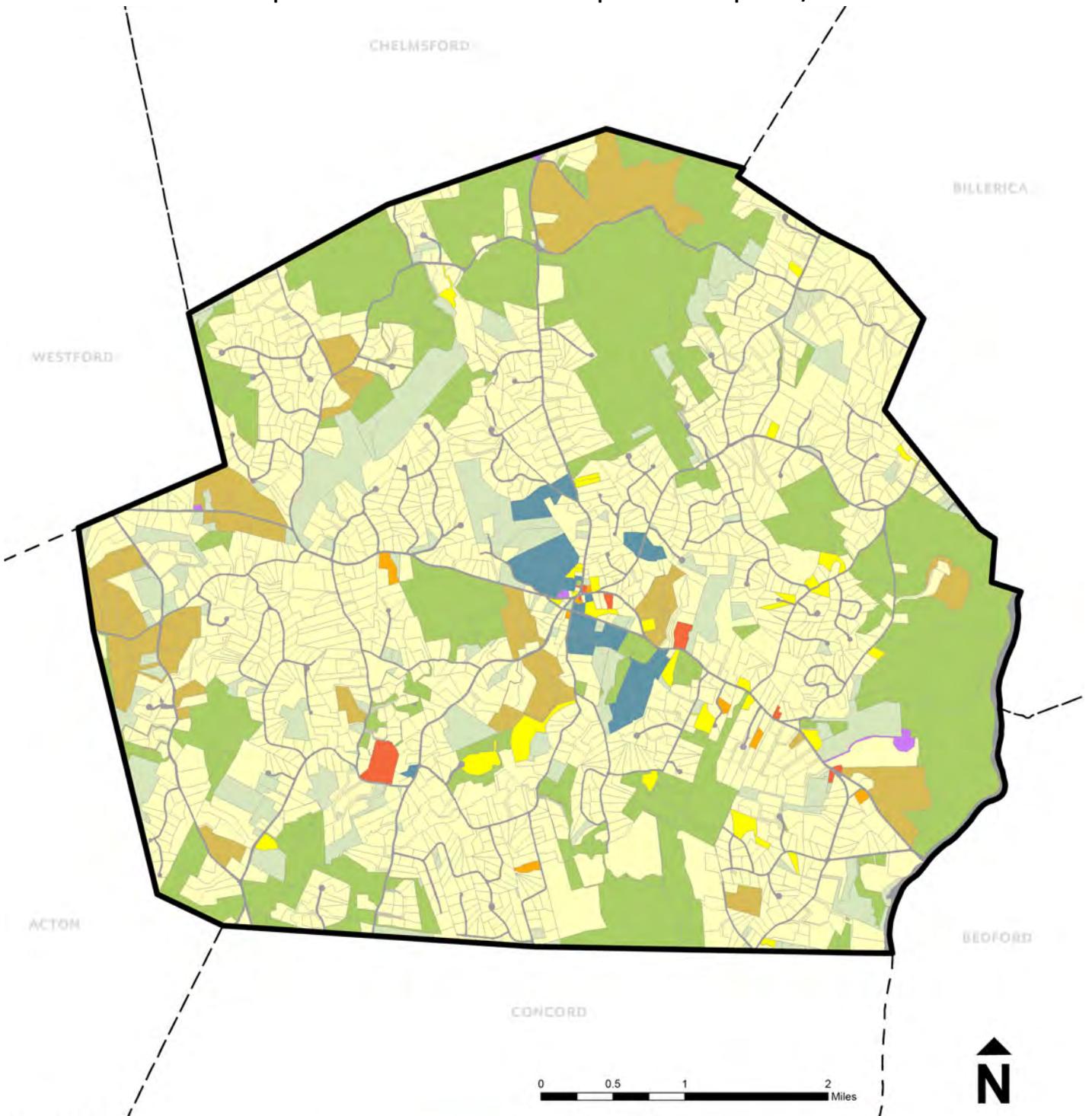


Land Use Code - 2019 Town of Carlisle Assessor Data

- | | |
|-------------------------|--|
| Residential | Vacant/ Developable |
| Commercial/ Office/ R&D | Other/ Roadway |
| Civic/ Institutional | Open Space/ Chapter 61/ Agricultural/
US Federal/ Commonwealth of MA;
DCR/ Undevelopable |

Map produced July 2020 by CivicMoxie using Assessor's data (2019) from John E. O'Donnell & Associates.

Map C-5. Current Carlisle Land Use Map with MPSC Updates / Edits



Land Use

- | | | |
|--|--|---|
|  Residential, Single Family Detached |  Mixed Use (Commercial/Residential) |  Civic/Institutional |
|  Residential, Other |  Commercial |  Open Space |
|  Agriculture |  Utility/Communications |  Vacant |
| | |  ROW |

Map produced February 2022 by Center for Community GIS using 2019 Assessor's data with MPSC updates based on its assessment and site surveys..

"Residential, Other" includes all other residential types other than single-family detached. This includes 2- and 3-family, multifamily, condominiums, multiple houses on one parcel, and group homes.

"Agriculture" includes Chapter 61A properties and conservation land with lease agreements for active agricultural use.

"Civic/Institutional" includes schools, Town Hall, DPW properties, library, police station, fire station, Banta-Davis athletic fields, churches, and museum.

Potential Growth in Land Use

When looking at growth in the town, building permit data is a reliable indicator of activity, particularly over time. As shown in Table C-3, the average number of residential building permits issued annually from 2010 to 2019 was just under 11 units per year. Additional building permits (not shown in this table) were issued under the commercial category for the Benfield Farms apartments. If past trends continue, Carlisle can expect modest growth in the number of single-family homes built in coming years.

Table C-3. Building Permit Activity in Carlisle, 2010 to 2019

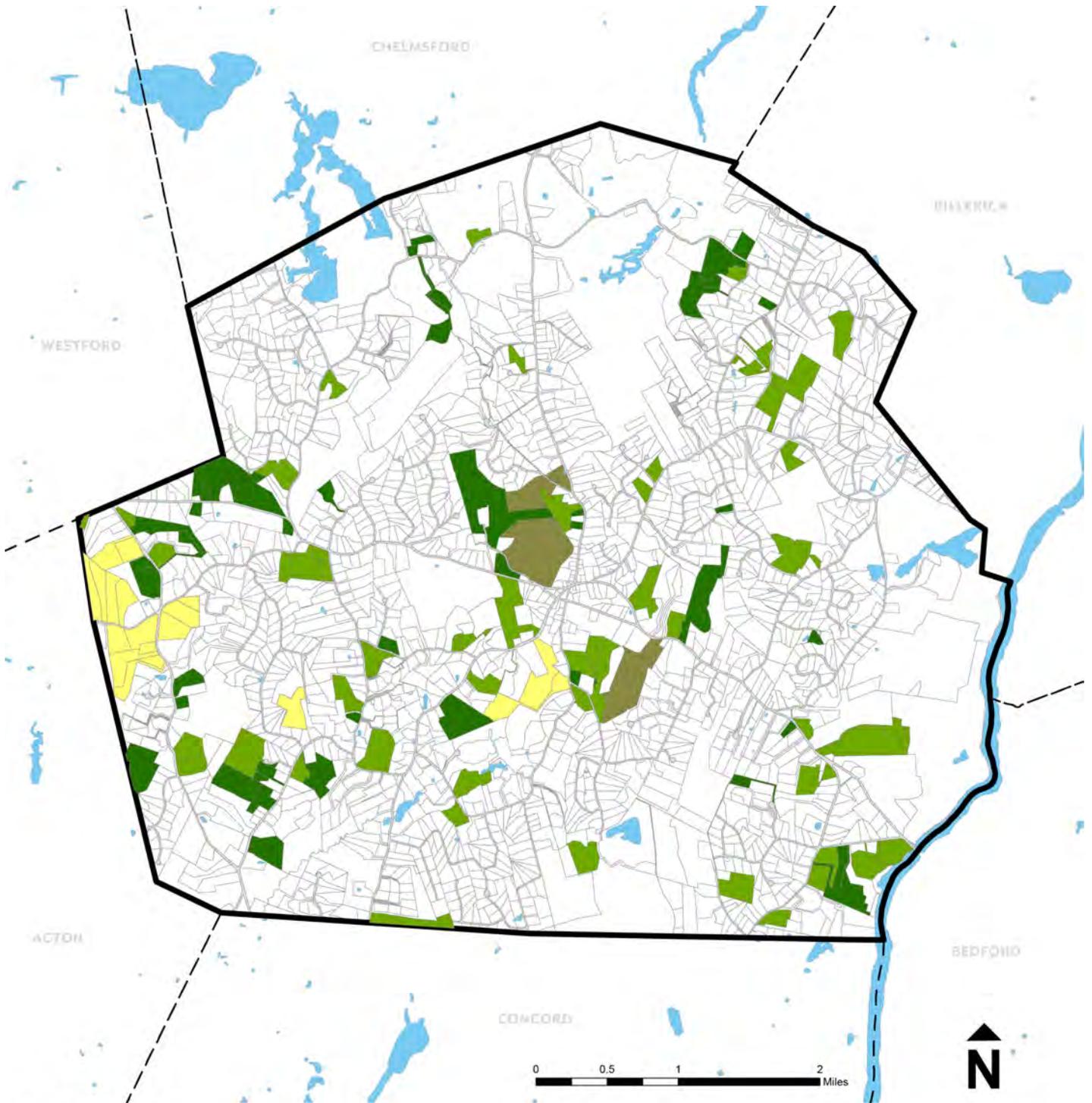
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
# of New Residential Units Permitted	6	7*	10	18	12	8	10	11	16	9

Source: Town of Carlisle Building Department. Note that this does not include the 25 units from Benfield Farms, which were listed as “Commercial” building permits.

**From 2011 Annual Town Report as building permit book not available.*

One constraint on future growth will be the amount of vacant land that remains to be developed. In order to see what future growth may look like, using Town Assessor data and additional filtering by the MPSC, the following Map C-6 illustrates potentially developable parcels. In addition to numerous smaller potentially developable parcels, there are currently 14 privately owned 10+ acre parcels that could be developed, as well as 19 privately owned 10+ acre parcels that are not vacant but could potentially be subdivided. While an extensive site analysis has not been conducted for each private property, only parcels that were not majority wetlands were counted, with exception for majority wetlands parcels held in common ownership with an adjoining developable parcel. Appendix J, “Land Use, GIS, and Development Potential MPSC Report” explains this methodology further.

Map C-6. Development Potential



Development Potential

- | | |
|---|---|
|  Town - Not Fully Developed |  Private - Developable |
|  Private - Not Fully Developed |  Vacant - Private (Building Envelope) (VPBE) |

Map produced February 2022 by Center for Community GIS using data prepared by the MPSC.
VPBE parcels are vacant and restricted to one house.

Environmental Sustainability and Land Use Policy

The 1995 *Study Plan for the Town of Carlisle* outlined the importance of “rurality” and the “appearance of rurality” that is treasured by residents and is in part necessary due to the soil conditions and lack of public water or sewer. This commitment to rural character leads to greater vehicle dependence than towns that have slightly denser residential or commercial clusters or access to commuter rail. The vehicle trips as well as larger homes contribute to Carlisle in 2017 having per-capita emissions over 40% higher than the Massachusetts average (per Carlisle Energy Task Force’s *Path to Zero Emissions—Creating a Sustainable Carlisle* draft study).

What We’ve Heard

The following summarizes feedback received during public meetings, focus groups, interviews, Kitchen Conversations, and the Master Plan Fall 2019 Survey:

- Residents noted an appreciation for the “rural character” of Carlisle, characterized by its perceived large, undisturbed swaths of natural and undeveloped areas.
- A desire for more “to do” in town, with examples given of dining, community recreation, and entertainment. While some voices expressed interest in focusing on Town Center, others were open to seeing if there were viable areas in other parts of town.
- There is a desire to review how closely land use regulations and policies align with goals for the town’s economy, housing, and open space and natural resources, as well consideration for energy and environmental sustainability.
- There are hopes that the Town can be more intentional in its strategies to encourage environmental sustainability by incentivizing desired development footprints, creating wildlife corridors, clustering uses to aid in reducing automobile miles and congestion, and more.
- A need to address the growing population of older adults and their housing and mobility needs.
- A request to look at potential increase in density on already developed properties, using existing zoning tools more actively, to allow for new development.
- The desire for more land conservation and wildlife protection, and the protection of existing agricultural uses.
- Residents have prioritized improvement of public facilities including a new Community Center, updated Library, and updated Town buildings and infrastructure.

Things to Think About

- Are there competing use priorities for under-developed and vacant (not conserved) land? Can priorities be balanced on the same land?
- When the State updates its regulations and building codes and the Town follows suit, should the Town additionally investigate different methods that other towns are piloting to reduce the desirability of larger homes and encourage more energy-efficient materials and construction methods?
- What are the proper land regulations to achieve Town goals? Is there desire to allow more business uses? With few new development parcels identified for Conservation Cluster Development, SROSC, or ROSC, should the Town explore other methods to incentivize desired appropriate housing development?
- Should inclusionary zoning language, as mentioned in detail in Housing, which could apply to smaller developments (with as few as 11 or 12 units), be revisited as a possible tool to create affordable units?
- Would a larger educational campaign about AA units, AAA units, and homes built in or before 1962 (with simplified language and process) actually encourage the creation of more housing units within the existing community fabric? How can the Town determine why more homeowners haven't been using these tools?
- Can water and wastewater planning help the Town achieve broader goals? Should the town revisit the two-acre zoning in the context of water and wastewater technological innovations?
- Is there a way to make energy efficiency requirements more binding within the Town's policies and land use regulations?
- The lack of compatible data regarding how land is actually used and land use codes for tax assessment purposes makes it challenging to consider possible policy changes. How could coordinated GIS use and online mapping help ensure accuracy, consistency, and understanding about the relationship between land use and tax assessment?
- How would the Town like to be a regional partner in sustainability and equity as part of the MAPC? Newer home sizes and their impacts on the environment have become a local, regional, and national subject for discussion with a regional movement towards smaller, more energy efficient homes and environmentally sustainable living. The MAPC's 2008 Metro Future Regional Plan and their MetroCommon 2050 plan includes goals and recommendations that can be adapted to a variety of towns, cities, and communities.



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HOUSING

EXISTING CONDITIONS REPORT

Introduction

Many residents are drawn to living in Carlisle because of its bucolic setting, sense of privacy, excellent schools, open space and recreational opportunities, and location in reasonable proximity to Boston. Given these amenities, it is not surprising that there is high housing demand and, consequently, high housing costs that are now coming close to \$900,000 for the median single-family house and more than \$3,000 in market rents. These high costs are partially fueled by two-acre zoning meant to better protect the local environment given the lack of public water and sewer services and the shallow depth to bedrock that requires more separation between septic systems and wells. High housing values also result in high property taxes that many residents, especially long-term residents on fixed-incomes, are finding harder to maintain. While a vast majority of Carlisle's housing is owner-occupied single-family detached homes, the Town has made some progress in sponsoring new, more diverse development in the past few years.

The information in this section includes:

- Housing Today
 - Key Trends and Characteristics
 - Town Leadership on Housing
 - Housing Stock – Types of Units and Structures
 - Land Use Regulations and Housing
 - Housing Production
 - Housing Occupancy
 - Housing Values
 - Subsidized Housing Inventory (SHI)
- What We've Heard
- Things to Think About

Key Trends and Characteristics

Key trends and characteristics for Carlisle’s housing include:

- Approximately 9% of Carlisle’s housing was built since 2000; about 71% of housing structures were built between 1960 to 1999. While there are many architectural styles of homes in Carlisle, approximately 91% of all units are single-family detached homes according to 2018 American Community Survey (ACS) estimates.
- Housing production has been slowing down in the past twenty years, with 132 homes created between 2010 and 2019 compared to more than 300 units in each of the 4 decades from 1960-1999.¹
- Projections by the Metropolitan Area Planning Council (MAPC) for housing in Carlisle indicate continued modest housing growth.
- The town continues to have a high level of owner-occupancy, about 94%, of all of its housing units.
- 2018 ACS estimated vacancy rates for owner-occupied housing was 3.1% and near 0% for rental units.
- Housing values continue to remain high, with the median single-family home price of \$885,000. (The Warren Group, Banker & Tradesman, November 2019)
- One-third of the 2019 single-family home sales were for more than \$1,000,000.
- While the estimated median household income is high (approximately \$171,625 in 2018 ACS,) an income over \$200,000 would be needed to afford the \$885,000 median home price (as of November 2019) in Carlisle.²
- The Council on Aging’s (COA) FY17-21 Strategic Plan identifies that the “graying of Carlisle” is increasing the need and demand for greater housing alternatives to improve accessible choices and financial stability among seniors.

¹ Between 2010-2019, 132 housing units were created through 107 residential building permits and 25 units at Benfield Farms, which were permitted as commercial construction.

² Figures based on 80% financing, 30-year term, 4.5% interest rate, \$18.29 property tax rate, and insurance costs of \$6 per thousand. Given 80% financing, private mortgage insurance (PMI) was not included in calculations. Figures also assume that a household will pay no more than 30% of its income on housing costs.

Town Leadership on Housing

CARLISLE HOUSING AUTHORITY AND CARLISLE AFFORDABLE HOUSING TRUST

The Carlisle Housing Authority (CHA) was organized following the October 27, 1987 Town Meeting vote with the mission "...to increase the supply of affordable housing stock in Carlisle through various direct and indirect initiatives, while preserving the semi-rural character of the town." The directive also included the intent to primarily, but not exclusively, target the creation of affordable housing to meet the housing needs of Carlisle families and those connected to Carlisle, such as Town employees, seniors, and others. The CHA's responsibilities also included administering specific units and affordable housing subsidy programs, as well as providing residents with information and guidance with housing programs and services available through regional, state, and federal agencies and organizations.

In 2006, the Town established the Carlisle Affordable Housing Trust (CAHT) with the stated purpose of providing for the preservation and creation of affordable housing in Carlisle. Different from the CHA, the CAHT's charter allows it to borrow funds without a Town Meeting vote to enable it to more quickly act on opportunities that might arise. The CAHT is also the conduit for the Community Preservation Act (CPA) funding targeted for affordable housing.

In 2006, the Town also staffed a Housing Coordinator and CHA support position. The housing coordinator's duties included providing professional support to the CHA, CAHT, and the Town Administrator, as well as coordinating and working with adjacent communities, regional planning groups, and state agencies. While the position was initially funded through CPA funds, in 2014, it was moved to the general Town budget.

The CHA and CAHT worked together in the late 2000's through the mid-2010's on development plans, the creation of Benfield Farms apartments for seniors and the Bedford Road group home, and several zoning modifications following recommendations from the *2005 Housing Production Plan (HPP)*. In 2015, the Town prepared, with the CHA and CAHT, the updated 2015 HPP with additional recommendations for the Town to continue a proactive involvement in the creation of affordable housing.

Since the completion of the 2015 HPP, and a change in Town leadership, there has been modest movement by the Town, mostly additional zoning and permitting changes, to allow for easier addition of accessory apartments to existing single-family homes and specific cluster housing development to occur, though still primarily market-rate in price point. Other policies that were previously discussed for further study, such as inclusionary zoning, did not move ahead.

A plan for a multi-unit, non-age restricted rental development of between 32 and 45 units to be built on Town-owned property was presented to Town Meeting and was defeated by a significant margin. This approach was rejected primarily for two reasons, (1) it was not in keeping with the rural look and feel of the Town, and (2) it would further raise the taxes on

Carlisle seniors that, while not qualifying to become residents of the new development, would continue to be burdened by the increased cost of living in Carlisle while on fixed or diminished incomes. Another project, a group home, was however approved.

In December 2017, the Town’s part-time Housing Coordinator retired, and despite the request by the CHA to hire a new coordinator, the Select Board decided against funding the position and eliminated the line item in the FY19 budget. The CHA resigned en masse in a letter written to the Massachusetts Department of Housing and Community Development (DHCD) on September 10, 2018 citing lack of staff support and the denial of CPA funding to study the demand for, and feasibility of, mixed-income rental housing. The Select Board temporarily filled the positions of the CHA and presented an article at the 2019 Town Meeting proposing the dissolution of the CHA because there was no further need for its existence, that it had no property to administer, and that all outstanding obligations of the authority had been satisfied. The article was passed and the CHA assets were transferred to the CAHT.

The membership of the CAHT has been modified to reduce the number of Select Board members and to increase the number of at large members to create a better balance. It continues to operate without paid staff, and does not provide housing counseling or referral services for residents (these services were previously provided by the Housing Coordinator). Planning and COA staff have been providing information and assistance to residents, property owners, and potential developers to the extent their expertise permits.

Housing Stock – Types of Units and Structures

The 2018 ACS estimates indicate that approximately 91% of Carlisle’s existing housing units were in single-family detached structures, significantly higher than the 48% for Middlesex County, 64% for neighboring Bedford, and 61% for Concord (see Table D-1). These single-family detached homes come in a range of architectural styles, from mid-century Deck homes to colonials to connect farm building-style to Cape Cod cottages to modern. While some housing styles lend themselves better to adaptation for occupants as they grow and age, many single-family buildings cannot be fully adapted.

Table D-1. Estimated Number of Housing Units by Type of Structure in Carlisle, 1990 – 2018

Type of Structure	1990		2000		2010		2018	
	# Units	%						
1-Unit Detached	1,433	95.9%	1,573	95.0%	1,587	95.6%	1,746	91.2%
1-Unit Attached	10	0.7%	20	1.2%	28	1.7%	64	3.3%
2 to 4 Units	24	1.6%	50	3.0%	36	2.1%	28	1.5%
5 to 9 Units	13	0.9%	6	0.4%	9	0.5%	32	1.7%
10+ Units	3	0.2%	0	0%	0	0%	45	2.3%
Other	12	0.8%	6	0.4%	0	0%	0	0%
Total	1,495	100%	1,655	100%	1,660	100%	1,915	100%

Note that the units are given for each structure (not total development including multiple

structures, if applicable). Source: ACS five-year sample, 2014-2018

Figure D-1. Carlisle Housing Stock



Carlisle has a variety of housing styles including Deck Houses and traditional New England styles. Most are single-family although there are some other types of units including the Rocky Point Condominiums shown on the top right. Source for Deck House photo bottom left: redfin.com

The inventory of condominiums in Carlisle is limited with only 46 units included in Town Assessor records, which will increase with the completion of the 18 units at Woodward Village. Among the condos are units in the Malcolm Meadows Over 55 development (twelve units), the Rocky Point development (eight units with two affordable units), and the Carlisle Center development on Westford Street (three units), as well as additional condos on Garrison Way, Stearns Street, and Birch Lane. Some of the condominium developments are a cluster of stand-alone single-family structures that share a common driveway, along with some common infrastructure, space and maintenance, and are not traditional multi-family buildings.

Homes sizes in Carlisle have been getting larger, with approximately 53% of all homes having nine rooms or more based on 2018 ACS estimates compared to 42% in 2000. As with the regional trend over the last decade, smaller, older homes that would be considered “starter” homes have been purchased and then renovated, added to, or rebuilt at a larger scale that in turn increases the home price.

While there was some loss of units in small multi-family dwellings, there were modest gains in single-family attached units (with approximately 25 accessory apartments added to date), as well as in structures with more than five units. Some of this increase over the past few decades was from the development of Benfield Farms apartments, Carlisle Village Court, and the group home on Bedford Road.

As noted in the COA's FY17-21 Strategic Plan, "...the existing housing stock offers relatively few smaller/attached, easily maintained and/or affordable residences, thereby fueling a trend of Carlisle seniors needing to leave town to find these more livable residence choices. All townspeople, as well as the COA, will need to advocate for more housing alternatives to retain this necessary group of tax payers."

Land Use Regulations and Housing

Land use regulations are presented in greater detail in the Land Use and Zoning element of this master plan. The following is a summary of those regulations that pertain to the Town's efforts to encourage additional housing types, which have had limited success.

In 1989, the Town passed the Accessory Apartment (AA) Bylaw as a clarified means to allow home owners to create an Accessory Dwelling Unit (ADU) that, while not specifically required to be "affordable," provides a smaller size unit that could offer both additional income for the home owner as well as create a more modest-priced rental unit. Section 5.6 of the Zoning Code states, that AA's are allowed "To increase the availability of moderately priced housing for town employees, the young, the elderly, people of low and moderate income, and dependent relatives of town residents."

The Town amended the bylaw in 2013 to include the Affordable Accessory Apartment (AAA) and in 2017 there was an additional amendment to allow AA's in detached structures on single-family lots (which was allowed for AAA's). In Carlisle, AAA's have the same requirements as AA's with the exception that they must meet the affordability requirements under MGL Chapter 40B and also that AAA's can be in "a unit accessory to a non-residential use." (AA's are only allowed in a single-family dwelling or on a single-family lot.)

AAA special permits are granted for a duration of 15 years, and do not run with the land. At the end of 15 years, or upon sale of the property, unless there is an application for renewal of the permit, the apartment must be removed.

AAA's must meet State DHCD requirements regarding tenant selection and deed restrictions, which have made this housing type unattractive for single-family homeowners, precluding its use in Carlisle. This has been particularly true since the 2017 zoning amendment gave homeowners the flexibility of constructing AA's in a structure separate from the single-family dwelling. Since 1989, twenty-five accessory apartments have been built and nine new applications have been filed in the past 12 months.

In addition to the AAA Zoning Bylaw, the Town’s Pre-1962 By-right Conversion Bylaw allows for the alteration of a single-family structure built on or before 1962 to be as-of-right turned into dwellings for two families. Over the years, a few property owners have utilized these bylaws to add a modest number of units to Carlisle’s housing stock.

The more recent Residential Open Space Community (ROSC) Bylaw was approved at the Fall 2017 Special Town Meeting to promote cluster-style housing and preserve substantial amounts of open space. This zoning was used for the Woodward Village development but did not include provisions that would require some number of affordable units.

The Town adopted the Senior Residential Open Space Conservation Bylaw (SROSC) in 1994 for parcels ten acres minimum in size. There are other criteria for a Special Permit, including allowing a 50% increase in housing density, and providing open space of at least 1.2 acres per dwelling unit for housing that is restricted to families with at least one member who is age 55 years or above and no members under 18, among other requirements.

Housing Production

The 2018 ACS estimates Carlisle has a total of 1,915 housing units, up 9% from 1,758 units in 2010, and representing 157 new housing units. Local residential building permit data shows 98 new homes permitted between 2010 to 2018, which is higher than the 2018 ACS growth estimate during this period (see Table D-2).

Housing growth has slowed down considerably from previous decades, particularly from the peak building period between 1960 and 1999 when at least 300 new units were produced each decade. Along with the slowdown in housing production, the values of new housing have risen considerably from an average of \$792,500 in 2010 to more than \$1 million since 2015.

The 2018 ACS estimates that approximately 800 homes were built before May 1962 and thus might qualify for conversion to two units under the Town’s Pre-1962 By-right Conversion Bylaw.

MAPC projections suggest there will be limited housing growth to 1,924 units in town by 2030 under its “Status Quo” scenario, representing a gain of about 166 units since 2010, but only

Table D-2. Estimated Number of Units Built in Carlisle by Year, 2018

Period Structure Built (Years)	# Units Built	% Total Units
2010 or later	49	2.6%
2000 to 2009	131	6.8%
1990 to 1999	312	16.3%
1980 to 1989	322	16.8%
1970 to 1979	340	17.8%
1960 to 1969	390	20.4%
1950 to 1959	163	8.5%
1940 to 1949	35	1.8%
1939 or earlier	173	9.0%
Total	1,915	100.0%

Source: ACS five-year sample, 2014-2018

nine units above the 2018 ACS estimate.³ This projection still represents notable housing growth of 9.4% between 2010 and 2030, in contrast to MAPC’s projected population loss of -5.9%. It may also be noteworthy to point out that the MAPC study and estimates were completed well before the COVID-19 pandemic had become recognized or an issue.

Based on permitting activity (98 new units) and the 1,758-unit count in the 2010 Census, totaling 1,856 units as of 2018, these projections suggest that 70 new units would be built between 2019 and 2030. This is actually lower than recent building permit activity of about 10 units per year (see Table D-3).

Table D-3: Building Permit Activity in Carlisle, 2010 to 2018

Year	New Units	Estimated Value	Average Value/Unit
2010	6	\$4,755,000	\$792,500
2011	7*	NA	NA
2012	10	\$9,454,300	\$945,430
2013	18	\$15,360,325	\$853,351
2014	12	\$9,936,250	\$828,021
2015	8	\$11,579,237	\$1,447,405
2016	10	\$11,821,911	\$1,182,191
2017	11	\$14,869,871	\$1,351,806
2018	16	\$18,156,369	\$1,134,773
Total	98		

Source: Town of Carlisle Building Department

*From 2011 Annual Town Report; building permit book not available

Housing Occupancy

Of Carlisle’s 1,915 total units based on 2018 ACS estimates, 1,823 are occupied units with an extremely high level of owner-occupancy at approximately 94%.⁴ This level of owner-occupancy was substantially higher than the 62% level for both the county and the state and even higher than nearby Bedford at 74% and Concord at 64%. According to ACS estimates, almost all of the net new housing growth occurred in owner-occupied units (see Table D-4).

National and regional trends indicate an increasing share of senior-headed households will likely choose to downsize from single-family homes to apartments or condominiums as their

³ The MAPC “Status Quo” projections are based on continuing rates of births, deaths, migration and housing occupancy. The “Stronger Region” scenario figures explore how changing trends could result in higher population growth, greater housing demand, and a substantially larger workforce assuming that in the coming years:

- The region will attract and retain more people, especially young adults, than it does today
- Younger households (born after 1980) will be more inclined toward urban living than were their predecessors and less likely to seek out single-family homes
- Projects growth to 1,954 units by 2030, or an increase of 196 units since 2010

⁴ Year-round units that are used as the basis for the 10% Massachusetts General Law (MGL) Chapter 40B affordability goal and annual housing production goals and are calculated by the subtracting seasonal, occasional or recreational units (18 units) from total housing units in the decennial census (1,758 units) to get 1,740 year-round units. The year-round figure will change when the 2020 Census figures are released.

space requirements and incomes change. Carlisle’s COA has noted an increasing number of older residents looking for information and assistance related to housing.

Table D-4. Carlisle Housing Occupancy, 1990-2018

Occupancy Characteristics	1990		2000		2010		2018	
	# Units	%						
Total Units	1,495	100.0%	1,655	100.0%	1,758	100.0%	1,915	100.0%
Occupied Units *	1,457	97.5%	1,618	97.8%	1,695	96.4%	1,823	95.2%
Total Vacant Units *	38	2.5%	37	2.2%	63	3.6%	92	4.8%
Owner-Occ. Units **	1,337	91.8%	1,518	93.8%	1,573	92.8%	1,718	94.2%
Renter-Occ. Units **	120	8.2%	100	6.2%	122	7.2%	105	5.8%
Ave. Household Size of Owner-Occupied/ Renter Units	3.03 persons / 2.34 persons		2.96 persons / 2.30 persons		2.86 persons / 2.25 persons		2.95 persons / 1.11 persons	

Source: U.S. Census Bureau 1990, 2000 and 2010 ACS five-year sample, 2014-2018

* Percentage of total housing units ** Percentage of occupied housing units

Vacancy rates are extremely low, remaining below 5% for both owner- and renter-occupied housing stock, representing tight market conditions. Such low vacancy levels are another driver of Carlisle’s rising housing prices. Interestingly, about half of Carlisle’s rental units involve single-family homes based on 2018 ACS data. The 2018 ACS estimates identified an approximately 0% rental vacancy rate that would not even take normal housing turnover into consideration (see Table D-5). Comparatively, Bedford also had a 0% renter vacancy rate compared to 6.1% for Concord.

Table D-5. Estimated Vacancy Rates by Tenure for Carlisle, Middlesex County, and Massachusetts, 2010 and 2018

Tenure	2010			2018		
	Carlisle	Middlesex County	Massachusetts	Carlisle	Middlesex County	Massachusetts
Renter-Occupied	4.7%	5.0%	6.5%	0.0%	3.6%	3.8%
Owner-Occupied	1.2%	1.3%	1.5%	3.1%	0.7%	1.0%

Source: ACS five-year sample, 2014-2018

Housing Values

HOUSING COST AND HOUSEHOLD INCOME DISPARITY

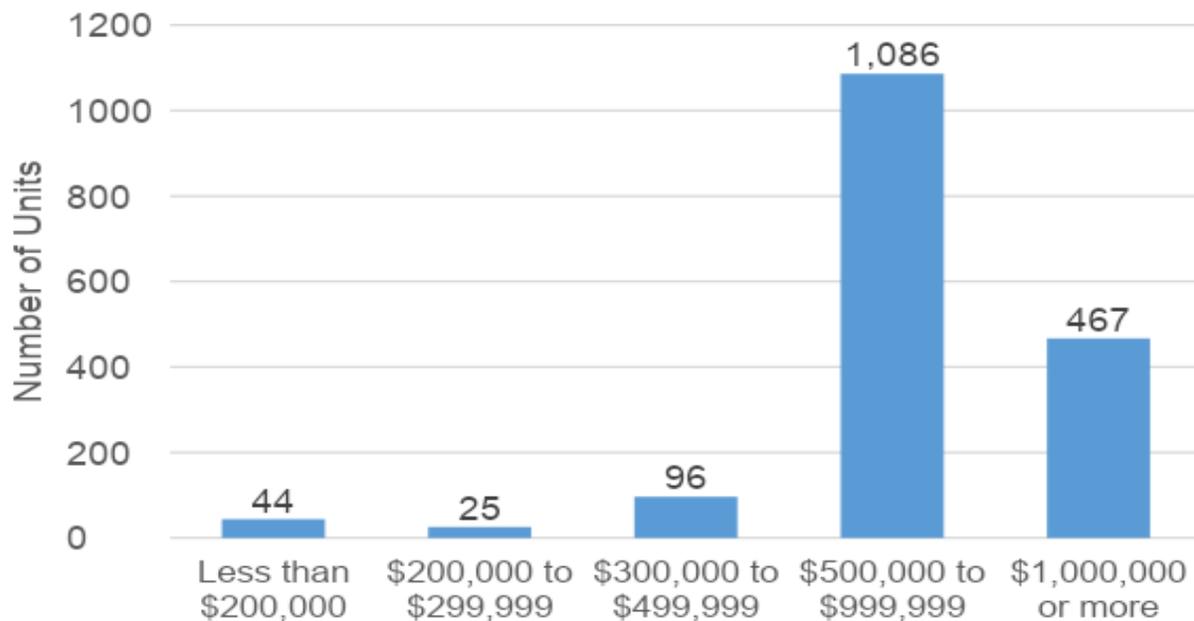
High housing costs in Carlisle are based on a number of factors including high demand and limited housing supply, large-minimum-lot requirements, a very strong school system, and generally high market values in the Metro West area with some of the highest priced housing in the state.

HOMEOWNERSHIP

The 2018 ACS estimates indicate that approximately 90% of Carlisle's owner-occupied housing units are valued at over \$500,000 with 27% valued at more than \$1 million (see Figure D-1). One-third of the 2019 single-family home sales were for more than \$1 million.

Figure D-1. Carlisle's Estimated 2018 Distribution of Housing Values

Source: ACS five-year sample, 2014-2018



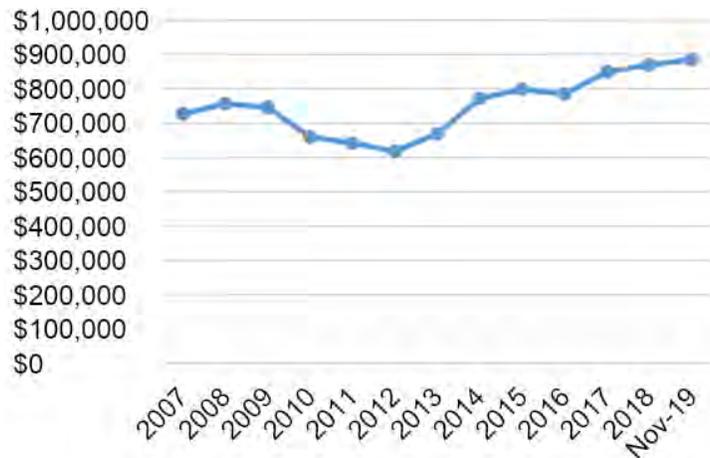
Carlisle's median single-family house price of \$885,000, as of November 2019, is not much higher than the 2005 median of \$876,563.⁵ Like many communities in the state, housing values in Carlisle declined as a result of the recession of more than a decade ago. Unlike many communities, however, Carlisle's housing values have rebounded past pre-recession levels, rising significantly since 2012. While other communities have had larger percentage increases in their median home values, Carlisle's values were already higher than their neighbors, and the town does not offer the same amenities of neighboring towns that have public transit access, commercial strips/downtown centers, and other public or private programs or services.

⁵ The Warren Group, Banker & Tradesman, Nov 2019

The Carlisle median single-family house price would require an income of approximately \$215,000 based on a number of assumptions, including spending no more than 30% of income on housing costs (see Figure D-2⁶). This is significantly higher than Carlisle’s 2018 ACS estimated median household income of \$171,625. A household earning this median income could afford a house closer to approximately \$671,000, leaving an affordability gap of about \$214,000, the difference between the median house price and what a household earning at median income can afford.⁷ With few condos available, the median condo sales price as of November 2019 was even higher at \$929,900.

Figure D-2. Change in Carlisle Median Single-Family House Values, 2007 to November 2019

Source: The Warren Group, Banker & Tradesman, January 17, 2020



Carlisle’s housing prices are significantly higher than Middlesex County’s median of \$560,000 and the state’s \$400,000, and are also higher than all of its neighbors with the exception of Concord, whose median single-family house price was \$1,185,000 as of November 2019 (see Figure D-3).⁸

⁶ Figures based on 80% financing, 30-year term, 4.5% interest rate, \$18.29 property tax rate, and insurance costs of \$6 per thousand. Given 80% financing, private mortgage insurance (PMI) was not included in calculations. Figures also assume that a household will pay no more than 30% of its income on housing costs.

⁷ An analysis for low- and moderate-income households shows an affordability gap of \$592,000 for households earning at the 80% of area median income (AMI) limit, or \$80,300 for a family of three based on HUD 2019 income limits. These households would be stretched to afford a house costing more than \$293,000 assuming they can qualify for subsidized mortgages like the ONE Mortgage Program or a MassHousing mortgage without private mortgage insurance and at least 95% financing. The gap increases to an estimated \$656,500 for a single-person household earning at the 80% AMI limit of \$62,450 who could likely afford a home for no more than about \$228,500.

⁸ Recent sales activity shows that there were only seven homes sold for less than \$500,000, though two of the five single-family sales (one at \$5,000 and the other under \$56,000) were likely not arms-length transactions. On the lower end, a \$341,000 condo sale was part of the Carlisle Center development on Westford Street, and on the other end, one-third of the sales involved prices of more than \$1 million with the highest at \$3.2 million.

Figure D3. Median Single-Family Home Prices for Carlisle and Neighboring Towns, 2005 to November 2019

Source: The Warren Group, Banker & Tradesman - January 17, 2020

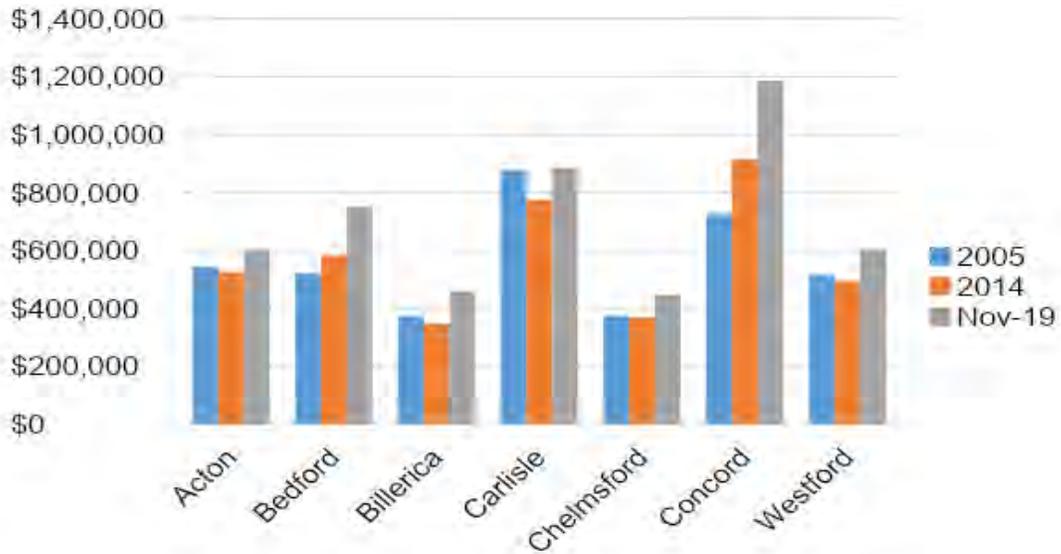
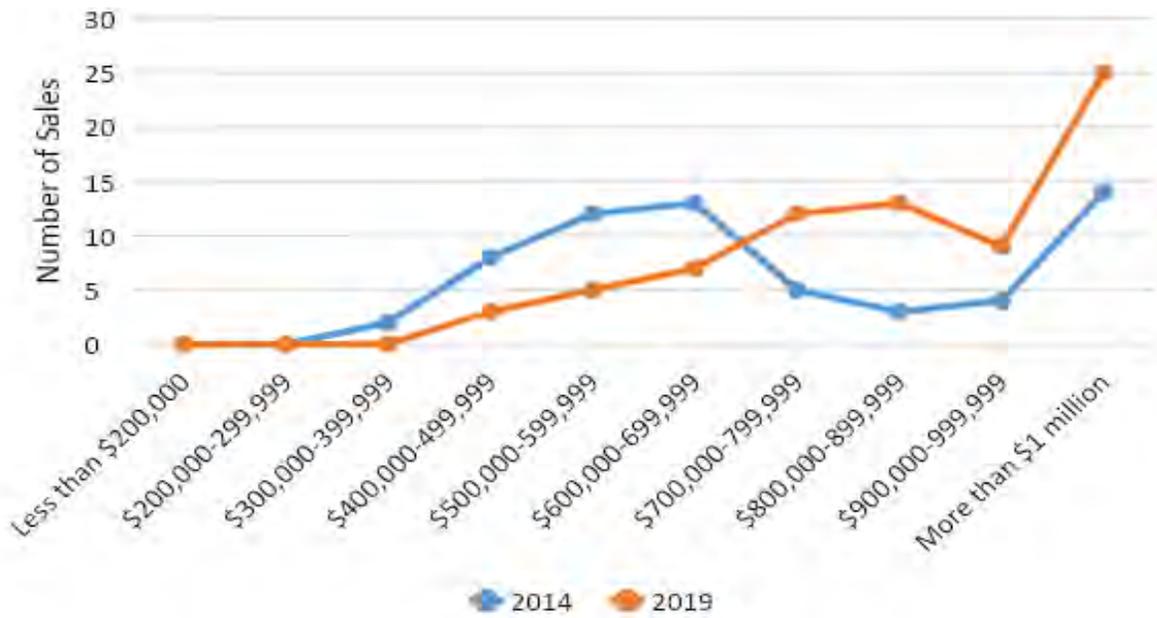


Figure D4. Distribution of Single Family Sales Prices, 2014 and 2019

Source: The Warren Group, Banker & Tradesman - January 17, 2020



Assessed values also indicate that there are very few units that might be affordable to low and moderate income households, and in 2019 only 85 units assessed for less than \$500,000. As was the case with sales in 2019, Town Assessor records document the uptick in the high-end housing market of more than \$1,000,000. The median assessment for single-family homes was \$745,300 and \$497,000 for condos. It is not uncommon for property assessments to underestimate actual market values in rising housing markets (see Figure D-5).

Assessor records also document additional residential types including:

- Thirteen two-family dwellings (26 units)
- One three-family property
- Seven properties with more than one home on the lot
- Eight mixed-use structures where the principal use was residential
- Two mixed residential and commercial properties with the commercial component as the principal use

Figure D-5. Distribution of Assessed Values for Single-Family Homes in Carlisle, 2019

Source: Carlisle Town Assessor - February 7, 2019



RENTALS

The 2018 ACS estimates suggest a median gross rent of \$1,059, however, about half of Carlisle's approximately 100 rental units are subsidized and consequently this median significantly underestimates market prices. Given Carlisle's limited rental inventory, it is not surprising that there would also be limited listings of rental offerings. In early 2020, there were two listings of single-family homes, a five-bedroom, 3.5-bath house for \$5,900 and a new two-bedroom, one-bath post and beam home for \$3,000. Internet sites indicate a median rent of \$3,267 for 2019. This median rent would require an income of approximately \$140,680 based on spending no more than 30% of income on housing costs and average monthly utility costs of \$250.

HOUSING COST BURDENS

Comparing Carlisle housing costs to household incomes, it appears many households are paying a larger share of their income for their housing than the recommended 30%. An important measure of housing affordability in any community involves identifying the number of residents who are living beyond their means based on their housing costs, whether for ownership or rental. Such information is helpful in assessing how many households are experiencing cost burdens, traditionally defined as spending more than 30% of household income on housing, or severe cost burdens based on spending more than 50% of household income on housing costs.

The 2018 census estimates suggest that 597 households were experiencing cost burdens, representing one-third of all households including 503 owner households and almost all existing renter households. The U.S. Department of Housing and Urban Development (HUD) also provides data on housing cost burdens, breaking down this information according to tenure, income level and type of household per its Comprehensive Housing Affordability Strategy (CHAS) data. This report is based on the U.S. Census Bureau's ACS 5-Year Estimates for 2012-2016 (the latest report available). Major findings include:

- Of the total 1,775 households counted in this report, 504 or 28% were experiencing cost burdens, 204 or 11.5% with severe cost burdens.
- Approximately 270 households were earning at or below 80% of area median income (AMI) and of these about 215 or 80% were spending more than 30% of their income on housing with about 150 or 56% spending more than half of their income on housing costs, according to HUD CHAS data.

As housing values continue to rise, affordability gaps and cost burdens will correspondingly increase, and it is likely that some households will be forced to relocate outside of Carlisle or make more trade-offs between paying housing expenses versus food and medical bills. Carlisle's lack of public transportation makes residents highly dependent on the automobile and thus puts additional financial burdens on lower income residents.

Subsidized Housing Inventory (SHI)

It is not uncommon for communities to have multiple definitions of “affordable” housing, including housing types and costs directed towards those in the workforce (such as teachers, Town employees, etc.) as well as those with lower incomes. Federal and state programs offer various criteria and a number of definitions of “affordable” housing. For example, HUD generally identifies units affordable if gross rent (including costs of utilities borne by the tenant) is no more than 30% of a household’s net adjusted income (with a small deduction for each dependent, for child care, for extraordinary medical expenses, etc.) or if the carrying costs of purchasing a home (mortgage, homeowners association fees, property taxes and insurance) is not more than typically 30% of net adjusted income. If households are paying more than these amounts, they are described as experiencing housing affordability problems or cost burdens; and if they are paying 50% or more for housing, they have severe housing affordability problems and cost burdens.

Affordable housing is also defined according to percentages of median income for the area, and most housing subsidy programs are targeted to particular income ranges depending upon programmatic goals. Extremely low-income housing is directed to those earning at or below 30% of AMI as defined by HUD (\$32,000 for a family of three for the Boston area) and very low-income is defined as households earning between 30% AMI and 50% AMI (\$53,350 for a family of three). Low-income generally refers to the range between 51% and 80% AMI.

Chapter 774 of the Acts of 1969, which established the Massachusetts Comprehensive Permit Law (Massachusetts General Laws Chapter 40B), counts a housing unit as affordable if it is subsidized by state or federal programs that support low- and moderate-income households (or approved by a subsidizing agency) with incomes at or below 80% AMI, is deed restricted, affirmatively marketed, and meets other requirements. Consequently, most state-supported housing assistance programs are targeted to households earning at or below 80% AMI.

CPA funding is available to assist households earning up to 100% AMI. However, only units targeted to the 80% AMI limit or below and meet other state requirements are eligible for inclusion on the Subsidized Housing Inventory (SHI), which includes units that have been determined to meet all state requirements as affordable under Chapter 40B (see Table D-6). Some communities have created what they often refer to as “workforce housing units” for those earning up to 120% AMI, or even higher in some instances, who are still priced out of the housing market.

Table D-6. 2019 Income Limits for the Boston – Cambridge – Quincy, MA – NH Metro Area by Area Median Income (AMI)

# Persons in Household	30% AMI	50% AMI	80% AMI	100% AMI	120% AMI
1	\$24,900	\$41,500	\$62,450	\$79,310	\$95,172
2	\$28,450	\$47,400	\$71,400	\$90,640	\$108,768
3	\$32,000	\$53,350	\$80,300	\$101,970	\$122,364
4	\$35,550	\$59,250	\$89,200	\$113,300	\$135,960
5	\$38,400	\$64,000	\$96,350	\$122,364	\$146,837
6	\$41,250	\$68,750	\$103,500	\$131,428	\$157,714
7	\$44,100	\$73,500	\$110,650	\$140,492	\$168,590
8+	\$46,950	\$78,250	\$117,750	\$149,556	\$179,467

Sources: U.S. Department of Housing and Urban Development (HUD), the Community Preservation Coalition for 100% AMI figures and 120% AMI limits based on 1.2 times the 100% AMI limits

CARLISLE HOUSING UNITS ON THE STATE'S SUBSIDIZED HOUSING INVENTORY

Of the 1,740 year-round housing units in the town, Carlisle can count 55 units (approximately 3.2%) as part of its SHI including Carlisle Village Court, Rocky Point (Laurel Hollow), the Bedford Road project, and Benfield Farms.

Carlisle Village Court. Sponsored by the Carlisle Elderly Housing Association on a two-acre, Town-owned parcel developed in the early 1980s, Carlisle Village Court consists of 18 units of one-bedroom apartments for seniors. The project was financed by HUD, that covers eight units and the USDA Rural Development funding that financed the remaining ten. The project also involved generous private donations, including an adjacent parcel donated by Beverly Porter to accommodate the septic system and funding from Edna Sleeper and other residents towards the construction of a community center within the complex.



Figure D-6. Carlisle Village Court

Two of the 18 units are handicapped accessible, and all applicants must be over 62 years of age or have a disability with incomes no more than 80% AMI. The management company, The Hodges Company, indicated a waiting time for a unit is typically at least three years but can be up to as long as six years with nine applicants currently on the wait list.



Figure D-7. Rocky Point

Rocky Point (Laurel Hollow). The first Chapter 40B project to be approved in Carlisle, Rocky Point includes eight units of housing, including two affordable units, in a condominium development located on a four-acre parcel off of Lowell Road. These are the only ownership units on the SHI.

Currently, one of the affordable units is vacant, has been foreclosed on and is owned by the bank. The CAHT is currently in negotiations with the bank to release the property so that it can be resold.

Bedford Road Group Home Development. The Town and the Massachusetts Department of Developmental Services (DDS) supported project that includes two connected group homes with nine bedrooms of special needs rental housing for developmentally disabled adults. The Town conveyed the property and also committed \$125,000 in CPA funding, entering into a long-term lease of the 1.36-acre property.



Figure D-8. Bedford Road Group Home Development



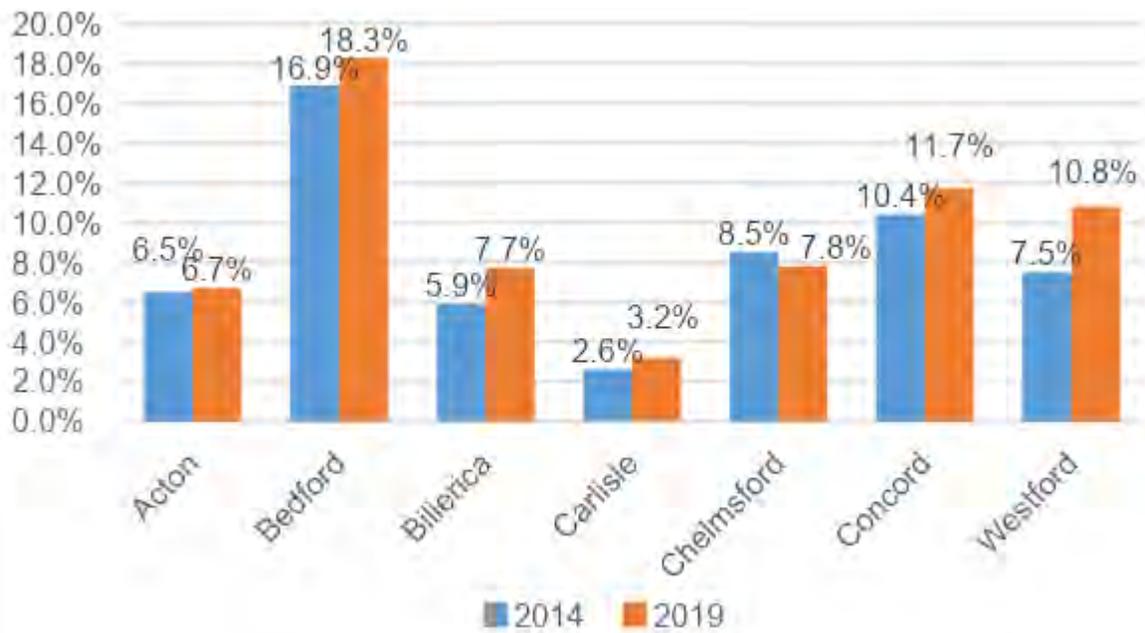
Figure D-9. Benfield Farm Apartments

Benfield Farm Apartments. A 45.23-acre property was acquired by the Town of Carlisle in March of 2004 for \$2 million of CPA funding. The approval designated 26 acres as open space, 15 acres for one athletic field, and 4 acres for the 26-unit senior affordable housing development. The \$11.65M project was funded with \$2.65M in total CPA funding, a 73% leverage of its CPA contribution. Of the 26 units, 18 are targeted to those earning at or below 60% of AMI, and the remaining eight capped at 100% of AMI.

The Town of Carlisle was also involved in the **Malcolm Meadows** Development, which was built under the Senior Residential Open Space Conservation Bylaw (SROSC) advanced by the Carlisle Senior Housing Options volunteer group that was formed to create housing for area seniors. Using this bylaw, the developer built twelve condominium units in the mid-1990’s clustered on four acres of a 38-acre parcel, preserving substantial amounts of open space as part of the development. While these units cannot be counted as part of the SHI, they are priced below market due largely to the higher density that allowed for some economies of scale and because of their relatively smaller size, restricted by the bylaw.

Carlisle’s SHI level of 3.2% lags behind neighboring communities with Bedford, Concord and Westford all surpassing the 10% affordability threshold (see Figure D-10).

Figure D-10. SHI Levels for Carlisle and Neighboring Towns for 2014 and 2019



Source: Massachusetts Department of Housing and Community Development, SHI as of July 30, 2019 for Carlisle and September 14, 2017 for other communities (latest report offered)

What We’ve Heard

The following is a summary of feedback received during public meetings, focus groups, interviews, Kitchen Conversations, and the Master Plan Fall 2019 Survey:

- While there is general concern regarding high and rising housing prices and growing desire for more housing choices, no general agreement has emerged with respect to how the Town can best address these issues. (See section below titled “A Range of Opinions on Housing in Carlisle.”)

- Significant unmet housing needs persist; there is little agreement on how the Town should promote changes that would make living in Carlisle more affordable for current residents and those who would like to move into the community including young adults who grew up in town.
- There are sometimes competing demands between proponents for affordable housing or increased housing options and those wishing to conserve additional open space based on local long-standing interest in preserving the community's semi-rural character.
- There does seem to be a general desire for additional housing choices, which means a broad spectrum of both housing types and sizes, as well as price points to accommodate the range of household incomes. There is wide-ranging belief that the community should be able to increase the diversity of its housing stock to meet changing needs while not unduly altering the character of the town.
- There is considerable community interest in defining "affordable" in a range of ways, including "workforce" housing which is affordable for those making up to 120% AMI and perhaps even higher. While this type of housing doesn't meet the requirements associated with state requirements regarding housing affordability, it does address the needs of those who are still priced out of Carlisle's pricey housing market.
- Decisions regarding the Town's future housing agenda are also constrained by fiscal challenges that limit resources that can be dedicated to housing initiatives.
- Increasing the accessibility and visitability⁹ of new and existing homes is particularly important for older adults.
- There is interest in the Town encouraging new housing opportunities, which when coupled with housing turnover, could attract new families into the community to help address fiscal concerns by increasing school enrollment, where there is now excess capacity.

A Range of Opinions on Housing in Carlisle

The town-wide Carlisle Master Plan Fall Survey, Question 2, asked about one or two things that respondents hope can happen through the master planning process. Comments related to housing were about evenly divided between maintaining the status quo to proactively

⁹ Visitability "refers to single-family or owner-occupied housing designed in such a way that it can be lived in or visited by people who have trouble with steps or who use wheelchairs or walkers." A visitable home meets three basic requirements: 1) one zero-step entrance; 2) doors with 32 inches of clear passage; and 3) one wheelchair accessible bathroom on the main floor. Source: <https://visitability.org/>

producing more housing choices, including affordable units. Examples of this range are reflected in the following open responses.

Comments from those respondents interested in maintaining the status quo included:

- Prevent further development.
- Preserve the character (from 40B and other intrusive development), while adding some beneficial development such as a restaurant, arts facility, and/or other social assets.
- I like Carlisle just the way it is.
- Make a case for limiting growth.
- Keep two-acre zoning, reduce development, and protect our freedoms and liberties.
- Stem the tide of new large home development.

Others want the Town to seek ways to provide more affordable housing while some specifically recommended finding ways to allow older adults to age in the community and to find options that meet the goals of many interests including open space advocates and those wanting more town amenities and services:

- Provide more affordable housing integrated thoughtfully into the community.
- Create affordable housing to reach the mandated 10%.
- Identify a way to offer senior residents the possibility of staying in town in conjunction with meeting 40B requirements through affordable dense and eco-friendly senior housing.
- Preserve open space while addressing affordability.
- Carefully balance the needs of growth with limited land resources.
- Add more middle-income homes.
- Offer a clear plan for increasing housing options and affordability.

Still others connected the housing question with larger issues of the property tax burden and increased revenue for the Town:

- Increase density to reduce the tax burden.
- Increase revenue for the Town and reduce the cost of living through some variances with housing options (such as two-family homes).

Housing Strategies

The following comments from public meetings and interviews with housing stakeholders also reveal wide-ranging opinions on what priority actions the Town should pursue with respect to housing:

- There are still fairly large parcels of land that could be developed with some amount of affordable housing. Consider privately owned cluster development including condos and rentals.
- The Town “needs to do something” with respect to affordable housing and should be creative.
- The Town could buy land to develop housing; the Town could fundraise for new development.
- There should be some consideration for the creation of cottage-style development as part of pocket neighborhoods similar to Riverwalk in Concord.
- Small single-floor duplexes would serve a significant need for seniors, however, would require new zoning.
- Increase community awareness about the possibility of adding AA’s or ADU’s to encourage more homeowners to create these types of units.
- There is a wide range of community housing needs but the approval of measures to address these needs is very challenging.
- Projects that include affordable units must be small; however, such limited development does not allow for the economies of scale that would make the inclusion of affordable units, or even more moderate/middle-income units, feasible.
- Recognize that affordable housing is a need and not just a nice thing to do.
- At the master plan kick-off meeting, when asked about the top ten priorities and wishes for the plan, people without prompting said affordable housing.
- We have enough conservation land – it’s not free; we need to talk about land for other uses.

Things to Think About

An existing conditions analysis and feedback from community outreach efforts have led the MPSC and consulting team to articulate key issues or questions that should be considered in the master plan:

- Carlisle could access housing subsidy programs that are targeted to smaller-scale development such as the Community Scale Housing Initiative (CSHI) or Starter Home Program.
- The Town could consider a Senior Citizen’s Property Tax Exemption Program similar to one approved by Hingham’s Town Meeting to authorize the Board of Selectmen to initiate special legislation to create a means-tested property tax exemption that would help alleviate escalating tax burdens experienced by those on fixed incomes. The Select Board will need to prepare a home rule petition for state legislative approval. It is anticipated to go into effect in 2021.
- Carlisle might also consider programs that can be implemented by municipalities to defer taxes for qualifying homeowners.
- The Town and COA can provide more outreach on housing-related programs and services including special cable access forums and a resource guide. This includes existing as-of-right opportunities for homes built before May 1962 to be altered to become two-family residences.
- The Town may look for programs, policies, or funds to allow, encourage, and assist property owners who want to improve the accessibility and/or visitability of their homes.
- Study the potential for additional fees for new development or renovations that are above a designated square footage threshold to encourage smaller, more environmentally sustainable homes and fewer teardowns for very large homes.
- Require additional design review for proposed homes over a specified size to reduce the propensity of teardowns
- In addition to affordable housing, explore additional housing opportunities in below market ranges that could be promoted on larger parcels through modest zoning changes or the state’s Local Initiative Program.
- The Town could re-evaluate how it uses the housing portion of its CPA funds towards appropriate and diverse housing creation.
- Consider incentivizing the use of AA, AAA, or Pre-1962 bylaws to increase modest housing units within existing single-family properties by streamlining the zoning and permitting processes to better suit constructability and market demands.

PUBLIC FACILITIES & INFRASTRUCTURE

EXISTING CONDITIONS REPORT

Public Facilities Summary

Carlisle's public facilities are in need of significant maintenance and improvements over the coming years – up to \$10 million according to some estimates. Looking out to ten to fifteen years, it is clear there will be some significant capital expense decisions – Police, Fire, DPW, Community Center – that will require careful financial planning. Nonetheless, the Town operates from an assortment of workable Public Facilities that can be improved to meet Carlisle's future needs as the town grows to a sustainable size.

Introduction

The Town of Carlisle is responsible for maintaining public facilities and basic infrastructure as well as for providing public services that meet the basic needs of the community. The condition of buildings and infrastructure and their suitability for current and future user needs is critically important, and forms a basis for prioritizing maintenance, renovation, and new construction.

This section includes:

- Public Facilities and Infrastructure Today
 - Key Trends and Characteristics
 - Public Facilities
 - Existing Facilities
 - Underutilized Facilities & Properties
 - Proposed Facilities
 - Infrastructure
 - Utilities/Communications
 - Roadway Infrastructure and Street Design
 - Water & Wastewater Infrastructure
 - Town Services
- What We Heard
- Things to Think About

Public Facilities and Infrastructure Today

Key Trends and Characteristics

PUBLIC FACILITIES

- The town has deferred maintenance on a number of town facilities and requires an overall plan for maintenance and improvements, including estimated costs, to make decisions regarding repairs or replacement in some facilities.
- The town has underutilized facilities, including the Cranberry Bog, the Highland Building, and the Greenough Barn (note, the Select Board and Conservation Commission supported demolition) that require decisions to keep them available for future use.

INFRASTRUCTURE

- Carlisle has “fix it when needed” approach towards maintenance of local roads, however it has no overall long-term road/transportation plan to guide investments and layout multi-year timetable for improvements and routine road maintenance.
- The town’s reliance on private water and wastewater treatment for most properties will shape land-use policy.

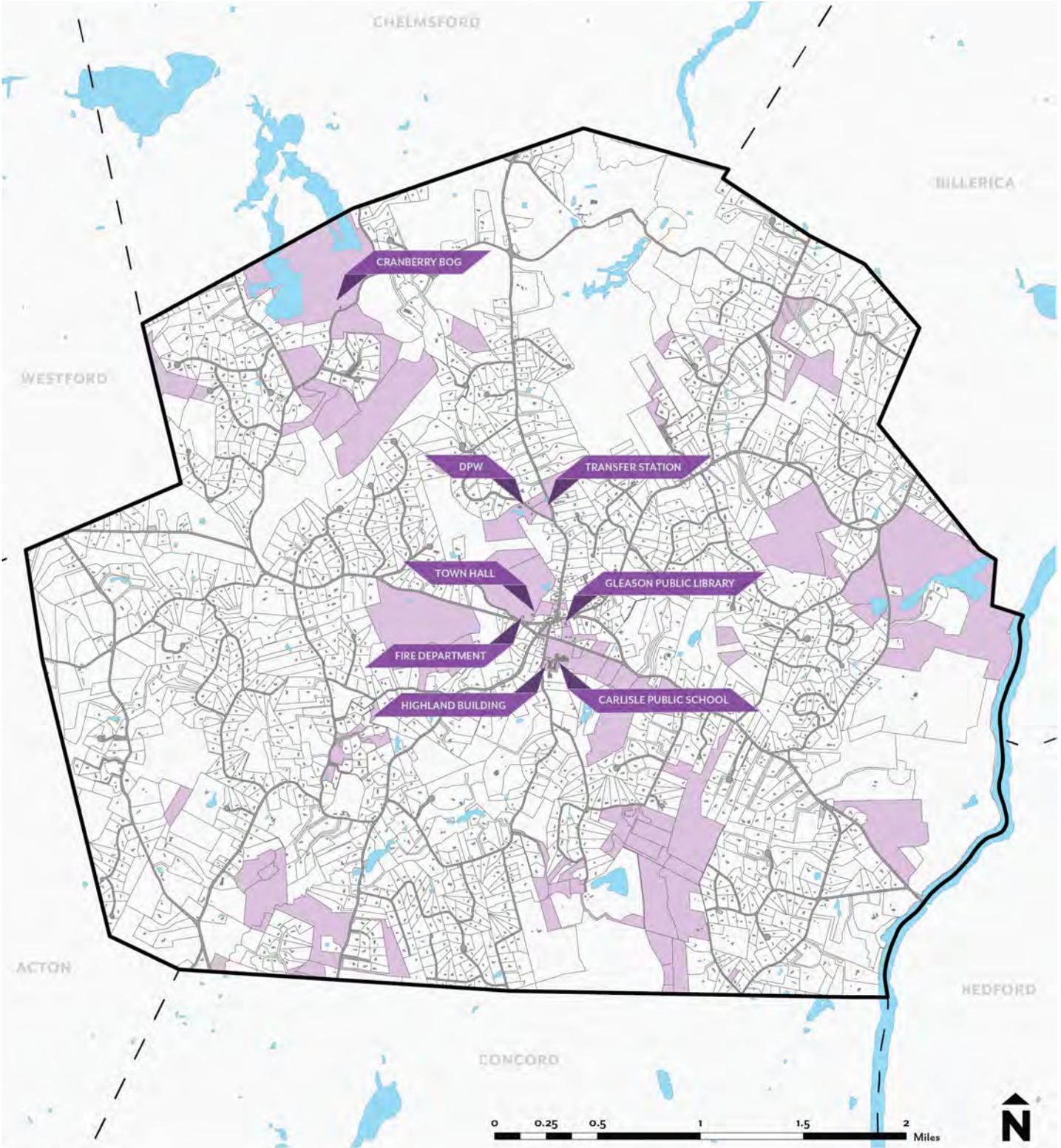
TOWN SERVICES

- The Council on Aging (COA) is a key service provider in Carlisle with a growing population over 60 years of age (over next fifteen years) that is putting increased demands on the COA’s resources, including staff, space, and funding.

Public Facilities

The Town of Carlisle owns and is responsible for several buildings currently housing town services, including Town Hall, the Fire Station, Police Station, Department of Public Works, Transfer Station, Gleason Public Library, and Carlisle Public Schools (CPS). The town is also responsible for several underutilized buildings, some with historic value, in various states of disrepair including the Highland Building, Cranberry Bog House, and the Greenough Barn (note, voted for demolition by Conversation Commission (ConsCom) and Select Board). The locations of most of these facilities are displayed in Map E-1: Town Facilities.

Map E-1. Town Facilities



Town Facilities

 Town Owned

Map produced July 2020 by CivicMoxie using Assessor's data (2019) from John E. O'Donnell & Associates, Inc and MPSC updates.

Carlisle has been studying, planning, and working to upgrade, renovate, and in some cases rebuild several of its public facilities. In 2018, the Select Board created the Municipal Facilities Committee (MFC) to oversee the upkeep of town-owned facilities as well as to develop a long-term plan for facilities management and capital improvements. The following section uses data and assessments from various reports and sources:

- Town Hall, Police Station, Fire Station, Department of Public Works: *The 2017 Town Buildings Existing Conditions Report and Program Analysis* by TBA Architects, Inc. (hereinafter referred to as the “Buildings Report”)¹
- The Gleason Public Library: *2019 Gleason Library Study Existing Conditions & Treatment Recommendations*, by TBA Architects
- The Highland Building: *Feasibility Cost Estimate: Highland Building, May 2011* by Menders, Torrey & Spencer, Inc.
- Greenough Barn: *Baseline Assessment for the Greenough Land*, prepared by the Land Stewardship Committee, a subcommittee of the Carlisle Conservation Commission (ConsCom), November 2008 and subsequently reviewed.
- The Cranberry Bog House: *Cranberry Bog Committee Alternatives Report, 2017*.

Carlisle’s Town Hall, Police Station, and the Gleason Public Library are located within the Carlisle Historic District that includes the Town Center. This affects (limits) maintenance and renovations or other modifications that have been studied or recommended. Table E-1 lists town-owned buildings, summarizing condition and needed maintenance/repairs according to various sources as cited, although [Appendix J, Town Facilities Needs Report](#), provides additional estimates — including cost assumptions for new construction of select facilities — based upon the work of the MPSC Facilities Task Force.

¹ The Buildings Report includes Town Hall, and the structures housing the Fire Department, Police Department, and Department of Public Works. It includes estimated repair costs for each building, organized by “priorities” “...based on considerations of life safety, building stabilization, regular requirements and standards, and program needs.” The top three priority levels were described as:

- Priority 1: Work that should be performed immediately
- Priority 2: Highly recommended due to deferred maintenance but not required to address life or environmental safety or building stabilization; work that addresses serious operating deficiencies or is required to maintain approvals or certification
- Priority 3: Recommended to improve operations and/or site design.

Table E-1. Town-Owned Buildings

Facility	Use	Total Size in SF	Condition or identified needs	Costs ²
Town Hall	Town staff, meeting space, COA offices and program space	7,200 SF	Immediate: replace roof-top unit; replace membrane roof; eave, soffit, fascia repair on south wall; modify entry parking area	\$145,700/ \$795,000 ³
Fire Station	Equipment and vehicle storage, administration space, kitchen/break room	6,300 SF	Immediate: air Source heat pumps; on-demand hot water system; domestic hot water mixing valves	\$59,330/ \$2,542,500 ³
Police Station	Offices, lockers, break room/kitchen, lock-up facilities	6,600 SF	Immediate: Ductwork repairs; deferred maintenance – fire alarm and HVAC	\$247,034/ \$3,567,000 ³
Department of Public Works (including Transfer Station and Swap Shed)	Vehicle storage, offices	7,880 SF	Immediate: repair of DPW salt shed; DPW roof; postponed until at least FY22; replace damaged gypsum wall board; rehab entry doors, frames; repairs to floors	\$27,500/ \$2,470,500 ³
Gleason Public Library	Library stack areas, meeting rooms, reading areas	9,707 SF	Immediate: library chiller unit; library roof; library air handler & exhaust fan; main stairway railing; rear emergency exit	\$222,381 ³ Total costs projected to be \$707,770 ⁴
Cranberry Bog House	Housing for former Cranberry Bog farmer (farmer manages GBFSP)	3,000 SF (1,000 SF studio and 2,000 SF 3br apartment)	Modernization of apartments and new well/septic (new well has been completed) Possible renovation into 2 townhomes	\$368,500 to \$860,000 ⁵

² Immediate costs are first number where two numbers are shown.

³ These costs are taken from the *MFC report for FY21* and warrant article request indicating the immediate needs and costs for Town Hall, Fire Department, Police Department Building, DPW, and the Gleason Public Library. Overall upgrade and renovation costs are shown after the first number as indicated in the *2017 Town Buildings Existing Conditions Report and Program Analysis* and as shown in Table E2.

⁴ From the *2019 Gleason Library Study Existing Conditions & Treatment Recommendations*

⁵ From the *Cranberry Bog Committee Alternatives Report, 2017*. These numbers reflect the cost of a new well that the town has already completed.

Table E-1. Town-Owned Buildings

Facility	Use	Total Size in SF	Condition or identified needs	Costs ²
Highland Building	No designated use, basement used by COA equipment storage	7,000 SF	ADA accessibility for public use, including new elevator	\$1.7 - \$1.8 m (2011 estimate) ⁶ and \$3 m (2014 renovation plan)
Greenough Barn	No designated use	10,500 SF plus lofts and attic	tear down per BOS, ConsCom	unknown

EXISTING FACILITIES

Town Hall, Police Station, Fire Station, DPW – Overview. Table E-2 lists estimated costs for required improvements to Town Hall, the Police Station, Fire Station, and Department of Public Works buildings according to the *2017 Town Buildings Existing Conditions Report and Program Analysis* by TBA Architects.⁷ The estimated costs shown in Table E-2 probably understate the renovation and improvement costs due to actual timing of the facility improvements/maintenance and the additional project management and overhead costs. **Appendix J, Town Facilities Needs Report**, provides additional estimates compiled by the MPSC Facilities Task Force as part of a preliminary assessment of future municipal facilities needs.

Table E-2. Carlisle Facilities Study Capital Projects Estimate, Summary by Building and

Carlisle Facilities Study
Capital Projects Estimate
Summary by Building and Priority

	Estimated Const. Cost	Priority				
		1	2	3	4	5
1 Town Hall	\$ 530,000	\$ 30,000	\$ 178,700	\$ 299,600	\$ -	\$ 21,300
2 Fire Station	\$ 1,695,000	\$ 85,600	\$ 1,552,100	\$ 43,100	\$ 2,600	\$ 11,100
3 Police Station	\$ 2,378,000	\$ 1,552,400	\$ 636,200	\$ 61,500	\$ 126,200	\$ 1,400
4 Public Works	\$ 1,647,000	\$ 456,700	\$ 236,300	\$ 953,900	\$ -	\$ -
All Buildings	\$ 6,249,000	\$ 2,124,700	\$ 2,603,400	\$ 1,358,100	\$ 128,800	\$ 33,700
Estimated Project Cost	\$ 9,373,500	\$ 3,187,050	\$ 3,905,100	\$ 2,037,150	\$ 193,200	\$ 50,550

⁶ From the *Feasibility Cost Estimate: Highland Building, May 2011 and 2014 plan*

⁷ Note: “The Estimated Project Cost is 150% of the Total Estimated Construction Cost to include the general contractor’s costs of mobilization, general conditions, profit and overhead; as well as design and engineering fees, and soils and hazardous materials testing. This estimate does not include the costs of project management, furniture, fixtures, and equipment (FF&E), temporary facilities or moving expenses if required to maintain operations during renovation.”⁷

Town Hall. The Buildings Report assessed that in 2017, Town Hall, the newest of the four buildings evaluated, was in fair-to-good condition overall with some minor upgrades necessary. The building is currently accessible, including elevator access, however any modifications to the building would likely necessitate additional improvements to meet current accessibility requirements. The report notes programming issues regarding noise and privacy from the open office layout and a staff desire for more efficient storage space, along with general concerns about sufficient parking. Of the recommended Priority 1 and Priority 2 improvements shown in Table E-2 costs for Town Hall are the lowest of the four buildings.



Figure E-1. Town Hall
Town Hall construction was completed in 1997.

Fire Station. The Fire Station (Figure E-2) was in overall good-to-fair condition in 2017. There are required public access areas that are not currently accessible, and other upgrades that need to be addressed for regulatory compliance, such as lack of women’s locker or restroom facilities. Other recommendations, such as replacement of underground fuel tanks with above ground types were completed in 2019.



Figure E-2. Fire Station
The Fire Station was built in 1983.

Of the recommended Priority 1 and Priority 2 improvements shown in Table E-2 the Fire Station had a modest estimated cost for Priority 1 improvements and the highest estimated costs for Priority 2 improvements among the four buildings.

Police Station. While the Police Station was found to be in good condition according to the 2017 Buildings Report, there were major concerns regarding accessibility and program that have prevented the building from being accredited.⁸ The Buildings Report details recommendations for the building to comply with state regulations. The solutions, however, include expansion and reconfiguration to provide full accessibility and address program accommodation deficiencies, such as the lock-up not having separate female cells, juvenile cells, visitation room, etc. The septic system is now undersized since additional lockers were added and the Police Department began using the space on the upper floor. The \$864,000 budget estimate to complete the above work was approved at Town Meeting in 2019, however, revised cost estimates indicate the need for a significant increase in funding and/or redesign of the facility.



Figure E-3. Police Station



Figure E-4. Police Station.

The Police Station is a Cape-style structure with an extension built in 1987.

⁸ Certification and Accreditation of Police Facilities are considered risk management tools for preventing and reducing loss in professional liability claims (source: Massachusetts Police Accreditation Commission website).

The Police Station has the largest costs for Priority 1 projects shown in Table E-2, in part because of the repairs needed to meet state and national standards. The Police Department has already upgraded its phone system (which was done separately from other town departments) but continues to work to gain community and financial support for building upgrades.

Department of Public Works. The 2017 Buildings Report assessed the Department of Public Works (DPW) buildings (Figure E-5) as being in poor-to-fair condition, the result of wear from significant use, overcrowding of materials, and outdated systems. The shell (roof and siding) is considered to be in poor condition and in need of replacement. The report noted issues of accessibility, compliance, and effectiveness for DPW operations. The Morton building for vehicle and bulk materials storage is considered to be in good condition. The report recommends expanding the salt shed.



Figure E-5. Department of Public Works Buildings

The Department of Public Works office is located in a 1980-renovated former horse-riding ring. Bottom left: 1998 Morton building for vehicle and bulk materials storage. Bottom right: Salt shed

DPW staff use a temporary trailer (adjacent to the DPW Bar), which is scheduled to be replaced. The septic system also needs replacement. Siting of a new septic system should consider the location of a new DPW building if the MFC determines that the DPW building should be replaced.

While the conditions of the DPW buildings are in poorer condition relative to the other structures in the 2017 study, the costs for DPW improvements for Priority 1 projects were second to the Police Station, with less costly additional Priority 2 improvements, with the bulk of recommended improvement costs being Priority 3, as shown in Table E-2. However the overall condition of the DPW buildings is not good and a long-term renovation plan should be prepared and considered.

Transfer Station. Carlisle’s Transfer Station (Figure E-6) operated by the Carlisle DPW, is where residents bring their recyclables, reusable items, and trash for disposal. The town provides no curbside service, though some households use private collectors to pick up their disposables.



Figure E-6. Transfer Station, including Swap Shed

The Transfer Station operates using a vehicle sticker system, with each residence annually purchasing a sticker for \$25 for the first vehicle and additional \$10 for a second. The stickers allow households to bring their trash and sorted recyclables during operating hours: Tuesdays and Thursdays 10am-7pm and Saturdays 8am-5pm. Disposal fees for larger vehicles are based on vehicle size and materials disposed. The Transfer Station also includes a Swap Shed for residents to bring reusable items available for free to others in the town.

The Carlisle Household Recycling Committee evaluated the costs and benefits of a Pay-As-You-Throw (PAYT)/Save-Money-And-Reduce-Trash (SMART) program as described by the Massachusetts Department of Environmental Protection (MassDEP)⁹ to encourage Carlisle residents to reduce solid-waste disposal. The Town has not yet moved forward with a PAYT program or fully evaluated the cost - benefits.

Gleason Public Library. Construction in 1986 of the original Gleason Public Library was funded by Mrs. Joanna Gleason, a former Carlisle resident. In 1973, Carlisle built an addition to meet growing demand. In the 1990's, Carlisle identified additional space needs, leading to an expanded and completely renovated library in September 2000. The building structure is in remarkably good condition due to consistent upkeep. In 2014, Carlisle performed scheduled maintenance on the exterior of the original building and in 2014 replaced the boiler. The 2019 Study by TBA Architects reports that most of the above renovations are still in good condition. According to the assessment, the immediate priority is replacing the chiller unit. Other priorities include fixing the flat roof, upgrading the HVAC system, replacing the rooftop ventilation unit, and replacing a handrail on the stairs. The first two priority categories cost a total of just under \$500,000. Additional improvements include entry lobby security configuration changes, a book drop, and maintenance on the windows, to name a few, to bring total expected project costs to \$707,770.



Figure E-7. Gleason Public Library

⁹ Solid Waste Disposal in Carlisle. Available at: <https://www.carlislema.gov/DocumentCenter/View/1748/Solid-Waste-Study-PowerPoint---BoS-Presentation>

The Gleason Public Library is one of the central hubs of community activity in Carlisle, with its public space that welcomes all ages and its wide-ranging programming. The *Gleason Public Library FY21-25 Strategic Plan*¹⁰ lays out a vision for the future that includes enhanced building and grounds, and continued services with some additional programs identified in the *2017 Community Health Needs Assessment (CHNA)* conducted by the Library and the Town’s COA, Planning Board, and Board of Health (BOH).



Figure E-8. Gleason Public Library

The library is open 55 hours per week during the school year. In addition to providing materials and general seating, the library offers two meeting rooms, a quiet study room, and a children’s room. The library had 71,905 visits in 2019, and the meeting rooms were reserved for 408 meetings or events (2018 count).

The Strategic Plan includes five main goals with corresponding objectives; goals and objectives particularly relevant to the Master Plan include:

- Goal 1. Objective a. Identify and implement renovation options to increase community use of the library for all ages and provide improved spaces for all ages and staff

¹⁰ Gleason Public Library, Carlisle, MA, 2021 – 25 Strategic Plan; Undated. Available at: <http://www.gleasonlibrary.org/documents/FY21-25%20Strategic%20Plan.pdf>

- Goal 2. Objective d. Meet community needs for tools and technology with an expanded “Library of Things,” including “maker” items
- Goal 3. Objective b. Hold library programs at a variety of times and places to meet the needs of all users
- Goal 4. The library fosters environmental sustainability in Carlisle. Objectives and actions outlined relating to Goal 4 could allow the library to be a model for sustainability.

User needs identified through the library’s strategic planning process include:

- *Updating physical and digital space*, such as quiet space, space to use technology, make phone calls, eat, and socialize. Safe space for children after school, and sufficient staff workspace and storage areas.
- *Sustainability*: Provide charging stations for vehicles and encourage non-vehicle trips to and from the Library.
- *Collaboration*: Leverage and create more partnerships with local schools and businesses.
- *Time*: Offer services and programs at a variety of times; provide materials in physical and digital formats.
- *Books*: Continue to offer materials and services for programs for adults and children.

The survey conducted as part of the Strategic Plan identified several additional desires/needs, including:

- Better acoustics/more quiet spaces
- An area where food/drinks are allowed; social space
- More parking, including bicycle parking
- Continuing educational events and programs for all different age groups
- Continuing reference/research assistance and materials and equipment assistance

The library often collaborates with other town departments, specifically with the COA, CPS, and Recreation Department. Implementation of the library’s Strategic Plan will likely involve even more collaboration among these town entities.

Carlisle Public Schools. Although not included in the 2017 Buildings Study, the six Carlisle Public School (CPS) buildings in Table E-3 make up the largest share of municipal facilities at 137,552 square feet. The Recreation Commission currently leases the Brick Schoolhouse and the other five buildings house both Carlisle Elementary School (grades PreK-4) and Carlisle Middle School (grades 5-8). Currently the school and Town both have separate facilities manager roles, although

there have been discussions about centralizing maintenance and capital planning between CPS and Town Hall.¹¹

Table E-3. School Building Summary¹²

Building Name	Gross SF	Year Built	Renovations
Brick	1,455 SF	1868	1987
Wilkins	15,610 SF	1963	1987
Robbins	25,560 SF	1969	1987 & 1997
Grant	23,935 SF	1987 & 1997	
Corey	42,520 SF	1987	
Spalding	28,442 SF	2012	
Total	137,552 SF		



Figure E-9. Carlisle Public Schools Campus Map

Source: Carlisle Public Schools

¹¹ “New town department envisioned by Facilities Committee.” *Carlisle Mosquito*, March 18, 2021. Found at <https://www.carlislemosquito.org/index.php/search/?id=37592> and

“Carlisle School Committee shares draft goals with Select Board.” *Carlisle Mosquito*, October 13, 2021. Found at <https://www.carlislemosquito.org/index.php/search/?id=38312>

¹² Carlisle Public Schools, “Facilities.” Found at <https://www.carlisle.k12.ma.us/Page/751>
<https://www.carlisle.k12.ma.us/Page/609>

Cranberry Bog House. Constructed in 1905, the Cranberry Bog House (Figure E-10) has three levels including:

- A walk-out basement used for storage
- A 1,000 SF studio apartment and additional storage on the first floor
- A 2,000 SF three-bedroom apartment on the second floor.



Figure E-10. Cranberry Bog House

The family of the manager of the Great Brook Farm State Park currently uses the house in exchange for maintenance of the structure. The Conservation Committee manages the house. The town recently installed a new well and fire-alarm system. As part of its investigation of future alternatives for the Cranberry Bog, the Conservation Committee explored the possibility of converting the house into two rental apartments. Such a conversion would require an upgrade to current heating systems and compliance of septic system with BOH regulations. The estimates for the renovations (including the recently

completed well replacement) range from \$368,500 to \$860,000, with rental income potential ranging from \$24,000 to \$57,600 annually.¹³ The lower end of the range for renovation reflects renovating the two current apartments without any major changes, the higher end represents a complete revamp to make two 2,500 square-foot townhomes.

Highland Building. Built in 1908, the 7,000 square-foot Highland Building (Figures E-11 and E-12) was the first town-wide schoolhouse and is one of the oldest public buildings in Carlisle, giving it great historic significance.¹⁴ With enrollment dramatically growing in the 1950’s, other buildings were built and used along with the Highland Building. By 1986, the need for building repairs drove Carlisle to relocate its students to newer and larger buildings. The Highland Building was no

¹³ Alternatives for the Future of Carlisle’s Cranberry Bog; prepared by the Cranberry Bog Alternatives Committee, Carlisle, Massachusetts; April 2017. Available at: <https://www.carlislema.gov/DocumentCenter/View/1211/Cranberry-Bog-Alternatives-Committee-Report-April-2017>

¹⁴ History from Carlisle Mosquito’s January 9, 2019 “The Highland Building has long history, is now vacant” article.

longer used as a public school, however, it was later leased as artist studios. In the late 1980's to early 1990's, Carlisle studied potential renovation of the building for town offices, determining that the costs were high, the location in convenient, and office space limited. At that point, Carlisle leased the building to Emerson Umbrella for artists' studios until 2007. In 2008 the School Committee voted to remove the building from CPS' master plan and pass building management and use to the Select Board.

In 2011, the *Feasibility Cost Estimate for the Highland Building* prepared by Menders, Torrey & Spencer, Inc. for the town's Highland Building Committee was issued. The study led to the exterior restoration project of 2011-12, which included roofing, siding, new storm windows, and restoration of the front porch. The town spent \$445,000 in Community Preservation Act (CPA) Funds renovating this structure. The study also provides cost estimates for rehabilitating the interior, including adding an elevator and other ADA upgrades for two options:



Figure E-11. Highland Building

- With external elevator (\$1.7 million)
- With inside elevator (\$1.8 million)

Both options were deemed too expensive to undertake at that time. The Highland Building remains mothballed, and it is used on a temporary basis for storage for the medical equipment lending program of the COA.

Following the 2011 - 2012 exterior restoration and stabilization of the building, another Highland Committee was formed to look at potential uses. In 2014, the Highland Committee proposed the building be used as a Community/Cultural Center with potential multi-purpose space, fitness center, storage space, and an event hall with kitchen and bathrooms on the second floor. The Committee recommended a Town Meeting Warrant Article to request \$85,000 for further design and development of the project cost (estimated at roughly \$3 million). The Board of Selectman did not support the plan, and the Warrant Article did not pass at Town Meeting.

The town is responsible for structural stabilization and exterior maintenance, and the Select Board has appointed a new Highland Building Committee to come up with recommendations for futures uses or possible demolition.



Figure E-12. Highland Building

Greenough Barn. The Greenough Barn (Figure E-13) is the last remaining structure of the original farm buildings on the Greenough Property. The Greenough Barn is approximately 10,500 square feet (75 feet x 140 feet). It has 13 interior rooms plus an attic over the northern end of the barn and a hay loft 17 feet above the floor in the middle section. The floor is mainly concrete with some raised wooden sections.

In 1992, the Conservation Commission asked for bids for the demolition of the structure and then, around 1998, sought to lease the building to someone who would take care of it and make needed repairs. The barn was used from about 1998 to 2007 as a workshop and storage area in return for having someone on site. In 1993, the town spent \$6,350 to repair the barn's slate roof. While the Greenough Barn was found to be in fair condition, but deteriorating, in the *Baseline Assessment for the Greenough Land, November 2007*. The barn has not been maintained since 2007 and remains locked with most windows boarded. The Carlisle DPW occasionally checks the building.



Figure E-13. Greenough Barn

In 2004, responsibility for management of the barn was transferred from the ConsCom to the Select Board, although the Conservation and Land Stewardship Committees retain partial responsibility to oversee the barn and assist the Select Board in exploring active uses and maintenance strategies. The barn is seriously deteriorated at this point, with no current plan or timetable for restoration or demolition.

Cranberry Bog. In 1986, Carlisle purchased the 151-acre Cranberry Bog Conservation Land (Figure E-14) which includes the Cranberry Bog (approximately 40 acres) as well as forest, wetlands, stream, ponds, dams, open space, and a house. Through the private efforts and investment by local farmers and the US Department of Agriculture, the Cranberry Bog was operational and profitable until 2004 when the prices of cranberry collapsed. The Cranberry Bog is managed by a local farmer who leased the land from the town in 1989. The farmer has maintained and improved the Cranberry Bog until it no longer made financial sense.

In 2016, the farmer was unwilling to renew his lease given unfavorable economics of Cranberries. At that point, the Cranberry Bog Alternatives Committee (CBAC) was formed to assist the ConsCom and the town in deciding the future for the bog. The CBAC identified ten possible alternatives for the Cranberry Bog and recommended two options:

- Preserving "... the conservation, passive recreation, and agricultural values of the land as well as a significant portion of the registered water rights. Specifically, the bogs would be converted to enable growth of other agricultural crops, essentially keeping the bog in active agricultural use as it has been for the last 112 years."

- “If the non-cranberry alternative is not supported by the ConsCom or the Town, the CBAC recommends restoration of the bogs to a natural habitat (using an engineered approach) or the conversion of a portion of the bog to a passive recreation area.”¹⁵



Figure E-14. Cranberry Bog Conservation Land

The CBAC recognized that either alternative would have direct and indirect costs, however, it concluded that letting the bogs deteriorate with inaction was not a viable option. The issue of water rights and concern over neighboring Chelmsford’s water plans further complicates the choices for the town. The State regulates any conversion to other agricultural use because the area is wetlands. Also, commercial farmers must adhere to USDA standards. Hay is one of the “acceptable perineal crops” on the land, however it would involve the costly removal of the cranberry-growing infrastructure. Changes in use or type of crop will impact Carlisle’s water rights, which are currently based on growing cranberries.

In 2018, the CBAC issued an Addendum to their 2017 report, modifying its recommendations to include only one option—agricultural use to grow hay.¹⁶ The CBAC recommends that Carlisle “...continue to support the use of the bog for agriculture, specifically for growing hay for forage. While other types of agricultural use might be desired, federal laws, economics and/or other constraints dictate against them.” This alternative would include the criteria that the Town would not undertake any bog modification that would lower the water table or would include any new sub-surface drain system.

¹⁵ Alternatives for the Future of Carlisle’s Cranberry Bog (previously referenced).

¹⁶ *ADDENDUM REPORT for ALTERNATIVES FOR THE FUTURE OF CARLISLE’S CRANBERRY BOG*; prepared by the Cranberry Bog Alternatives Committee, Carlisle, Massachusetts; March 2018. Available at: <https://www.carlislema.gov/DocumentCenter/View/1212/Cranberry-Bog-Alternatives-Committee---Addendum-Report-March-2018>

Reusing the Cranberry Bog or maintaining water rights would necessitate town expenditures, at the very least, to modify the bog infrastructure (including likely removal of the bog flume system). The economics of farming smaller plots likely precludes any lease payments to the town. Finding agricultural use would keep the land in production and help maintain the rural character of the community. Doing nothing while maintaining the bog vistas and paths would still involve annual maintenance of sluices and open spaces. Or letting the Cranberry Bog deteriorate or return to wetlands/forests still involves maintenance costs.

Greenough Dam. The earthen Greenough Dam (Figure E-15) crosses Page’s Brook to form Greenough Pond and is part of the Greenough Conservation Land. Henry Greenough installed the dam before 1930 to attract waterfowl. The town owns the dam and the Conservation Commission is responsible for its oversight. The dam needs repair if the pond is to remain.



Figure E-15. Walking Path Over Greenough Dam

Carlisle has not performed routine maintenance or regular inspections of the Greenough Dam. Past maintenance activities have been on an as needed basis, and include:

- Adding fill to washed-out areas or sinkholes on at least three occasions (1985, 1987, and 1996)
- Removing all large trees and bushes from the slopes of the dam in 2004 (by the Trails Committee work crew)
- Subsequent brush cutting on the dam banks (by DPW)

In 2006, the road on the dam was closed to motor vehicles due to failure of the spillways and the formation of sinkholes near the spillways. The town commissioned a professional inspection of the dam in October 2001 and the resulting report contained detailed recommendations for the repair and maintenance. According to Massachusetts regulations (32 CMR 10.07), the Greenough

Dam – rated as “Low” in hazard potential – meaning it must be inspected by a registered professional engineer at least every ten years. Carlisle issued a Request for Proposals for spillway and embankment repairs in Spring 2019. Four bidders submitted proposals for the repair work ranging from \$381,000 to \$699,522. The town did not proceed with the work, and although the Conservation Committee is planning to forward an article to repair the dam and preserve the pond.

PROPOSED FACILITIES

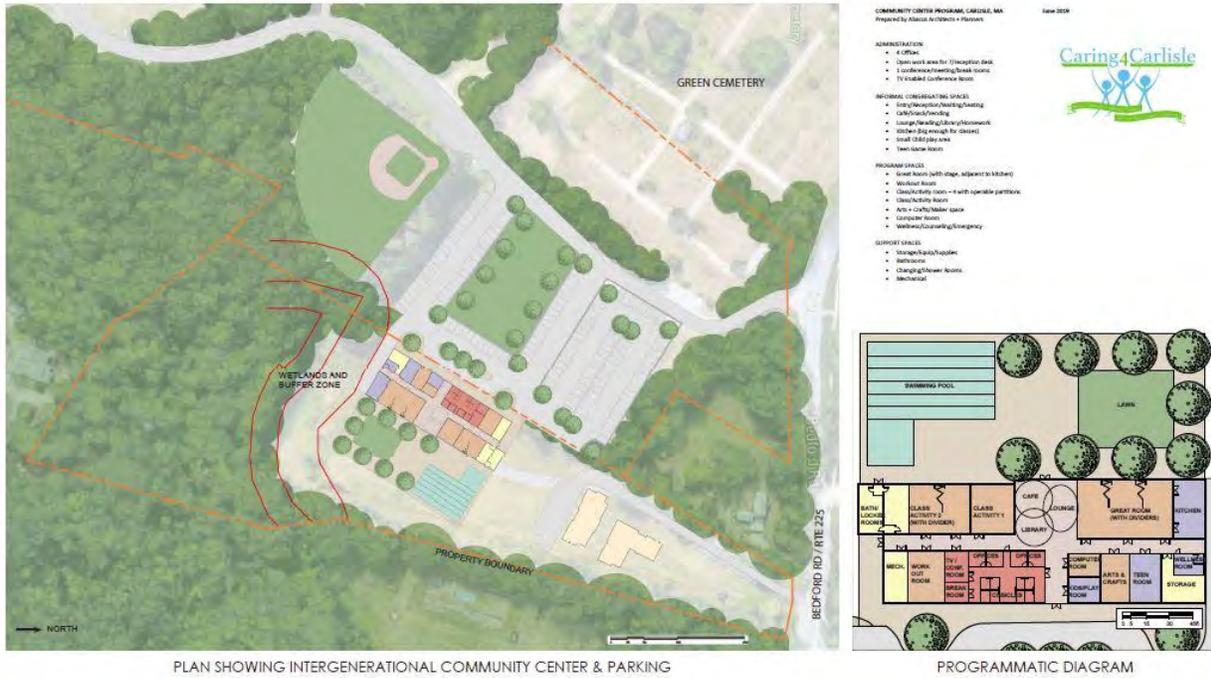
Feasibility Study for a Multi-Generational Community Center. There have long been discussions about Carlisle’s lack of adequate community facilities. Carlisle is evaluating the feasibility of building a Multi-Generational Community Center on town-owned property. For the past several decades, the COA and Recreation Commission (RecCom) have operated a “Virtual Community Center” by utilizing space for their many programs at other town facilities. Roughly half of the senior population engages in the programs and services offered by the COA by attending programs at The First Religious Society, the Congregational Church, St. Irene’s Church, Fern’s Country Store, the Sleeper Room at Village Court, the Activities Room at Benfield Farms, the Gleason Public Library, Nashoba Valley Regional Vocational School, the Carlisle Public School, and meeting room space at Town Hall. In addition to these facilities, RecCom has utilized private citizens' swimming pools for additional summertime activities. The town benefits from these arrangements because:

- Each of these facilities is heated, air conditioned, has janitorial services, and is maintained at virtually no added cost to the town.
- Most of these spaces are utilized less than 40% of the time, suggesting that additional capacity is available for increased enrollment, although there are obviously scheduling issues.

The downside to these arrangements is that the COA and Recreation Commission have limited staff and many programs. Scheduling these facilities that are controlled by non-town organizations is logistically challenging. Thus, the interest in considering the option to build a stand-alone Multi-Generational Community Center.

A *Community Health Needs Assessment* (CHNA) prepared in 2017 indicated that places for community activities, especially for seniors, were critical to Carlisle’s social well-being, and that the town should work towards meeting these needs. A subsequent CHNA 15 grant partially funded an architectural feasibility study as an initial step towards addressing the social and service space needs of the town and community. The resulting *Multi-Generational Community Center Feasibility Study* of November 2019 identified the most viable town-owned location as the Moseley Land, a site between the Banta-Davis property and the Fox Hill conservation land—both are town-owned. Primary access would be through the Banta-Davis property with a fire lane to the 338 Bedford Road A site (see Figure E-16).

CONCEPTUAL PLAN FOR A CARLISLE COMMUNITY CENTER



This Healthy Communities Implementation Grant project is funded through CHNA 15 with funds from Lahey Hospital and Medical Center and Winchester Hospital

ABACUS [ARCHITECTS + PLANNERS]

Figure E-16. Multi-Generational Community Center Conceptual Plan by Abacus Architects + Planners
 Source: Town of Carlisle



Figure E-17. Close-up of Proposed Community Center Programmatic by Abacus Architects + Planners
 Source: Town of Carlisle

The Feasibility Study documents a conceptual plan for a 16,000 square-foot multi-generational community center with an estimated cost of \$9.6 million, not including an outdoor community pool, which would cost an additional \$1.8 million, and additional operating cost that have not been estimated. Next steps include additional community engagement, work with the master planning process and Town Meeting input to determine whether Carlisle should move to the next phase of the study with an appointed Community Center Working Committee.

Police/Fire. Police and fire have been identified as priority facilities needs, both through the 2017 Buildings Report and more recently through the 2021 Hazard Mitigation Plan, which identified addressing the needs of both the police and fire facilities as a “high” priority for preparing for multi-hazards.¹⁷ Although \$864,724 in funding for police station renovations was approved at the 2019 Annual Town Meeting, construction bids came in much higher, bringing the project to halt. As an alternative solution, in October 2020, the police chief and fire chief proposed a shared building facility to the Select Board, who agreed to assemble a committee to explore the proposal.¹⁸ The Municipal Facilities Committee also considered a shared facility that would also house the DPW.¹⁹ To explore these options and others, the Select Board appointed a Public Safety Facilities Task Force tasked with advising the Town “as to the provision of modern police and fire facilities that are safe, functional, environmentally sustainable, and economical for the present and future needs of the Town.” The task force began meeting in January 2022.²⁰

Infrastructure

UTILITIES/COMMUNICATIONS

Electric. Effective July 1, 2018, the Carlisle entered a 30-month contract to receive electricity through a Community Choice Aggregation program (aka, Community Choice Power Supply or Municipal Aggregation). According to Massachusetts law (M.G.L. c. 164, § 134), municipal aggregation enables local government to combine the purchasing power of its residents and businesses so that it can provide them with an alternative electricity supply. Carlisle has chosen Public Power, based in Norwalk, CT as the supplier for the town. Eversource remains the delivery company for the town.²¹ The default offering under the program is 100% renewable electricity, with an optional offering that just meets Massachusetts requirements for renewable electricity. For the default offering, the non-mandated portion of renewable electricity is secured through the purchase of National Wind Renewable Energy Certificates.

In April 2020, Carlisle’s Town Administrator appointed a small working group to assist him in exploring and evaluating options for Carlisle’s next contract.

¹⁷ *Town of Carlisle Hazard Mitigation Plan 2021 Update*, p.109. Available at <https://www.carlislema.gov/DocumentCenter/View/3421/Carlisle-Hazard-Mitigation-Plan-Update-11-23-2021?bidId=>

¹⁸ “Police and Fire Chiefs propose shared building.” *Carlisle Mosquito*, October 22, 2020. Found at <https://www.carlislemosquito.org/index.php/search/?id=36959>

¹⁹ “Public safety building discussion planned.” *Carlisle Mosquito*, April 8, 2021. Found at <https://www.carlislemosquito.org/index.php/search/?id=37664>

²⁰ “Public Safety Facilities Task Force.” <https://www.carlislema.gov/998/Public-Safety-Facilities-Task-Force>

²¹ From <https://colonialpowergroup.com/carlisle/>

Natural Gas. National Grid supplies natural gas to the town. According to National Grid, in 2018, 780 residences and 34 commercial businesses in Carlisle used natural gas.²²

Phone Service. Verizon provides land-line phone service in Carlisle with many other operators providing Voice over Internet Protocol (VoIP) service.

Communications Tower. In spring 2020, Carlisle installed a new telecommunications tower at 1110 Westford Street in Carlisle to facilitate a better communication system for both Carlisle's public safety and residents. The 130-foot-tall monopole tower both transmits and receives data. No homes are within 300 feet of the site. The site makes use of a fortuitously located half-acre town tax-taking property, an abandoned granite quarry that provided the hole for the foundation without need to excavate adjacent to neighboring wetlands. The estimated cost of the tower in August 2019 was \$410,166, including \$105,400 for Motorola to ensure that it is fully operational in Carlisle.

FCC Registered Towers. Carlisle has 18 FCC Registered Cell Phone and Antenna Towers.²³ Most of these are on private land, installed by cell phone providers or private tower companies. Carlisle may have more cell phone and antenna towers as not all towers must be registered and listed in the FCC database.

Cable and Internet. The Cable Advisory Committee is an ad-hoc committee that Carlisle periodically reconstitutes to negotiate contracts with cable providers and to address other issues related to providing Carlisle residents with Internet service and cable television, including public access channels.

Current providers in Carlisle include:

- Residential: Comcast, Verizon, Viasat, HughesNet
- Commercial: Comcast, North Atlantic Networks, Verizon, TPx Communications, Cox.

Anecdotal evidence suggests that not all residents have adequate access to internet.

ROADWAY INFRASTRUCTURE AND STREET DESIGN

As described in the Transportation section, the town continues to maintain and, where possible and appropriate, improve its existing roadway infrastructure to incorporate elements of Complete Streets Design standards, including prioritizing new sidewalks, bike paths, and ADA-compliant materials and design features. With the additional pathways the safety of pedestrians and bicycles on the roadways or on off-road paths should improve connectivity for residents who

²² 01/02/2020 email from Colette Lamontagne, Director, Innovation Center of Excellence, National Grid, to Bob Zogg, Chair, Carlisle Energy Task Force.

²³ <http://www.city-data.com/towers/cell-Carlisle-Massachusetts.html>

either do not drive or are looking for alternatives to driving. The town may choose to consider options for residents who want to reduce vehicle trips and are concerned about traffic congestion and regional commuting patterns.

WATER & WASTEWATER

Carlisle depends almost entirely on privately owned wells for potable water and onsite systems for wastewater treatment, except for the center of town—most notably CPS. Generally, this approach has been appropriate and effective for the town, which has a minimum lot size of two acres in most areas. Two-acre lots are typically adequate to support private well water, and one-acre lots are typically adequate for onsite wastewater treatment. That said, if the town wishes to consider denser development in some areas, converting to community systems may be necessary and cost effective depending on density of developments.

Public Water Systems. Most drinking water in Carlisle comes from private wells. Carlisle has no community water supply systems, although the Town does have reserved water rights from the Federal Great Meadows National Wildlife Refuge (O’Rourke land sale in 1996). Village Court and Benfield affordable housing developments also have public water systems. A small portion of Carlisle is served by the Town of Concord.²⁴

CPS is supplied by a public water supply system that is considered to be a “nontransient, noncommunity public water supply system.” The Commonwealth of Massachusetts licenses this system and a licensed drinking water operator (who is on the school staff) operates it. It provides water only to CPS. Water at CPS is chlorinated.²⁵ It is not currently available for community use. Carlisle would need to evaluate system expansion if that were desired at some point.

Private Wells. The Town of Carlisle has adopted private well permitting regulations under Chapter III, Section 31 of the Massachusetts General Laws with the intent of protecting public and local water resources. The regulations include well construction and installation standards, testing standards, and schedules of enforcement. The regulations were originally adopted in 1966 and were most recently revised in January 2019.

As noted above, private wells supply most of Carlisle’s drinking water. MassDEP well permitting data indicate that Carlisle has approximately 1,353 permitted wells having an average depth of about 330 feet. All of these wells are classified as “domestic” and presumably serve residential water supply needs. Carlisle has over 1,900 housing units, approximately 91% of which are single-family homes. This implies the existence of at least 1,620 wells. Wells without permits likely predate permitting.

²⁴ Town of Concord, <https://concordma.gov/322/Water-Sewer>, 2020

²⁵ CPS 2017.

Approximately 1,034 wells in Carlisle are more than 20 years old. Typical service life of a private well is at least 20 years, which means that approximately two-thirds of Carlisle's private wells may be reaching the end of their useful life, although it is not unusual for wells to function several decades beyond their expected useful life. Cost-burdened homeowners may find it difficult to afford the cost of a new well when the need arises.

Irrigation Policy. The Town of Carlisle relies on private wells for its drinking water and, because of the interconnectedness of the underground water supply, overuse or pollution of water in one location may adversely impact residents in another location.

In January 2019, the Carlisle BOH established a policy allowing use of 15% of the estimated average recharge, which converts to approximately 49 irrigation days per year for a typical two-acre property in the town. The policy is designed to ensure that an adequate supply of clean, drinkable water will remain available, allowing for residential use, evaporation, transpiration, and runoff. This policy applies to all new or modified irrigation systems in Carlisle.

Public Wastewater Systems. Carlisle's wastewater is treated using onsite private systems, except for CPS, which uses a wastewater treatment facility on Bedford Road. The facility uses subsurface disposal and is operated through the Carlisle Public School Department.²⁶

As of 2015, the treatment facility is reportedly running at approximately 40% capacity and there have been discussions of tying other local uses into this system, e.g., senior housing or a future community center. For example, the Village Court Expansion on Church Street, which includes affordable senior housing, considered tie-in to the CPS wastewater treatment facility.²⁷

Private Onsite Wastewater Treatment Systems. Private, onsite wastewater systems are the primary form of wastewater treatment in Carlisle. As with private wells, Carlisle probably has over 1,600 onsite wastewater treatment systems. The design-life of a conventional septic system is roughly 30 years. As with wells, many onsite wastewater systems in Carlisle may be beyond their design life and at risk.

The three general types of onsite wastewater treatment systems are:

- **Conventional Septic System.** By far the most common, conventional septic systems are generally engineered and permitted. They include watertight septic tanks, followed by a distribution box, and then a soil absorption system (e.g., subsurface trenches). Most conventional systems work by gravity-flow, but some include pumps to provide for proper distribution of wastewater to the soil absorption system. Conventional systems require

²⁶ CPS 2017.

²⁷ Town of Carlisle Housing Production Plan; October 28, 2015. Available at: <https://www.carlislema.gov/DocumentCenter/View/77/2015-Town-of-Carlisle-Housing-Production-Plan-PDF?bidId=>

regular inspection and maintenance to ensure proper function. Inspection and pump out every three to five years is typically adequate.

- **Advanced Treatment System.** Sometimes site conditions demand advanced treatment in one form or another to protect public health and the environment. Advanced treatment typically includes a wastewater treatment component between the septic tank and the distribution box. Advanced treatment systems often include mechanical parts and require electrical power. Advanced treatment may be followed by a specialized form of soil absorption system. These systems require more frequent attention than conventional systems to meet treatment-component manufacture requirements. Annual or semiannual inspection and maintenance is common.
- **Cesspool.** Cesspools are substandard systems, typically installed prior to onsite wastewater management regulation and permitting. A cesspool is a single-component system consisting of a nonengineered excavation (i.e., a hole in the ground), typically stone lined, with a cover. Based on the number of private well permit records (i.e., about 250 fewer records than single-family homes) and the age of housing stock, about 15% - 30% of Carlisle homes are likely to be served by cesspools. This percentage of cesspools is common for municipalities in New England that rely on onsite wastewater treatment and presents two types of risk: environmental and public health risk related to treatment failure, and financial risk for the homeowner related to gross hydraulic failure.

Carlisle implements onsite wastewater (or sewage disposal) system permitting through its BOH, in accordance with Title 5 of 310 CMR 15.000. Due the unavailability of public water in town, the presence of high groundwater and wetlands, and the risk of private well water contamination, Carlisle has adopted a regulatory supplement that requires the following for standard systems:

- Increased wetland setbacks
- Prohibition on garbage grinders
- Dual compartment septic tanks
- Encouragement of alternative treatment systems.

Local Water Resources and Quality. Carlisle offers a rural setting with relatively secluded surface waterbodies (see Map E-2) and few, if any, indications of human-caused pollution problems except in Town Center with MBTE from Daisy's gas and convenience store (1960-1990). The *Massachusetts Year 2016 Integrated List of Waters* shows no pollution-related impairments in the waters of Carlisle (See Table E-4) However, there are two waters listed under category 4c (impairment not caused by a pollutant) and three waters listed as category 3 (no uses assessed).

Table E-4. Carlisle Surface Waters on the Integrated List of Waters

Waterbody	Category	Reason for Listing
Elm Street Pond	3 No Uses Assessed	No Uses Assessed
Fiske Street Pond	3 Not Uses Assessed	No Uses Assessed
Meadow Pond	4c Not Caused by a Pollutant	Nonnative Aquatic Plants
Spencer Brook	3 Not Uses Assessed	No Uses Assessed
Unnamed Tributary to River Meadow Brook	4c Not Caused by a Pollutant	Flow Regime and nonnative aquatic plants

Source: MassDEP²⁸

Impairments not caused by pollution are commonly related to habitat concerns. One common concern is the significant presence of nonnative species that dominate or threaten to dominate the water's ecology. Another common concern is flow regime or limited stream flow. This often results from excessive water withdrawal either locally or upstream. Uses are not assessed when there are no indicators of pollution. This may happen because there has been no thorough evaluation, but more typically indicates that a water is of good quality and state and federal resources have been prioritized to address more urgent water quality issues.

²⁸ Massachusetts Year 2016 Integrated List of Waters; CN 470.1; prepared by Massachusetts Division of Watershed Management, Watershed Planning Program; December 2019. Available at: <https://www.mass.gov/files/documents/2020/01/07/16ilwplist.pdf>

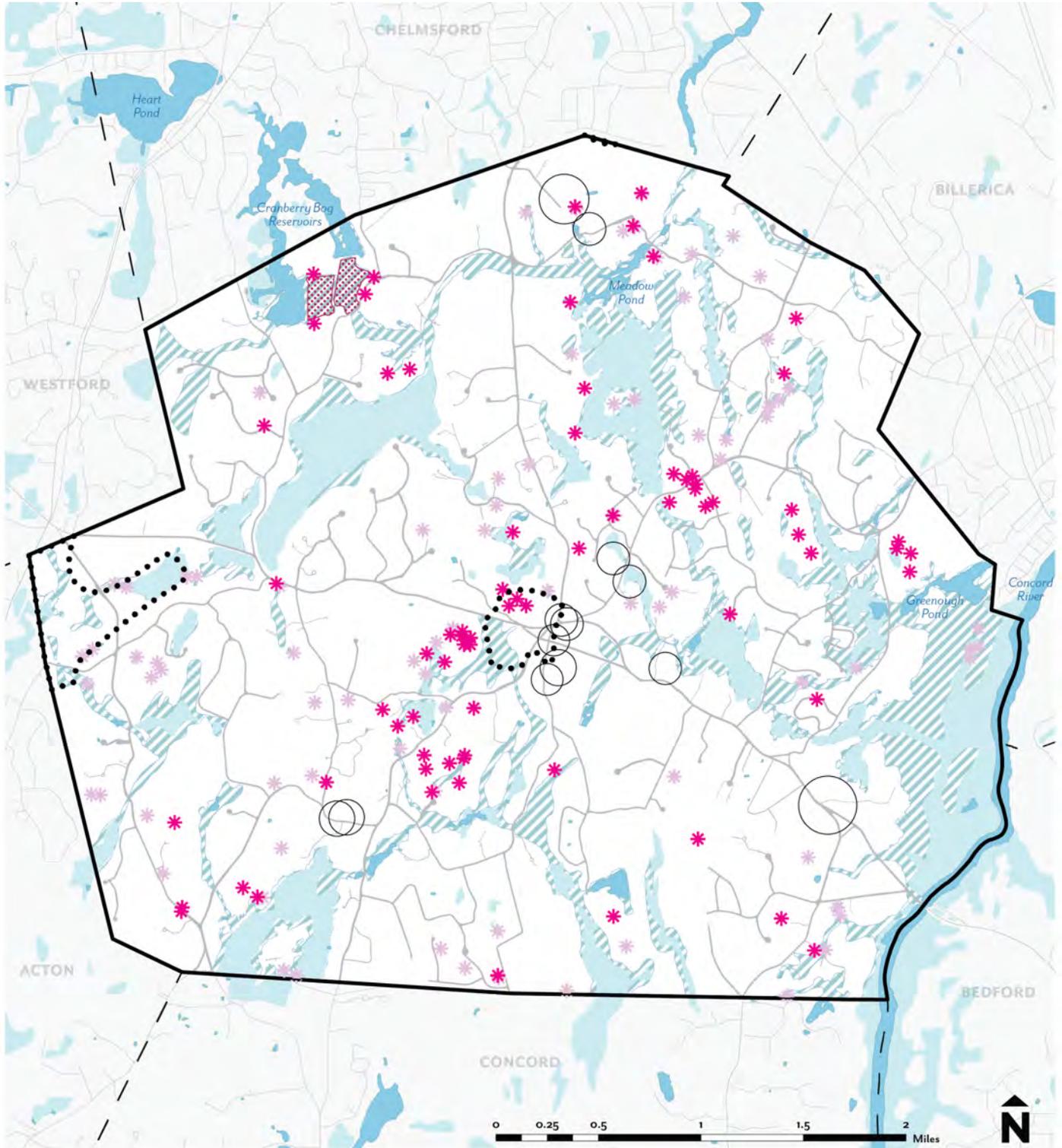
What is the Integrated List of Waters?

MassDEP publishes the Integrated List of Waters is a report that MassDEP every other year in accordance with US Environmental Protection Agency (EPA) guidance and the *Federal Clean Water Act* (CWA). Each US state must publish such a report. The Integrated List of Waters lists surface waters such as rivers, lakes, ponds, streams, estuarine waters, etc. but does not list wetland complexes or groundwater.

In particular, the Integrated List of Waters is used to identify “impaired” waters. Impaired waters are those waters that do not meet water quality standards. Impairment may occur due to a pollution problem or may be identified as “not caused by a pollutant.” Impaired waters thought to have a pollution problem must be analyzed for the causes and sources of the impairment. These studies are called total maximum daily load (TMDL) studies, which indicate the loadings of a pollutant that are allowed to a waterbody on a daily basis in order for the waterbody to attain compliance with water quality standards. TMDLs in Massachusetts are typically conducted by MassDEP but may be delegated for completion by other organizations in some instances. Waters are listed under five categories. The five categories speak to the types of water quality assessment completed for each water and the findings of assessment. The five major categories include:

- **Category 1 Waters:** Attaining all Designated Uses
- **Category 2 Waters:** Attaining some Uses; other Uses not Assessed
- **Category 3 Waters:** No Uses Assessed
- **Category 4 (a, b, c) Impaired Waters:** (a) TMDL Completed; (b) Impairment Controlled by Alternative Pollution Control Requirements; (c) Impairment not Caused by a Pollutant and TMDL not Required
- **Category 5 Waters:** Requiring a TMDL

Map E-2. Water Resources in Carlisle



Water Resources

- | | | |
|---|--|---|
|  Bodies of Water |  2014 FEMA 1% Chance Annual Flood |  Wellhead Protection Areas |
|  Wetland |  NHESP Certified Vernal Pools |  Zone 1 |
|  Cranberry Bog |  Potential Vernal Pools |  Zone 2 |

Map produced July 2020 by CivicMoxie using data from the 2013 Open Space and Recreation Plan.

The social infrastructure and network for most towns are a combination of town departments and service providers and community or neighborhood groups, religious or cultural institutions, non-profit organizations, school PTOs, and informal clubs. The town provides programs, services, and referrals through many of its departments, but most directly through the Carlisle COA, Gleason Public Library, RecCom, and CPS. While most residents are familiar with the services these town entities provide, town demographics are shifting to higher numbers of older adults. This section reviews services for older adults.

Caring4Carlisle – Community Health Needs Assessment 2016-2017. Caring4Carlisle (“C4C”) was a community initiative aimed at addressing the social, emotional, spiritual, and physical health of Carlisle residents. In July 2016, Carlisle used a \$20,000 planning grant from the Massachusetts Department of Public Health’s Community Health Network Area 15 to conduct a community needs assessment to identify priority community health needs to be addressed by the town. The Carlisle BOH, Gleason Public Library, COA, Planning Board, and C4C Steering Committee (that included residents, community stakeholders, and town staff) led the assessment, with assistance from the Center for Social and Demographic Research on Aging at Gerontology Institute of UMass Boston. Table E-5 summarizes the findings and Table E-6 lists key recommendations.

Table E-5. C4C Assessment Findings

Demographic Profile

- By 2030, 35% of the population will be over 60.
- Nearly 16% of Carlisle’s employees work from home, 90% of whom are 45 years or older. Average travel time to work for those who do not work at home is 35 minutes, while less than 1% of working residents take public transportation.
- Percentage of householders paying more than 30% of income for shelter is 28% among owners and 51% among renters.
- Median Household Income is \$166,111 in 2015, and \$108,889 for those headed by persons 65 and older.

Community Survey

- Most (98%) of respondents (n=451) reported their quality of life to be good or excellent. Over half of respondents find it “very important” to remain living in Carlisle.
- The two specific areas of life in Carlisle that had the highest satisfaction levels were Natural Amenities (88%) and the Schools (68%).
- One in five survey respondents age 20-39 reported that most days are very or extremely stressful.

Table E-5. C4C Assessment Findings

- 49% of survey respondents reported having a friend or family member affected by substance abuse, 34% reported friends or family members affected by suicide, 20% reported knowing someone affected by domestic violence.
- 60% of survey respondents reported providing care to a sick or frail family member in the last year; and among these caregivers, 49% reported that the experience was challenging or somewhat challenging.
- Nearly one-half of respondents do not have a family member living nearby to call on for help.
- The most frequently reported concerns related to children living in Carlisle:
 - Children spending too much time in front of a screen
 - Peer pressure related to academic performance/friendships/social connections.

Focus Groups

- People in Carlisle depend on cars because there is no public transit, a frequent liability for older residents, resident's w/ mobility issues, and children
- There are resident concerns regarding pedestrian and cyclist safety due to the lack of sidewalks and bike lanes and the narrow width of many roads. There is a fear of tick-borne illness as a threat to quality of life.
- Lack of communication about events, services, programs in town is a barrier to social engagement. Cohesion is desired.

Table E-6. C4C Assessment Key Recommendations

Short-Term Recommendations

- Provide informational sessions about ticks and tick-borne illness prevention.
- Encourage regular walking and cycling for all by first evaluating need for connecting pathways.
- Explore collaborations with local school systems or Concord to develop stress-reducing programs for youth (yoga, meditation, social events).
- Engage in regional and nearby task forces on substance abuse, and create a site on CCTV to report on available resources and recent activities to combat this issue affecting Carlisle residents.
- Increase social connectedness and social activity among residents (events, conversations, etc.).
- Explore a pilot study of an intra-town transportation loop; support existing transportation committees.
- Establish community calendar and create an email listserv to generate notifications about additions to calendar each month. Pilot a "Town Leadership Council" breakfast model to

Table E-6. C4C Assessment Key Recommendations

generate more cohesion and collaboration among town government. Create a social media presence.

Long-Term Recommendations

- Consider quality of life (social, spiritual, emotional health) as part of the community planning process; plan for growth of older residents.
- Develop solutions to address shortage of appropriate and affordable housing for younger families and older residents, including reviewing zoning regulations, and exploring viability of senior housing options.
- Work toward providing an intergenerational community center or senior center to provide a community-wide gathering space. Convene an intergenerational working group to help advocate for this space.

Carlisle Council on Aging. The COA is the town’s advocate and service provider for Carlisle’s older adults (60 years and older). The COA aims to provide “social, emotional, mobility, and stability support” to Carlisle seniors, ensuring “independence, connectivity and security.” The funding for the COA and its programs and services comes from:

- An appropriation from town budget
- Grants from various organizations, including:
 - Friends of the Council on Aging
 - Concord-Carlisle Community Chest
 - Massachusetts Executive Office of Elder Affairs (through the Commonwealth’s State Formula Grant program)
 - Lowell Regional Transit Authority

The COA’s services and programming include:

- Transportation, outreach, fuel and food assistance, loans of durable medical equipment:
 - COA currently offers limited transportation for seniors, 9am-3pm Monday through Friday in COA vehicles.
 - Carlisle Transportation Services (CTS) is an on-demand service available by



Figure E-18. COA Vehicles

Source:

<https://carlisletransportation.com/coa->

reservation, is equipped with a wheelchair accessible vehicle, and is partially subsidized by the town for senior riders.

- “Carlisle Rides,” started through a CHNA grant. The town has an agreement with Lyft, where senior rides are partially subsidized when regular COA rides are not available.
- Carlisle recently joined CrossTown Connect (CTC), which serves surrounding communities to maximize mobility options.
- Programs include social events, health clinics, lectures, exercise classes, nutrition events, and cultural activities.
- In 2018, programs and services reached 768 unique seniors (51% of target audience).

The COA’s Strategic Plan Fiscal Years 2020-2022²⁹ highlights a series of priorities and issues previously identified through community surveys:

- *Tax relief:* to help seniors defer taxes
- *Varied housing options:* more seniors are increasingly at risk of losing their homes due in part to financial difficulties
- *Transportation options:* as seniors decide not to drive or cannot drive, mobility within and outside of town becomes a serious challenge
- *Multi-generational Community Center:* desire for a centralized space for the growing senior population as well as children, teens, and adults to socialize and exercise on drop-in basis and to possibly house COA and other town service and program providers.



Figure E-18. The COA Newsletter

Source: Town of Carlisle COA

²⁹ Strategic Plan Fiscal Years 2020-2022; Carlisle Council on Aging; August 20, 2019. Available at: <https://www.carlislema.gov/DocumentCenter/View/2020/Strategic-Plan-Fiscal-Year-2022---Updated-8-20-2019?bidId=>

Nonprofit Organizations, Religious Institutions, and Community Groups

The social networks that exist in small towns go well beyond town government services and programs to include formal and informal groups and networks of residents. Several examples of nonprofit organizations, institutions, and community groups not already mentioned include (but are not limited to):

- **Carlisle Mosquito.** Carlisle Communications, Inc., a non-profit organization, has published the Mosquito since 1972. The Mosquito provides residents with local news weekly in both free newspaper and online formats. The Mosquito, while largely run by volunteers, depends on advertising revenue and donations to cover expenses, including modest stipends and by-the-piece compensation to some of the editors, managers, reporters, and photographers. The tremendous value of the independent local newspaper as a community resource and connector has been explicitly voiced by town staff and in almost every Master Plan conversation and interview.
- **Carlisle PTO.** The Carlisle Parent Teacher Organization (PTO) connects CPS families, parents, and students with each other and the larger Carlisle community. In addition, the PTO organizes volunteers, raises supplemental funding for teacher grants and curriculum enrichment programs, and sponsors events for staff and families.
- **Carlisle Conservation Foundation (CCF).** A public non-profit with a strong educational and community engagement component to its main focus on the preservation of open space in Carlisle. CCF sponsors well-attended Nature Walks & Talks (on conservation lands, and in the library), donated Trail Books to every Carlisle family with children in the schools.
- **Carlisle Education Foundation (CEF).** A public not-for-profit that raises additional funds from Carlisle community to support ongoing/ special needs of the Carlisle Public Schools. Generally CEF does not support operating expenses of the schools.
- **Online groups.** While Carlisle has limited facilities to gather, online “spaces” flourish, including Carlisle’s “City in the Woods” online group and Facebook groups.
- **Religious institutions.** The Carlisle Congregational Church, First Religious Society, and St. Irene’s Roman Catholic Church. These institutions are located in or near Town Center and provide some of the larger gathering spaces in Carlisle, giving them prominence in the social fabric of the town. These institutions collaborate with other organizations and town departments to host programs and events.

What We Heard

The following summarizes feedback received during public meetings, focus groups, interviews, Kitchen Conversations, and the Master Plan Fall 2019 Survey:

Public Facilities

- Town budget is a critical concern for many. While the town has been able to make significant investments into large projects such as two big school projects and a new communications tower, it has not covered costs associated with maintenance, renovation, upgrades of other town facilities. There is a desire for the town to take a holistic look at all these public facilities and needs in the context of future needs and desires to fully understand where the town should consolidate, build new, invest.
- Residents desire some type of community center that would provide a gathering place for people of all ages to socialize, recreate, and take part in town-offered programs and activities. This space could add much-needed meeting and activity space for other community groups, and free up space in Town Hall, the School, and other buildings to use for their primary purposes. There are questions as to whether this central gathering space can be provided in an existing building (the Elementary/Middle School or Highland Building) or if it must be a new facility.
- The town has not found viable options for reuse of properties such as the Highland Building and Greenough Barn, even after significant investment of \$445,000 of CPA funds and yearly maintenance costs in the Highland Building.
- There are many questions about the right way to move forward with maintenance and upkeep of facilities (such as the Cranberry Bog) that, while important to the history and character of the town, are not producing revenues nor contributing usable space for service, but represent ongoing costs to the town. Residents are eager to determine future uses or strategies for underutilized properties.

Infrastructure

Because most homes in Carlisle are sited on minimum two-acre lots, there appear to be no significant water availability or wastewater treatment issues in town, except during drought. Currently, private well water is reasonably accessible and onsite wastewater treatment is generally appropriate, but soils in town are less than ideal for wastewater treatment and well water is becoming more difficult to access.

Town Services

The COA cites the following challenges:

- The growing senior population is adding pressure to services and mission; requiring more funds and support to advance goals.

- Seniors are having trouble remaining in their homes in Carlisle, especially with the lack of affordable housing alternatives.
- Some seniors feel isolated and alone.
- Current venues for COA programs and events are spread throughout the town and make scheduling, communications, and logistics difficult: Town Hall, Carlisle Churches, Gleason Public Library, Carlisle Public School, Ferns County Store, Carlisle Village Court Sleeper Room, Benfield Farms. Outside of Carlisle, other venues include Concord-Carlisle High School, Minuteman High School, Nashoba Valley Technical High School.
- Staffing at COA is at capacity and the COA could use an additional part-time outreach/social worker.
- The tremendous value of the independent local newspaper as a community resource and connector has been explicitly voiced by town staff and in almost every Master Plan conversation and interview.

Things to Think About

Based on this existing-conditions analysis and community feedback, the following key issues or questions should be considered in the master plan.

Public Facilities

- The decentralized nature of town government can lead to siloed decision-making. How will the town ensure that fiscal decisions consider all areas of interest and all possibilities to ensure the best use of resources and most desirable outcomes?
- With significant projected costs to bring the Fire and Police Stations up to necessary levels of accessibility and accreditation standards, should the town explore consolidating services with adjacent towns to reduce facility costs and perhaps even upgrade to more modern systems and processes?
- The Greenough Dam is in need of major repair if the pond is to remain. Should the town repair the dam or restore Greenough as a natural system?
- Should the town consider using currently underutilized spaces, such as excess capacity at CPS or the Highland Building, for a central community center instead of focusing on constructing a new facility?
- Should Carlisle sell the Highland Building to enable an active private reuse of the property and relieve the town of ongoing maintenance costs?

Infrastructure

- Although private wells and onsite wastewater treatment appear to be adequate for Carlisle's current water and wastewater needs, the town may wish to consider the steps needed to make state grant programs available to residents, which can support affordability of housing.
- Carlisle may wish to establish a requirement or simply provide guidance for homeowners on how properly inspect and maintain septic systems
- Should the town prepare a wastewater management plan to support desirable development in prioritized locations? Also, should it consider incentives for private property owners to adopt new technologies or seek land for a community septic system?
- Will the community support the town adding professional support to guide future land use, to plan infrastructure improvements that follow sustainability policies, and to coordinate with other projects when the opportunities arise?

Town Services

- Can Carlisle address some of the needs of its growing senior population that also provide benefits to other residents, such as mobility options that serve older adults and perhaps school children or teens?

CULTURAL AND HISTORIC RESOURCES

EXISTING CONDITIONS REPORT

Introduction

Carlisle’s cultural and historic resources include organizations, informal activities, spaces, and buildings. The town’s cultural assets largely reflect a long-held resident philosophy embracing a decentralized system of governance and volunteerism. Resources vary from school programs, to events hosted by local religious institutions, to volunteer-led activities and more. Because the town is small, residents consider regional resources, particularly those organizations and activities located in Concord, a part of their cultural lives and community. The town boasts a Town Center Local Historic District and over 400 listings in the Massachusetts Cultural Resource Information System (MACRIS). These resources represent a diverse array of assets that extend beyond buildings to include archeological sites, cemeteries, fences and gates, and monuments. The town’s historic character is also shaped by the presence of a number of mid-century modern Deck Houses, although many are on side roads and cul-de-sacs and not easily visible from the main roads. Diverse historic periods, resource types, and geographic locations present unique challenges for the small number of historic preservation organizations and limited resources in the town.

This section includes:

- Cultural and Historic Resources Today
 - Key Trends and Characteristics
 - Cultural and Historical Organizations/Institutions
 - Cultural/Community Spaces
 - Cultural/Historic/Community Events + Festivals
 - Historic Resources
- What We’ve Heard
- Things to Think About

Carlisle's Cultural and Historic Resources Today

Key Trends and Characteristics

Key trends and characteristics for Carlisle's cultural and historic resources include:

- Carlisle has a variety of organizations and groups that contribute cultural programming for town residents, including the Council on Aging (COA) and Carlisle Cultural Council – both of which are town entities, and the three major churches in town.
- The town's Gleason Public Library offers art exhibitions, weekly classes, and even access to a seismograph that is monitoring earthquakes in the area.
- Carlisle has no designated central community gathering space; various programs, activities, and events occur in multiple places and most spaces have limited capacity. The largest assembly spaces are the Carlisle Public Schools (CPS), the Union Hall at the First Religious Society, and Carlisle Congregational Church Fellowship Hall.
- The Highland Building adjacent to the center district was used by the school until the completion of the Cory Building in 1985. The town expended \$450,000 in Community Preservation Act (CPA) funds in 2009 to stabilize the Highland Building but has not yet determined a viable re-use for the property. The Select Board has recently convened a Highland Building Committee to evaluate potential uses for the building and to make recommendations for the ultimate disposition of the property.
- The Brick Schoolhouse built in 1848 is listed on the 2009 historic survey as a remarkably well-preserved Greek revival schoolhouse. In 2020, the town authorized \$20,000 to fund restoration of the building's original 175-year-old windows. The School Committee and Historical Commission recently nominated the building for inclusion on the National Register of Historic Places and the application is currently pending review.
- The Council on Aging (COA) addresses the needs of the senior population in Carlisle, providing community members with fitness and education programs, as well as support services. The COA is preparing to grow in line with changes in town demographics; 35% of the town's population is projected to be 60 or over by 2030.
- The Carlisle Historical Commission completed an updated *Historic Properties Survey* in April 2010. Carlisle has taken little or no action on the three main recommendations and five related action suggestions resulting from the Survey, although there appears to be strong support for preservation in the town. Carlisle is the only town in the region, other than Lowell, that doesn't have a demolition delay bylaw (one of the key recommendations resulting from the Survey).
- In addition to providing recreational opportunities for residents and visitors, Carlisle's parks, open spaces and agricultural destinations are important cultural and community

gathering places. The cross-country ski facility at Great Brook Farm State Park and the events and activities run by Clark Farm, in particular, are core elements of community life in Carlisle.

- The Cranberry Bog is one of Carlisle’s most popular outdoor recreational areas. The property also includes the historic Bog House, one of Carlisle’s few early industrial buildings. In 2011, the building underwent a substantial renovation funded through a \$165,000 CPA grant. Another \$16,000 was approved in 2018 to install a new well for the building. The upper floors serve as affordable housing units.
- The town has one Local Historic District – The Town Center Historic District. The District includes 30 historic homes and several historic barns. Also contained within the District is the historic Central Burying Ground that served as active cemetery until the 1830s. In 2016, the town funded a \$20,000 restoration study, which recommended straightening and cleaning gravestones and extensive tree removal at a projected cost of over \$200,000. Due to significant public opposition to the tree removal plan, the cemetery restoration was placed on hold.
- Two individual properties are on the National Register of Historic Places. Recently the School Committee and Historical Commission nominated the Brick Schoolhouse.
- The Carlisle Historical Society is a private not-for-profit corporation that owns the Heald House on Concord Road and operates it as a museum.
- As of 2019, the town reported \$187,829.72 of unallocated funds earmarked for historic preservation from its CPA monies. Of the three CPA categories, expenditures were 21.81% for historic compared to 15.52% for housing, 30.08% for open space and recreation, and 32.32% for the Benfield Land (all values as of September 15, 2016).¹
- The town is also home to Great Brook State Park, which provides historic, cultural, and recreation resources. The park contains numerous historical structures, stone cellar holes, and Native American sites. Several historic resources have been lost in the last five years including an 1800s side gable cottage, a 1920s farmhouse, and a 1940s boat house all of which were deemed “attractive nuisances” by the State. The Farnham Smith Cabin is slated for demolition in 2021 unless funds materialize for its restoration. Several properties within the Park including the Litchfield House are part of the State’s historic curatorship program. The Davis Farmhouse, which is currently vacant, would be a strong candidate for the State program and could generate an additional unit of affordable housing for the town.

These trends and characteristics are discussed in greater detail below.

¹ P. 17; Town of Carlisle 2016 Community Preservation Plan; November 02, 2016. Available at: <https://www.carlislema.gov/DocumentCenter/View/95/2016-Carlisle-Community-Preservation-Plan-PDF?bidId=>

CARLISLE CULTURAL COUNCIL

The **Carlisle Cultural Council**, appointed by the Select Board, consists of 5 to 22 Carlisle residents who are interested in the arts, music, history, education and culture. The Council supports local cultural initiatives through a grant award process, established by the Massachusetts Cultural Council, that provides funds to organizations that offer a variety of cultural experiences to the residents of Carlisle. Participating organizations need not reside in Carlisle, but events and performances must demonstrably benefit the residents of Carlisle. The average annual grant monies available (allocated to the Carlisle Cultural Council by the Massachusetts Cultural Council) are approximately \$4,800 (FY2020). The Carlisle Cultural Council averages \$300 per grant.

The Carlisle Cultural Council can apply for additional grant monies for distribution to local arts and cultural initiatives, and may receive additional funding from the town. Since 2019, it sometimes also produces its own cultural events. FY2020 grants were awarded² to the following recipients:

- **Carlisle Chamber Orchestra:** \$450 for Concert of American Music, Carlisle Congregational Church
- **Discovery Museum, Acton:** \$100 for their Free Friday Night Fun, first Friday of each month and every Friday during the summer
- **Kevin Driscoll:** \$300 for COA program Comedy for Seniors, Carlisle Congregational Church
- **Concord Orchestra:** \$400 for Young Artist Concerts, 51 Walden, Concord
- **Carlisle Public School:** \$100 for Storytelling with Len Cabral at Carlisle Public School
- **Carlisle Mosquito:** \$300 for color photo essays in several editions of the newspaper
- **Savoyard Light Opera Company:** \$500 for The Music Man
- **Christine Lear:** \$100 for Legacy Tile Project, Carlisle Public School
- **Carlisle Community Chorus:** \$500 for Community Concerts, Corey Auditorium
- **The Concord Chorus:** \$300 for Concerts 2020, Church of St. Brigid, Lexington
- **Carlisle Artisans:** \$500 for Celebrating Carlisle's Landscapes, Gleason Library
- **Davis Bates & Roger Tincknell:** \$300 for Earth Rhythms: Songs & Stories for the Whole Earth, Gleason Library

² Information provided by the Carlisle Cultural Council, March 2020

- **Carlisle Garden Club:** \$500 for Carlisle Earth Day Celebrations, Carlisle Public School and Town Common
- **Concord Art:** \$300 for Annual CCHS Art Exhibition, Concord Art
- **Chinese Family Network:** \$300 for Creative dramatics and readers’ theatre, Gleason Library
- **Indian Hill Music, Littleton:** \$100 for Bach's Lunch Concert Series, Indian Hill Music, Littleton
- **Virginia Thurston Healing Garden, Harvard:** \$100 for Nature & Art Therapy Series, Virginia Thurston Healing Garden Cancer Center

GLEASON PUBLIC LIBRARY

The Library serves as a central resource and community space for residents of all generations. The Library provides a host of programs and exhibits throughout the year, in the building and also in other town locations. Examples include:

- Rotating art exhibits and summer exhibit of schoolwork
- A volunteer-run art program in the evenings with after-hours receptions
- A new Cookbook Club
- The Library Knitting Group

CARLISLE COUNCIL ON AGING (COA)

The Council on Aging supports the community’s older adults by providing advocacy services and programs that help these residents live independent and healthy lives. Health and wellness are primary initiatives for the COA and the organization offers exercise programs nearly every day of the week and wellness clinics several times monthly. The COA also offers education programs assistance with preparing tax returns and free loans of medical equipment. Largely based on the contributions of the COA, Carlisle was named a 2015 Best Intergenerational Community by the national organization Generations United.³

CARLISLE PUBLIC SCHOOLS (CPS)

CPS (pre-Kindergarten through 8th grade) provides comprehensive access to Science, Technology, Engineering, Art, and Math (STEAM) activities for the community’s youngest students, including clubs that empower children to explore their creativity through the performing and visual arts, as well as innovative programs focused on emerging technologies like robotics. Additionally, the CPS has been actively working to fund the construction of a Performing Arts Studio for the community. The Elementary School hosts an International Fair and large Chinese New Year

³ Stevens, Priscilla; Carlisle chosen ‘Best Intergenerational Community’; Carlisle Mosquito; January 7, 2015.

celebration each year. The students in the music programs perform at town events and COA luncheons, including Old Home Day and Memorial Day activities.

CONCORD-CARLISLE REGIONAL HIGH SCHOOL (CCHS)

The CCHS has a strong performing arts and music program, with the school’s unique Q5 program offering students additional opportunities to participate in creative activities. In addition, CCHS offers over 50 clubs that cover a wide range of activities across the arts and sciences. Notables include the Film Club, the Activism Club, the Outdoor Club, and the History Reading Group. Others like the Robotics Club, the Math Team, the CCHS Startup and Entrepreneurship Club, and the Moot Court enter local and regional competitions. There is also strong community engagement with many activities including the Green Team Environmental Club and the American Red Cross Club. The school operates WIQH, a non-commercial student-staffed radio station on the school campus as well as Concord- Carlisle Weather Services, a local Chapter of the American Meteorological Society.

CCHS also offers Rivers and Revolutions, an interdisciplinary one-semester program that uses the local community as its classroom. Students spend 50% of their time engaged in outside learning and 50% in the classroom. CCHS has many competitive sports teams that are also active with the community. Notable is “Kicks for Cancer” promoted through the CCHS soccer program for the past 13 years, known as a series of soccer matches and a weekend celebration which brings the community together around a special cause. Other CCHS sports are also highly involved with the community. CCHS students are encouraged to engage in community service and most participate.

CARLISLE HISTORICAL SOCIETY

The Carlisle Historical Society is one of Carlisle’s oldest active non-profit organizations, chartered in 1933 to “gather historical and educational objects and information and to transmit to future generations all possible memorials of past and present times. The Society currently owns and operates the Samuel Heald Homestead at 698 Concord Street as a museum. The Society’s collection includes over 800 items and extensive archives. Notable artifacts include items from the Civil War, artifacts from the battle of Lexington and Concord, Native American stone tools, farming implements, the Town Hearse, and the recently restored World War Two Honor Roll. The Society also maintains a detailed online historic research portal that features many digitized historical resources. The Society’s property on Concord Street includes the Samuel Heald Homestead (ca. 1744) The Benjamin F. Heald Barn (ca. 1848) and the ruins of an abandoned 1840s copper mine. The homestead and barn are subject to historic preservation restrictions held by the town, which prohibit any alterations that would degrade the building’s historical integrity.

GREAT BROOK STATE PARK

Great Brook Farm State Park was established in 1974 after the State purchased over 800 acres from businessmen and railroad tycoon Farnham Smith. Great Brook contains many historic resources including various Native American sites and a stone turtle effigy. Numerous stone cellar

holes and the ruins of a colonial Garrison dot the forest surrounding the site of Adams Mill, a 1730's mill village. Historic buildings in the park include the Davis Farmhouse (ca. 1775), Adams Farmhouse (ca. 1791), North Schoolhouse (ca. 1828), Litchfield House (ca. 1861), Andersen Barn (ca. 1880), Hart Barn (ca. 1930s), Farnham Smith Cabin (ca. 1939), Fall Family Camp (ca. 1930), and the Tie Stall Barn (ca. 1940s). The Litchfield House is part of the State's historic curatorship program, which grants "curators" a free 30-year lease of a historic building in exchange for the curator making capital improvements.

OTHER ORGANIZATIONS

Other cultural and historical organizations in town include:

- Carlisle Community Chorus
- Concord Orchestra
- Carlisle Chamber Orchestra
- Carlisle Garden Club
- Carlisle Artisans Society/Gallery
- The Savoyard Light Opera
- Carlisle Children's Choir
- Carlisle Colonial Minutemen
- Friends of the Carlisle COA
- Friends of the Gleason Public Library
- Friends of Carlisle Center Park

Regional Resources include:

- Concord Area Music School Association
- Sounds of Concord - Barbershop Chorus
- Concord Youth Theater
- Concord-Carlisle Adult & Community Education (High School)
- Concord Chorus
- Concord Orchestra
- Concord Bad

Also, Carlisle's religious institutions offer cultural programming, including:

- The First Religious Society
- Carlisle Congregational Church
- St. Irene's Roman Catholic Church

Some of these religious institutions are also listed under cultural / community spaces.

Cultural/Community Spaces

Carlisle's cultural and community spaces include:

- **The Corey Auditorium in the CPS** offers both students and residents access to performing arts space. The Savoyard Light Opera Company performs here. The seating capacity is 387 or 75 with the music wall down and chairs set up.
- **The Hollis Room** in the Gleason Public Library holds up to 50 and is free of charge for Carlisle residents. Space throughout the building is periodically used for art exhibitions and other Library programs.
- **The Carlisle Artisans Gallery** is a nonprofit, founded in 2014, to facilitate maker and exhibition space for local artists.
- **The Union Hall at the First Religious Society** has a large meeting space and is used for various town events such as a monthly Open Mic Night. The Union Hall can hold up to 143 patrons, which makes it one of the larger meeting spaces in town. The First Religious Society also brings the community together throughout the year for events like the Strawberry Festival, crafts fairs, and game nights.
- **The Carlisle Congregational Church** rents both the Sanctuary Hall and the Fellowship Hall. The Sanctuary seats 300 The Fellowship Hall seats 160 and has access to a kitchen. The Sanctuary is also the venue for the Carlisle Chamber Orchestra.
- **St. Irene's Roman Catholic Church** has a Parish Hall, with a capacity of approximately 175 that is used by community members, as well as the church, for events like exercise and education classes, trivia nights, and craft fairs.
- **The Highland Building** is one of the older municipal buildings in Carlisle. It was built in 1908 to serve as a unified school, replacing the five individual districts and one-room schoolhouses scattered about town. The building continued to be used by the school until 1985 with the completion of the Corey Building on the school campus. The building has since been home to artists and also used for storage. Despite exterior stabilization by the town, the building sits unused because of challenges regarding code compliance and historic restoration costs.
- **The Brick Schoolhouse** was built in 1848 to educate residents from the center district as a traditional one-room schoolhouse. With the completion of the Highland School in 1908, the brick schoolhouse served as a community room, auxiliary classroom, library, and various other uses. The building was used most recently by the school until 2012 for middle school art class. It later became an office for school administration and now serves as the headquarters of Carlisle's Recreation Commission.

- **The Town Center** is seen as a vital symbolic and actual community gathering space, including Center Park. Ferns Country Store is also seen as a community space and the store hosts summer events outside their building.
- **The Sleeper Room at Village Court** and the **Community Room at Benfield Farms** are both available for resident and public use.
- **Clark Farm** hosts a number of events and activities for the community and is seen as an important community space for residents.
- **The Cranberry Bog House** was built in 1904 to house farm workers, equipment, as well as process and package cranberries. Despite the conclusion of cranberry harvesting in 2016, the lower level of the building is still used to house farming equipment. The building and infrastructure have benefited from CPA grants totaling over \$180,000. The upper floors of the building house apartment units that the town leases as affordable housing. To this day, the packaging and processing room remains remarkably well preserved with all of the original processing equipment intact.

Cultural/Historic/Community Events + Festivals

- **Carlisle Old Home Day (Carlisle Common/Town Center)**, which began in 1912, is an annual town-wide festival celebrating the best of Carlisle. The celebration takes place during a late spring weekend, and includes a Strawberry Festival, country fair, road races, and a parade.
- **The Carlisle Poppy Project — Memorial Day (Town Common and Rotary)** is a community art installation in Carlisle that has turned into an annual event after it was started in 2018 to mark the 100-year anniversary of the end of World War 1. Each year, more than 3,000 crocheted, felted, and knitted poppy flowers, created by the community, are displayed in the Town Center to remember the troops lost in World War 1, and in subsequent wars and conflicts, on Poppy Day in the USA. This is part of a global community event started in Australia in 2014, and is organized and maintained by a group of Carlisle residents. The installation changes every year depending on significant events and anniversaries.⁴
- **Halloween Trick or Treating (Town Center)** where children are invited to the Town Center for a community trick or treating event.
- **Other events** include Oktoberfest and the Pig Roast hosted by Clark Farm.

⁴ For further information about the Carlisle Poppy Project, visit:

- <https://www.facebook.com/carlislemapoppyproject/>
- <https://www.instagram.com/carlislepopyproject/>

www.facebook.com/carlislemapoppyproject/

Historic Resources

In 2010, the town, with funding from its Community Preservation Fund, undertook a *Historic Properties Survey* to update an earlier survey from 2006.⁵ The Survey added historic resources to both the Town's and State's databases. As a result of that work and prior efforts, the Massachusetts Cultural Resource Information System (MACRIS data maintained by the Massachusetts Historical Commission lists a total of 465 properties with historic significance designated in Carlisle: 342 are individual buildings; 59 are structures, such as walls, ponds, or bridges; 3 are burial grounds (Green, Central Burying Ground, and the Lucy and Elizabeth Andrews grave sites); 34 are multi-building areas (listed below); and 27 are objects, such as historic monuments, markers, or statues.

THE TOWN CENTER LOCAL HISTORIC DISTRICT

One significant cluster of properties of historic significance is located in Town Center, which is designated a **Local Historic District** (See Map F-1). The District contains 30 historic homes and a number of historic barns noted in the MACRIS study.

The Central Burying Ground was established in 1783 on a small parcel of town land in the center and served as an active cemetery until the 1830s. The Cemetery houses the graves of many Carlisle Revolutionary War heroes as well as those who helped establish the town. In the 1890s, the Carlisle Village Improvement Association renovated the cemetery planting a row of arbor vita and installing granite bollards at the cemetery entrance. Improvements in the 1930s included a pathway, birdbath, and an enclosed sitting area known as the Litchfield Seat. A \$200,000 restoration plan is currently on hold.

⁵ Forbes, Anne McCarthy, and Gretchen G. Schuler; Carlisle, Massachusetts Historic Properties Survey Final Report; April 2010. Available at: <https://www.carlislema.gov/DocumentCenter/View/217/Historic-Properties-Survey-Final-Report-2010-PDF?bidId=>

Map F-1. Carlisle Center & Historic District Map

Source: Town of Carlisle



MACRIS-LISTED AREAS

Areas are defined as historic resources that contain multi-buildings.

The following areas are listed in the State database:

Buttrick - Woodman Farm	Wilkins Lots Area
Hodgman - Skelton - Garfield Farm	Stearns, Harry B. Farm
Spooner House and Factory	Andersen Farm
Blood - Lee - Kemp Farm	Nickles Cranberry Company Bog and Bog House
Blood - Duren Farm	Fadden Land - Fiske Street Cottages
Page - French - Greenough Farm	Swanson Poultry Farm
357 Brook Street and 455 East Riding Drive	Carlisle Pines Area
East Riding Drive Area	Flannery and Pearson Houses
Wahlen and Healey Houses	Risgin, John Farm
Spaulding, William Henry House	Parlin - Morgan - Andreassen Farm
Blaisdell, Isaac Farm - Bates Farm	Buttrick House and Mill Properties Area
Green, Zacchaeus - Green, Hannah Farm	Heald, Lt. Jonathan House
Concord Street, 249-301	South Street: West - Petersen - Davis Lots Area
Green - Clark Farm	South Street: Larsen, Ivar House Lots Area
Carlisle Village Court Senior Citizen Housing	Hutchinson, Charles Henry Farm
Carlisle School Campus - Spalding Park	Heald, John and Israel Farm - Heald, Ambrose Farm
Blaisdell Drive Area	Parlin - Sorli Farm

GREEN CEMETERY

Green Cemetery was established in the late 1700s as the Green family's private burial ground. As the Central Burying ground reached capacity by the 1830s, the town acquired the Green Cemetery property from the Green family. The cemetery remains in active use today. In addition to various monuments, there are many historic structures located in the complex. The cemetery maintenance building, built in 1867, originally housed the town's hearse, which is now on display at the Carlisle Historical Society. The Green family donated the Green Summerhouse in 1874. In 1902, the Richardson family donated a granite mausoleum. In 1907, Captain H. W. Wilson donated the small brick chapel, which underwent a \$50,000 interior renovation in 2000. In 2015,

Eagle Scout Jacob Golson created a digital index of the cemetery plots, which can be viewed through the Carlisle Historical Society’s research portal.

NATIONAL HISTORIC REGISTER PROPERTIES

Carlisle currently has two National Historic Register properties:

- George Robbins House at 523 Curve Street
- Zebulon Spaulding House at 1044 Lowell Street

The *Historic Properties Survey* identifies a number of other historic resources that the survey consultants believe could be eligible for National Register designation.

TOWN SCENIC ROADS

The Town has designated 22 roads as Scenic Roads under Massachusetts General Law. State Law protects trees and stone walls within the public right-of-way of a scenic road from being cut down or destroyed unless the Planning Board, after a public hearing, provides written consent to do so. This applies to actions of private individuals, utilities and the Town itself. It does not apply to trees or walls that are on private property. Typically, stone walls form the boundary between the right-of-way and private lots, and these walls, or trees similarly situated, are protected.

The Planning Board’s Rules and Regulations for Scenic Roads lists the characteristics that should be considered for designating a Scenic Road, and these include enhancing open vistas, enhancing rural character, maintaining the historic nature of a road, and considering the adjacent land and its status as agricultural, conservation, or historic.

Of the 22 Scenic Roads in the town, two were designated in 2019. Current Scenic Roads are listed in Article 12 of the General Bylaws. The full length of each of these roads is designated as Scenic:

<i>Acton Street</i>	<i>Maple Street</i>	<i>Rutland Street</i>
<i>Brook Street</i>	<i>North Road</i>	<i>School Street</i>
<i>Cross Street</i>	<i>Pope Road</i>	<i>Skelton Road</i>
<i>Curve Street</i>	<i>Prospect Street</i>	<i>South Street</i>
<i>Concord Street</i>	<i>River Road</i>	<i>Stearns Street</i>
<i>East Street</i>	<i>Rockland Road</i>	<i>Sunset Road</i>
<i>Fiske Street</i>	<i>Russell Street</i>	<i>West Street</i>
<i>Lowell Street</i>		

HISTORIC PROPERTIES SURVEY RECOMMENDATIONS

In addition to the core survey work, the consultants offered overall recommendations for next steps in three areas:

1. Further documentation of the Great Brook Farm Area to include additional properties, including the house at 107 North Road and the North Schoolhouse.
2. Further documentation of ca. 1950s and 1960s subdivisions, including Deck House developments, of which there are several in Carlisle.
3. Ongoing future updating of historic resource inventory forms.

Other preservation-related recommendations in the Survey include:

1. The strong recommendation that the Carlisle Historical Commission develop a plan to list properties in the National Register of Historic Places.
2. The town adopts a demolition delay bylaw (requires a majority vote of Town Meeting)
3. Use the Survey to provide justification for applications for funding of restoration or rehabilitation of significant buildings and historic landscapes, particularly those in public or non-profit ownership.
4. Use the town's Geographic Information System (GIS) to map the community's historic properties.
5. Use the Survey for the basis of Carlisle Historical Commission decisions regarding changes to the historic, as well as non-historic, resources in the Town Center Local Historic District.

As of the date of this Master Plan, limited implementation of these recommendations has occurred.

What We've Heard

The following is a summary of feedback received during public meetings, focus groups, interviews, Kitchen Conversations, and the Master Plan Fall 2019 Survey:

- The desire for a central community gathering space or civic space is strong in the town; residents think a community center, café, pub, co-working space, or other type of gathering space would enhance their sense of community and quality of life. Currently the DPW's transfer station is noted as the one common community-gathering place in the town. Despite a desire for community space, there is no consensus on what this should look like. Some are promoting the concept of a separate Community Center building, but this is not embraced town-wide.
- While grant money may be available, town funding is scarce for cultural and historical activities and programs.

- Intra-committee communication in the town is lacking and a major barrier. Groups working on preservation and cultural initiatives feel siloed and want more opportunities to cross-pollinate, collaborate, and share information. This was a common comment across outreach efforts for all elements of the plan.
- The *Mosquito* and other networks play an important role in providing information and facilitating communication across the town.
- It would be very helpful if the Community Preservation Committee could look across needs for housing, open space, and historic preservation to find projects that offer mutual benefits for each.
- The Carlisle Historical Commission and other preservation advocates could be more effective if they could collaborate with others, join forces, and make an impact in one area rather than a diffused effort.
- The Master Plan Steering Committee has been told that a 2010 Survey analysis by a resident shows that approximately 10% of the historic buildings surveyed and documented in 2010 have been torn down or have become endangered. Included in this are also some properties not included in the 2010 Survey, such as the original firehouse c 1930s (replaced by the police station) and two properties on the Woodward property on Bedford Road.
- There is a strong desire to find an active use for the Highland Building.
- There are inadequacies in communication among town government entities, nonprofit organizations, and volunteer community groups. This can result in people working at cross-purposes, inefficient use of resources, or other unintended consequences.
- The financial health of local cultural entities and participation rates in activities are currently not tracked. A wide variety of organizations and individuals serving many different segments of Carlisle's population from children to seniors, express an interest in grant opportunities.
- There is a tension between attracting more commerce in the Town Center to fulfill residents' desires for a civic gathering spot and place to find dining or services, and the desire to retain the existing character of the center.
- The requirements for rebuilding and renovating in the Town Center Historic District seem onerous to some, even those who are active preservation advocates. These requirements can delay permitting and Town Committee decisions that can stop projects.
- The town lacks a common calendar, resulting in confusion and missed information. The Meeting & Events Calendar on the town website lists primarily town-sanctioned events.

Other activities and events are spread among multiple calendars (Library, COA, Town Hall, Schools, *Carlisle Mosquito*).

- The Carlisle Cultural Council would like to raise its visibility within the town, increase participation in town cultural activities, and develop cultural programming.
- The Carlisle Cultural Council would like to actively work with the COA and other boards in support of developing a community center.
- The Carlisle Historical Commission would like to expand the historic district to include the Highland School, the Red Brick School, Green Cemetery and certain individual properties.
- There are opportunities to enhance the use of Town Center Park by hosing activities, Garden Club events, and other programs.
- The Central Burying Ground in the Town Center is in need of restoration.
- Stakeholders are thinking about possible links between arts, culture, and historic resources and other areas of the Plan/Town initiatives.
- In the spring of 2020, the Carlisle Cultural Council conducted a town-wide survey to help it reevaluate grant-funding priorities, encourage new initiatives among potential applicants, and uncover potential program opportunities. Local cultural councils are required to obtain community input periodically.

Things to Think About

- The Carlisle Cultural Council may wish to consider distributing one larger grant and smaller grants to facilitate projects having larger impact such as a community-wide art project, or collaboration with the CPS on art and other curriculums.
- What would more streamlined and central communication and coordination in the town look like? What would be the advantages and disadvantages?
- While a recommendation of the *2010 Historic Property Survey*, Carlisle has not yet collected data into one map to understand the location of historic resources and potential clustering and to capture associated stories of historic resources. Because CPA Funds are distributed to Historic Preservation, Open Space, and Housing, the lack of a single-source document and map that lays out locations and a plan puts historic preservation efforts at a disadvantage. Can monies and efforts be pooled to address high impact projects and build momentum toward achieving major successes?
- The town expended approximately \$445,000 of CPA Funds on the exterior stabilization of the Highland Building and also incurs ongoing expenses to maintain the building. Carlisle should explore options for returning this building to active use, including various

municipal uses as well as a sale, should be explored to ensure this building return to active adaptive reuse.

- Including existing Scenic Roads on a GIS layer of the town maps would help to visualize how proposed designations may or may not support other town goals such as Complete Streets and land development.
- Many non-traditional cultural organizations stimulate life in town. Carlisle may have opportunities to collaborate on cross-sector services and programs and identify cross sector grants.



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OPEN SPACE, RECREATION, AND NATURAL RESOURCES EXISTING CONDITIONS REPORT

Introduction

Carlisle is a traditional, quintessential, New England town 15.5 square miles in area, located approximately 19 miles northwest of Boston and part of the Boston metropolitan area. The structure of the town's open space, agricultural, and natural resources reflects the community's commitment to maintaining this character. Carlisle has purposefully not developed much of its land, and instead, the community has focused on protecting and preserving its rural character. Zoning laws and the town's reliance on private septic and water systems (coupled with two-acre zoning in most areas) have discouraged higher-density developments.

This section describes the type and distribution of open space in Carlisle, the importance of public and privately owned conservation land, the town's recreational resources, the importance of protecting the water supply, and the agricultural assets of the town.

This section includes:

- Open Space, Recreation, and Natural Resources Today
 - Key Trends and Characteristics
 - Open Space and Conservation
 - Trails
 - Recreation
 - Natural Resources
- What We Have Heard
- Things to Think About

Open Space, Recreation, and Natural Resources Today

Key Trends and Characteristics

Key trends and characteristics for Carlisle's open space, recreation, and natural resources include:

Open Space and Conservation

- Approximately 35% of town land is protected open space.
- The town has yet to determine future uses and maintenance plans for some open space resources, including the Cranberry Bog.
- Every seven years, Carlisle publishes a revised Open Space and Recreation Plan. The most recent version is dated 2020/2021 (*2020/2021 OS&R Plan*).¹

Trails

- Carlisle has 19 trail networks, many of which connect to roads, but most of which do not connect to each other nor Town Center by sidewalks or linking pedestrian pathways or trails.

Recreation

- The Recreational Committee's priority initiatives include upgrading a number of recreational facilities as well as building a multi-purpose, multi-generational recreation center.

Natural Resources

- The town has no public water supply, and residents and businesses depend on water from private wells. Carlisle residents place high value on protecting Carlisle's water resources.
- The Greenough Dam spillway is in need of repair, and the Select Board voted to award two contracts to repair the dam in its July 13, 2021 meeting.²

Open Space and Conservation

Carlisle is in close proximity to Boston but is rural in character. The natural assets of the town have served for centuries as major regional resources including forests, farmland, hunting and fishing grounds, raw materials, water, and recreational opportunities throughout much of the

¹ *Town of Carlisle Open Space and Recreation Plan 2020/2021 (2020/2021 OS&R Plan)*. Available at: <https://www.carlislema.gov/580/Open-Space-Recreation-Plan>

² Coombs, Karina; Carlisle Mosquito; *Greenough Dam repair contracts awarded*; July 28, 2021

area. Carlisle’s stock of environmental resources and undeveloped land contribute to the character of the town, and they also help to provide a unique set of recreational, ecological, and economic possibilities not often found in Boston suburbs.

The *2020/2021 OS&R Plan*, prepared under the direction of the Carlisle Conservation Commission (ConsCom) and the Open Space and Recreation (OS&R) Plan Committee, provides a robust framework for open space, recreation, and natural resource planning in Carlisle. The *2020/2021 OS&R Plan* identifies four overarching goals:

- 1. Maintain the rural character of Carlisle
- 2. Protect the town’s environment
- 3. Meet the town’s recreational needs
- 4. Proactively manage land use in town

The total permanently protected space in the town is approximately 3,488 acres, or 35% of all town land.³ The Inventory of Open Space Map from the OS&R Plan (see Figure G-1) includes both public and private open spaces used in a variety of ways (described further below). The Plan lays out goals to preserve additional open space for groundwater protection, conservation, and recreation. The Plan also recommends supporting local farmers to maintain the town’s historical roots in agriculture.

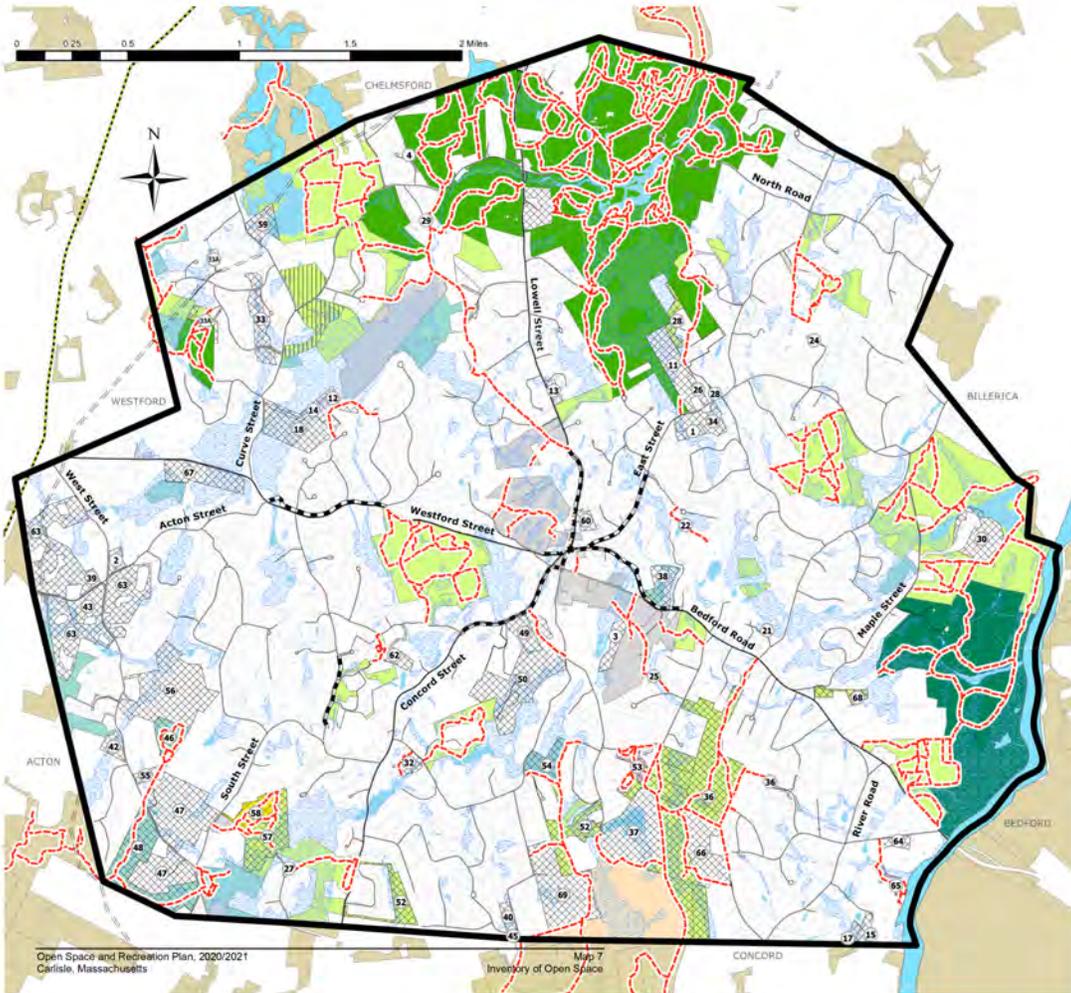
PROTECTED LAND

Many publicly and privately conserved open spaces, like the Great Brook Farm State Park, provide opportunities for both eco- and agri-tourism, while also offering much-needed habitats for diverse ecologies. Carlisle’s residents enjoy the many benefits derived from this abundance of natural assets, which support healthy, active lifestyles among residents.

Protected land is under the purview various entities and programs, both public and private. **Publicly owned protected land** includes Town-owned Conservation land (ConsCom), State-, and Federal-owned lands. **Privately owned protected land** includes land held by Carlisle Conservation Foundation (CCF); private land with permanent conservation restrictions, and open space protected as part of cluster developments. Lands protected under these categories are described in more detail below and are displayed in Figure G-1.

³ 2020/2021 OS&R Plan; p 1-1

Figure G-1. Inventory of Open Space, 2020
 Source: Section 12, Map 7; 2020/2021 OS&R Plan



Map 7 Inventory of Open Space

Protected open spaces are lands that are permanently committed for conservation or recreation purposes or both. They include public holdings of the Carlisle Conservation Commission and the Commonwealth and Federal governments and private holdings of the Carlisle Conservation Foundation (CCF), Harvard University, Sudbury Valley Trustees, and The Trustees of Reservations.

Protected open space also includes private properties with permanent conservation restrictions (CRs) and open space created by conservation cluster developments.

Unprotected open space consists of public and private properties that are not designated for conservation or recreation and includes land in Chapter 61, 61A, or 61B.

Legend

- Pathways
- Bruce Freeman Rail Trail
- Gas Pipeline
- Trails
- Water
- Wetlands
- Carlisle Conservation Foundation
- Commonwealth of MA - Great Brook Farm SP
- Harvard University - Estabrook Woods
- Homeowners Assoc - Great Brook Estates
- Sudbury Valley Trustees (CR 65)
- Town of Carlisle - Conservation Commission
- Carlisle Recreation Trust (CR 58)
- The Trustees of Reservations (CR 53)
- United States - Great Meadows NWR
- Conservation Restriction
- Agricultural Preservation Restriction
- Municipal Use/Unprotected Town-owned
- Protected Out of Town

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 Certain base layers courtesy of the Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs

Town-Owned Conservation Land. Table G1 lists town-owned conservation land.

Table G-1. Town-Owned Conservation Land (as of 10/31/2020)

Source: Section 13, Table 1; 2020/2021 OS&R Plan

Land Name	Location	Acres	Protection*				CR	Map-Parcel-Lot
			A	B	C	D		
Benfield Cons. Land	South Street	25.68	•				#57	5-7-4A
Bisbee Land	Concord Street	34	•	•				4-24A-0
Blanchette Land	off Arrowhead Lane	4.41		•				26-20-B, 35-13-A2
Buttrick Woods Conservation Land	Concord Street	13.97		•			#52	4-20-A
Carr Land	off Bellows Hill Road	6.08	•	•			#52	2-12-1
Cranberry Bog	Curve Street	151	•	•				30-2-0; 31-15-0
Davis Corridor	Bedford Road to Estabrook Woods	126.4	•	•	•		#36	2-1-0; 2-2A-0; 2-5-0; 2-6-0; 2-7-0; 2-8-0; 9-15-0; 9-26-0
Deacon Land	off Baldwin Road	7.51	•	•			#52	2-13-0; 9-38-A; 9-38-B
Fisk Meadow	off Lowell Street	11.60	•	•				27-6-0
Foss Farm	Bedford Road	55.20	•	•	•	•		11-5-0
Fox Hill	Bedford Rd/Stearns St	11.22	•	•				14-9-0
Gage Woodland	off Lowell St/Ember Ln	14	•					31-2-0
Grt Brk Estates OS #1	Rutland Street	3.67	•					26-18-G
Greenough Land	Maple Street	255.00	•	•	•	•		12-2-0; 13-87-0; 24-3-0
Greystone Crossing Conservation Land	off Cross Street	14.33		•				7-38-A; 7-38-B; 7-38-C; 7-38-D
Hart Farm Cons. Land	off Curve Street	13.54	•	•				28-12-Y
Hartwell Woods	Concord Street	7.38	•	•				4-23A-X
Heidke Parcel	next to Town Forest	8.19	•	•				24-28-0
Hutchins Field	Curve Street	16.00	•	•	•		APR	28-2-Y
Ice Pond Cons. Land	next to GBFSP	7.05	•	•			#28	26-6K-OS
Keystone Link	off West Street	1.0	•					5-46-0
MacAfee Land	Next to Carlisle Pines State Forest	15.00	•	•				29-4-0
Macone Property	off Brook Street	3.00	•	•				13-8-6
Malcolm Land	Stearns Street	22.90	•	•	•		#52	9-25-A; 9-27-1C; 9-28-B
Mannis Land	off Aldershot Lane	27.88	•	•				36-22-0; 36-37-7; 36-38-8; 36-39-9
Rangeway Cons. Land	off Rutland Street	8.15		•				36-26-1
Robbins Field	Curve Street	18.45	•	•	•		APR	28-8-8A; 28-8-9A; 28-8-10A
Rockstrom Cons. Land	off School Street	7.55	•	•			#52	2-14-4
Russell Cons. Land	Russell Street	21.99		•				8-16-A
Sachs Greenway	Baldwin Road	9.34	•	•			#52	2-10-9; 2-10-X
Swanson Family Land	Tall Pines Lot 10	2.99	•	•				29-6-10
Swanson Land	off Curve Street	20.00	•	•				28-9-0
Towle Land	Westford Street	120.90	•	•	•	•		15-23-0; 15-24-0; 15-25-0; 15-45-0
Town Forest	East Street	71	•					23-66-0
Woodward Cons. Land	Bedford Rd/Maple St	6.05	•				#68	10-3-B-1, 10-3-B-2
Total Acres		1142.4						

* **Protection** - Properties subject to permanent protection for the following reasons.

A- Acquired by Town Meeting, voted to be managed by the Conservation Commission by Town Meeting, and permanently protected under Article 97 of the Massachusetts Constitution.

B- Acquired for conservation under MGL Ch 40 s.8C, or created as open space through the Carlisle Conservation Cluster Bylaw or Senior Residential Open Space Community Bylaw or by gift.

C- Acquired with Commonwealth of Massachusetts Self-help funds or with state APR funds.

D- Acquired with Commonwealth Self-help funds and the Federal Land and Water Conservation Fund.

APR = Agricultural Preservation Restriction, **CR** = Conservation Restriction, **GBFSP** = Great Brook Farm State Park, **OS** = Open Space

The 2020/2021 OS&R Plan describes the town-owned conservation lands.⁴ Those ten acres or larger include:

- **Benfield Conservation Land (25.68 Acres):** Gently sloping open fields, a certified vernal pool, and wetlands associated with Spencer Brook. The wetlands connect this parcel with the Bisbee Land and CCF's Spencer Brook Reservation.
- **Bisbee Land (34 Acres):** Open fields, which are currently hayed by a local farmer, and trails in wooded areas
- **Buttrick Woods Conservation Land (13.97 Acres):** Bounds three sides of the Buttrick Woods development on Concord Street. It is part of the Estabrook Woods Buffer Lands. Provides a wildlife corridor from the Bisbee Land to the nearby Estabrook Woods.
- **Cranberry Bog Conservation Land (310 Acres—151 Acres in Carlisle):** Carlisle's portion Includes 40 acres of former cranberry bog, plus ponds, reservoirs, and adjoining wooded areas of both uplands and wetlands. The ponds, reservoirs, and wetlands are supplied by the River Meadow Brook that originates at the protected O'Brien Farm in Westford. Carlisle's portion includes four certified vernal pool.
- **Davis Corridor (126.4 Acres):** Wooded property that includes a small, wild cranberry bog and an historic carriage trail that connected Carlisle to Concord during the colonial period.
- **Fisk Meadow (11.6 Acres):** Approximately two-thirds wetland and one-third open agricultural field, which is under a farming agreement with a local farmer.
- **Foss Farm (55.7 Acres):** Bordered by Great Meadows National Wildlife Refuge (GMNWR) and the Concord River to the south and east. A popular trail leads from Foss Farm across the Refuge and connects to the Greenough Conservation Land. Approximately 20 acres are currently cultivated by a local farmer under an agricultural agreement with ConsCom. It also includes approximately 100 community garden plots.
- **Fox Hill (11.22 Acres):** Open fields, field edge, and forest on the corner of Bedford Road and Stearns Street. A local farmer cultivates hay in the eastern and western fields.
- **Gage Woodland (14 Acres):** Upland hardwood forest without mapped trails.
- **Greenough Land (255 Acres):** Features large rock outcroppings, a 20-acre pond, streams, wet meadows, agricultural fields, a planted Red Pine grove, and 1,800 feet of frontage along the Concord River. Includes four certified vernal pools. A trail across the Great Meadows National Wildlife Refuge (GMNWR) connects the Greenough Land to Foss Farm. A large slate-roofed barn near the Billerica border is going to be removed. An

⁴ Ibid.; p. 5-7

earthen dam crosses Pages Brook, creating Greenough Pond and providing a critical trail link between the northerly section of Greenough Conservation Land and the Town of Billerica to trails to the GMNWR.

- **Greystone Crossing Conservation Land (14.33 Acres):** Abuts the Greystone Crossing development and is the portion of the developed parcel required to be set aside for open space as a condition of the conservation cluster special permit. Includes a certified vernal pool.
- **Hart Farm Conservation Land (13.5 Acres):** Contiguous with the Cranberry Bog Conservation Land. With the adjacent Hart Land, forms a 65-acre parcel of municipal land that is predominately wetlands. It is reserved as a potential future municipal water supply. The land is level, wooded, quite low, and bordering an extensive wetland. Includes a certified vernal pool.
- **Hutchins and Robbins Fields (34.45 Acres):** Fields and woodland that is under an Agricultural Preservation Restriction (APR).
- **Macaffee Land (15 Acres):** Contains large areas of wetlands. Lies along Carlisle’s border with Westford, and trails lead toward Westford and nearby Chelmsford. Serves as a conservation buffer for the nearby historic, state-owned Carlisle Pines section of Great Brook Farm State Park (GBFSP).
- **Malcolm Land (22.9 Acres):** Abuts both the town-owned Davis Corridor Malcolm Preserve. This upland property includes secondary succession woodlands. Part of the Estabrook Woods Buffer Lands.
- **Mannis Land (28 Acres):** Aggregation of wet and wooded parcels off Aldershot Lane, Rutland Street, and North Road. It serves as wildlife habitat and a buffer between developments. Includes one certified vernal pool.
- **Russell Conservation Land (21.99 Acres):** Contains sections of Spencer Brook and its associated wetlands, open fields, and a large mature pine forest.
- **Swanson Land (20 Acres):** A mature white-pine forest, surrounded by an extensive wetland.
- **Towle Land (121 Acres):** Features rolling fields along Westford Street, and the surrounding woods contain hills with rock outcrops, small streams, and wetlands. Includes a small pond held in place by an earthen dam.
- **Town Forest (71 Acres):** Features hilly hardwood forestlands, mature Red Pine and Eastern White Pine plantations, and wetlands. Includes three certified vernal pools. The Town Forest, together with the Heidke Land and Greenough Land, forms a 334-acre contiguous conservation area.

State- and Federal-Owned Land. Table G-2 lists state- and federal-owned land in Carlisle.

Table G-2. State- and Federal-Owned Land
Source: Section 13, Table 3; 2020/2021 OS&R Plan

Owner	Name	Acres
Commonwealth of Massachusetts	Great Brook Farm State Park (GBFSP) (includes 22.9-acre Carlisle Pines State Forest, administered by GBFSP)	998
U.S. Government	Great Meadows National Wildlife Refuge	321
Total Acres		1,319

Commonwealth Conservation Land. The 2020/2021 OS&R Plan describes Commonwealth-owned conservation land in Carlisle:⁵

- **Great Brook Farm State Park (998 Acres):** Features a Visitor Center, a working dairy farm with a state-of-the-art barn and robotic milking facility, an ice-cream stand, an extensive trail network through fields and woods, small ponds, a canoe launch, streams, a cross-country skiing venue, and trail linkages to many of Carlisle’s other open spaces.
- **Carlisle Pines State Forest (22.9 Acres—Part of GBFSP):** Protects a small stand of virgin Eastern White Pine and Eastern Hemlock trees exceptional for their size and grandeur. The Carlisle Pines State Forest parcel is completely wooded with deciduous and coniferous trees, with some planted Red Pines.

Federal-Owned Protected Land. The 2020/2021 OS&R Plan describes federally-owned conservation land in Carlisle:⁶

- **Great Meadows National Wildlife Refuge (321 Acres):** Protects much of Carlisle’s riverfront on the Concord River. The refuge can be traversed by trails that link the Greenough Land and Foss Farm conservation lands. Archery hunting of deer and waterfowl are allowed in some parts of the refuge with a refuge hunt permit. The Town holds an easement to a Water Rights Area within GMNWR for a potential public water supply well field with an easement to provide access to Maple Street.

⁵ Ibid.; p. 5-19
⁶ Ibid.; p. 5-19

Non-Profit Conservation Organization Lands. The 2020/2021 OS&R Plan documents 219.84 acres of land that the Carlisle Conservation Foundation (CCF) owns, plus 8.98 acres that the Sudbury Valley Trustees own (figures as of October 31, 2020).⁷

Properties with Conservation Restrictions. The 2020/2021 OS&R Plan documents 1171.45 acres of private land that are protected by conservation restrictions (or restrictions similar to conservation restrictions).⁸

PUBLICLY-OWNED UNPROTECTED LAND

Per the 2020/2021 OS&R Plan:

“Not all public open space is protected for conservation. In Carlisle, significant lands of publicly owned, unprotected open space include the Conant Land (54 acres), the Banta-Davis Land (39 acres), the Hart Land (65 acres), Department of Public Works (DPW) land (18.3 acres), Center Park (0.6 acres), and the Moseley Land (5 acres). These lands were acquired for various town uses and cannot be considered as protected open space.”⁹

⁷ Ibid.; Table 4
⁸ Ibid.; Table 5
⁹ Ibid.; p. 5-23.

PRIORITY PARCELS FOR PROTECTION

The 2020/2021 OS&R Plan identifies 48 private parcels prioritized for protection. These properties were ranked through a community process according to established criteria into four levels of protection. Figure G-2 shows the priority ranking for protecting of private properties and Table G-3 lists the Priority 1 parcels by name.

Figure G-2. Unprotected Private Properties Greater Than 10 Acres

Source: Map 9; 2020/2021 OS&R Plan

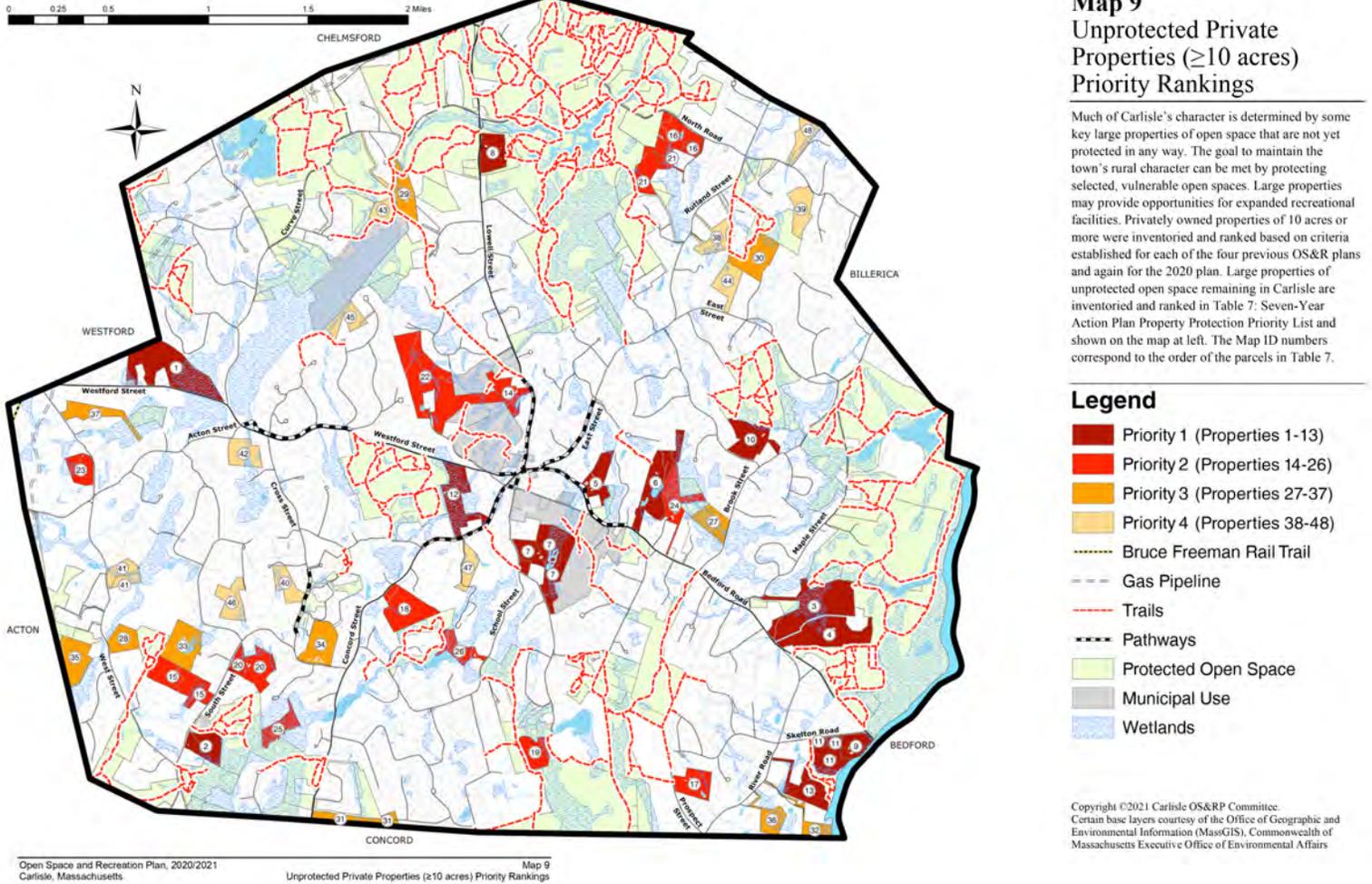


Table G-3. High-Priority Private Property for Protection, Greater than 10 Acres

Rank	Map 9 ID#	Owner	Location	Acres	61	61A	61B	Map-Parcel-Lot
1	1	Sorli	Westford Street	42.60				18-42-Y
1	2	Kiel	South Street	14.30				5-9-A
1	3	Woodward/ Doutriaux	Bedford Road	41.86	x			10-4-X
1	4	Anderegg	Bedford Road	31.29				11-1-0
1	5	201 Bedford Rd Partnership LLC	Bedford Road	13.84		x		22-68-Y
1	6	West Isle/Kimball	off Bedford Road	29.24				22-74-0
1	7	Zoll	School St./Baldwin Rd.	42.49	p		p	14-40-0,14-43-6, 14-35-7, 14-24-0, 14-36-0, 14-41-0, 14-42-0
1	8	Erickson	Lowell Street	14.34				33-7-0
1	9	Tobins	Skelton Road	10.60				11-8-6
1	10	Frizzell	East Riding Drive	19.55				23-58-0
1	11	Stein	Skelton Road	20.10				1-2-A1,1-2-A4,1-2-A5
1	12	Hamilton	Concord Street	21.50		p		15-30-0
1	13	Biodiversity Trust (J Power Trustee)	River Rd./Skelton Rd.	18.47				1-1-7
				320.18				

x = total property, p = partial property; Acreage is entire property acreage. Where properties listed are in Chapter 61, 61A, or 61B, they are marked with an x when the entire property is in Chapter. They are marked with a p when only part of the property is in Chapter.

Source: Table 7; 2020/2021 OS&R Plan

SEVEN-YEAR ACTION PLAN

In addition to prioritizing properties for protection, the 2020/2021 OS&R Plan prioritizes initiatives to maintain and improve properties, including those currently protected. Figure G-3 and Table G-4, both taken from the 2020/2021 OSRP, summarize the seven-year action plan for the high-priority initiatives.

Figure G-3. Seven-Year Action Plan for High-Priority Initiatives

Source: Map 8; 2020/2021 OS&R Plan

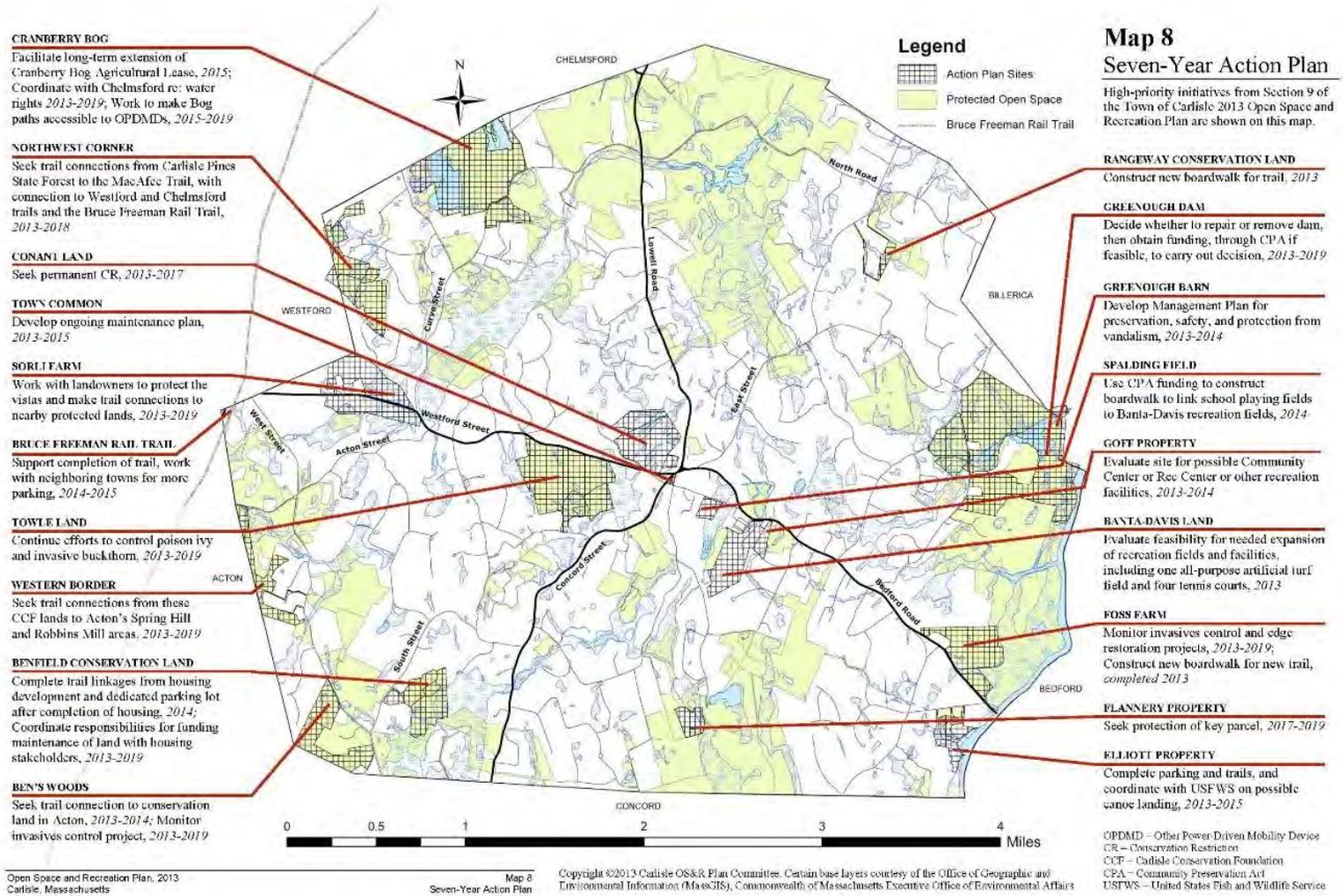


Table G-4. Seven-Year Action Plan High-Priority Initiatives

High-Priority Initiatives, Timetable, Funding Source, and Responsible Parties			
INITIATIVE	YEAR	FUNDING SOURCE	RESPONSIBLE PARTY
Recreation Needs			
<i>Banta-Davis: Build a fenced dog park</i>	2021	CPA, DB, G	RecCom
<i>Moseley Land: Build multi-purpose community center</i>	2025+	TBD	RecCom, COA
<i>Spalding Field: Reconfigure & renovate, add turf field</i>	2022	TBD	RecCom
<i>Locations TBD: Add tennis courts, skating pond</i>	2022	CPA,TBD	RecCom
Improve Accessibility			
<i>Town: Improve communication w/disabled community</i>	2021+	N/A	SB, TA
<i>Town: Improve walkability and pedestrian safety</i>	2020+	TBD	SB, TPSC
<i>Cranberry Bog: Make paths accessible to OPDMDs</i>	2021+	CPA	ConsCom
Invasive Plant Control and Edge Reclamation			
<i>Foss Farm: Maintain clearing of field and field edges</i>	2020+	DB, G	ConsCom, Trails, PC
<i>Towle/Benfield/Bisbee: Control Buckthorn & Poison Ivy</i>	2020+	DB, G	ConsCom
Water Resources & Agriculture			
<i>Cranberry Bog: Determine use & preserve open space</i>	2021+	TBD	SB, ConsCom
<i>Encourage diversified agricultural use of Town parcels</i>	2021+	N/A	AC, ConsCom
<i>Promote responsible woodland management</i>	2021+	N/A	AC, ConsCom
Diversity of Wildlife			
<i>Explore ways to encourage native pollinators</i>	2021+	TBD	ConsCom, CCF
<i>Maintain updated inventory of biodiversity in Carlisle</i>	2021+	N/A	Vols, ConsCom
Land Protection & Property Maintenance			
<i>Benfield Cons. Land: Coordinate field maintenance</i>	2020+	TBD	ConsCom, CHT
<i>Greenough Barn: Develop management or removal plan</i>	2021+	TBD	SB
<i>Town Common: Develop ongoing maintenance plan</i>	2021+	N/A	HistCom
<i>Raibert property: Seek protection and trail connection</i>	2020+	N/A	Trails
<i>Central Burying Ground: Restore & maintain</i>	2021	CPA	HistCom
<i>Greenough Dam: Repair or remove dam</i>	2021	G/CPA	ConsCom
<i>Do more Baseline Assessments & Management Plans</i>	2021+	N/A	LSC
Trails and Connections			
<i>West: Connections to Rail Trail and Sorli Farm</i>	2021+	CPA	Trails, CCF
<i>Benfield and Spencer Brook lands: More connections</i>	2021+	CPA	Trails, CCF
<i>South: Estabrook and Russell Cons. Land connections</i>	2021+	CPA	Trails, CCF
<i>Center: Expand pathway & trail connections</i>	2021+	CPA	Trails, TPSC
<i>East: Davis Corridor to GMNWR & Foss; Woodward</i>	2021+	CPA	Trails, CCF
<i>NE: East St pathway; Rangeway, Mannis, Town Forest</i>	2021+	CPA	Trails, CCF
<small>AC = Agricultural Commission; CCF = Carlisle Conservation Foundation; CHT = Carlisle Housing Trust; COA = Council on Aging; ConsCom = Conservation Commission; CPA = Community Preservation Act Funding; DB = Departmental Budget; G = Grant(s); HistCom = Historical Commission; LSC = Land Stewardship Committee; N/A = Not Applicable (no funding need currently anticipated; work expected to be done by Town staff, committees, or volunteers); OPDMD = Other Power-Driven Mobility Device; PC = Pony Club; RecCom = Recreation Commission; SB = Select Board; TA = Town Administrator; TBD (To Be Determined following planning; may or may not require funding from CPA or other sources, plus possible legal expense in some cases); TPSC = Traffic & Pedestrian Safety Committee; Trails = Carlisle Trails Committee; Vols = Local volunteers</small>			

Source: P. 9-2; 2020/2021 OS&R Plan

Trails

Town trails include networks in the State Park, as well as in town-owned land and other conservation land. A short length of the Bruce Freeman Rail Trail also passes through Carlisle.

TOWN TRAILS

The Carlisle Trails Committee manages and maintains trails in the town, including those on conservation and town-owned land. According to the town website, the Committee “was formed to provide the community with information and opportunities to enjoy trails, to maintain the trail network, and to plan and preserve trails.”¹⁰

The Committee negotiates easements and conservation restrictions on privately owned land and during new development to create and protect trails with the goal of creating benefits for landowners and trail users. The preservation of unprotected trails and the creation of new trails are the Committee’s most important task. The Committee has five major goals:

1. Public education
2. Maintaining existing trails on public land
3. Working to preserve trails on private land being developed
4. Creating new trails
5. Advising the Selectmen on trails issues.¹¹

Trails in Carlisle offer access to conservation lands and also serve as important connections between neighborhoods (see Figure G-4) Carlisle’s rural environment and the character of its existing roads provide limited opportunities for an extensive traditional sidewalk network; residents see trails and pathways as an alternative connection system that allows residents and visitors to enjoy the natural beauty of the area.

In 2018, the Trail Committee published the 9th edition of “Trails in Carlisle,” a comprehensive guide to the trails including maps of each individual trail system with information on planned trails and flora and fauna. The guide is available in hard copy at Ferns Country Store, Pedal Power in Action, and Town Hall. Additionally, all trail maps are available for digital download on the town website. In addition to the trails information on the town website and in the hardcopy guidebook, the Carlisle Mosquito has published extensive information on trail segments in a series of articles called “Happy Trails” (see Figure G-5 for an example article). These articles describe trails throughout the seasons, describe landscape features, offer recommendations on which trails are suited for families, children, etc., and provide photos.

¹⁰ See: <https://www.carlislema.gov/189/Trails-Committee>

¹¹ P. 1; *Annual Report for 2018*; Carlisle Trails Committee. Available at: <https://www.carlislema.gov/ArchiveCenter/ViewFile/Item/185>

Activities of the Trails Committee include cleanup after storms, leading public walks, an annual post-Thanksgiving walk, and an annual Double Sundae Sunday Saunter of a 7-mile loop to the town's two ice cream stands on Old Home Day. The Committee also sponsors talks and offers a Carlisle Trekker Award. There is also a Carlisle Trails Facebook page, which the public can use to keep up with the Committee. Trail markers are added continuously and the Committee partners with students at the Carlisle Public Schools (CPS) to create nature-themed artwork used at trail signposts.

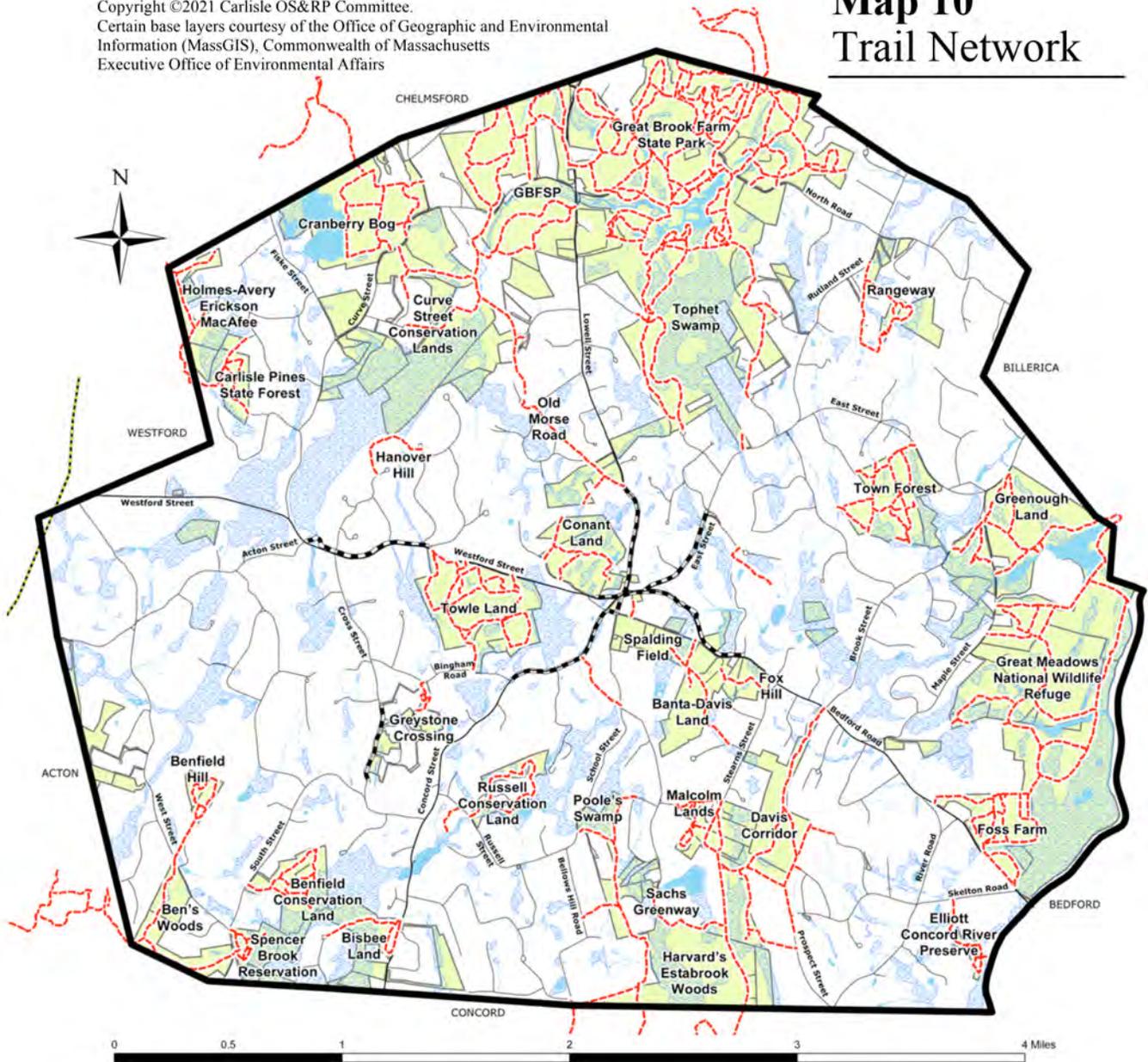
The Carlisle Trails Committee depends heavily on volunteer help to clear and maintain trails and provides robust information on the town website for those wishing to do minor trail maintenance on their own and / or to join larger efforts of tree clearing after storms and general cleanup and maintenance. The Committee coordinates activities such as boardwalk construction and mowing trails in the Town Forest and Foss Farm; it uses CPA funds as well as other resources including developer contributions to pay for materials for trail maintenance and other costs.

Since the 2010 publication of the Carlisle trails guidebook, the Trails Committee notes in 2018 that 5 miles of trails were added. Despite this, areas in town lack trails, including the western area and to the east of Town Center. The limited sidewalk network and narrow town roads, including extensive Scenic Road designations, make trails an important means for enjoying nature and conservation lands while connecting residents and connecting neighborhoods to the Town Center.

Figure G-4. Map of Trails in Carlisle
 Source: Map 10; 2020/2021 OS&R Plan

Map 10 Trail Network

Copyright ©2021 Carlisle OS&RP Committee.
 Certain base layers courtesy of the Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts
 Executive Office of Environmental Affairs



Legend

- Pathways
- Bruce Freeman Rail Trail
- Carlisle Trails

The Carlisle Trails Committee updated its trails book, *Trails in Carlisle*, in 2018. New parcels, new trails within existing parcels, new connections between parcels, trail easements, and a new marking system for trail intersections were added in the new edition. Special features of trails and land parcels are noted in the text. The trail book is available at Carlisle Town Hall and at Ferns Country Store. Trail maps are also available electronically from the Trails Committee’s pages on the Town website.

Figure G-5. Carlisle Mosquito “Happy Trails” Article on Banta-Davis Trails

Source: Carlisle Mosquito

HAPPY TRAILS

Banta-Davis – more than soccer fields



by Helen Lyons

The September hurricane and October snowstorm have passed and more seasonal late-fall weather has begun to settle in. Why not take a break from post-storm clean-up to unwind and get some exercise that does not involve a chain saw or downed trees? Autumn is a great time to visit the local trails including some that don't necessarily jump to mind when planning a hike. The Banta-Davis Land, usually associated with soccer and Little League games, is actually a beautiful spot for a walk – whether during a sporting event or during a quieter time. The parcel is easily accessed from the town center via the Bedford Road pathways.

Landscape

The 40-acre town-owned Banta-Davis Land surrounds Green Cemetery on Bedford Road. The land was purchased by the town in 1973 for municipal use – specifically as the future site for school buildings, cemetery expansion and possible public works facilities. Town Meeting later voted to use a portion of the land for recreation fields including a baseball diamond, a softball field and a multi-use playing field surrounded by a running track. The rocky, wooded hilltop concealed extensive ledge and blasting was required to prepare the area. During the field construction in 1999, more than 50 truckloads of stone debris were removed. Areas of exposed ledge can be seen past the upper parking lot. Lines of boulders that surround the upper parking lot are visible reminders of the original landscape of the area. The southern-most section of the land and the area directly behind Green Cemetery are wooded and remain home to a variety of small animals while the area to the west of the cemetery is largely wetland.

Trails and features

The main trail on the parcel connects Spalding Field to the Banta-Davis playing fields and on to a short link that leads through the woods to Rodgers Road. The trail begins at the back corner of Spalding Field. However, the old planks that span the wetlands are submerged in some areas and very slippery in others. The Recreation Commission plans to replace this wetland crossing with a new boardwalk, but in the meantime, the Banta-Davis trail can be accessed from Church Street on a trail that begins between the wetlands and Green Cemetery.

The Church Street access trail begins on the south side of Church Street near the corner of Bedford Road at a break in the stonewall marked by three large boulders. This new access trail leads through the woods on dry land and meets the original trail behind the cemetery. A right turn at this point will lead back toward the wetlands crossing and Spalding Field. A left turn leads past a beautiful corner stone wall at the back of the cemetery and on toward the Banta-Davis Fields. Immediately after the left turn, the trail splits. The trail to the left runs parallel to the stonewall that marks the back border of the cemetery, while the trail on the right leads uphill through the woods toward the upper fields. Taking the right-hand trail, the short walk uphill passes a large rock outcropping on the left just before the crest of the hill. A large pine is growing directly on top of this rock. Just past this spot, the trail empties out at the softball field. Staying to the right of the field leads past the back of the upper parking lot and on to the multi-purpose playing field.

In the area between the parking lot and the woods, many areas of ledge are visible. These exposed ridges are home to a wide variety of lichens and are worth a few steps off the path. The area around the parking lot has benches, picnic tables and a small circuit training area. This area around the upper fields is heavily used by families during sports seasons, but on several early weekend mornings in November, it was completely quiet.



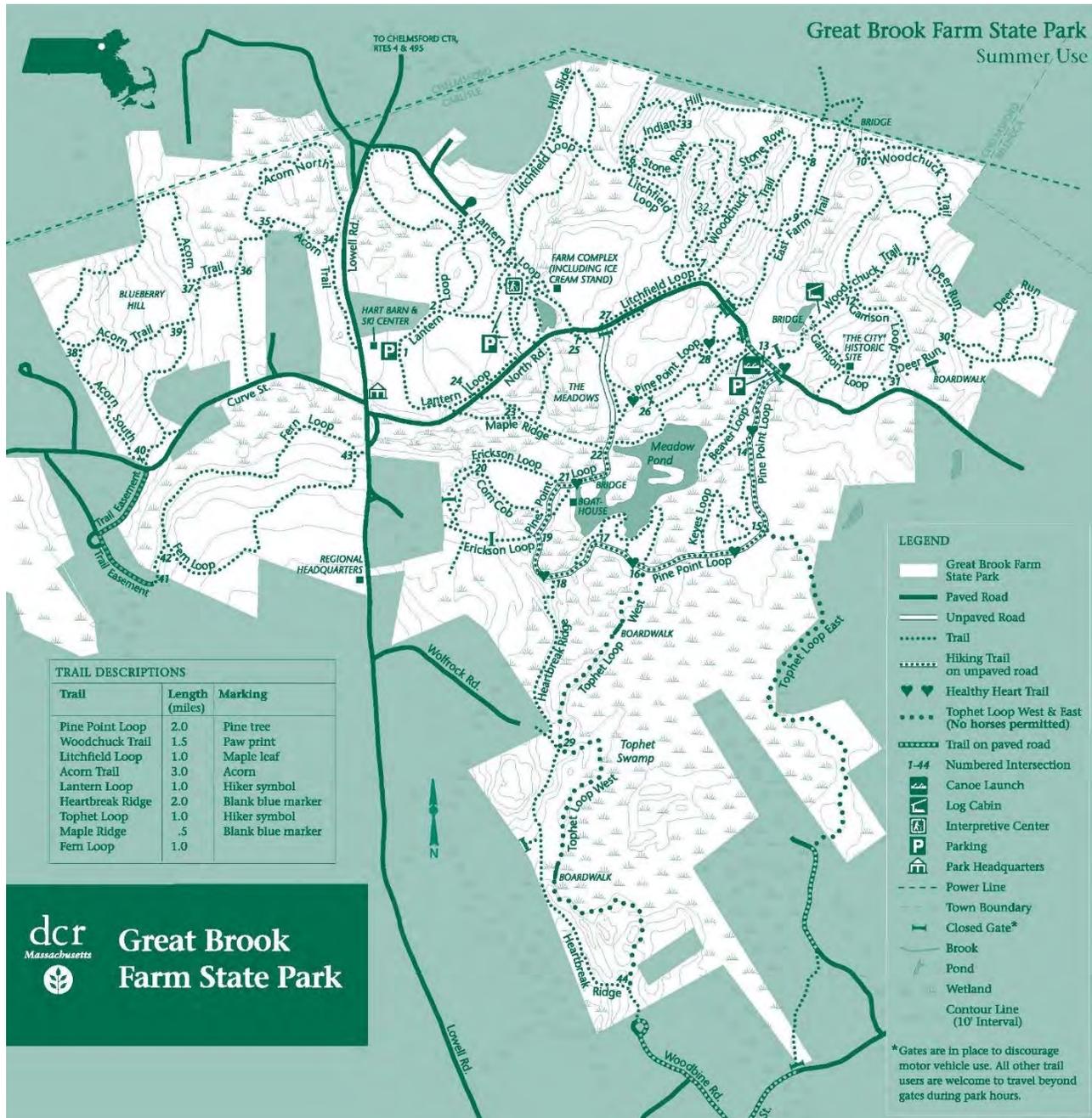
A great trail for kids. (Photo by Helen Lyons)

GREAT BROOK FARM STATE PARK TRAILS

The Massachusetts Department of Conservation and Recreation (DCR) manages the trails in the State Park, which include over 20 miles of paths through open fields and woodlands. Many of these trails connect to local roads (see Figure G-6) While the State Park charges daily parking fees from April 1 through November 30, trail access itself is free to the public.

Figure G-6. Great Brook Farm State Park Trail Map

Source: <https://www.mass.gov/locations/great-brook-farm-state-park>

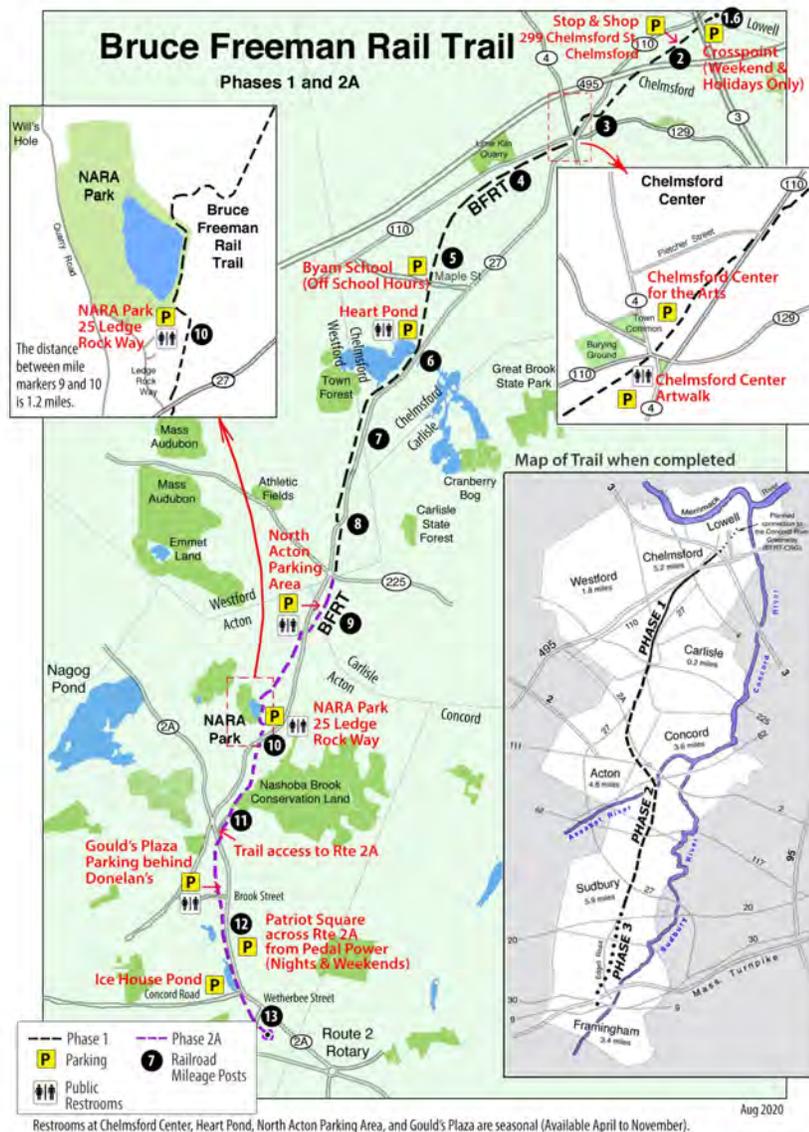


BRUCE FREEMAN RAIL TRAIL

The 25-mile Bruce Freeman Rail Trail runs along abandoned rail beds through Lowell, Chelmsford, Westford, Carlisle, Acton, Concord, Sudbury, and Framingham (planned).¹² The Carlisle segment is 0.2 miles long and was constructed as part of Phase 2A of the trail construction plan (see Figure G-7). The trail is open to non-motorized uses, including walking, running, cycling, and cross-country skiing. Plans call for connecting this trail to the much larger regional trail system. The section that runs through Carlisle is also part of the larger, partially completed, Bay Circuit Trail that runs through 37 towns from Plum Island in the north to Kingston Bay in the south.

Figure G-7. Bruce Freeman Rail Trail Map

Source: <https://brucefreemanrailtrail.org/wp-content/uploads/2020/09/BFRT-202008-Map.pdf>



¹² See: <https://brucefreemanrailtrail.org/>

Recreation

Carlisle's open spaces and facilities provide a variety of recreation offerings and opportunities for residents. Conservation efforts have ensured that the community has access to both passive and active recreational activities, such as hiking, cross-country skiing, and horseback riding. Students from all over the region explore Carlisle's open space to learn about both the history and the biodiversity of the area.

RECREATION COMMISSION

Recreation Commission (RecCom) schedules and maintains baseball and softball fields and multi-purpose fields for soccer and other sports. In addition, the Commission maintains an asphalt running track, tennis courts, tot lot playgrounds, a beach volleyball court and a fitness cluster.¹³

RecCom's long-term priorities are:

- Protecting and improving the existing recreation facilities
- Improving access to Carlisle's recreation facilities
- Increasing available playing fields to meet Carlisle's proportionate contribution to Concord-Carlisle's athletic programs
- Expanding the recreation facilities to serve new activities and populations¹⁴

RecCom recommends the following initiatives to support these priorities:

- Professionalizing the maintenance of the playing fields, playgrounds, and other facilities
- Reconfiguring and renovating Spalding field
- Building an artificial turf field
- Building a multi-purpose, multi-generational recreation center
- Building additional tennis courts
- Adding pickleball lines to the existing tennis courts
- Building a fenced-in dog park
- Developing seasonal access to a skating pond¹⁵

¹³ See: <https://www.carlislema.gov/413/Recreation-Commission>

¹⁴ P. 9-22; 2020/2021 OS&R Plan.

¹⁵ Ibid.

TOWN-OWNED PLAYING FIELDS AND RECREATION FACILITIES

Carlisle’s inventory of town-owned recreation facilities includes playing fields and program spaces. These spaces are on both school and non-school properties, and are located in residential zones. Facilities are:

- **Banta-Davis Recreation Area.** This land, controlled by Carlisle Public Schools, features fields for soccer, baseball, Little League baseball, and softball; a Rory Bentley fitness course, a beach volleyball court, running track, and a tot lot.
- **Corey Gym.** This facility is a gym with an exercise room built during the CPS expansion in the 1980s. The gym hosts school-run programs, and before/after-school programs run by RecCom.
- **Diment Park.** This park and playground for toddlers younger than two is maintained by RecCom and the Carlisle Parents Connection.
- **Recess and Play Areas.** This CPS renovation project completed in 2012 includes a new plaza cement-top play area with basketball hoops and kickball area. A pre-K playground and new structure for children K-2 were also included in the 2012 renovation.
- **Carlisle Castle.** This wooden climbing structure is used during school recess and outside of school hours.
- **Spalding Field.** This field is a 5-acre parcel with baseball/softball diamonds in three corners and two soccer fields in the center, and is controlled by CPS.
- **Tennis Courts.** Two outdoor courts are located on Church Street near the CPS parking lot.
- **Town Hall.** RecCom’s office is located in Town Hall, and offers exercise and art classes in the building.

SPORTS AND RECREATION LEAGUES

Carlisle and its schools have many active sports and recreation leagues, including:

- Carlisle High School and Adult Soccer
- Carlisle Youth Basketball
- Carlisle Youth Soccer
- Concord-Carlisle Youth Baseball/Softball
- Concord-Carlisle Youth Hockey
- Concord-Carlisle Pop Warner Football and Cheerleading
- Concord-Carlisle Youth Lacrosse
- Friends of Concord-Carlisle Football, Inc.
- Great Brook Farm Ski Touring Center
- Kinderkicks Youth Soccer Association
- Major League Soccer Camp

PARTNERSHIPS

In addition to the programs and activities that they offer at town facilities and fields, RecCom engages in multiple partnerships and collaborations to ensure a wide range of recreational opportunities are available for residents. The Commission relies on many adults and older students to act as chaperones, coaches, and referees. This volunteer assistance to paid staff includes older adults participating in Carlisle's Senior Work Program. Programs run in partnership include:

- Pottery and musical theater classes run by Carlisle residents in their studios and other spaces
- Use of resident pools for summer swim lessons
- Nashoba Valley Ski program with parent chaperones
- After-school STEM programs for students and families
- Regional business and town partnerships:
 - Archery classes that rotate among Acton, Carlisle, and Bedford
 - Creative dance, karate, fencing, and track and field for students
 - Evening badminton, basketball, and pickleball for adults.

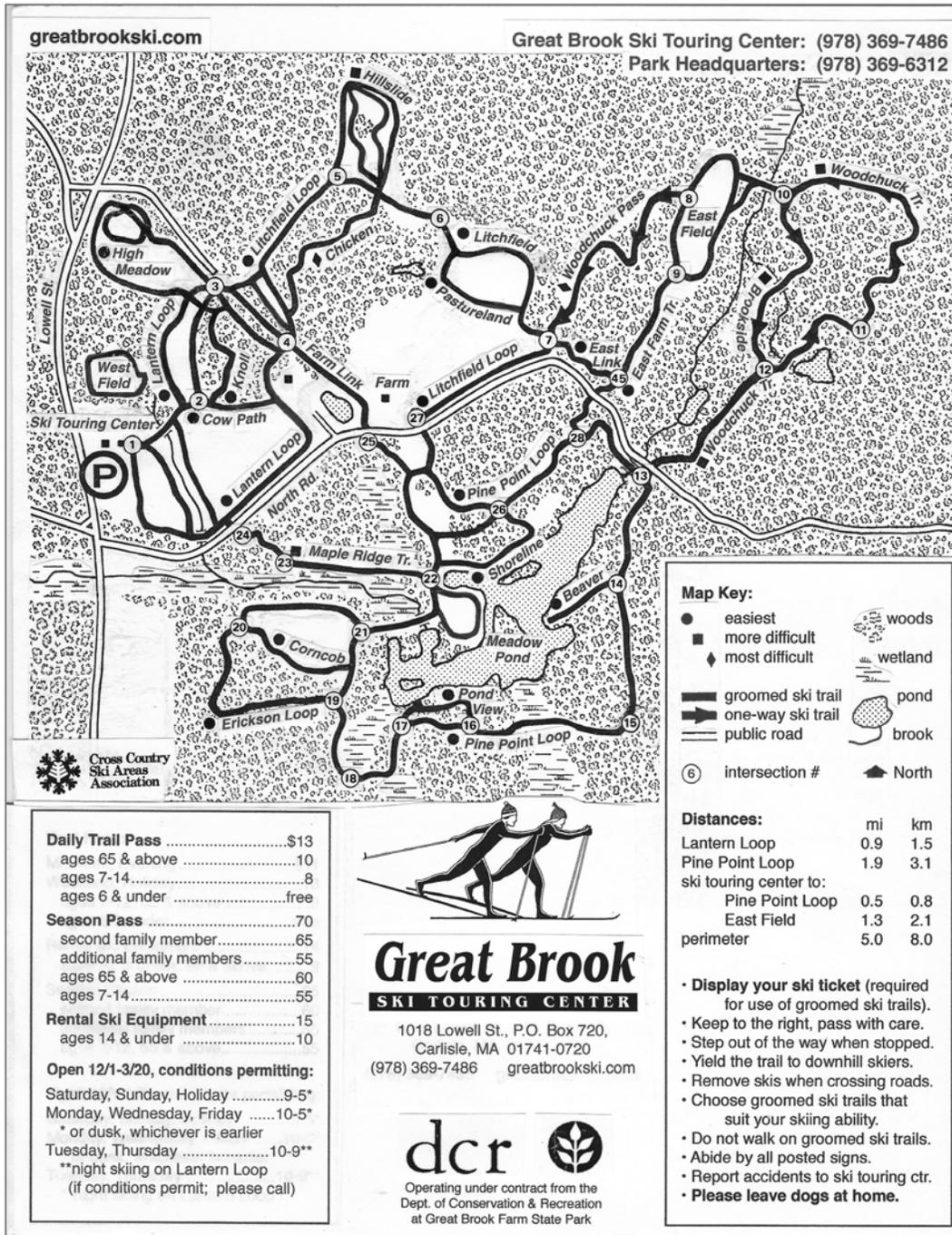
OTHER RECREATIONAL RESOURCES

Great Brook Ski Touring Center. The Great Brook Ski Touring Center, located in the State Park, provides over 10 miles of machine-groomed trails for cross-country skiing (see Map G8). The Center is generally open from December 1 through March 20, when snow conditions permit.

A private party operates the Center under annual contract with the Massachusetts Department of Conservation and Recreation (DCR), which oversees the entire State Park. The permit for the 2019 – 2020 season was delayed until December 6th. The Center's Facebook page implies that permission to operate has been delayed in past years as well. The lack of snow delayed the actual opening of the Center until January 19 and 20, 2020 when it opened for just these two days before closing for the season.

Figure G-8. Trail Map for Great Brook Ski Touring Center

Source: <https://www.greatbrookski.com/trail-map>



Natural Resources

Major natural resources in Carlisle include water resources, agricultural lands, and forestlands. For both ecological and other reasons, the health and abundance of Carlisle’s resources are critically important to the town. Residents depend on ground water for their water supply, agricultural lands are an intrinsic part of the history and character of the town, and forested land contributes to the overall ecosystem of the town and region while hosting trails and providing home to wildlife.

WATER RESOURCES

Carlisle does not have a municipal public water supply and thus residents, businesses, and public facilities, including the CPS, depend on individual wells for their water supply (some of which serve enough individuals to require designation as public water systems).¹⁶ In addition, the town’s wetlands filter runoff, remove pollutants, store floodwaters, recharge or discharge groundwater, protect public and private water supply and groundwater supply, minimize storm damage and pollution, and protect fisheries and wildlife habitat.¹⁷ (See Map E-2 in Appendix E, Public Facilities and Services Existing Conditions Report.) Carlisle has no public swimming areas. The *2020/2021 OS&R Plan* provides further details on Carlisle’s water resources, including watersheds, surface water, “aquifer” recharge areas, flood hazard areas, and wetlands.¹⁸

AGRICULTURE

Until the 1950s and 60s, Carlisle was primarily agricultural, with both small farms and a few medium-sized dairy farms. The town still has a few small farming operations (some with livestock including cattle, sheep, goats, or pigs and some growing organic produce) and has a modern medium-sized dairy operation with about 240 dairy cows, a small horticultural nursery, and two ice cream stands — all of which hark back to Carlisle’s agricultural past. In the past several years, increasing interest in locally grown food has resulted in more individual homeowners growing produce, the development of the Carlisle Farmer’s Market, and the establishment of a Community Supported Agriculture (CSA) venture at Clark Farm.¹⁹

Commercial Farming. Today, the town has one commercial dairy operation (at GBFSP) and several smaller-scale farming operations. After more than a century of commercial operation, the Carlisle Cranberry Bog, the last remaining one in Middlesex County, saw its last harvest in 2015.²⁰

¹⁶ P. 3-13; *2020/2021 OS&R Plan*.

¹⁷ *Ibid.*; p. 4-5.

¹⁸ *Ibid.*; pp. 4-4 to 4-5. While the *2020/2021 OS&R Plan* refers to “aquifers” in Carlisle, according to the MA Department of Environmental Protection, Carlisle does not have aquifers. [Source: Phone conversations between Bob Zogg of Carlisle and Catherine Sarafinas-Hamilton, Groundwater Supply Protection, MA DEP (on 08-28-2018), and Duane Levangie, Chief of Water Management Act Program, MA DEP (on 08-29-2018.)]

¹⁹ *Ibid.*; p. 3-11.

²⁰ *Ibid.*; p. 4-7.

Currently, 19 parcels of land, totaling about 346 acres, are in Chapter 61A, the Massachusetts law that provides tax breaks to the owners and gives the Town first refusal rights if the land is being sold and taken out of agriculture.

Community Gardening. Local interest in community gardening has increased over the past several years. The Foss Farm Community Gardens provides 100+ garden plots, where residents raise vegetables and flowers. Carlisle’s Farmers Market also offers local produce weekly during the summer season, and periodically during the winter.

FOREST LAND & TREE CANOPY

Over 70% of Carlisle is forested, including parts of conserved property and private unprotected parcels.²¹ Most of the town’s former farmland is now second and third growth forest or has been developed. Mature upland forests are dominated by Eastern White Pine and oak species. Carlisle lies between the largely deciduous forests to the south and the coniferous expanses to the north. Depending on the exposure of the land, north-facing slopes succeed to Eastern Hemlock and northern hardwood climax communities, whereas south-facing slopes succeed to oak and hickory climax communities. Eastern White Pine now dominates much of the disturbed and sandy soil area. Some old fields have succeeded to the pasture juniper stage. Along the Concord River, Silver Maples dominate the forested floodplain wetlands; Red Maples prevail in other forested wetlands. Several areas in Carlisle, such as parts of the Greenough Conservation Land and the Town Forest, were planted in Eastern White pine and non-native Red Pine in the 1930s and 1940s. These plantations remain today as dense, mature, forest monocultures.²²

What We Have Heard

The following summarizes Carlisle resident input received through public meetings, focus groups, interviews, Kitchen Conversations, and the Master Plan Fall 2019 Survey:

- ConsCom spends a great deal of time on wetlands permitting to protect the town’s wetland resource areas. This will become more challenging if increased, potentially dense, development is proposed near wetland resources. An effort is underway to increase wetlands protection by revising a non-zoning wetlands protection bylaw, which will require approval at a Town Meeting.
- ConsCom oversees and manages conservation land, including some parcels obtained within the last three years. Its Subcommittee, the Land Stewardship Committee, provides valuable support by developing baseline assessments and management plans

²¹ 7,278 acres of Carlisle’s 9,935 acres is forested. P. 14; Stainbrook, David; Deer Management in Eastern Massachusetts; presentation to Carlisle; 2019.

Available at: <https://app.box.com/s/vcbw4rbwg8pu9b4em9qrqx285uspzfs/file/548205701494>

²² P. 4-6; 2020/2021 OS&R Plan

for the Commission to review. Additional volunteers and funding would be very helpful to adequately manage conservation land.

- RecCom’s attempt to use an organic maintenance program for all fields has not been successful given the condition of the fields. Organic methods have not managed the grub infestation and a consultant advised the town to return to a non-organic chemical maintenance program.
- Fields and facilities enhancements are needed, and RecCom is discussing how best to rotate fields to manage overuse. All town fields and facilities require upgrades to comply with user and spectator ADA accessibility requirements.
- Banta-Davis build-out phases two to four have not been approved at Town Meeting, so these plans have been on hold since 2008. RecCom is still investigating how to provide additional needed field space in town, including introducing a Warrant Article to revisit support for Banta-Davis field build-out.
- The town needs updated management plans that include yearly maintenance, annual and long-term budgets for staffing, etc., for each parcel of conservation land and town-owned land under ConsCom management.
- Either cranberries or hay can be grown at the Cranberry Bog. Cranberries are not economically viable and hay would require expensive removal of the cranberry flumes and other infrastructure changes. Therefore, it may be impractical to continue using this land for agriculture.

Things to Think About

Based on this existing-conditions analysis and community feedback, the following key issues or questions should be considered in the master plan:

- When allocating resources for land acquisition for open space and conservation, the town should include adequate funding and staffing to manage new and existing open space, including adequate parking to allow public access, where applicable, control of invasive plants, clearing field edges, appropriate management of open fields, habitat enhancement, adequate signage, and forest management plans.
- What resources are the town willing to allocate toward climate change adaptation to protect Carlisle’s vulnerable assets from climate-change-induced events, such as stormwater damage to protected wetland resources?
- How can the town ensure it has the information, including relevant data and maps, to make educated decisions about land acquisition, maintenance, and use, including Geographic Information Systems (GIS)?

- What local wetland bylaws and policies should be reviewed and updated, and how will the town ensure that this review is coordinated with other town objectives in this master plan?
- With agricultural choices limited to cranberry or hay production at the Cranberry Bog, and with cranberries not economically viable, is the town willing to make the expenditures necessary to remove the flume system and related infrastructure changes to grow hay at the site?
- How can the town's agricultural history be leveraged to support Carlisle's farms, including possible ancillary uses such as bed-and-breakfast destinations or farm-to-table dining that also provide amenities and gathering spaces for residents?



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TRANSPORTATION AND CIRCULATION

EXISTING CONDITIONS REPORT

Introduction

Much of Carlisle's transportation infrastructure grew from informal cart paths that are today paved roads. The organic and unplanned evolution of the town contributes to a road network that is heavily burdened in parts and constrained from modification by natural limitations including extensive wetlands and patterns of private land ownership. Despite traffic challenges associated with car travel, Carlisle offers an extensive and picturesque trail network that links with conservation land as well as a state park and a national wildlife refuge. Carlisle is a popular destination for recreational bicyclists (both on paved roads and on trails).

This section includes:

- Transportation and Circulation Today
 - Key Trends and Characteristics
 - The Regional Picture
 - Boston Region Metropolitan Planning Organization
 - MAPC MAGIC (Minutemen Advisory Group on Interlocal Coordination)
 - MassDOT Data
 - Transportation Infrastructure
 - Roads, Pedestrian Ways¹, and Bicycle Paths
 - Public Transportation Services
 - Transportation System Management and Policy
 - The Role of Public Works
 - Infrastructure Improvement Funding
 - Complete Streets Policy and Projects
 - Transportation and Pedestrian Safety Committee
- What We've Heard
- Things to Think About

¹ The term "pedestrian way" refers to sidewalks, trails, and other forms of pedestrian accommodation.

Transportation and Circulation Today

Key Trends and Characteristics

Key transportation-related trends and characteristics are:

- The main roads of Carlisle are heavily traveled and residents report that the roads have become more congested.
- Despite these perceptions, the limited traffic measurements available in or near Carlisle suggest modest growth in Carlisle traffic over the past 10 years compared to regional growth.
- Carlisle has relatively few sidewalks. Most pedestrian ways are dirt foot paths and trails. Sidewalks are generally limited to those along Lowell Road, Concord Road, Bedford Road and East Street (close the Town Center).
- Carlisle’s network of subdivision sidewalks and trails do not consistently link with wider areas or the Town Center, creating a fragmented walkable network.
- Carlisle roads have no dedicated bike lanes. The shoulders of a one-mile stretch of East Street (from Rutland Street to Maple Street) are marked as bike/pedestrian lanes, and a 0.2-mile segment of the Bruce Freeman Rail Trail (a paved, multi-use trail) passes through the northwest corner of the town.
- Carlisle has no overall management and improvement plan that documents costs and priorities for the town’s physical transportation network.

The Regional Picture

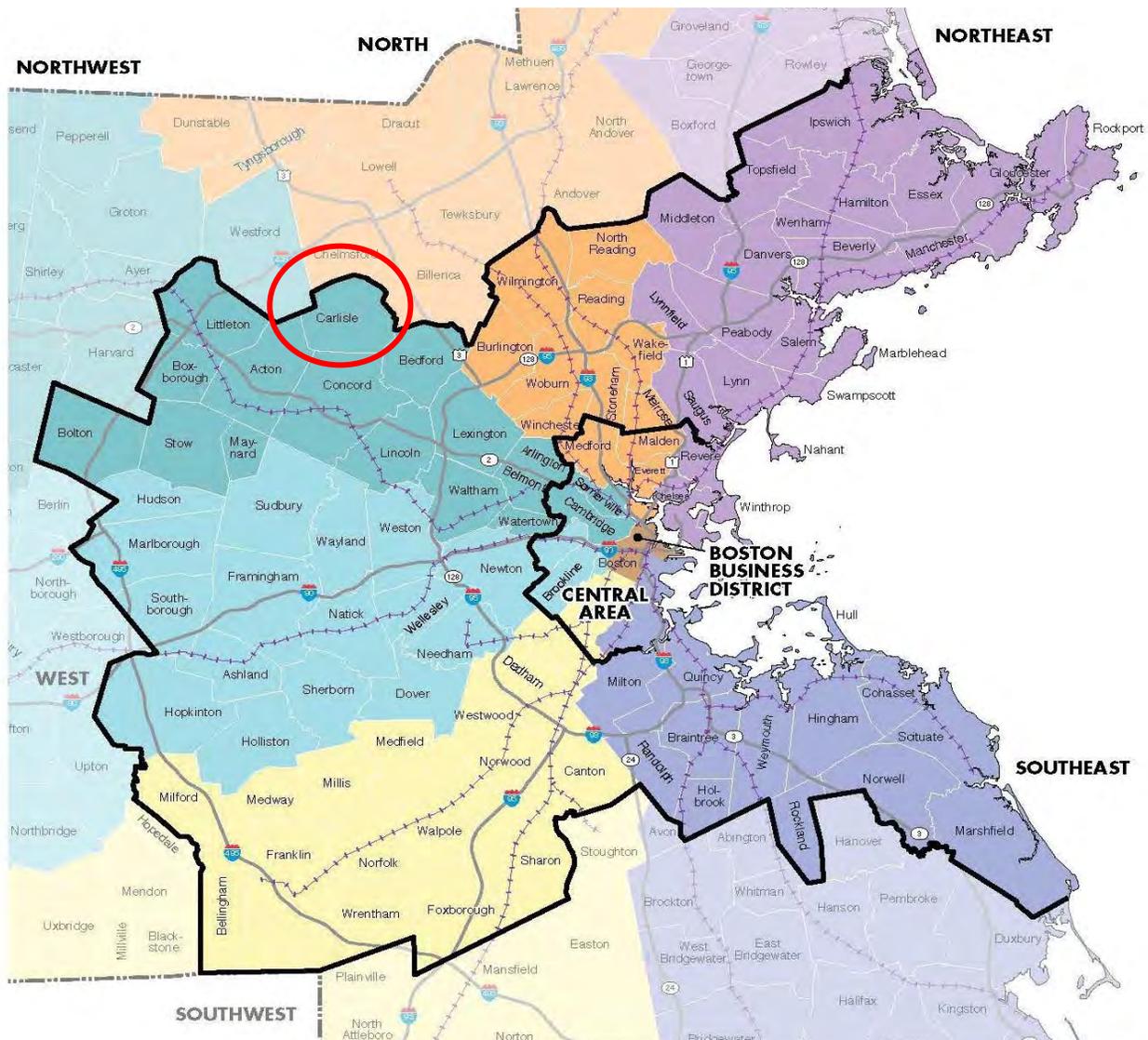
No local studies are currently available that document traffic conditions or transportation systems in Carlisle. Although locally available data is absent, some limited regional studies and data sources are available. This section summarizes available data and discusses how the data were developed.

Carlisle is part of the Boston Region Metropolitan Planning Organization (MPO) and is a member of the Massachusetts Area Planning Council (MAPC). The MPO is responsible for conducting the federally required transportation and planning process (including roadways, transit, pedestrian, and bicycle projects) for the Boston region. The MAPC provides planning support for the MPO and for the region’s towns and cities.

BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

The MPO develops a vision and plan for the Greater Boston region (see Map H-1) and uses the plan to allocate federal and state funds toward transportation projects such as roadways, transit, pedestrian, and bicycle projects. This work includes developing regional bicycle and pedestrian plans, and providing alternative land-use analyses for upcoming projects. The latest regional MPO transportation plan is: *Destination 2040: Long-Range Transportation Plan of the Boston Region Metropolitan Planning Organization*.²

Figure H-1. Boston MPO Region Map showing Radial Roadway Corridors
Source: *Destination 2040: Long-Range Transportation Plan of the Boston Region Metropolitan Planning Organization, 2010*



² <https://www.ctps.org/data/pdf/plans/LRTP/destination/Destination-2040-LRTP-20191030.pdf>

Carlisle is part of the 87 MPO municipalities outside of the Central Area and Boston Business District. The MPO characterizes these communities as ones in which the use of nonmotorized transportation modes is almost nonexistent for work trips, due to practical constraints. The MPO states in general, that:

Travel patterns for trips that both begin and end outside of the urban core are much less clearly defined. Workers with a primary workplace outside their residence travel on average 10 miles to work. Unlike commuting to the urban core, with its high-capacity radial transportation route systems, traveling from a suburban residence to a suburban workplace might be in any direction. There are about three times as many nonwork as work trips, but these trips are often shorter than work trips. In addition to frequent and necessary shopping trips, non-work trips include trips for medical appointments, taking children to school or other activities, or going to social or recreational activities.

MAPC & THE MINUTEMAN ADVISORY GROUP ON INTERLOCAL COORDINATION

Within the Metropolitan Area Planning Council (MAPC), Carlisle is part of the Minuteman Advisory Group on Interlocal Coordination (MAGIC), a group of 13 towns northwest of Boston working collaboratively on issues of regional concern. MAGIC consists of planning and select board representatives from: Acton, Bedford, Bolton, Boxborough, Carlisle, Concord, Hudson, Lexington, Lincoln, Littleton, Maynard, Stow, and Sudbury. One focus of the group is transportation and it provides leadership on planning issues vital to the member towns by pursuing grants and studies, hosting annual legislator meetings, organizing trainings and workshops, and providing a forum for member communities to exchange ideas.

MAGIC also assists with regional projects, which are longer-term initiatives that usually involve two or more MAGIC towns. These projects are funded by MAGIC member towns' voluntary contributions to the Special Assessment Fund and by requests to the MPO and other state grant or technical assistance programs. The following are the transportation-related regional projects for FY2020 and the collective interest areas of MAGIC member communities:

Regional Age Friendly Planning: Housing and Transportation. This project focuses on Housing and Transportation. Participating towns are Acton, Bedford, Bolton, Boxborough, Carlisle, Concord, Hudson, Littleton, Lincoln, Maynard, Stow, and Sudbury.

MAGIC Microtransit Pilot: Making the Connection. This pilot provides subsidized taxi and ride-hailing rides for seniors, people with disabilities, financially vulnerable residents, and veterans, with the objective of providing them with transportation services to health and community resources and to other transit services (bus, commuter rail), as a way to help close the first/last mile gaps in areas with limited transit options. The pilot includes Acton, Bolton, Boxborough, Carlisle, Stow, and Sudbury (lead municipality).

MassDOT conducts regular traffic counts at key locations around the state and these data are available to the public. Based on a review of the MassDOT Data³, traffic volume data for Carlisle roadways are limited. Only one traffic count location is in Carlisle, on the Billerica town line on Maple Street/Treble Cove Road. The Average Annual Daily Traffic (AADT) in 2019 along Treble Cove Road was 4,320 vehicles. This datum includes a footnote stating that it was “grown from 2018” data, which was initially “grown from 2017” data because this location is not a permanent count station. The 2017 value is 4,324 vehicles (based on measurements), suggesting no traffic growth along this roadway in the last few years. Treble Cove Road has seen an overall traffic growth of 6% from 2009 to 2019. A review of other traffic volume count sites on roadways leading into Carlisle, such as the one on Carlisle Road near the intersection of Routes 225 and 27, shows an overall traffic growth of approximately 9% from 2009 to 2019.⁴ Review of data from the permanent count stations #4020 and #4427 (located on Interstate 495 at Route 119 in Littleton) show approximate overall traffic growths of 29% and 28%, respectively, from 2009 to 2019.⁵

It appears from these last two data points that, while traffic volumes outside of Carlisle (consisting mostly of commuters along Interstate 495) have steadily increased over the last ten years, traffic volumes within the town have grown much less over the same period. Therefore, regional traffic growth appears to have had little effect on traffic in Carlisle. In addition, Carlisle is not located directly on radial roads, such as Route 128/I-95, Route 2, or Route 3. Anecdotally, Carlisle residents report increased traffic congestion.

MPO projections suggest continued AADT increases in the region. In its projection of future volumes, the MPO estimates that:

The number of auto and truck trips, vehicle-miles traveled, and vehicle-hours traveled are all projected to increase between 2016 and 2040. Average speeds are expected to decrease in the future because of the increase in the number of vehicles exacerbating congestion. Average trips lengths... show a slight decline from 6.8 miles in 2016 to 6.6 miles in 2040, with the average travel time staying steady at 17 minutes.⁶

MPO made these projections prior to the 2020 pandemic, which some argue may profoundly impact commuting trends for the long term.

³ MassDOT Transportation Data Management System; accessed December 29, 2020.

<https://mhd.ms2soft.com/tcds/tsearch.asp?loc=Mhd&mod=>

⁴ 2009 traffic volume approximated as the average of values reported for 2004 and 2015.

⁵ 2009 traffic volumes approximated as the averages of values reported for 2008 and 2010.

⁶ Chapter 3; *Destination 2040: The next long-range transportation plan for the Boston region*; 2017.

https://www.ctps.org/data/calendar/htmls/2019/MPO_0814_LRTP_Destination_2040_Needs_Assessment_CH_3.html

Transportation Infrastructure

Carlisle's transportation infrastructure consists of roads, pedestrian ways (sidewalks⁷ and trails, which cyclists may also use), and public transportation (which includes regional transit as well as local ride programs and shuttles). Currently, Carlisle has no overall plan for transportation-related maintenance and new-construction projects, nor a master plan for additions to complete parts of the pedestrian network, beyond the Town Center.

The sections below provide more detail on principal types and uses of transportation infrastructure in the town, and Map H-2 shows Carlisle's current transportation infrastructure.

ROADS, PEDESTRIAN WAYS, AND BICYCLE PATHS

Roads. Carlisle's road system consists of five main roads,⁸ which radiate outward from the Town Center, as well as several secondary town roads and some private roadways.

A 1995 *Study Plan for the Town of Carlisle*, (hereinafter referred to as the 1995 Study Plan), lays out much of the baseline transportation information presented below.⁹ The study reports that Carlisle's roads were heavily traveled in 1995 and traffic congestion was on the increase then as well. As noted above, MassDOT data for the 2009 to 2019 period suggest only modest traffic growth in Carlisle's traffic, albeit based on limited data for Carlisle roads.

The increased congestion is probably due to a combination of factors:

- Increased local use over a period of decades. Carlisle's 1995 Study Plan offers the same observation, which it attributes to an approximate doubling of population growth from 1980 to 1995.
- A general increase in regional traffic as reported by residents and town officials.
- Changing use patterns reported by residents and town officials.
- Stagnant capacity and lack of a clear infrastructure improvement strategy.

Exactly how these factors contribute to Carlisle's traffic has not been analyzed. There are no formal transportation studies of the area readily available from the town, Commonwealth, or other sources. Local data appears to be limited primarily to user anecdotes.

Pedestrian Ways. Pedestrian ways in Carlisle include sidewalks and trails. Carlisle has relatively few sidewalks. Most pedestrian ways are dirt foot paths and trails. Sidewalks in the Town Center run:

- From the Center via Lowell Street to Morse Road

⁷ In this document, the term "sidewalk" refers to a paved pedestrian way.

⁸ The term "roads" includes the rights-of-way (ROWs), pavement as well as markings such as crosswalks, shoulder markings and median strips.

⁹ <https://www.carlislema.gov/DocumentCenter/View/293/Study-Plan-1995-PDF?bidId=>

- Down Concord Street to Clark Farm and beyond
- Up East Street to Partridge Lane
- Along Bedford Road to Banta-Davis and Kimball Farm Ice Cream.

The Town Center sidewalk system also connects to the trails system in several places.

With the exception of short, discontinuous sidewalks installed in some subdivision developments (to meet Planning Board requirements), there are no sidewalks along Carlisle's older roads and main roads outside of Town Center. Many sidewalks in subdivisions do not link to areas outside the immediate neighborhoods.¹⁰ In many instances, children, bicyclists, walkers, and joggers share the roads with automobiles.

Carlisle maintains an extensive unpaved trail system throughout the town; many of these trails cross conservation land or land held in the public domain (e.g., reserved open space on cluster developments). Many of these trails also serve as multi-use paths, providing routes for pedestrians and cyclists. Only a few of these trails, as shown in Map H-2, connect to the Town Center, and some exist as completely independent systems within the town. Volunteers from the Carlisle Trail Committee maintain the unpaved trails (using CPA-appropriated funding for materials for boardwalks).

The fragmented nature of pedestrian ways may result in travelers using roadways to complete at least some part of their trip, especially if they are traveling extensively throughout Carlisle or to and from the Town Center.

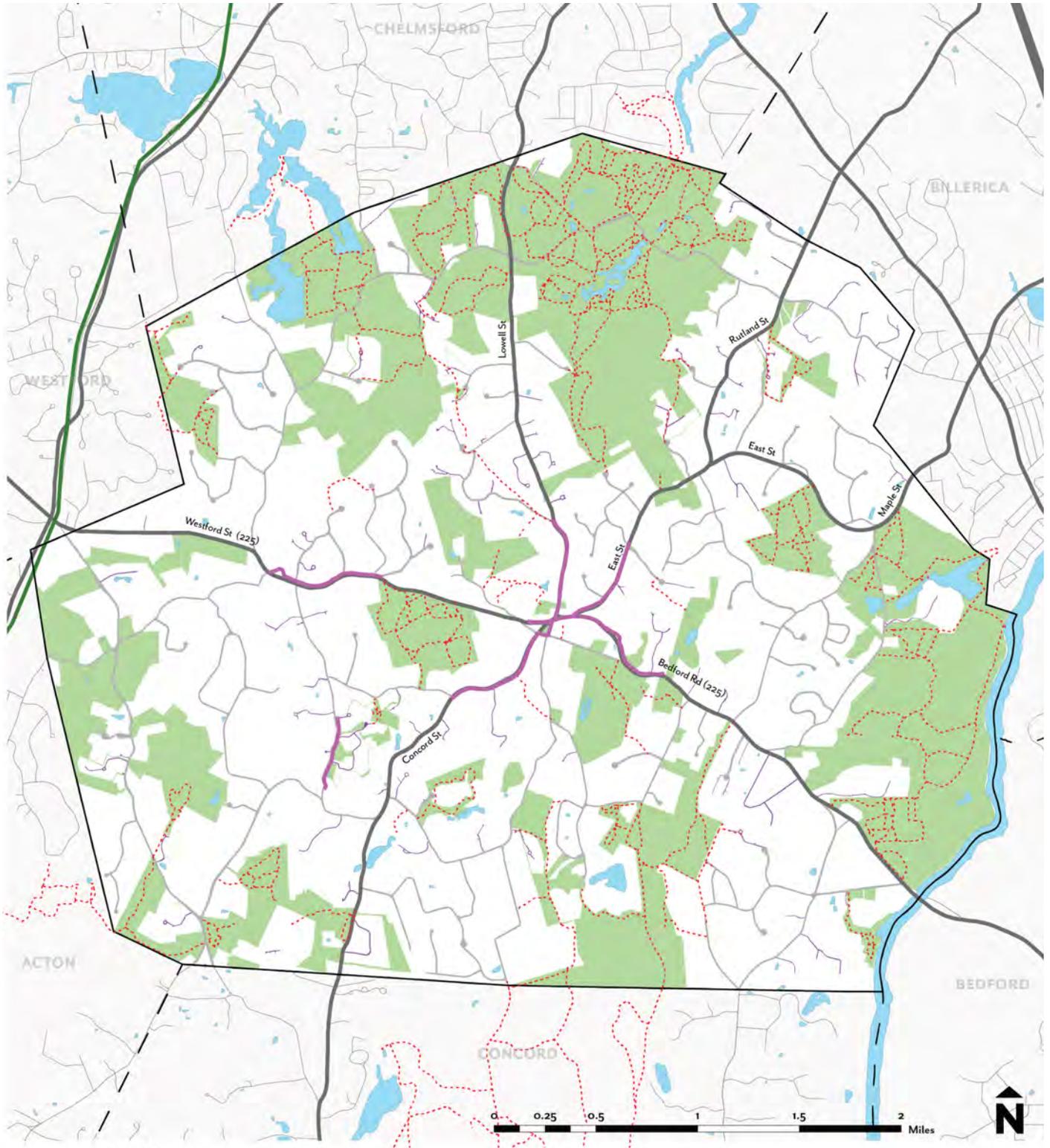
Bicycle Paths. Despite an increasing demand for recreational bikeways, Carlisle has almost no bike paths, other than mountain bike trails. Many cyclists ride on narrow, winding backstreets that reflect their original purpose as cart paths.

The Bruce Freeman Trail, which touches the western edge of town, is a multi-use trail for bicycles and pedestrians (see Figure 2).

¹⁰ Exceptions include:

- The Hanover Hill pathways connect to Acton Street and to the trails system of Towle Field
- The Greystone Crossing pathways, though they mostly serve the neighborhood, connect via trail to Bingham Rd and thence to Towle.

Map H-2. Transportation Infrastructure in Carlisle



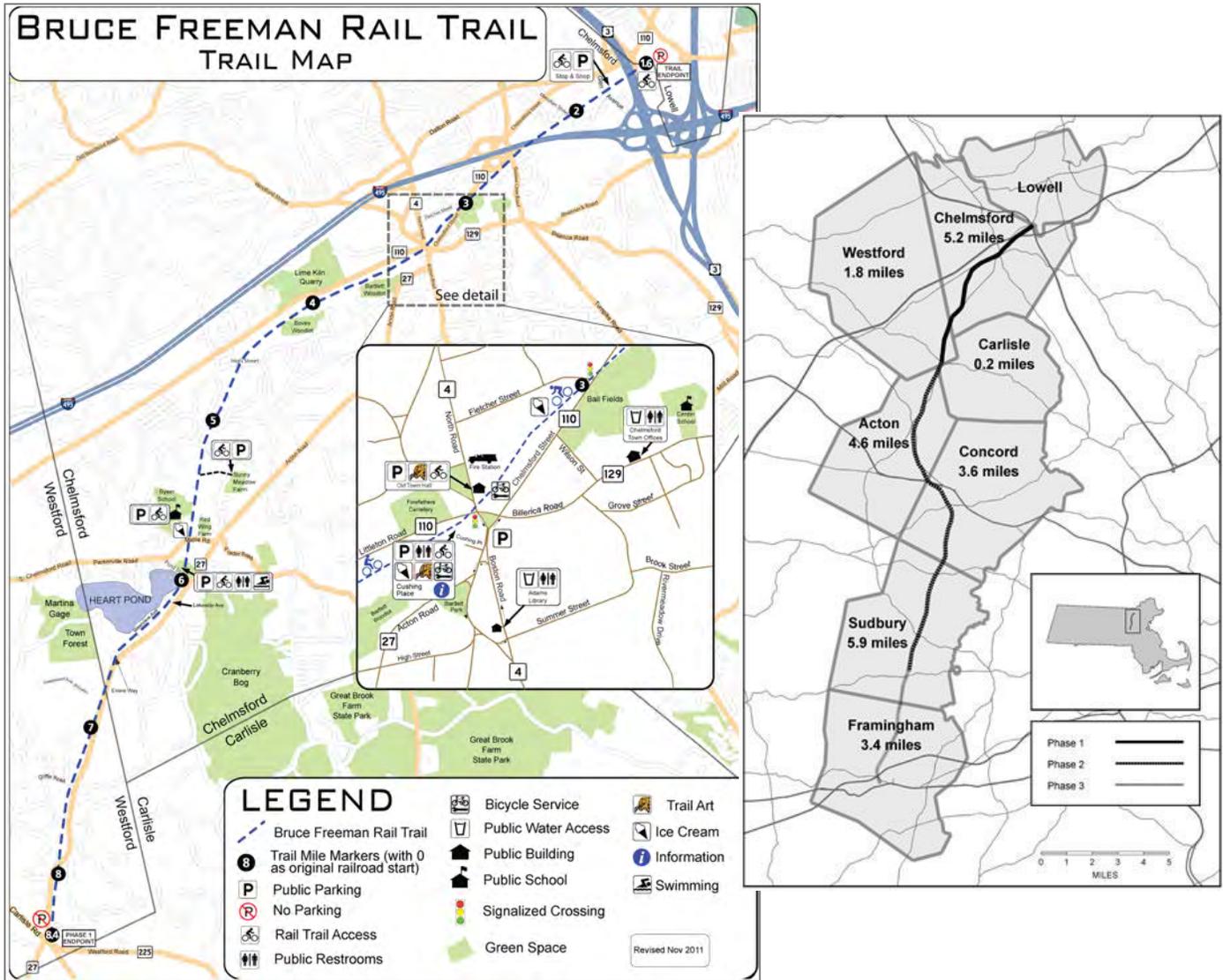
Transportation Network

- Open Space (Land Use—MPSC)
- Bodies of Water
- Major Trails
- Pathways
- Bruce Freeman Rail Trail
- Public Roads
- Common Driveways
- Main Roads

Map produced July 2020 by CivicMoxie using the 2013 Open Space and Recreation Plan and MassGIS; edits made in February 2022 using Trails and Pathways data (2020) provided by the Open Space and Recreation Committee.

Figure H-2. Maps of Bruce Freeman Trail

Source: <https://brucefreemanrailtrail.org/trail-map/>



Public Transportation Services

Public Transportation in the region includes commuter rail and bus service. No rail or bus routes pass through or directly adjacent to Carlisle.

COMMUTER RAIL—FITCHBURG LINE AND LOWELL LINE

The Fitchburg Line Commuter Rail serves two stations in Concord, MA (see Figure H-3). The West Concord Depot and the Concord Center Station are a 7.2-mile and 6.2-mile drive from Carlisle Center, respectively. For those traveling from outside of Concord (non-Concord residents), permits are available for the Crosby's Market parking lot (Concord Center station) and daily parking fees apply (currently \$5.00) for the West Concord station. Daily spots fill

quickly in the morning on weekdays and Concord, as well as adjacent towns, seek solutions to the first- and last-mile challenge¹¹ for their residents.

The Lowell Line Commuter Rail serves a station in North Billerica (Ruggles Street and Station Street) that is 6.4 miles from Carlisle Center. Parking is currently \$4/day.

In Carlisle, the travel distance to the commuter rail stations, as well as the cost and scarcity of parking, are impediments to the use of commuter rail.

PUBLIC BUS SERVICE

The Massachusetts Bay Transportation Authority (MBTA) bus network consists of 164 directly operated routes and five routes operated for the MBTA by private contractors. These routes operate in 44 of the 176 cities and towns in the MBTA district. The MBTA bus does not directly serve Carlisle. The closest bus route is the #62/76 bus, which runs from Bedford to the Alewife stop in Cambridge, connecting to the MBTA Red Line to downtown Boston. With over 60 stops on this line, the #62/76 bus is generally a poor option for commuters from Carlisle to Boston or its environs.

In addition, the Lowell Regional Transit Authority (LRTA) bus network does not directly serve Carlisle, but provides service between Lowell and Burlington, with stops in Billerica (#13 and #14 buses).

PRIVATE SHUTTLES THAT ARE PUBLICLY AVAILABLE

Carlisle provides shuttle bus transportation for older adults through the Carlisle Council on Aging (COA). Per the COA website, transportation is available through two programs:

COA Transportation Program. Monday through Friday, 9:00 AM to 3:00 PM, the COA provides seniors and those with disabilities from Carlisle inexpensive local transportation for medical appointments, shopping or errands by contacting the COA Transportation Line by phone or email 48 hours in advance.

Carlisle Transportation Services. The town is piloting this new transportation service to add range and scheduling flexibility for residents’ transportation needs, particularly seniors and those with disabilities who might have limited transportation options. The town currently contracts with Flow Transportation to provide the transportation services. Carlisle’s new transportation website provides program information (www.carlislematransportation.com). Although the program is meant to help those with mobility challenges, it offers favorable ride rates to all Carlisle residents.

¹¹ First and last mile refers to the beginning and/or end of every individual transit trip whereby commuters will walk if they can but are often searching for inexpensive and easy options to connect from home and/or their place of work to public transportation links.

Transportation System Management and Policies

This section discusses the general management of Carlisle’s transportation system, including:

- The role of public works, transportation infrastructure improvement funding, and complete streets policy and projects
- Transportation and Pedestrian Safety Committee

THE ROLE OF PUBLIC WORKS

The DPW manages and maintains local roads and pedestrian ways, including sidewalks, roadway improvements, street sweeping, and snow removal. The poor condition of many secondary roads, and the overall age of existing infrastructure and equipment, make it challenging to manage Carlisle’s transportation system. The DPW manages state Chapter 90 funds for annual repair and upgrade of roads and culverts.

INFRASTRUCTURE IMPROVEMENT FUNDING

Current infrastructure challenges include demand for more sidewalks and bicycle ways, and accommodating a perceived increased peak demand on roadways. The town lacks a capital improvement plan for transportation infrastructure and related capital equipment needs (e.g., trucks).

Carlisle receives Chapter 90 funds from the Commonwealth that are generally used for roadway repairs. For example, in fiscal year 2020, Carlisle received \$252,738 in Chapter 90 funds for milling and paving the Town Center and for roadway improvements including paving on North Road, Patch Meadow Lane, and Pine Brook Road (Carlisle Town Meeting Motions Booklet 2019).

COMPLETE STREETS POLICY AND PROJECTS

In 2015, The Select Board appointed a new committee called Pathways II to develop a plan to complete small sections of pathways with existing funds, to develop a plan for a more extensive pathway system, and to address maintenance and snow removal. Citizen concerns about safety of several crosswalks linking various pathways led to a postponement in 2018 of pathway expansion plans, completion of a 500 foot section of pathway on the north side of Bedford Road between the library crosswalk and East Street, and an extension of the existing pathway along Bedford Road from Kimball’s to Stearns Street to allow for the completion of an engineering assessment of increased pedestrian safety and mobility opportunities in Carlisle.

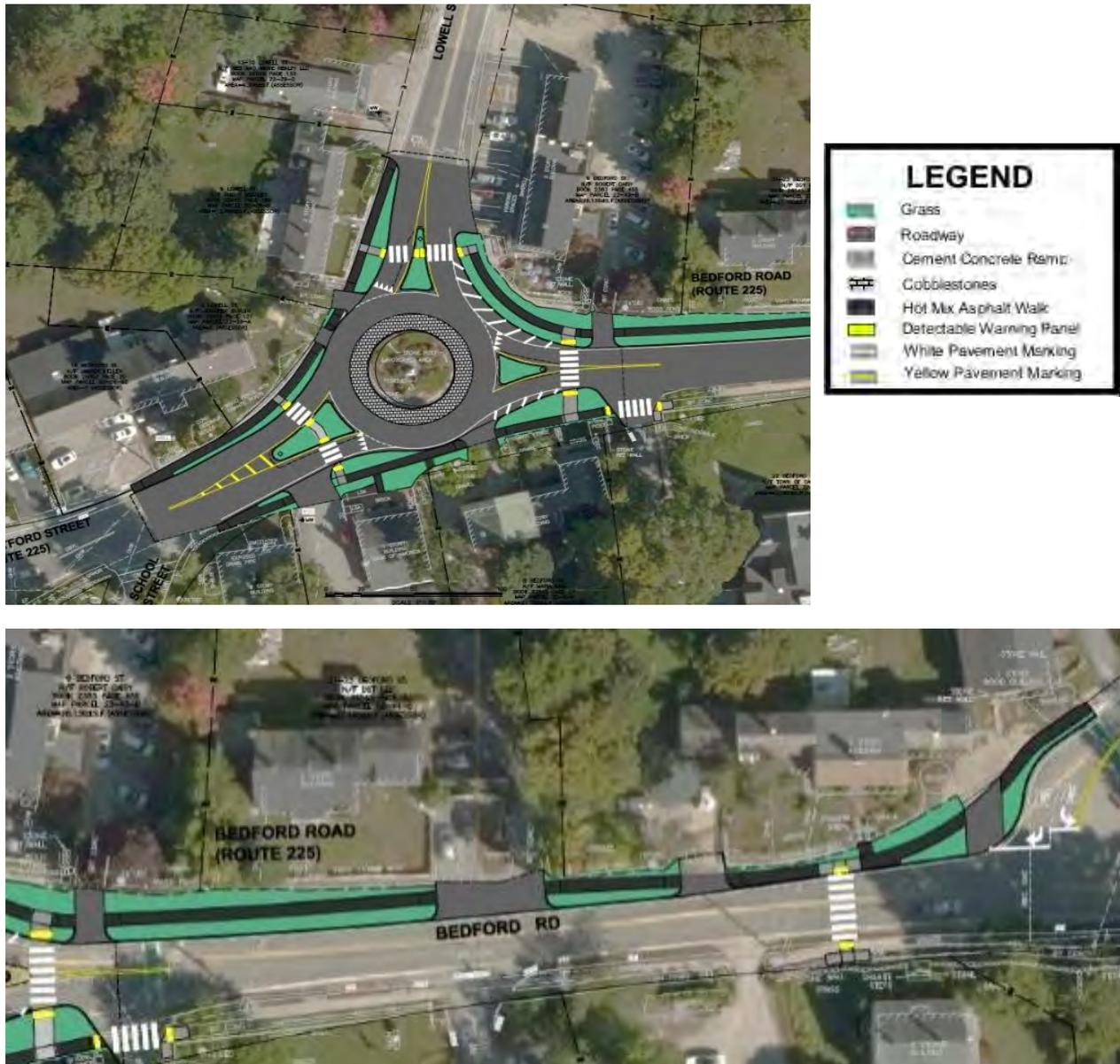
This led to the Select Board’s decision to take part in the state’s Complete Streets program, which provides funding for local projects that provide safe and accessible options for all travel modes: walking, biking, transit, and vehicles for people of all ages and abilities. Tier 1 of Complete Streets required the town to adopt a Complete Streets Policy, which the Select Board did in July 2018, committing to the implementation of Complete Streets principles in all new,

maintenance and reconstruction municipal projects.

In addition to safety considerations, the policy states goals of improving the public and environmental health by encouraging walking and bicycling as alternatives to vehicle travel and leveraging our network of roads, pathways, and trails to maximize connectivity between home, work, school and recreation.

Figure H-4. Complete Streets Project

Source: Town of Carlisle



The town engaged an engineering firm to develop a Prioritization Plan that MassDOT subsequently approved. The plan includes 25 potential projects involving redesigning intersections and crosswalks and building new sections of pathways or sidewalks, all incorporating accessibility requirements, along the town’s 5 main roads in or near the Town Center. The town received a \$250,000 Complete Streets grant in 2019, supplemented by \$50,000 appropriated at 2019 ATM and Chapter 90 funding, to redesign the Carlisle Center rotary to reduce traffic speeds, and create new locations, pavement markings, accessible ramps, and signage for several crosswalks; a reconfiguration of the Bedford Road / East Street intersection; new and improved accessible pathways in the Town Center; and two improved crosswalks east of the Center along Bedford Road towards Banta-Davis and Kimball Farm Ice Cream.

To implement this work, the Select Board combined the Traffic Safety Advisory Committee and Pathways II into a new Traffic and Pedestrian Safety Committee appointed in September 2019 (see below). The committee held public information sessions and engaged an engineering firm to develop bid documents for the state-approved projects. The work was completed during the summer of 2020.

TRANSPORTATION AND PEDESTRIAN SAFETY COMMITTEE

Ensuring pedestrian and vehicle safety in Carlisle is a critical responsibility of the Select Board. Towards this end, the Select Board created a Traffic and Pedestrian Safety Committee in September 2019. The Traffic and Pedestrian Safety Committee is a sub-committee of the Select Board and does not have direct spending authority. The Committee is comprised of seven members appointed by the Select Board for three-year terms, with the expectation that the terms will be extended. This new committee replaces and consolidates several previous committees (including the Pedestrian and Bike Safety Committee, and the Traffic Safety Committee), and reflects the town’s continuing resident interest and commitment to transportation.

The mission of the Committee is to bring attention to, and work to eliminate, unsafe conditions for pedestrians, bicyclists, and drivers of motor vehicles of all ages and abilities. This Committee has three main focus areas:

- Complete Streets Projects: Manage all approved and funded Complete Streets projects awarded to Carlisle
- Pedestrian Safety: Improve existing pedestrian ways and road crossings, and propose new pedestrian ways and crossings to enhance the overall walkability of Carlisle
- Traffic Safety: Review traffic safety concerns and issues within Carlisle, including, but not limited to, speed limits, signage, lines of sight, and traffic operations

The Committee determines short-term and long-term goals and draft plans and policies necessary to create a comprehensive and integrated transportation and pedestrian network serving the needs of all users while prioritizing the needs of Carlisle citizens. The Committee develops proposed revisions to all appropriate plans, general and zoning bylaws, procedures, rules, regulations, guidelines, programs, templates, and design manuals to integrate, accommodate, and balance transportation needs and goals in Carlisle. The Committee is also responsible for assessing and providing solutions for potential obstacles to the successful completion of all transportation-related projects in the town.

What We've Heard

The following summarizes feedback received during public meetings, focus groups, interviews, Kitchen Conversations, and the Master Plan Fall 2019 Survey:

- There is a desire for more pedestrian-friendly and bicycle-friendly transportation in town.
- The desire to maintain the rural character, the historic nature of many roads, extensive wetlands, limited public rights-of-way, patterns of private land ownership, and the high cost of widening roads limit the ability to make pedestrian- and bicycle-related improvements in the town, or to improve roadways to address capacity and auto safety issues.
- While the limited data available suggest that traffic growth in Carlisle has been modest over the last 10 years, there is frustration with the perceived increase in vehicular traffic around town, including a desire to address the existing and upwardly trending peak-hour road congestion.
- The town should continue to leverage Chapter 90 funds and seek Complete Streets grant money to improve accessibility and pedestrian safety throughout town, especially in the Town Center and in relation to routes to the school.
- There is a desire to have good public transportation options, particularly for residents with limited means and limited access to private vehicles.
- Carlisle offers an extensive and picturesque walking trail network that links in with conservation land, state and national parklands.
- Although Carlisle presents a popular area for bicycling, there are no dedicated bike paths and some report conflicts on roadways between bicycle and car use.

Things to Think About

Based on this existing-conditions analysis and community feedback, the following key issues or questions should be considered in the master plan:

- What are options for reducing private-vehicle trips in town?
- What policies and coordination are needed to improve publicly available transportation, especially for seniors, through a combination of private, public, and land use regulation approaches?
- Will Carlisle benefit from addressing transportation needs and challenges in a comprehensive, long-range plan as the region continues to grow and traffic congestion increases?
- As Carlisle’s population ages, should the town continue to expand publicly available transportation options for residents with mobility limitations?
- Demand is increasing to improve safety and accommodations for pedestrians and cyclists. Should Carlisle address this demand?
- Private, single-occupancy vehicle traffic is perceived to be heavy and likely to increase. Peak traffic includes vehicle trips to work and local schools. Ways to alleviate some of the peak traffic pressure include ensuring safe routes to school that allow for more students to walk, and encouraging residents to work from home.
- Changes to Carlisle’s transportation infrastructure are likely to be difficult, given the constraints. For example:
 - Existing roads evolved from informal cart paths. The terrain is uneven and widening of roads would involve costly pavement and underlayment replacement.
 - Existing rights-of-way are constrained in width by private property. This significantly limits the town’s capacity to construct sidewalks or bikeways/bike lanes.
- The town lacks a capital improvement plan for transportation infrastructure and associated capital equipment needs (e.g., trucks).

ENERGY AND ENVIRONMENTAL SUSTAINABILITY EXISTING CONDITIONS REPORT

Introduction

This report addresses existing conditions in Carlisle relative to:

- Community-wide greenhouse gas (GHG) emissions associated with energy use and other human activity
- Climate resilience (i.e., adaptation to the effects of climate change)

Other environmental sustainability considerations (such as land preservation and conservation, agriculture, and protection of the community's water resources) are addressed in the Open Space, Recreation, and Natural Resources report found in Appendix G.

Multiple studies show that 97% or more of actively publishing climate scientists agree: "Climate-warming trends over the past century are extremely likely due to human activities."¹ Despite this, views vary on importance of community-level action to address climate change (rather than relying on international, national, state, and individual efforts). ***At the start of Carlisle's master plan process, no consensus had been established as to whether Carlisle should integrate climate considerations into our community plans and decisions in a coordinated and deliberate fashion.***²

The information in this section includes:

- Energy and Environmental Sustainability Today
 - Key Trends and Characteristics
 - Greenhouse Gas Emissions
 - Climate Resilience
 - Energy and Environmental Organizations
- What We've Heard
- Things to Think About

¹ <https://climate.nasa.gov/scientific-consensus/>

² Carlisle's commitments under the Massachusetts Green Communities program apply largely to municipal energy use and renewable energy, rather than community-wide greenhouse gas emissions.

Energy and Environmental Sustainability Today

Key Trends and Characteristics

Key trends and characteristics related to energy and environmental sustainability include:

- In 2011, Carlisle made a commitment to lower its energy use and accelerate the adoption of renewable energy when it became a Massachusetts Green Community
- In 2017, Carlisle’s per-capita GHG emissions were over 40% higher than the Massachusetts average
- Carlisle has addressed energy use and GHG emissions primarily through:
 - Two solar initiatives
 - A tri-town collaboration on climate-friendly residential heating and cooling
 - Transitioning to a Community Choice Aggregation program for the community’s electricity supply in mid-2018, which lowered Carlisle’s overall emissions by 14%³
- In 2021, Carlisle developed a Municipal Vulnerability Preparedness plan.⁴

Greenhouse Gas Emissions

In March 2020, the CETF released the report *Path to Zero Emissions—Creating a Sustainable Carlisle*, March 2020.⁵ The purpose of the report is to inform Carlisle residents’ decision of whether to adopt community-wide goals to lower GHG emissions by helping Carlisle residents understand the benefits and implications of adopting and pursuing goals to reduce Carlisle’s GHG emissions.⁶

The *Path to Zero Emissions* report documents Carlisle’s first community-wide estimate of GHG emissions (broken down by sector and fuel type), identifies options for GHG reduction goals, and outlines a conceptual approach for reaching such goals (should the community choose to adopt goals). The report focuses primarily on the emissions resulting from Carlisle’s energy use (along with agricultural emissions, generation/transmission/distribution of electricity, leakage

³ Assumes zero emissions associated with electricity purchased through Renewable Energy Certificates.

⁴ *Town of Carlisle Community Resilience Building Workshop Summary Report*; June 29, 2021. Available at: <https://www.carlislema.gov/DocumentCenter/View/3420/Carlisle-Municipal-Vulnerability-Preparedness-Report-6292021?bidId=>

⁵ *Path to Zero Emissions—Creating a Sustainable Carlisle*; March 31, 2020. Available at: <https://www.carlislema.gov/758/Path-to-Zero-Emissions>

⁶ A greenhouse gas (GHG) is any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, which then traps heat in the atmosphere. The most common GHG is carbon dioxide (CO₂).

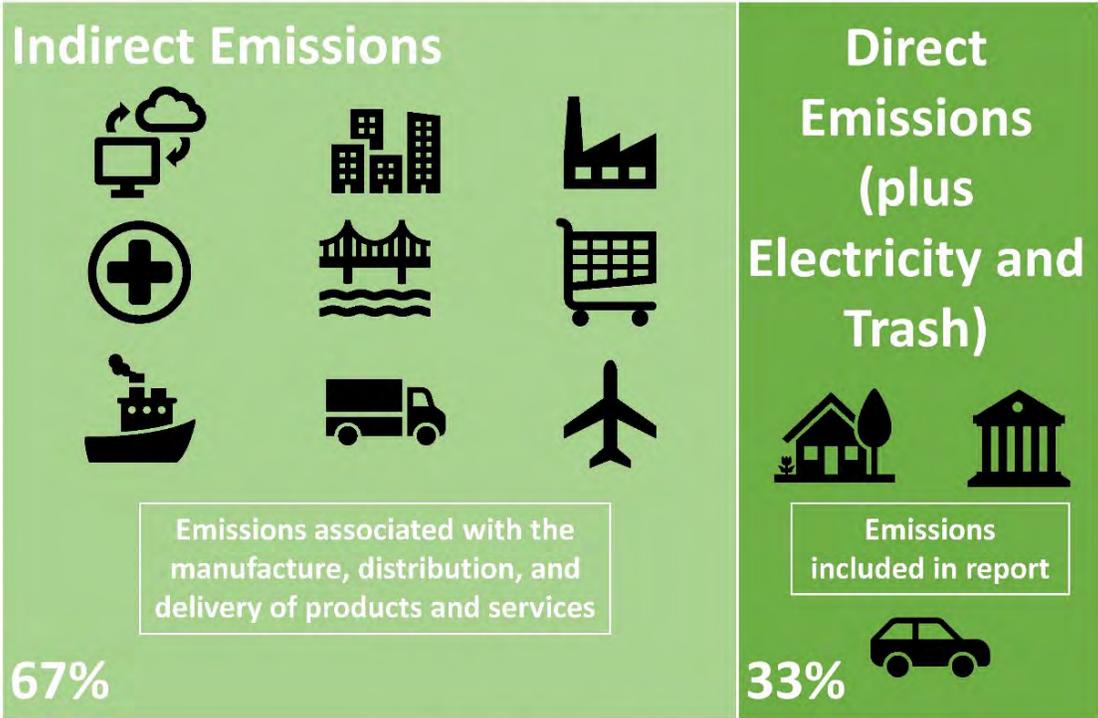
of natural gas, and municipal waste incineration). The report also includes an estimate of Carlisle’s total emissions, which includes emissions associated with the products and services that we use. (See Figure I-1)

Figure I-1. Carlisle Greenhouse Gas

Source: *Path to Zero Emissions—Creating a Sustainable Carlisle, March 2020.*

Emissions are in units of metric tons of carbon-dioxide equivalent per year (MTCO₂e/year). A metric ton is about 2,200 pounds, or about 10% more than a U.S. ton.

Most of our emissions occur outside of Carlisle.



147,000 MT CO₂e/yr

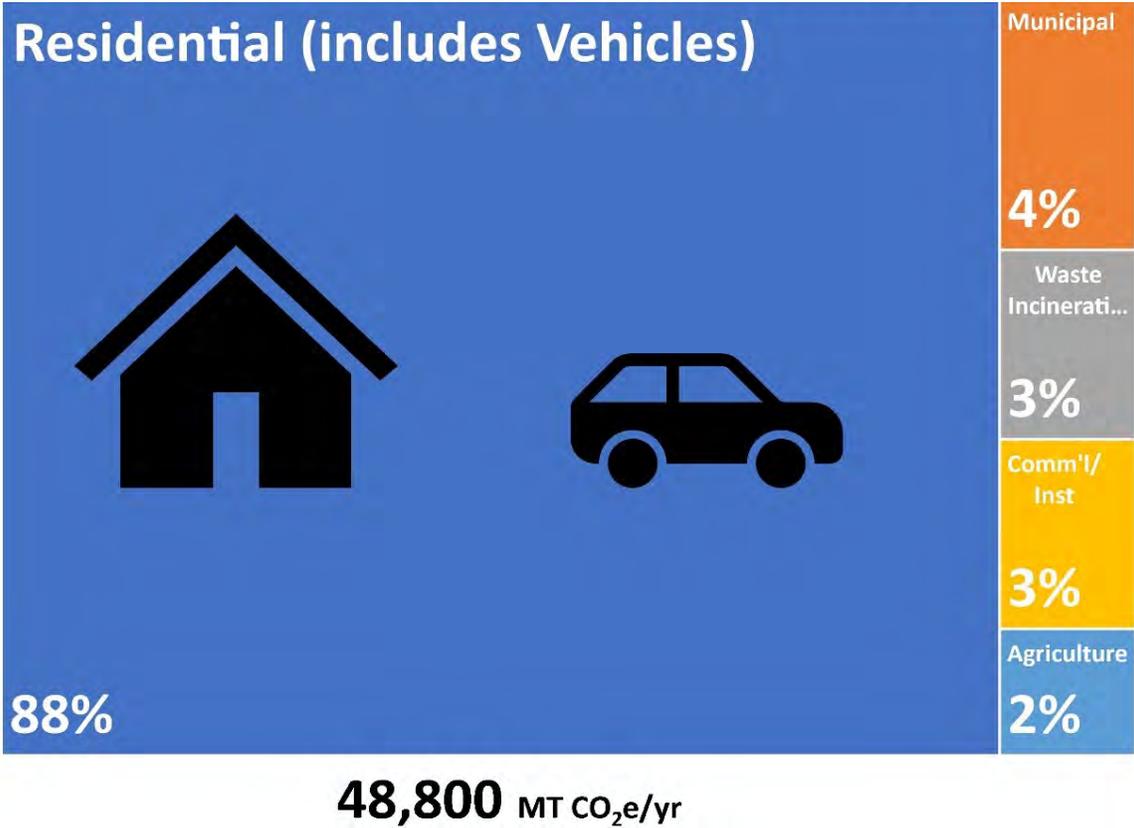
In 2017, Carlisle’s per-capita GHG emissions were over 40% higher than the Massachusetts average. Compared to the average Massachusetts resident, the average Carlisle resident:

- Has 45% more space in their houses per occupant (1,190 square feet/person)
- Drives 40% more miles (26.5 miles/day/person)
- Has an annual income that is 115% higher

These factors may in large part explain the higher emissions for Carlisle residents. As noted below, Carlisle reduced its emissions in mid-2018 through participation in a Community Choice Aggregation program for its electricity supply.

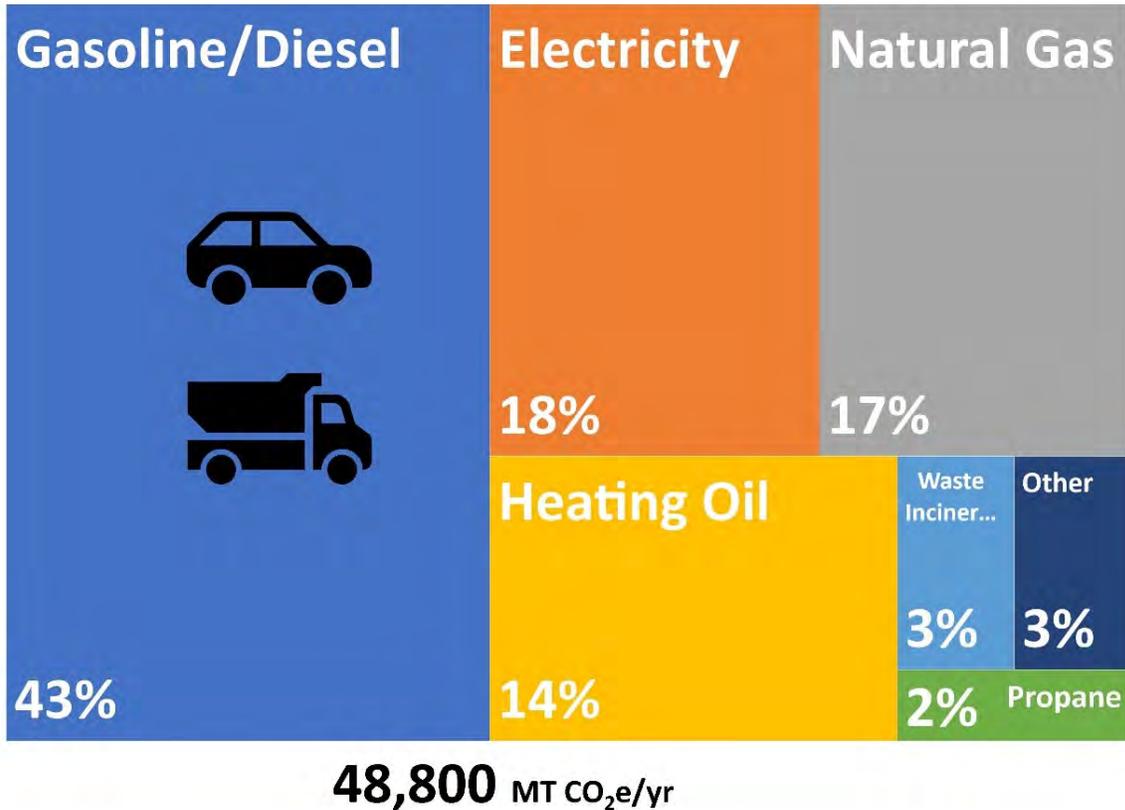
Residential emissions (including vehicles) accounted for about 88% of Carlisle’s emissions in 2017 (see Figure I-2) and transportation fuels accounted for about 43% of Carlisle’s overall emissions (see Figure I-3).

Figure I-2. Carlisle Greenhouse Gas Emissions by Sector (2017)
 Source: *Path to Zero Emissions—Creating a Sustainable Carlisle*, March 2020



Compared to 1990, the CETF estimates that, through 2017, Carlisle’s *residential energy use* has increased in proportion to population growth (20% population increase and 18% energy-use increase). During that same period, Carlisle’s *residential GHG emissions* have not increased because the *emissions* associated with electricity generation in New England dropped significantly during this time period, translating to 57% lower *emissions* per unit of electricity consumed. These trends do not account for the impacts of Carlisle’s switch in July 2018 to Community Choice Power Aggregation with a default offering of 100% renewable energy, which is described later in this section.

Figure I-3. Carlisle Greenhouse Gas Emissions by Fuel Type (2017)
 Source: *Path to Zero Emissions—Creating a Sustainable Carlisle, March 2020*



CARLISLE’S ACTIVITIES TO REDUCE EMISSIONS

Largely through volunteer efforts (the CETF and also the Carlisle Household Recycling Committee), Carlisle has taken several important steps to lower energy use and reduce GHG emissions:

MA Green Communities Program. In 2011, Carlisle made a commitment to lower its energy use and accelerate the adoption of renewable energy when it became a Massachusetts Green Community. From 2009 through 2018, Carlisle leveraged \$821,000 in state funding and utility incentives to lower municipal energy costs by an estimated \$435,000 through 2019 and municipal GHG emissions by 20%. As one of the requirements for this program, Carlisle adopted the Stretch Code (780 CMR 115.AA). See the side bar for more detailed information on what the Town has accomplished.

Solar Photovoltaics Programs. Through two solar programs (Solarize Mass and Carlisle Solar Challenge), residents increased Carlisle’s solar generating capacity to about 1,000 kW (1 MW), producing an estimated 1,500 kWh/year, or about 6% of Carlisle’s electricity use (over 140 PV systems).

HeatSmart Program. Carlisle led this three-town initiative, collaborating with Concord and Lincoln, to promote installations of clean heating and cooling technologies, resulting in over 60 installations in the three towns. Under the HeatSmart program, Carlisle residents installed eleven air-source heat pumps and seven ground-source heat pumps.

Community Choice Aggregation Program. In July of 2018, Carlisle entered into a Community Choice Aggregation program with a default offering of 100% renewable electricity, not only lowering Carlisle’s electricity costs, but also cutting Carlisle’s electricity emissions by 77% and lowering overall GHG emissions by 14%.⁷ In January 2021, Carlisle entered into its second contract under its CCA program. The default offering under the second contract is not only 100% renewable, but includes 15% more MA Class I renewable content than the state requires.⁸ As of August 5, 2020, Carlisle was one of 163 MA communities participating in Community Choice Aggregation.⁹

Solar Canopies. The CETF secured town approval and supported related zoning ordinance changes to permit the installation of solar-electric canopies at the Carlisle Public Schools, which is expected to generate \$676,000 in lease payments to Carlisle over the next 20 years.

Community Composting. Carlisle’s community composting program reduces the Town’s municipal solid waste (projected reduction by up to 30% the amount of municipal waste sent to the incinerator) and, in turn, reduces the town’s incineration fees, GHG emissions associated with waste incineration, and landfill requirements for incinerator ash.

Municipal Vulnerability Preparedness Planning Grant. Carlisle received this grant in September 2020 to help Carlisle develop a plan to improve its climate resilience and meet FEMA requirements to update its expired Hazard Mitigation Plan, all in a single, integrated plan. The grant provides \$27,000 to secure a state-certified technical assistance provider to lead a community-wide planning workshop to identify key climate-related hazards, vulnerabilities and strengths, develop adaptation actions, and prioritize next steps. Community results of the planning efforts are then eligible for competitive MVP Action Grant funding to implement priority on-the-ground projects.¹⁰

⁷ Assumes zero emissions associated with electricity purchased through Renewable Energy Certificates.

⁸ MA Class I Renewable Energy Certificates are issued for electricity from renewable energy facilities built in New England that began operation after 1997.

⁹ <https://www.mass.gov/info-details/municipal-aggregation#a-g->

¹⁰ <https://www.mass.gov/news/baker-polito-administration-awards-111-million-in-climate-change-funding-to-cities-and-towns>

The Massachusetts Green Communities Program

Carlisle has been a Massachusetts Green Communities member since 2011. The Green Communities Division of the Massachusetts Department of Energy Resources provides grants to help municipalities reduce energy use and costs by implementing clean energy projects in municipal buildings, facilities, and schools. To be eligible for the Green Communities Program, Carlisle:

- Pledged to cut municipal energy use by 20% over five years
- Passed zoning in designated locations for the as-of-right siting of renewable or alternative energy generating facilities (aka, the solar overlay district)
- Adopted expedited application and permitting for siting renewable energy generating facilities
- Established an energy use baseline inventory for municipal facilities, vehicles, and street / traffic lighting
- Adopted a fuel-efficient vehicle policy
- Adopted the Massachusetts' Board of Building Regulations and Standards (BBRS) Stretch Code (780 CMR 115.AA)

Using state funds, the Town has installed energy-saving measures and renewable energy systems in Carlisle's municipal buildings and street lighting that lower municipal energy use by over 20% (3900 MMBtu/year). Examples include:

- Solar photovoltaic panels on the roof of the school
- High-efficiency LED street lights
- Various measures lowering Town Hall energy use by 37%

Measures approved for 2018/2019 and beyond include:

- Additional LED lighting for school
- HVAC upgrades for school
- HVAC upgrades for Town Hall
- Anti-idling technology for police vehicles
- Electric vehicle charging station for library
- LED lighting for DPW

CONCEPTUAL PATHWAY FOR REDUCING EMISSIONS

The *Path to Zero Emissions* report outlines a conceptual pathway for reducing emissions, with an emphasis on what the CETF believes is most practical for the town and its residents. These include:

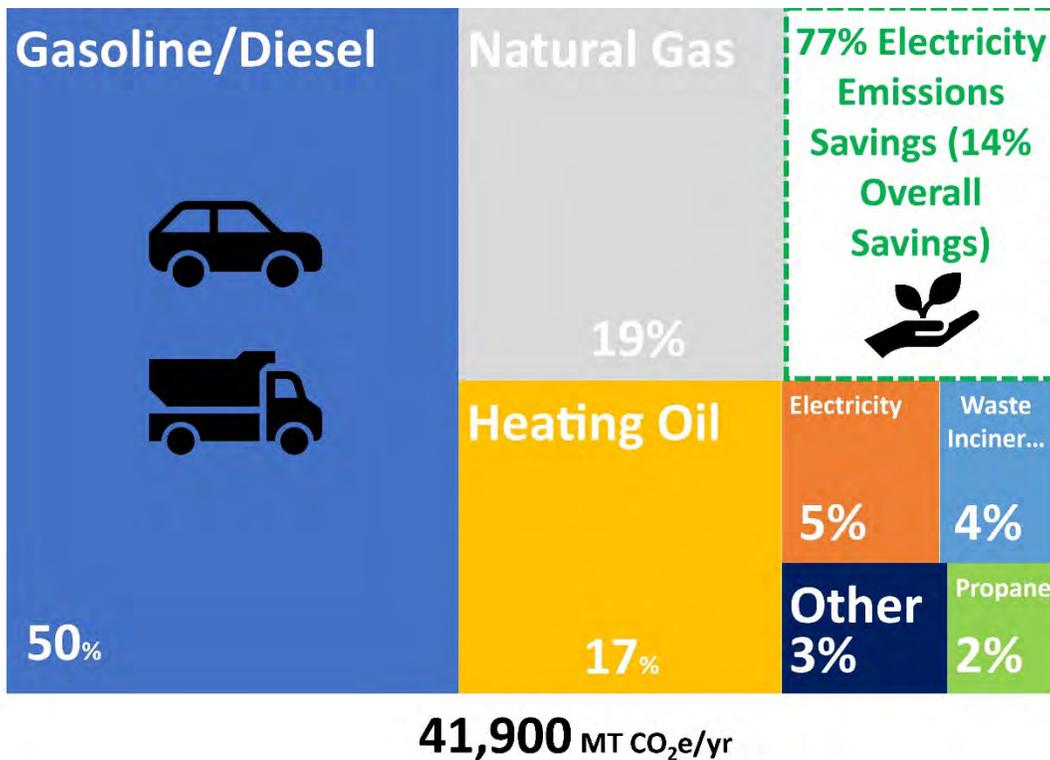
- Weatherize homes and buildings (air sealing, insulation, etc.)
- Electrify (switch from fossil fuels to energy-efficiency electric appliances, equipment, and vehicles)
- Continue to shift to 100% renewable electricity
- Behavioral changes
- Improved agricultural practices

IMPACTS OF COMMUNITY CHOICE AGGREGATION

Each action can have cumulative effects on GHG reduction. The *Path to Zero Emissions* report illustrates the effect of the Community Choice Aggregation on Carlisle’s emissions (See Figure I-

Figure I-4. Carlisle Emissions after Community Choice Power Supply (July 2018)

Source: *Path to Zero Emissions—Creating a Sustainable Carlisle*, March 2020 presentation



4).

PUBLIC FACILITIES

The town owns a number of facilities including Town Hall, the Police and Fire Stations, the DPW facility, the Gleason Public Library, and the school buildings (which includes a waste-water treatment plant). In addition, the town owns several underutilized buildings including the Highland Building, Greenough Barn, and Cranberry Bog House. While studies have been completed in the past few years for Town Hall, the Police Station, Fire Station, DPW, and the Gleason Library, there is no comprehensive town-wide facilities management plan that evaluates structures for energy efficiency/GHG emissions, and prioritizes repairs and replacements based on energy efficiency, comfort improvements, and operating cost savings.

WOODLANDS AND FORESTS

Compared to the emissions estimates shown in Figure I-4 above, the *Path to Zero Emissions* report indicates that accounting for the impacts of forest/woodlands carbon sequestration would:

- Lower Carlisle total emissions by about 7% compared to a “bare-ground” alternative
- Increase Carlisle total emissions by about 3% compared to a fully forested alternative

SOLID WASTE

The town currently charges a flat annual fee for the disposal of solid waste, a system that offers no financial incentive to residents to reduce solid waste generation or disposal. In addition, waste disposal requires each resident to make vehicle trips to the Transfer Station to dispose of their waste (unless they privately contract for waste pickup). The town has a community-composting program, and the Swap Shed at the Transfer Station encourages reuse and recycling of household goods. That said, Carlisle’s solid-waste disposal statistics suggest room for improvement:

- An estimated 50% of items dropped at the Swap Shed are not reused, but instead are recycled or disposed of with the trash.¹¹
- The average Carlisle household disposes of over 2,200 pounds/year of trash at the transfer station; not counting recycled materials, which is significantly higher than nine other towns investigated.¹²

In late 2018 / early 2019, the Carlisle Household Recycling Committee proposed a Pay as you Throw (PAYT) program in Carlisle, but withdrew the proposal after receiving mixed feedback

¹¹ BOS discuss ways Swap Shed might be improved; Carlisle Mosquito; 22 January 2020.
<https://www.carlislemosquito.org/index.php/search/?id=35911>

¹² Carlisle Household Recycling Committee; 2019 Waste Reduction Report; Solid Waste Disposal in Carlisle
<https://www.carlislema.gov/DocumentCenter/View/1748/Solid-Waste-Study-PowerPoint---BoS-Presentation>. It is not known how much of Carlisle’s trash disposal is unauthorized—some speculate that it may be significant.

from the community. Instead, the Committee recommended several actions to the Carlisle Select Board:

Top Priority:

- Discontinue the collection of construction and demolition debris (individual households would need to arrange disposal of such items).
- Initiate a municipal composting program.

Additional Actions to Consider:

- Implement fees for bulky items.
- Increase transfer-station sticker fees.
- Monitor and enforce sticker and usage compliance.¹³

In response, the town:

- Established a voluntary municipal composting program on June 4, 2019.
- Increased transfer station sticker fees from \$20 to \$30 for the first vehicle/household, effective January 2021.

The Household Recycling Committee may re-introduce a revised proposal at a later date.

Climate Resilience

As the Center for Climate and Energy Solutions defines it, climate resilience “is the ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate. Improving climate resilience involves assessing how climate change will create new, or alter current, climate-related risks, and taking steps to better cope with these risks.”¹⁴

Under a Municipal Vulnerability Preparedness (MVP) planning grant from the Massachusetts Executive Office of Energy and Environmental Affairs (EEA), and with the assistance of the Metropolitan Area Planning Council (MAPC), Carlisle completed an MVP report in June 2021.¹⁵ Under the same grant, Carlisle also completed a draft update to its Hazard Mitigation Plan

¹³ Letter to the Carlisle Board of Selectmen; Re: Carlisle Household Recycling Committee—Town Meeting Warrant Article; from the Carlisle Household Recycling Committee; March 22, 2019.

¹⁴ <https://www.c2es.org/content/climate-resilience-overview/>

¹⁵ Town of Carlisle Community Resilience Building Workshop Summary Report; June 29, 2021. Available at: <https://www.carlislema.gov/DocumentCenter/View/3420/Carlisle-Municipal-Vulnerability-Preparedness-Report-6292021?bidId=>

(HMP).¹⁶ The MVP report focuses on improving the community’s climate resilience. The two reports overlap somewhat, as the HMP includes mitigating measures for hazards associated with climate change. Top hazards identified in the MVP report are: flooding; severe storms; drought; and extreme heat. Table I1 summarizes the highest priority recommendations in the MVP report (based on the results of a Community Resilience Building Workshop).

Table I-1: Highest Priority Climate Resiliency Actions for Carlisle

Highest Priority Actions from Community Resilience Building Workshop (Partial List)	Votes (Number / %)
<p>Water Resources:</p> <ul style="list-style-type: none"> • Water-ban days, night watering • Conduct more regular testing of drinking water wells (via Board of Health) and more tracking over time to see which properties have changed water quality • Help educate residents on monitoring water use, or maybe install more technology • Consider well zoning, plan and protect well areas • Update well standards (how deep wells should be) and check existing ones • Work with schools to start education around this topic • Develop agreements with local towns on aquifer use 	<p>12 / 46%</p>
<p>Support Farms:</p> <ul style="list-style-type: none"> • Protect farmland and food supply through supporting economic viability of farms • Partner with the Town to supply the school food program • Address drainage issues • Review bylaws to reform any that have negative impacts and amend to better support agricultural uses 	<p>11 / 42%</p>
<p>Water Quality Testing and Pollution Education:</p> <ul style="list-style-type: none"> • Reintroduce the voluntary well water testing program with stronger promotion/marketing, in conjunction with the education about individual wells/septic • Research benefits/risks of pesticide regulation 	<p>11 / 42%</p>

¹⁶ Draft Town of Carlisle Hazard Mitigation Plan 2021 Update; June 29, 2021. Available at: <https://www.carlislema.gov/DocumentCenter/View/3421/Carlisle-Draft-Hazard-Mitigation-Plan-Update-06292021?bidId=>

Table I-1: Highest Priority Climate Resiliency Actions for Carlisle

Highest Priority Actions from Community Resilience Building Workshop (Partial List)	Votes (Number / %)
<ul style="list-style-type: none"> • Conduct public education about water conservation, dumping 	
<p>Energy Efficiency:</p> <ul style="list-style-type: none"> • Develop an educational program to help weatherize and improve energy efficiency and resiliency of residential homes • Encourage the installation of solar energy and heat pumps 	10 / 38%
<p>Address Emergency Shelter Needs:</p> <ul style="list-style-type: none"> • Research potential options for self-generated and independent power supply; need a place that also provides beds/place for sleeping; improve the showers at school to improve access/adults • Better leverage Town Hall in emergencies – It's comfortable and welcoming but doesn't have a generator 	7 / 28%
<p>Power Outages:</p> <ul style="list-style-type: none"> • Research options for strengthening resilience to power outages (such as partnering with Concord, etc.) 	6 / 23%
<p>Culverts:</p> <ul style="list-style-type: none"> • Conduct an assessment of culverts (including beaver activity) • Identify and right-size culverts to minimize roadway vulnerability • Accommodate increasing precipitation volume, and support wildlife crossings 	6 / 23%
<p>Land and Forest Management:</p> <ul style="list-style-type: none"> • Develop a land and forest management plan; coordinate with landowners and other key stakeholders including state, municipal, private landowners 	6 / 23%

Source: Appendix A; MVP Report

Energy and Environmental Organizations

CARLISLE ENERGY TASK FORCE (CETF)

The mission of the CETF is to:

- Help the town establish goals and approaches for lowering energy use and expanding the use of renewable energy, with a focus on lowering GHG emissions
- Recommend municipal bylaws and amendments that reduce energy use, and encourage the use and generation of renewable energy
- Help town departments, residents, businesses, and organizations learn about, evaluate, and implement measures to lower energy use, and expand use of renewable energy
- Manage the town's relationship with the MA Green Communities and other renewable-energy and energy-efficiency programs, including applying for grants, managing the grant projects, and reporting to the grant programs
- Create a baseline to track and periodically evaluate community-wide energy use, cost, and associated GHGs.

The CETF has helped to bring programs to Carlisle that adapt town buildings, promote energy efficiency and renewable energy, and provide resources to the town as a whole.

CARLISLE HOUSEHOLD RECYCLING COMMITTEE

The purpose of the Household Recycling Committee is to reduce overall solid waste tonnage using environmentally friendly approaches, e.g., backyard and town-wide composting programs, facilitating reuse of materials, and improved recycling practices.

What We've Heard

The following is a summary of feedback received during public meetings, focus groups, interviews, Kitchen Conversations, and the Master Plan Fall 2019 Survey:

- The town is missing opportunities for grants because it does not have staff to apply for and manage grants, and provide co-funding (through staff time). These include micro grants, Mass DEP grants, resiliency grants, and more.
- Reducing transportation-related GHG emissions in Carlisle may be challenging because of the lack of access to public transportation, and rural development pattern that makes using alternative modes of transportation more difficult.
- Environmental sustainability is not embedded in the Town of Carlisle's decision-making processes.

- The use of all-volunteer teams for sustainability-related initiatives is not adequate and the shortage of residents available for civic responsibilities across the town makes it unlikely sustainability initiatives can move forward in more extensive ways without additional professional assistance.¹⁷
- The Green Communities program has become increasingly competitive in recent years and Carlisle has already received substantial grant awards, so we can expect future Green Community awards to be smaller and to require co-funding. Carlisle has not applied for a Green Communities grant since 2018.

Things to Think About

Key issues or questions that should be considered in the master plan include:

- What would it look like (the policies, questions, requirements, staff, processes) to embed sustainability practices in all town decision making?
- Should the town adopt goals for GHG emissions reductions, understanding the implications including necessary staff time and policy and regulatory changes?
- Would the town consider restricting new uses of fossil fuels such as heating oil, natural gas, and propane (perhaps with exceptions for cooking and emergency generators) to support lowering GHG emissions through electrification?
- Should the town support hiring a sustainability director to support a community-wide initiative to lower GHG emissions?
- Is there a way to cooperate with adjacent towns and share efforts to adopt sustainable town policies and actions in an efficient and cost-effective manner?
- Would the town consider adopting a Pay As You Throw (PAYT) system for non-recyclable waste disposal to lower waste-related GHG emissions and perhaps increase revenue?
- How do we incentivize residents to drive less, share trips, weatherize homes, electrify heating and cooling systems, and convert to electric vehicles?

¹⁷ As an example, the *Path to Zero Emissions* report states “the 2018 Carlisle/Concord/Lincoln HeatSmart program required over 1,000 hours of Carlisle volunteer time. By the end of the program (about 6 months duration), we secured 18 contracts to install clean heating and cooling systems in Carlisle homes (about 1% of Carlisle’s 1680 owner-occupied homes). Of course, such programs generally have spillover effects (i.e., they can encourage installations that are not directly associated with the programs) and help generate community awareness (leading to longer-term impacts), but these results suggest the challenges associated with trying to pursue emissions goals through volunteer-led approaches alone.”

LAND USE, GIS, AND DEVELOPMENT POTENTIAL MPSC REPORT

Introduction

During the initial phase of the Master Plan, Civic Moxie created a land use map of developable land by evaluating primarily vacant land parcels in Carlisle. Since the Town had no consistent use of GIS for planning purposes, Civic Moxie had to rely primarily on the assessor's data base to determine "use status." There were limited mapping tools available on a municipal level. Civic Moxie initially prepared preliminary build-out scenarios for the Committee based on this limited information.

The Master Plan Steering Committee wanted to explore buildout scenarios in greater detail since this approach did not take into account large parcels that could be subdivided. Historically the Open Space and Recreation Plan (OSRP) had prioritized land parcels subject to development to include both vacant and parcels that have a structure but are not fully developed. The OSRP also aggregated adjacent parcels of land held in common ownership in their analysis of developable land.

Approach

The MPSC through its Land Use Team sought to follow a similar approach to that used for the OSRP — to evaluate developable land based on parcels that were both vacant or not fully developed. As part of this exercise an intern team compiled a complete parcel database with all data necessary to facilitate master plan analysis. Data would include land use, ownership, tax status, regulatory, development potential, age/size/heat system of structures, and historic status. The table would highlight any restrictions on a property such as conservation restrictions, agricultural preservation restrictions, historic preservation restrictions, private deed covenants, easements, or rights-of-way. This data could then be applied to consider which properties are not fully developed, have potential for conventional subdivisions, two family conversions, conservation clusters, elderly housing, or future municipal uses.

Using approved funding for the Master Plan, the MPSC provided funding for two interns to complete the data collection and categorization under the supervision of an experienced land planner. This information was then used to create data layers to build a GIS working map. An outside consultant, Center for Community GIS, would build the platform.

Developable Land

The objective was to apply the OSRP concept of aggregating vacant, not fully developed, and adjacent parcels, but to also apply the other data layers, including wetlands and other environmental restrictions to determine the likelihood of development. There are 48 privately-owned parcels of approximately 10 acres or more identified by the OSRP in their November 2020 report. They comprise approximately 862 acres. Of those 48 parcels in the OSRP, the MPSC Land Use Team identified through the GIS tool 33 parcels of 10 acres or more that could be developed and that comprise approximately 680 acres. The Land Use Team identified an additional 72 parcels of 10 acres or less comprised of 228 acres that could also be developed. Assuming this acreage were to be developed under the current zoning — and at the discretion of the owners — coupled with approved building envelopes, smaller parcels and other growth allowed by the zoning, the town could add approximately another 350 housing units over the next 20-25 years. Approximately 290 would be single-family homes under the current zoning with the balance an estimate of apartment and accessory units.¹

The map of potentially developable land included in this Master Plan (Map C-6, Appendix C, Land Use & Zoning Existing Conditions Report and included to the right at a smaller scale) identifies the approximate 1,000 acres of privately owned land that is either developable or not fully developed. In addition, the Town owns over 130 underutilized acres of land but very few acres are developable for future municipal purposes. Due to site limitations, conservation restrictions, and access issues the 38 acres of Banta-Davis land is the primary municipal land holding and it has some restrictions on its use. Since these maps represent conditions at a point in time, it is suggested that the Town update them periodically to reflect current conditions.

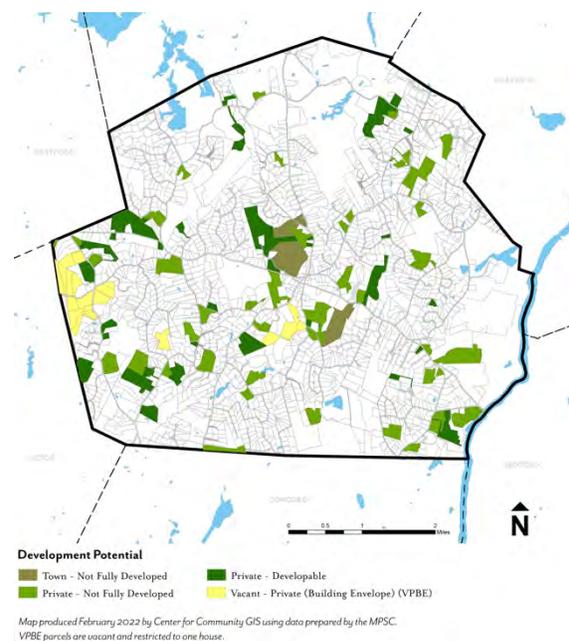


Figure J-1. Development Potential Map.
(See Map C-6 in Appendix C for full size.)

¹ Residence District M could potentially accommodate an additional 18 units of rental housing, per the *Town of Carlisle Housing Production Plan* (2015). Additionally, the Town's current zoning bylaw allows issuance of up to 75 special permits for accessory apartments (AA). As of October 5, 2021, the Building Commissioner reported that special permits had been issued for 32 of the allowed 75 AAs between 1987 and today, leaving the potential for 43 additional AAs.

FACILITIES NEEDS SUMMARY

MPSC FACILITIES TASK FORCE REPORT

Background and Summary

The Master Plan Steering Committee formed three (3) task forces intended to address key areas following the development of the Existing Conditions Reports during the initial phase of the Plan development. The three task forces looked at Housing, Sustainability and Facilities and Services. MPSC member John Ballantine chaired the Facilities and Services Task Force. The context for further review in this area as well as summary conclusions is as follows:

1. The town contracted for a facilities study in 2017 which identified over \$10 million in deferred maintenance costs for four (4) facilities. The study did not (nor was it intended to) examine the needs of the school campus and also did not include a needs assessment of all municipal departments to identify potential expansion.
2. The 2017 report identified substantial estimated maintenance costs for the current police facility — in excess of \$3.5 million. This led to further review of police expansion needs by the Town in 2019 for that facility. This resulted in another cost analysis and possible expansion of the current 6,600 SF facility in the current location. The results of this cost analysis indicated that expansion of the current facility on the existing small 1-acre parcel was much more costly than anticipated. Concurrently, the fire department also identified additional expansion needs beyond the estimated maintenance in the 2017 study including adding additional bays to the current 6,300 footprint, primarily for equipment storage and expanded second floor for an additional 10,000 SF. The fire department currently utilizes several trailers as well as the first floor of the Highland Building for storage. The expansion needs for both the police and fire departments led the town to appoint a Public Safety Task Force.
3. Municipal facilities needs also include other departments housed at the Town Hall, the needs of the Council on Aging and recreation departments for space programming needs. The Carlisle Public School also face capital needs over the next 5-7 years. It was apparent to the Master Plan Facilities Task Force that space needs and wants should be evaluated independent of the existing facilities and that the existing facilities should include all town-owned buildings including the Highland Building and the Bog House. An independent consultant review of the Highland Building determined that the building was in sound condition due to the investment in the building exterior and could easily be adapted for a variety of municipal and community needs. Ultimately the Task Force determined that needs should be matched with existing facilities to determine the optimal mix of uses. Table K-3 provides a summary of maintenance and capital costs

identified by the 2017 Maintenance Report and the Task Force. In many cases new capital investment would eliminate the need for substantial deferred maintenance.

4. In summary the MPSC is recommending a comprehensive review of all municipal space needs to include the school campus in order to develop a 20-year capital improvement plan. Such plan should also evaluate land and site preparation costs for any needs that cannot be accommodated on existing town owned land. This is critical because the town has limited debt capacity until 2036 when the debts for two school projects are retired. For purposes of this report, the Task Force estimates a potential for debt capacity of \$15-20 million over the next 10 years, and the competing space needs, maintenance costs, and necessary capital costs well exceed this amount.

Meetings and Process

The Master Planning Facilities Task Force focused on assessing the current state and longer-term facility needs of the town over the next twenty years (2040). This report is a general assessment of overall town facility needs and approximate costs. More detailed information is necessary before Carlisle moves forward with a comprehensive longer-term facilities plan.

Town volunteers and representatives from Municipal Facilities Committee, Finance Committee, Master Planning Committee, and a municipal facilities architect (Jerry Lerman, Stu Roberts, Lynne Lypinsky and John Ballantine) met three times during 2021 to review town needs and cost estimates. Stu Roberts is a long-term town resident and experienced in municipal facilities architecture (fire, police, and library) so the committee relied on his rule of thumb square footage cost estimates for construction and renovation.

Information was also collected after consultation and meetings with town officials (Fire, Police, Town, DPW, Library and School) that was summarized and reviewed in presentations in two public meetings – Master Plan Facilities Forum (August 2021) and Master Planning Facilities Discussion (September 2021). These meetings were attended by the Fire and Police Chiefs, Select Board representatives, Fincom, School Committee, Mosquito reporter, and the several members of the public.

Fiscal Assumptions

Three key assumptions affect assessment of longer-term facility needs:

- **Town size** reaches an estimated buildout of 2,200 housing units based on current land use / zoning and a population of approximately 6,500 over the next 20 years – maybe a bit faster or slower depending upon zoning changes, housing initiatives, and the economy. School enrollment will slowly recover and grow to 670-730 from its low 600 level depending upon changing demographics (more young families) and family size. This is more or less the capacity of current CPS buildings. School enrollment in the low 700s may involve some incremental classroom and office space needs.

- **Taxes and tax incidence** (average taxes /median income) remain stable. We assume that the Town does not want real tax levels to increase very much over the coming years given the increase over the past 15 years with school construction projects (highest level of tax incidence for several decades). However, school debt will be significantly paid down by 2030 (and fully paid off in 2036), so there is more capacity to take on additional initiatives. Maintaining a stable real tax rate implies little growth in incremental town services due to the inflation adjusted increases in wages / contracts that make up most of the town's annual expense. (See separate Appendix L for the MPSC's financial model and budget discussion with graphs.)
- **Debt capacity**, given tax incidence (slightly under 9%) and the effort to maintain a constant or stable rate of real taxes the town has limited incremental long term debt capacity -- approximately \$15-20 million over the coming decade, depending on interest rates and maturity of debt. Again, this is an assumed constraint given the town's relatively high tax incidence; we could, of course, approve higher levels of debt. After 2036, the town will have significantly higher debt capacity.

Town Facility Needs / Timing

Current square footage of town buildings including the bog house and vacant Highland Building (but not Greenhough Barn) is approximately 185,000 square feet, 72% of which is the Carlisle Public school (see Table K-1). The identified incremental needs in various town departments/ functions are approximately 40,000 square feet over the next twenty years. Some of these square footage needs involve expansion in current buildings, renovation of existing buildings, or new construction – each of which, of course has different cost estimates.

In other words, the town has a varied set of longer-term municipal facility needs some of which will be accommodated more easily than others depending upon the current building location / condition (Table K-2). We may meet our future facility needs by shifting and moving our facilities uses within our existing buildings or on new sites. Estimated building and site costs are based upon current architectural and public building estimates and are highly preliminary.

Following is a description of our facility needs, current conditions, constraints, and possible options in our facilities puzzle. Given our assumed tax and debt constraints and slow growth, Carlisle will have to make choices and lay out a detailed plan for facilities maintenance and capital expenditures / new debt for the next five to fifteen years. Additional information is certainly needed.

Fire. Need 8-10,000 additional square footage for four-five additional bays, meeting rooms, bathrooms, and temporary sleeping quarters. Possible expansion (second story) on current site although there are some real wetland, site, and traffic flow constraints. Estimated cost approximately \$6 million (\$600 times 10,000 square feet)

Police. Current police site is very constrained and cannot easily accommodate expansion and renovation to meet longer term needs and code requirements. Additional square footage of 3,500 or a new 8-10,000 square foot police building on an undetermined town owned site (2–4 acres). Estimated costs \$7 million (\$700 times 10,000 square feet in addition to site costs).

Employee housing. Carlisle’s on-call fire department saves the town approximately \$3 million in annual operating costs compared to the costs of a full-time Fire Department. However, a number of our on-call volunteers live out of town (within five minutes of the fire station). The Fire Chief and others feel that we need three to four worker housing units or approximately 6,000 square feet. While the Highland Building could be converted to worker housing, there is expressed resistance from the school community to this option. Other buildings could be converted to worker housing, such as the Bog House or the existing Police Station if replaced. Estimated renovation costs \$1.5-2 million (\$200-250 times 6,000 square feet)

Town offices. Current offices are very cramped with inadequate and poorly planned storage space. In addition, possible new staffing recommendations will create significant space demands. The COA also uses town office space for its programs (Clark room) and needs dedicated space for its activities. Estimated space needs, along with meeting rooms, are approximately 2,000 square feet plus 1,000 square feet of storage space. Estimated renovation costs \$1.5 million (\$400 times 3,000) in existing buildings.

DPW. The Department of Public works is housed in a new trailer surrounded by a refurbished warehouse, storage facilities, garages, and transfer station all in need of significant repair, reconfiguration, and longer-term plans. Most of costs are related to maintenance, site design and capital improvements. Estimated costs \$2 million (\$300 times 7,800 sq. ft.)

COA. The Council on Aging runs a myriad of programs throughout the town in various spaces, churches, and private facilities. The COA serves a growing portion of the town residents (20 to 25%), and it needs dedicated space. There are long term plans for a community center, however if this does not occur in the next three years the COA needs approximately 3,000 square feet for its programs. Estimated renovation costs \$1 million (\$300 times 3,000 sq. ft.) in town buildings.

Recreation. The Recreation Committee uses fields, school gym and classrooms, and other town space for its year-round programs. Like the COA it has adjusted to the town space constraints and juggled programs to fit into available space. However, RecCom also needs dedicated space for its recreational and educational programs. Estimated space needs are approximately 4,000 square feet, some of which could be shared. Estimated costs for new space is \$2 million (\$500 times 4,000 sq. ft.)

School. The Carlisle Public School was renovated and constructed over the past thirty years for approximately 700 to 740 students. However, some of its buildings are older and configured in a way that is not conducive to changing programs and educational frameworks. If the school enrollment continues to grow with the town to the 700 plus range over the next decade it will need incremental space for offices, counseling, and educational programs. Estimated renovation

and space needs are preliminary and driven by future enrollment, however CPS may need 5-8,000 additional square feet. Estimated costs \$5 million (\$700 times 7,000 sq. ft)

Library. The Gleason Public Library 2021-2015 Strategic Plan describes the facilities needs of the library, including goals to create a contained teen area, add private workspaces, consider adding a food-friendly area, create more defined social spaces, and consider additional staff workspace. In addition to these goals, some immediate facilities concerns identified in the Strategic Plan included necessary roof and HVAC repairs. As of publication of this plan, roof repairs had begun and planning for library renovation and modernization was underway.

Community Center. The COA and RecCom have a schematic design plan for a community center on the Mosely – Banta Davis land that would encompass open space, dining facilities, meeting rooms, swimming pool, exercise rooms and classrooms. Preliminary designs range from 10,000 to 16,000 square feet with ample parking. Cost estimates for a new community center range from \$10-15 million, depending upon the particulars. Most parties involved in the planning feel that funding would be largely private donations with possible minimal Town expenditures of approximately \$3 million (30 % of estimated capital costs plus town land).

Process and Next steps

Clearly, more work needs to be done regarding the details, timing, and particulars of the town facility needs over the next 20 years, particularly in light of Carlisle’s financial and tax burden constraints. The master planning process and meetings with town parties have revealed over \$20 million of pressing facility needs adding approximately 40,000 incremental square feet to town facilities. As outlined in this summary report, there is potential for a good deal of renovation and reconfiguration of town use of its existing facility space to meet Carlisle’s longer-term needs. However, a more detailed facilities plan working with town committees and consultant will provide the road map for future capital expenditures, renovations, project timing and financial impact. The long-term municipal facilities plan should include all town committees and parties under the direction of the Select Board and Finance Committee. The final report could be ready by Spring 2023.

Table K-1. Current Condition and Constraints of Town Facilities

Facility	Square footage EXISTING	Use and needs	Condition	Constraints
Fire Station	6,300	Crowded with sufficient space for truck or crews	Good condition, limited space for on-call department	Tight site, wetlands, add second story
Police	6,600	Tight space with limited bathroom, cells, and storage	Good condition, poor AC with limited storage, cells, training	Very tight site for expansion for code requirements or parking

Table K-1. Current Condition and Constraints of Town Facilities

Facility	Square footage EXISTING	Use and needs	Condition	Constraints
Town Office	7,200	Crowded with limited storage or sufficient office or meeting growth	Good condition except for AC and sufficient parking	Conant expansion is difficult with poor site line on Westford Rd
Carlisle Public School	134,100	Heavily used with a mix of construction of buildings, sufficient parking, and access, yet imperfect flow	Most good condition, ongoing maintenance; some older buildings / classrooms need refurbishment	Able to grow to 720 enrollment with current space, however, need refigure flows
DPW	7,900	Heavily used on scattered site with old buildings and many maintenance issues	Older buildings and site that needs a lot of attention / repair	Not well-organized flow, sufficient space, redesign?
Gleason Library	9,700	Heavily used as move to digit access and covid restrictions – exhibit space and more parking	Good condition with regular maintenance; roof repair underway	Tight site with wetland abutting, no room to expand and septic ok.
Highland Building	7,200	Not in use except for limited storage	Good condition after repairs of outer sell, winter heat controls humidity	Close to school, would need elevator for office use. Good bones
Bog House	6,000	Use by farmer as part of maintenance agreement for bog. Two apartments and storage of equipment	Fair to good with farm related housing; code issues IF not leased for agriculture. Water and septic ok.	Need to bring up to code for housing or other use and septic. Part of lease of Cranberry Bog
TOTAL Town	185,000 (Approx.)	Heavy use of most facilities with little room for expansion	Generally good with many ongoing maintenance needs	Many constraints with site, footprint, and costs

Table K-2. Projected Town Facility Needs Over Next 20 Years

Department / Area	Square footage need	Location	Cost estimate
Fire	8-10,000 (of expansion)	Possible on existing site	\$6 million
Police	8-10,000 (total footprint)	new on site to be determined	\$7 million with site plan
Worker housing	6,000	Refurbish existing town buildings – bog, fire	\$2 million in refurbished town facilities
Town Offices	3,000 incl 1,000 storage	Refurbish exiting town buildings – Highland, bog	\$1.5-2 million in renovated town facility,
DPW	Existing square footage and site	Reconfigure site and repair maintenance	\$ 2 million with repairs and redesign
Council on Aging	3,000	if No Community center – 1 st floor town office, police	\$1 million in renovated town facilities
Recreation	4,000	with new ballfields and expansion of Banta	\$2 million plus
Community Center	10,000- 12,000	Outside donations with limited town capital \$	\$10 million, \$3 million town, \$7 million private
Carlisle Public School	5- 8,000	longer term over 15 years – CPS, Highland	\$3-5 million
Gleason Library & historical	2,500	Possible joint use of Highland	\$2.5 million as part of Highland
Green Cemetery	TBD	Possible expansion into Banta-Davis	TBD
Total estimated gross facility need	35-42,500	Mostly existing town facilities, need addition land 5-8 acres	\$30 million

These totals and needs may differ from the information provided in the Town’s Existing Conditions Report and Program Analysis report (2017)¹ summarized in Appendix E, Public Facilities and Infrastructure Existing Conditions Report, as this table is based upon the work of the Facilities Task Force as described in the “Meetings and Process” section above.

¹<https://www.carlislema.gov/DocumentCenter/View/44/Town-Facilities-Condition-Study-Prepared-TBA-Architects-March-2017-PDF?bidId=>

Table K-3. Municipal Facilities Data Table – Preliminary Summary of Projected Maintenance and Capital Needs

Facility	Approx. Current size (SF)	Possible Expansion Needs (SF) ²	Expanded or New Facility (SF) ²	Immediate Maintenance Required ³	3-5 Year Maintenance Estimate ³	Capital Improvement Cost ²	Capital Cost New Facility ²
Fire Station	6,300	10,000	16,300	\$59,330	\$2,542,500	\$6,000,000	
Police Station	6,600	3,500	10,100	\$247,034	\$3,567,000		\$7,000,000
Town Hall-office and storage	7,200	3,000	11,200	\$145,700	\$795,000	\$1,500,000	
Carlisle Public School ⁴	134,100	7,000	141,100			\$5,000,000	
Public Works	7,900		7,900	\$27,500	\$2,470,500	\$2,000,000	
Gleason Public Library ⁵	9,700		9,700	\$222,381	\$707,770		
Highland Building (ADA compliance)	7,200		7,200			\$400,000	
Bog House	6,000		6,000				
Council on Aging ⁶ (indep if no Community Ctr)		3,000				\$1,000,000	
Community Center ⁷			12,000				\$10,000,000
Recreation		4,000	6,000			\$2,000,000	
Green Cemetery ⁷	280,000	TBD				TBD	
Workforce Housing		6,000				\$2,000,000	
TOTAL	185,000	37,500	227,500	\$701,945	\$10,082,770	\$19,900,000	\$17,000,000
		Range-low	222,500 SF		Possible Land Acquisition Costs		\$1,000,000
		Range-high	227,500 SF		Possible Site Costs		\$750,000
		Increment avg	40,000 SF				
					Comb Capital/Land Cost-Low		\$28,650,000
					Comb Capital/Land Cost-High		\$35,650,000
					Comb Capital/Land Cost-Avg		\$32,150,000

² Master Plan Facilities Task Force preliminary estimate, October 2021

³ As of 2020; unless otherwise noted, these costs are taken from the *MFC report for FY21* and warrant article request indicating the immediate needs and costs for Town Hall, Fire Department, Police Department Building, DPW, and the Gleason Public Library. Overall upgrade and renovation costs are shown after the first number as indicated in the *2017 Town Buildings Existing Conditions Report and Program Analysis* unless otherwise noted.

⁴ CPS not included in *2017 Existing Conditions Report and Program Analysis*; intended to reflect possible school population growth. Maintenance typically part of School Budget.

⁵ Costs from the *2019 Gleason Library Study Existing Conditions & Treatment Recommendations*.

⁶ 12,000 SF assumes 75% of program from 2019 Community Center Feasibility Study. Estimates of 3,000 and 4,000 SF based on components of overall program.

⁷ Capital improvement costs for Green Cemetery should be evaluated as part of the long-range facilities plan and planned preventative maintenance planning described in Recommendations 7A and 7C.

FINANCIAL PROJECTION MODEL

MPSC REPORT

Introduction

Town surveys over the past twenty years and feedback from Master Planning meetings indicate that Carlisle values its long-term fiscal health and seeks to maintain taxes at a sustainable level in relation to household income. With this goal in mind John Ballantine and Kerry Kissinger of the Master Planning Committee developed a financial model based on the Town budget. They also consulted with Lynn Lipinski, vice chair of the Town’s Finance Committee (FinCom) to analyze the long-term fiscal impact of various trends and decisions. This financial model task force reviewed the history and future of town finances and built a longer term “beta” financial model to illustrate the fiscal challenges facing Carlisle over the next twenty years as growth slows and budget demands/needs persist. These modeling efforts and the scenario plans resulted in a recommendation by the Master Plan Steering Committee to develop and use a long-term financial model as part of the town budgeting and fiscal planning efforts.

The history of the town is essential to understanding the need for a longer-term view of our finances. Carlisle has grown and flourished over the past 40 years – shifting from a semi-rural farming community of approximately 3,000 in the 1970s to a prospering upper middle-class town of almost 5,300 with excellent schools, a mix of very educated town residents, and relatively high taxes. The town has managed its growth and expanded budget needs prudently – maintaining the highest bond rating (Aaa) for a small town and ample level of free cash (11%). Carlisle’s Town Meeting and our Finance Committee have managed to keep the real rate of average household taxes relatively stable over the past 15 years, even as the town constructed two large school building projects.

Financial History

Looking back, it is evident that the town finances have been carefully guided – balancing expanded needs against the limited growth of our revenue base (over 90% residential real estate taxes). Over the past 40 years, the town has:

- Built and expanded our schools (CPS and CCHS) five times, constructed separate fire and police stations, renovated / expanded the Gleason Public Library, constructed a new town office, purchased significant conservation lands, acquired municipal land, built new pathways, and provided a broad array of DPW services that help maintain our roads and transfer station.

- Expanded and provided services at all levels – education, public health, safety, conservation, recreation, cultural, planning, finance, council on aging, library, and administration – through a combination of professional staff and dedicated volunteers.
- Inflation adjusted real estate taxes have shown moderate growth shifting from \$2,360 in 1980 and then stabilizing at a little more than \$5,000 over the past fifteen years more or less matching the town people’s willingness to pay (average household tax to median income).
- However, for some residents with more moderate-income growth (or retired with fixed inflation adjusted increases) the cost of living in Carlisle and paying increased nominal real estate taxes has put increased burdens on their overall household budgets.

The Finance Committee letter in the annual town meeting warrant emphasizes the ongoing need to balance revenues and expenses with an eye towards maintaining a sustainable level of taxes for all.

Property Taxes and Financial Capacity

Carlisle’s real estate taxes support a broad mix of town services, particularly our schools which receive almost 70% of town budget allocations and account for 73% of town facilities. Our average tax rate to median income (tax incidence) has moved up from approximately 6% to 8% with the two school building projects and may be stabilizing. Revenue growth has slowed in the past 10 years averaging just 10 new homes per year and limiting the additional revenues from “new growth” to cover growing town expenses. Annual town budgets over these forty years have gone from \$4 million to over \$31 million (2020) in nominal dollars – or doubled in inflation adjusted real terms to \$10.2 million, as has median family income. Carlisle is an upper-middle class town with excellent schools, open space, and high quality of life.

Municipal Budgeting Process

Like most communities, Carlisle goes through an annual budgeting process that is reviewed on a department-by-department basis by the Finance Committee during the fall and winter and then presented for Town Meeting approval in the Spring. This process and town governance discussion is usually preceded with a budget guidance letter from the Finance Committee that considers the evolving needs of the town, cost of living adjustments, and debt exclusions ballot measures.

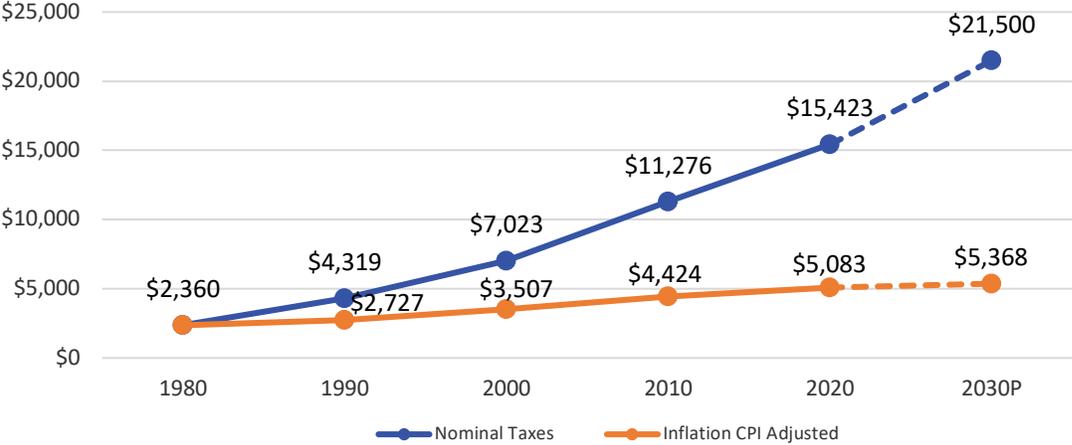
This is a time-consuming review process where the needs of the town are balanced against the financial resources of the town. Over the past forty years most of the debt exclusions and override measures have passed – although there are a couple notable exceptions. Town meeting and voters have generally supported the diligent financial management of the town by all those involved.

Almost all of the budget and planning process is focused on next year’s budget request, although there has been awareness of the need to look further out. In 2009-10, the Finance Director and Select Board established a longer-term town budgeting committee to analyze the impact of TWO school projects (CPS and CCHS with over \$120 million in total capital costs for two towns) on town finances. The Finance Director with input from town departments constructed a longer-term model looking at the trends in department budget needs, cost of living adjustments for contract and non-contract employees, current and new debt obligations, and projected growth in revenues from new housing growth.

Projections / graphs from the longer-term model showing the tax impact of the school buildings projects were presented at town meeting. Residents supported both projects, fully aware of future tax increases – shown in Figure L-1, which also shows one illustrative future scenario of \$20 million capital facility needs and town growth for 2030P (see financial model scenario section below).

Figure L-1. Average Household Taxes

Sources: Average Single Family Tax Bill and MA Department of Revenue



Financial Model

The Master Planning Finance Task Force used the same framework of the 2009-10 financial model and the Finance Committee’s annual Town Meeting warrant book to develop their beta model. Essentially this tool builds a detailed line-by-line longer term model that looks at past trends and future needs and pressures.

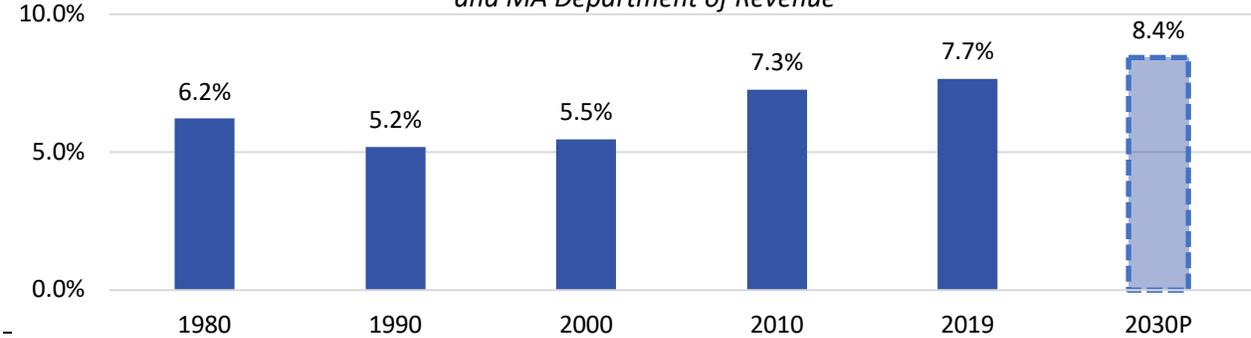
This beta model illustrates the financial challenges ahead, particularly in light of the long-term amortization of the school debt from the two projects and our ongoing wage/compensation obligations. The tension between spending for significant deferred maintenance estimated in 2017 to exceed \$10 million and evolving facilities needs that may require new construction and additional long-term debt. This may also involve further municipal land acquisition and underlines the need for more coordinated planning and additional town staffing.

The long-term line by line financial model based upon the town budget warrant considered several scenarios for rate of growth in expenses, new debt, and new revenue growth. One possible scenario looked at operating costs growing slightly above the rate of inflation with some critical variations above 3% inflation – retirement accounts, facilities maintenance – and steady revenue growth through the production of an assumed 15 new housing units per year.¹ This capital expenditure (\$20 million) and new growth scenario (150 housing units) results in average household taxes increasing slightly above the inflation rate over the next ten years (see graphs and table).

- Operating budgets over this ten-year period (2021 to 2030) are projected to rise from \$30.7 million to \$41.1 million.
- This includes \$20 million new debt for town facilities as school amortization for the CPS and Concord Carlisle High School portion of 2010-11 projects are slowly retired, so that overall town debt service increases moderately – about \$200,000 per year.
- New revenue growth in this model is based upon an assumed average of 12-15 units per year. This is greater than recent trends but still is a slower rate of growth than the Town saw prior to 2000.

This capital expenditure growth scenario assumes Carlisle’s median household income will more than likely grow above the rate of inflation as younger professional families move into Carlisle, so that average tax incidence will probably increase to 8.2-8.4% depending upon median income (see Figure L-2).²

Figure L-2. Tax Incidence: Average Taxes/Median household income
Sources: Median Household Income, US Decennial Census (1980-2000), American Community Survey (2010, 2019); Average Single Family Tax Bill, and MA Department of Revenue



¹ It is important to note that this assumption of 12-15 housing units per year exceeds current trends; thus, if the current trends in housing production continue or slow, this scenario would be more constrained. However, projected building permits for 2022 will likely exceed 15 based on current projects in development.

² Because 2020 median household income figures not yet available, this chart uses 2019 figures for the median household income and average single family tax bill (\$15,016). Note that American Community Survey results include a margin of error provided at a 90% confidence interval. The 2010 median household income was \$155,000 +/- \$18,244, yielding a tax incidence of 6.5%-8.2%; the 2019 median household income was \$195,889 +/- \$25,701, yielding a tax incidence of 6.8%-8.8%.

However, the long-term model depicts an illustrative **capital expenditure scenario** of Carlisle’s current budget practices – funding salaries and operating expenses at cost-of-living increase while maintaining our facilities and holding steady the number of new employees. There are many other scenarios that could be projected, discussed, and examined as the Town reviews its longer-term needs and master plan recommendations. In all cases, it is hard to imagine a scenario that does not include some baseline capital spending. Over 80% of survey respondents to the Master Plan Fall Survey indicated that the Town should follow a multi-year Planned Preventative Maintenance Program for its facilities.

The table below shows four possible scenarios with some level of preventative maintenance, various levels of new debt (none, 5, 15, and 20 million) and an increased rate of housing growth (120 or 150) over ten years. There are some differences in average taxes in 2030-31 (\$20,685 compared to \$21,304), however very little variance in tax incidence. The growth in taxes is largely driven by services that we choose and the wages/compensation that we pay our town employees.

Table L-1. Financial Scenarios

Scenarios 2020-30 over ten years	Today’s Average household tax 2020-21	Average household tax 2030-31	Tax incidence avg tax/median income
150 houses and \$20 million debt	\$15,455.00	\$ 21,304	8.2%
150 houses and \$15 million debt		\$ 21,150	8.1%
150 houses and NO debt		\$ 20,685	8.0%
120 houses and \$5 million debt		\$ 21,080	8.1%

Fiscal Choices about Carlisle’s Future

Maintaining Carlisle’s high quality of life will involve choices over the next ten to twenty years and diligent discussions of budget needs and scenarios. Of course, numbers tell only part of our story. The community will face a number of decisions as they determine how the long-term physical development of the Town should proceed. In this decision process, the Town will face options to:

- **Continue as is** with slightly more housing production (15 homes per year rather than the past approximate average of 10), excellent schools, lots of open space, and relatively high taxes, as illustrated in the \$20 million capital expenditure scenario in the financial model;
- **Fund new** planning positions recommended in master plan (1-2 people at approximately \$125-250k by 2030) and the potential need to add additional teaching staff with school enrollment growth (4-6 teachers at \$600-700k);

- Find ways to **trim expenses** maybe regionalize certain key functions, find operating efficiencies, and / or not invest in select facilities; and/or
- **Grow revenues** – nearly all of which are residential real estate based – with increased density so that Carlisle is a slightly larger town with more residents and school aged children.

The Master Planning Committee and Financial Model Planning Task Force recommends that the Town sets up a longer-term financial model/committee with important town-wide stakeholders and the Financial Director to discuss and analyze these longer-term issues.

Notes and Assumptions

The financial model is built off the town's current budget trends over the past ten years, existing debt obligations, and projections of salaries and expenses going forward over the next ten years, along with scheduled debt payments. Some notes:

- The main variance and possible changes might be higher maintenance expenses for current facilities and larger increases in wages/salaries due to inflation and new positions. Current retirement and pension payments are also increasing faster than inflation.
- NO saving in expenses or regionalization savings have been put into the model.
- Other scenarios shown in the scenario table above assume there is less debt service for new facilities (0, 5, 15 million at 4% paid back over 30 years) and different assumptions about growth in new housing units (120 vs 150 over ten years).

Again, the long-term Financial Model is for *illustration purposes* – what our current financial picture looks like without substantial changes in expenses or revenues. The summary numbers in the table on the following page show the warrant book financial model for 2030 with \$20 million in new debt, 150 new housing units added and 3% inflation.

Annual Town Warrant Budget - \$20 million CAPEX and 150 new housing growth	avg % change 2011-2019	2021 Budget covid Warrant book	Assumptions: cost of living 3% and New Debt of \$20 million for facilities and town capital needs	Projected 2030 Budget	Avg % change 2021-2030
SPENDING:					
Municipal Facilities			Facilities according to maintenance schedule	\$ 304,784	
Capital Equipment				\$ 372,588	
General Government	5.7%	\$ 1,446,075	General 3% inflation environment:	\$ 2,021,059	4.4%
Protection of Persons and Property	5.8%	\$ 2,912,020	•Salaries for non-contractual employees 2%	\$ 4,041,992	4.3%
Board of Health	6.1%	\$ 111,619	•police and fire at 3%;	\$ 181,808	7.0%
Public Works	1.9%	\$ 1,214,365	•Schools 4% with step increases.	\$ 1,574,416	3.3%
Public Assistance	11.9%	\$ 240,398	Operating expenses at 3% inflation rate	\$ 372,302	6.1%
Library	2.8%	\$ 637,231		\$ 797,837	2.8%
Recreation	8.5%	\$ 193,828		\$ 242,008	2.8%
Insurance and Benefits	5.3%	\$ 1,663,864		\$ 2,418,450	5.0%
OPEB (% incr. or \$ incr.)		\$ 209,004		\$ 215,000	0.3%
County Retirement	7.1%	\$ 1,057,819		\$ 1,900,036	8.8%
Total Retirement & Benefits (w/county)		\$ 2,930,687	Retirements & Benefits grow with trends	\$ 4,685,486	6.7%
Education (incl. declining Debt Service) – CPS and CCHS		\$ 20,163,730		\$ 25,775,673	3.1%
Unclassified (Reserve Fund = 300,000)		\$ 302,000		\$ 152,000	-5.5%
Non school debt service		\$ 849,677	Current Debt amortized according to schedule	\$ 951,738	1.3%
Operating Budget Total (w/Current Debt)	3.2%	\$ 30,699,630		\$ 41,321,691	3.8%
New debt amortization			\$20 Million NEW Debt added over ten years at 4% interest and 20 year maturity	\$ 1,156,601	
Total budget with NEW Debt				\$ 42,478,293	
REVENUES					
Revenue needed to balance the budget	3.2%	\$ 30,699,630	Balanced warrant budget	\$ 42,478,293	4.3%
Property Taxes to balance the budget	3.2%	\$ 28,068,909	New growth 14-15 houses per year	\$ 39,812,434	4.6%
State Aid (FinCom estimates)		\$ 1,306,419	Flat, declines as percent, also might be low	\$ 1,306,419	0.0%
Local Receipts (FinCom estimates)		\$ 989,000	slow growth – maybe low	\$ 1,029,259	0.5%
Fund Transfers		\$ 335,301	no change, no estimate of free cash	\$ 335,301	0.0%
Average Tax Bill including 2% CPA	3.7%	\$ 15,455	Tax rate times assessed avg value of home	\$ 21,304	4.2%
Total Assessed Value + new growth		\$ 1,734,009,275		\$ 1,877,289,275	0.9%
New growth houses per year (12-15)				\$ 14,328,000	
SCENARIOS – with 3 % inflation					
		avg. taxes 2020-21	Ten years projected average taxes 2030-31	Tax incidence 2030	
150 houses and 20 million debt		\$ 15,455.00	\$ 21,304	8.2%	
150 houses and 15 million debt		\$ 15,455.00	\$ 21,150	8.1%	
150 houses and NO debt		\$ 15,455.00	\$ 20,685	8.0%	
120 house and 5 million debt		\$ 15,455.00	\$ 21,080	8.1%	



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MPSC SURVEY RESULTS

- FALL 2019
- SUMMER 2021
- FALL 2021

Carlisle Forward Master Plan Fall 2019 Survey

537

Total Responses

Date Created: Thursday, October 10, 2019

Complete Responses: 403

Q1: What makes Carlisle the place you want to live/ play/ work? (choose up to 3)

Answered: 537 Skipped: 0

ANSWER CHOICES	RESPONSES	
Character/ History of the Town	27.93%	150
Open Space/ Natural Resources	76.54%	411
Quality of the schools	72.25%	388
Location in the region	30.35%	163
Quality of Town services	2.98%	16
Recreation spaces and programs	8.19%	44
The Community/ residents	40.41%	217
Other (please specify)	7.64%	41
Total Respondents: 537		

Q3: Do you live in Carlisle?

Answered: 501 Skipped: 36

ANSWER CHOICES	RESPONSES	
Yes	97.80%	490
No	2.20%	11
TOTAL		501

Q4: How long have you lived in Carlisle?

Answered: 489 Skipped: 48

ANSWER CHOICES	RESPONSES	
0-5 years	28%	139
6-14 years	33%	159
15-24 years	19%	94
25 + years	20%	97
TOTAL		489

Q5: Do you work in Carlisle?

Answered: 499 Skipped: 38

ANSWER CHOICES	RESPONSES	
Yes - from home (including full- or part-time)	29.46%	147
Yes - at a business address	5.41%	27
No	65.13%	325
TOTAL		499

Q6: Please tell us more about your work in Carlisle. (check all that apply)

Answered: 174 Skipped: 363

ANSWER CHOICES	RESPONSES	
I am a Carlisle business owner.	23.56%	41
I am a Carlisle business employee.	5.75%	10
I am a Town employee.	8.62%	15
I work from Carlisle for a business not located in town.	42.53%	74
Other (please specify)	25.86%	45
Total Respondents: 174		

Q7: What is your age?

Answered: 496 Skipped: 41

ANSWER CHOICES	RESPONSES	
18 years or younger	3%	16
19-24 years	0%	1
25-34 years	4%	18
35-44 years	26%	130
45-54 years	31%	154
55-64 years	16%	78
65 years or over	20%	99
Prefer not to answer	0%	0
TOTAL		496

ANSWER CHOICES	RESPONSES	
Attend public events/ meetings	55.65%	271
Fill out surveys like this one	86.24%	420
Read updates on the project and Town websites	66.53%	324
Get project news on a Facebook page	25.05%	122
Follow Twitter	6.57%	32
Receive email updates	51.54%	251
Follow on Instagram	6.98%	34
Participate in small group conversations	33.06%	161
Total Respondents: 487		

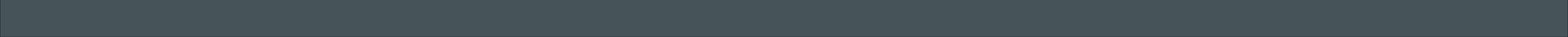
Q8: How would you like to participate in this planning process? (check all that apply)

Answered: 487 Skipped: 50



SUMMER 2021 MPSC COMMUNITY SURVEY

OVERVIEW & TAKEAWAYS



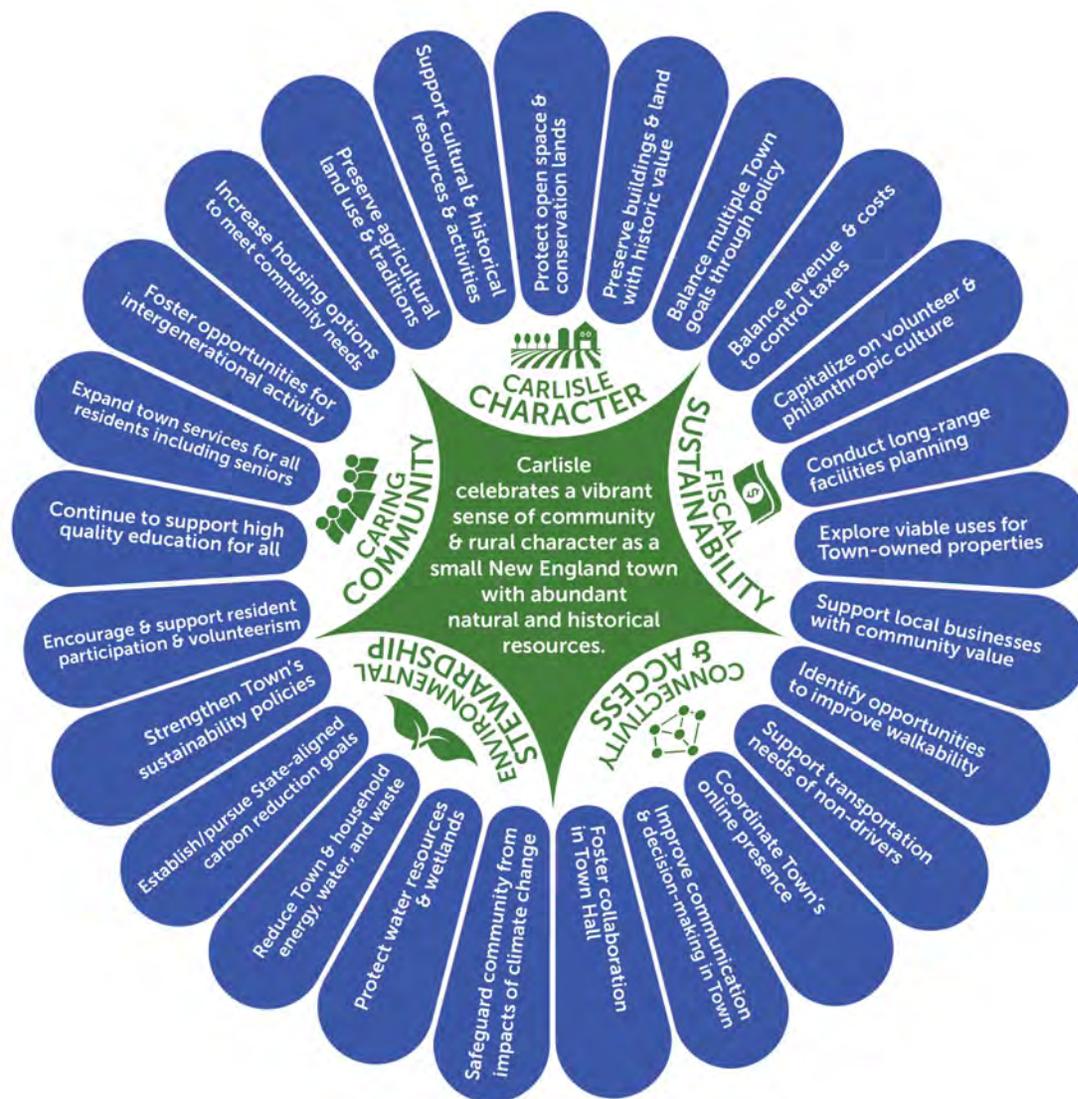
SURVEY OVERVIEW

- Prepared and hosted by Epicenter Experience
- Launched 06.23.2021 - 07.16.2021
- Paper surveys available at Town Hall
- 695 responses
- Objectives:
 - ✓ To determine whether the values and goals (developed by the MPSC through multiple community outreach efforts) were representative of the larger community; and
 - ✓ To make adjustments to the values and goals if necessary depending on responses.



SURVEY OVERVIEW

- Sources of responses:
 - Website link (postcard!): 199
 - Email blasts: 166
 - Direct link (mostly schools): 130
 - FB ads: 67
 - Carlisle Rec. Commission: 45
 - CITW: 35
 - First Religious Society: 19
 - Written Copies: 11
 - Carlisle Cultural Council: 10
 - Gleason Library: 5
 - Carlisle Parents FB: 3
 - Carlisle Conservation Foundation: 3
 - Carlisle PTO: 1
 - Carlisle DTC: 1



SURVEY TRENDS

- All five values had multiple goals identified as important or very important by at least 2/3 of participants.
- 19 of the 25 goals were identified as important or very important by at least 2/3 of participants.

SURVEY TAKEAWAYS: HIGHEST RANKING GOALS BY VALUE

(Percentage indicates share of respondents identifying as Important or Very Important)

- **Carlisle Character:** Protect and maintain open space, recreational assets, conservation lands, and wetlands. (91%)
- **Fiscal Sustainability:** Balance revenues and spending to ensure that local taxes remain sustainable in relation to household income. (90%)
- **Connectivity & Access:** Identify opportunities to improve walkability and connectivity of Carlisle's pathways, trails, and roadways. (79%)
- **Environmental Stewardship:** Pursue measures to protect water resources and wetlands. (78%)
- **Caring Community:** Continue to support Carlisle's commitment to high quality educational opportunities for all. (85%)

Respondents who disagreed with a value or its goals, or felt something was missing:

	Count	Percent
Carlisle Character	127	18%
Fiscal Sustainability	85	12%
Connectivity & Access	52	7%
Environmental Sustainability	55	8%
Caring Community	42	6%

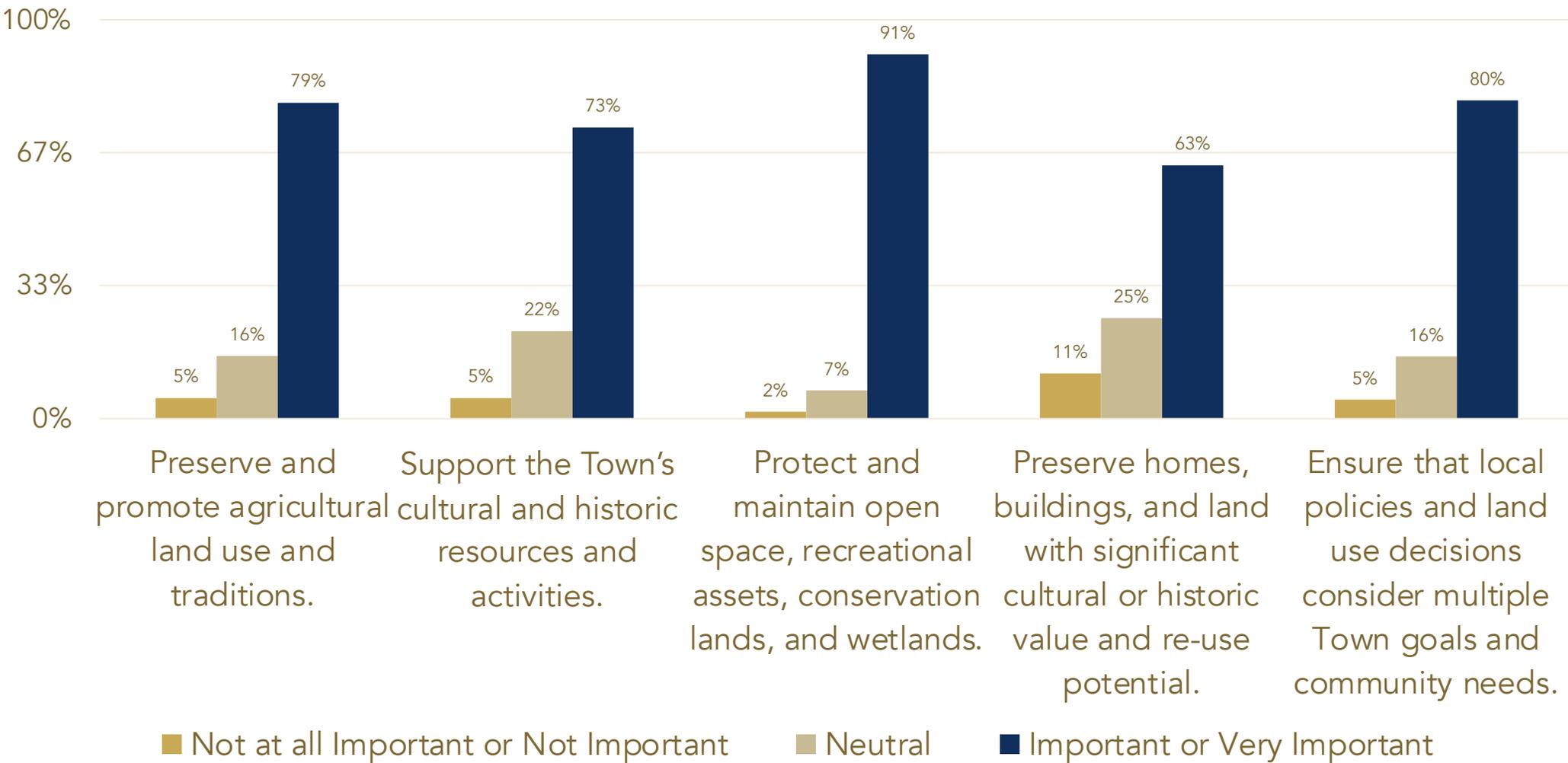


CONDENSED RESULTS

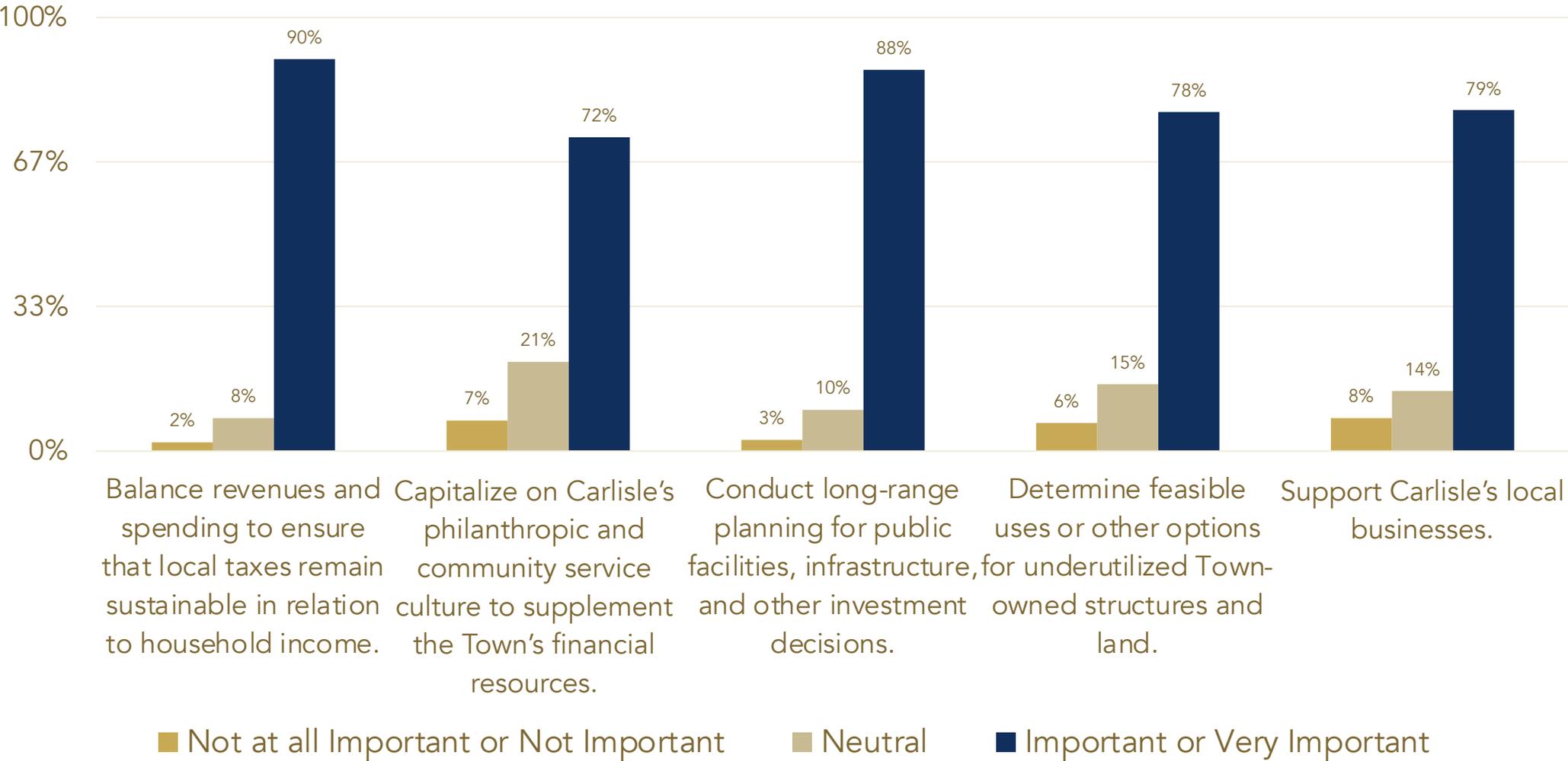
THREE RANKINGS



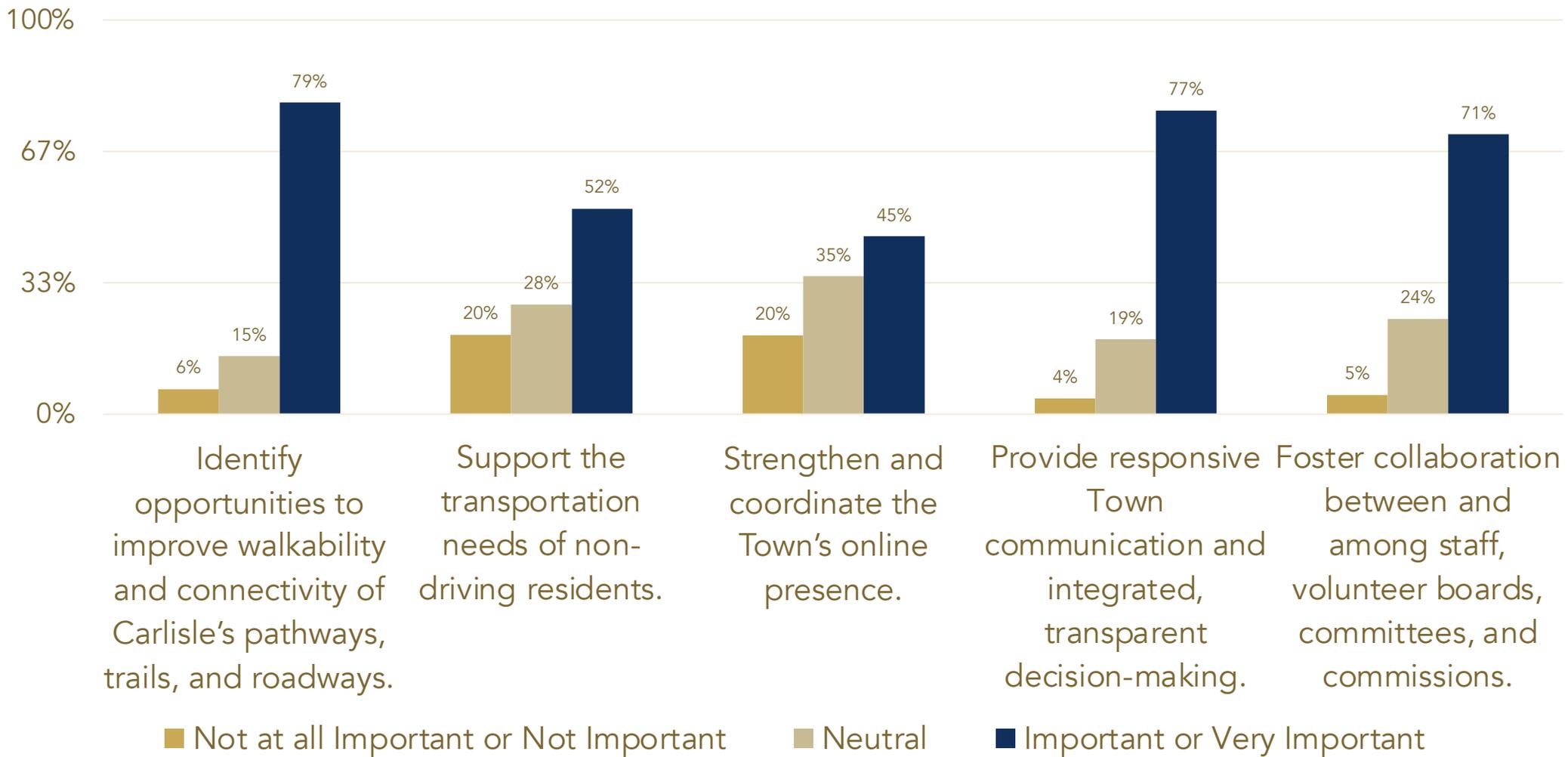
CARLISLE CHARACTER GOALS



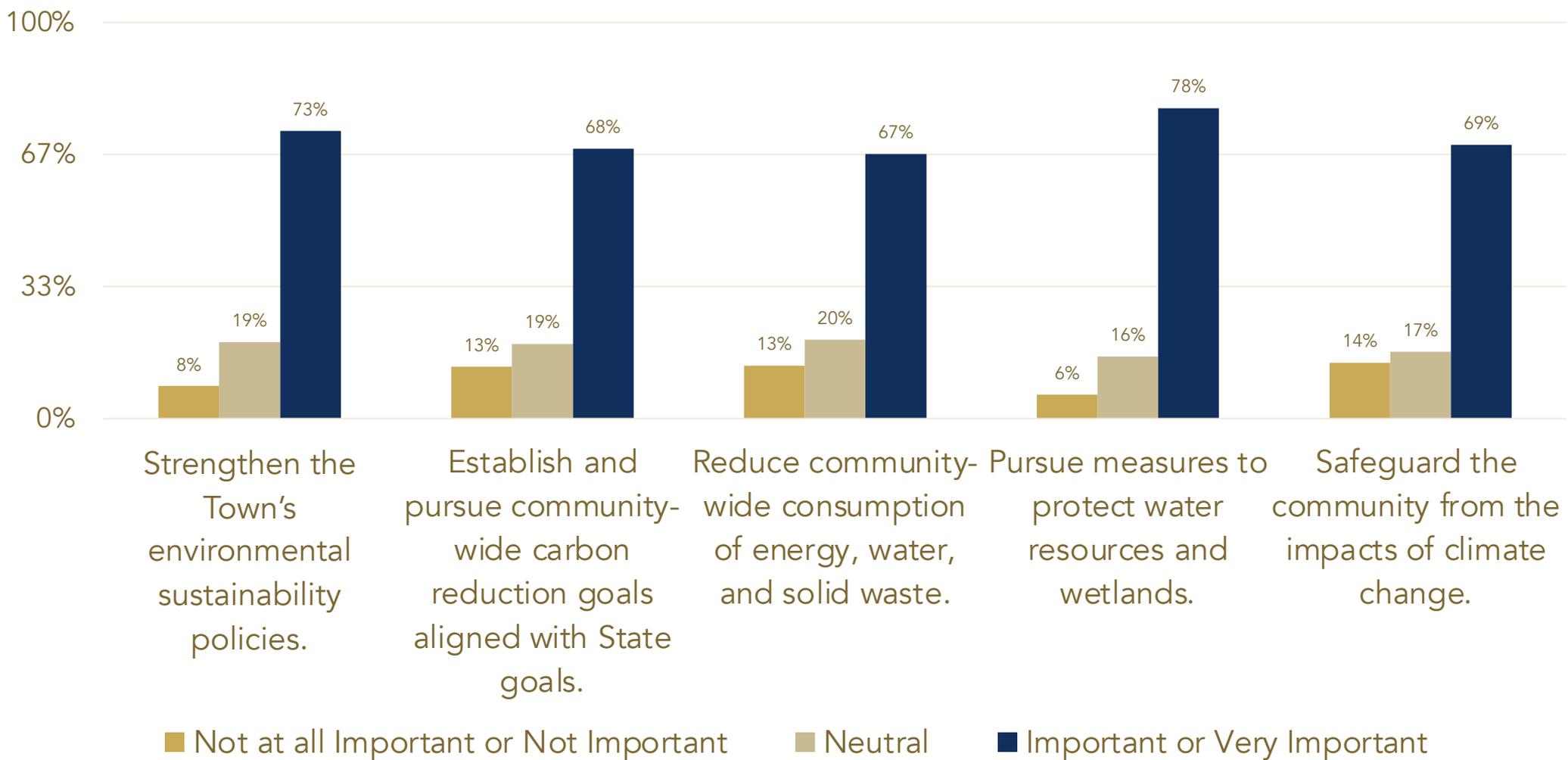
FISCAL SUSTAINABILITY GOALS



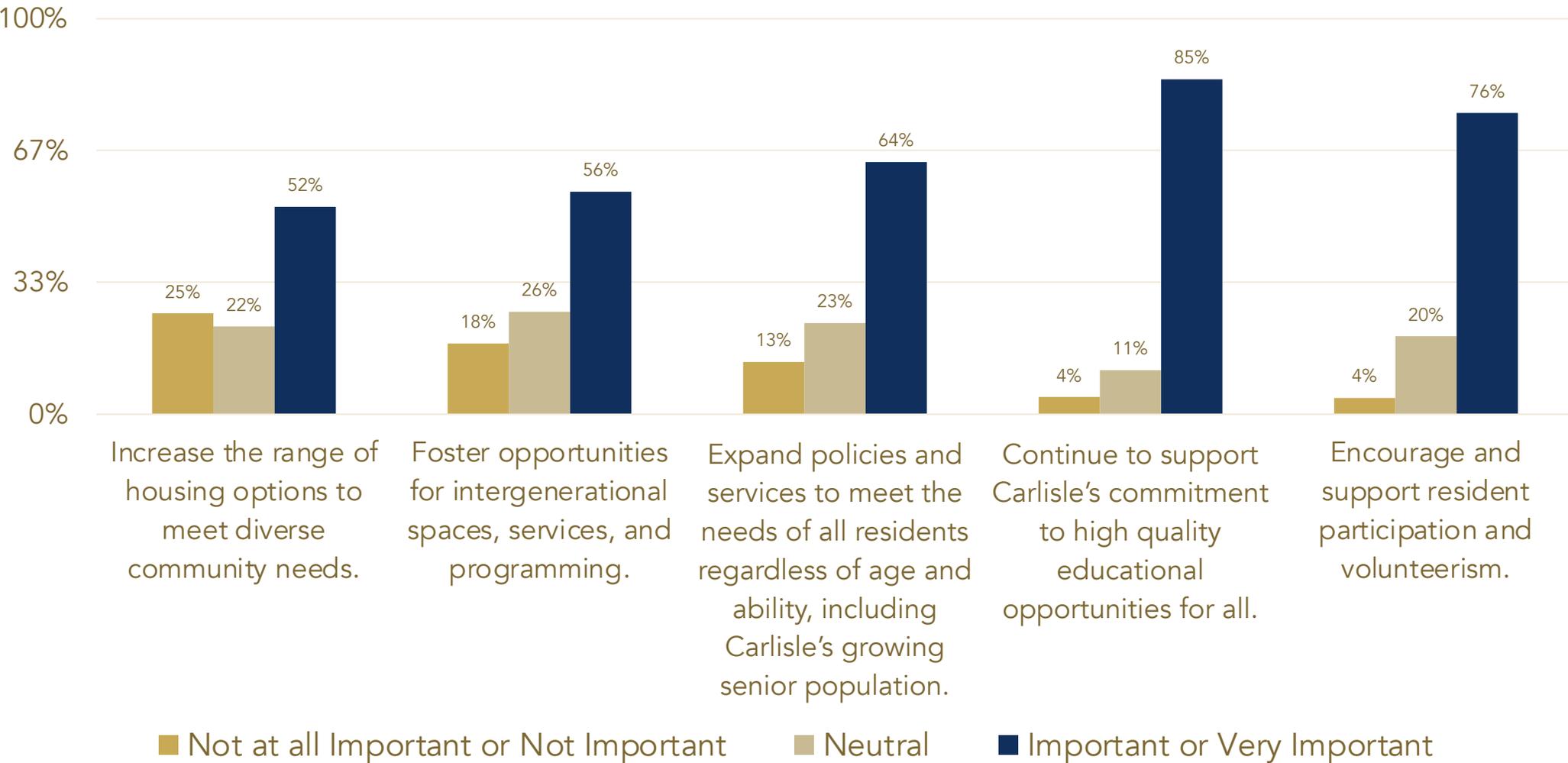
CONNECTIVITY & ACCESS GOALS



ENVIRONMENTAL STEWARDSHIP GOALS



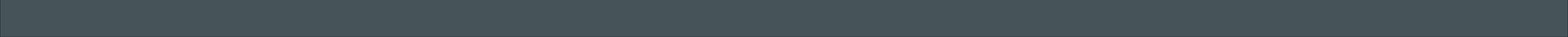
CARING COMMUNITY GOALS



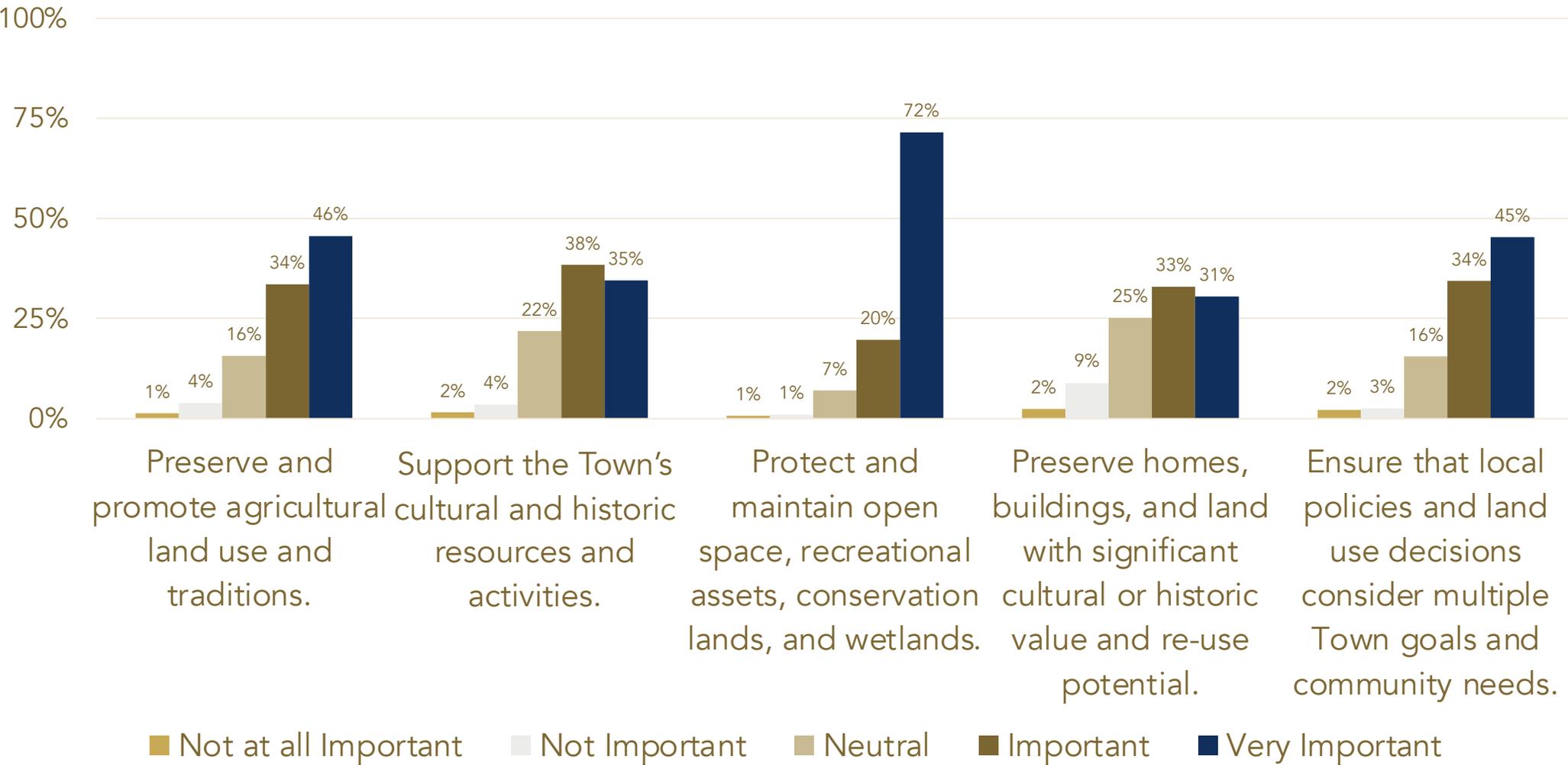


EXPANDED RESULTS

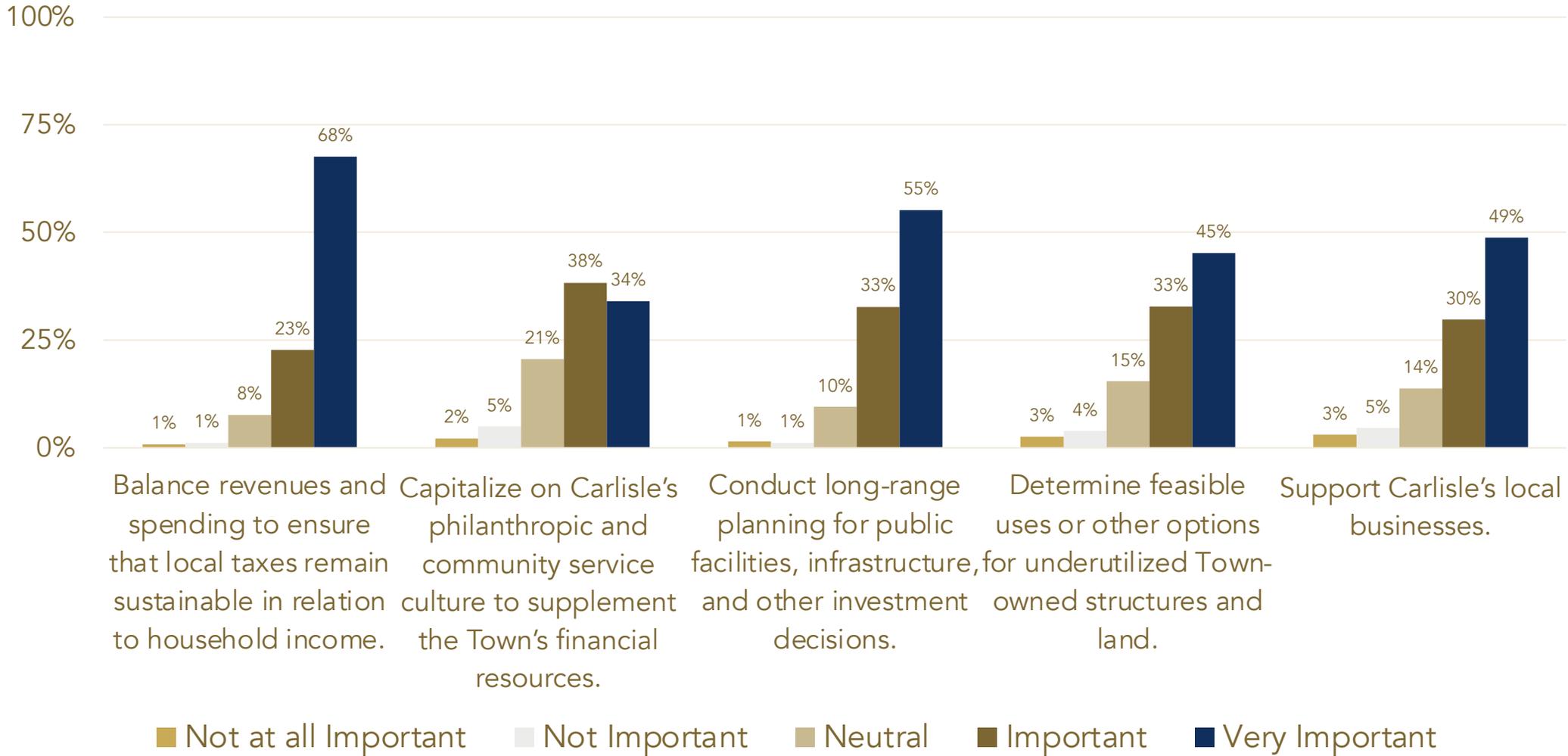
FIVE RANKINGS



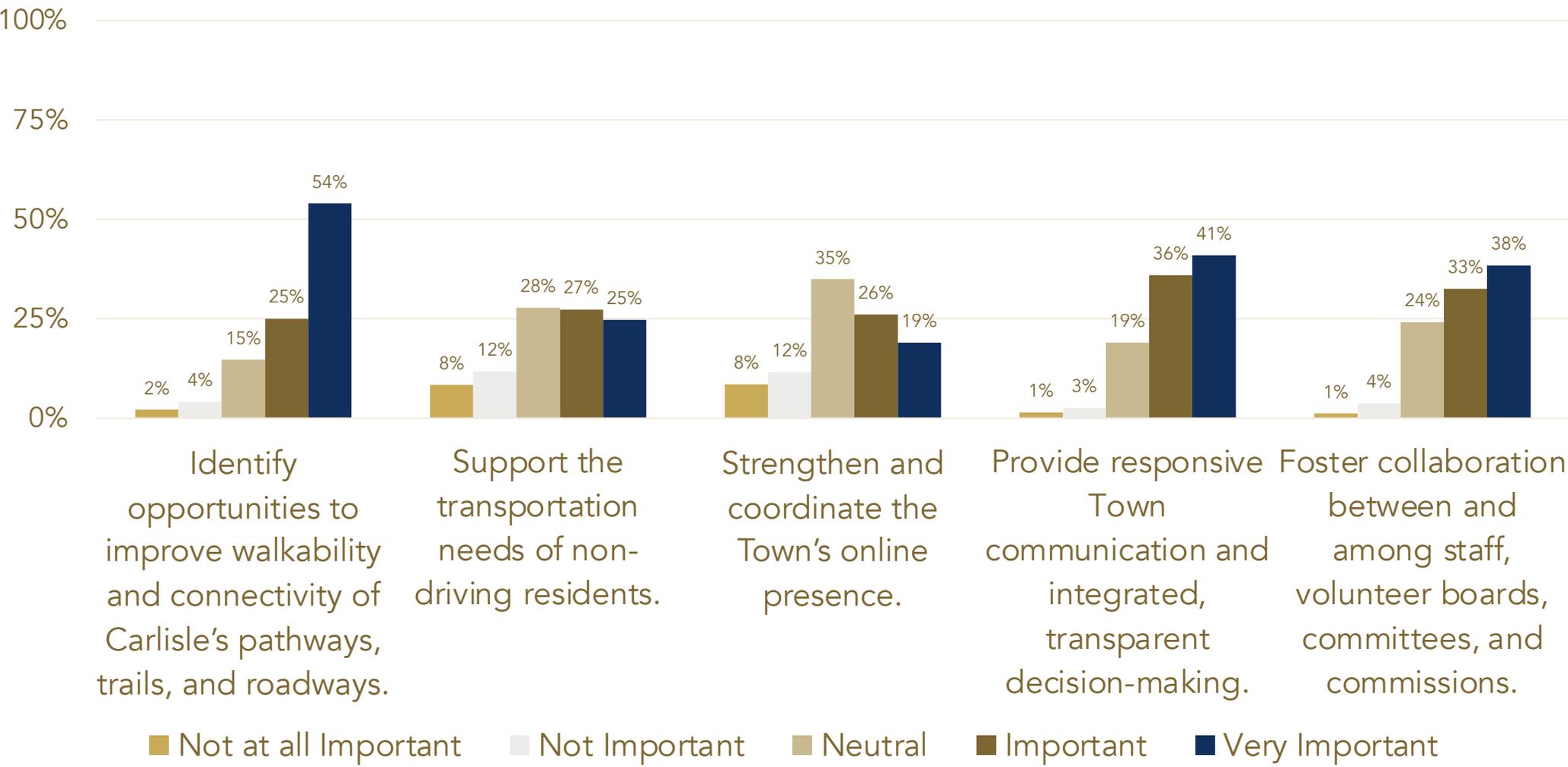
CARLISLE CHARACTER GOALS



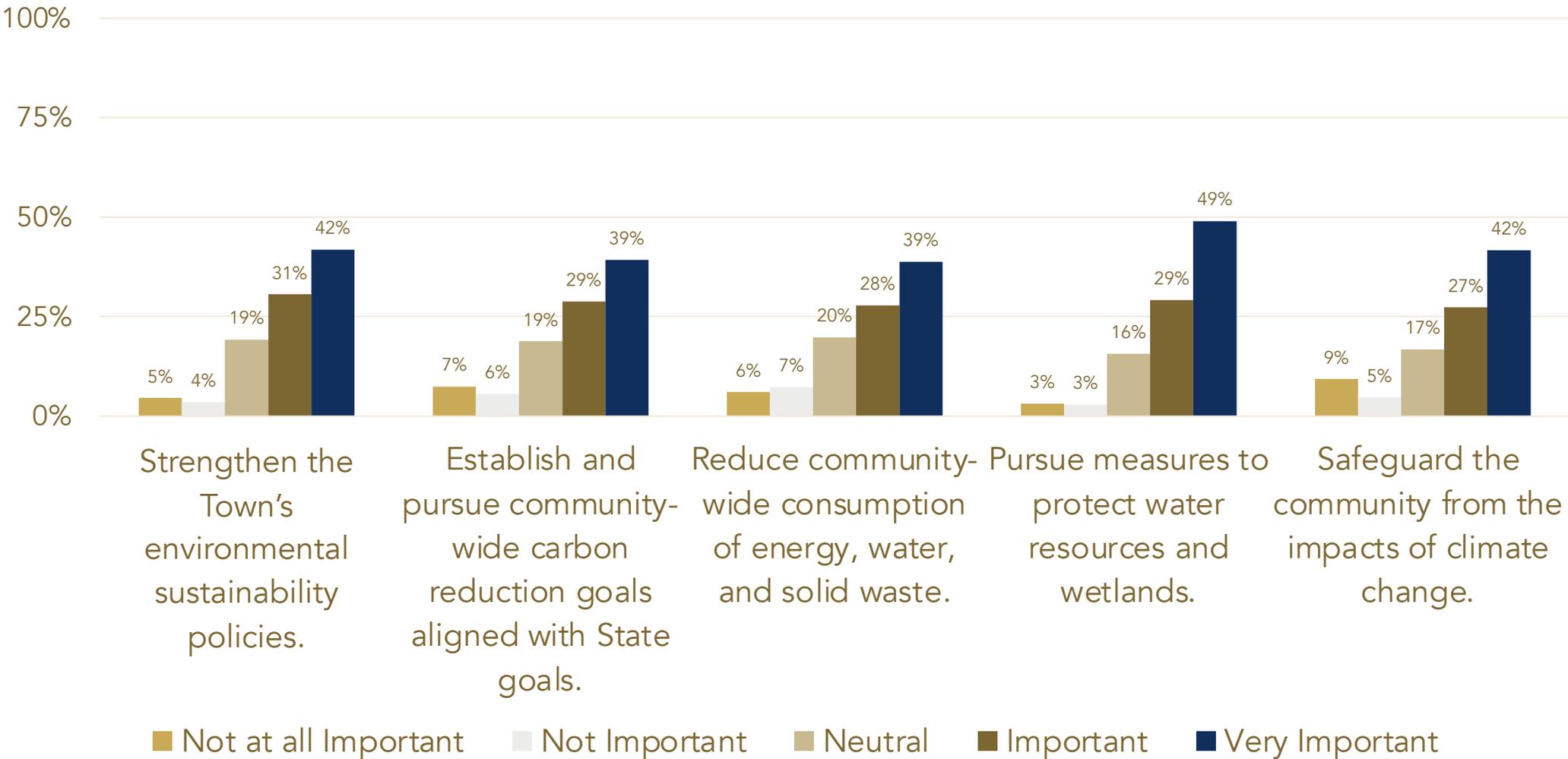
FISCAL SUSTAINABILITY GOALS



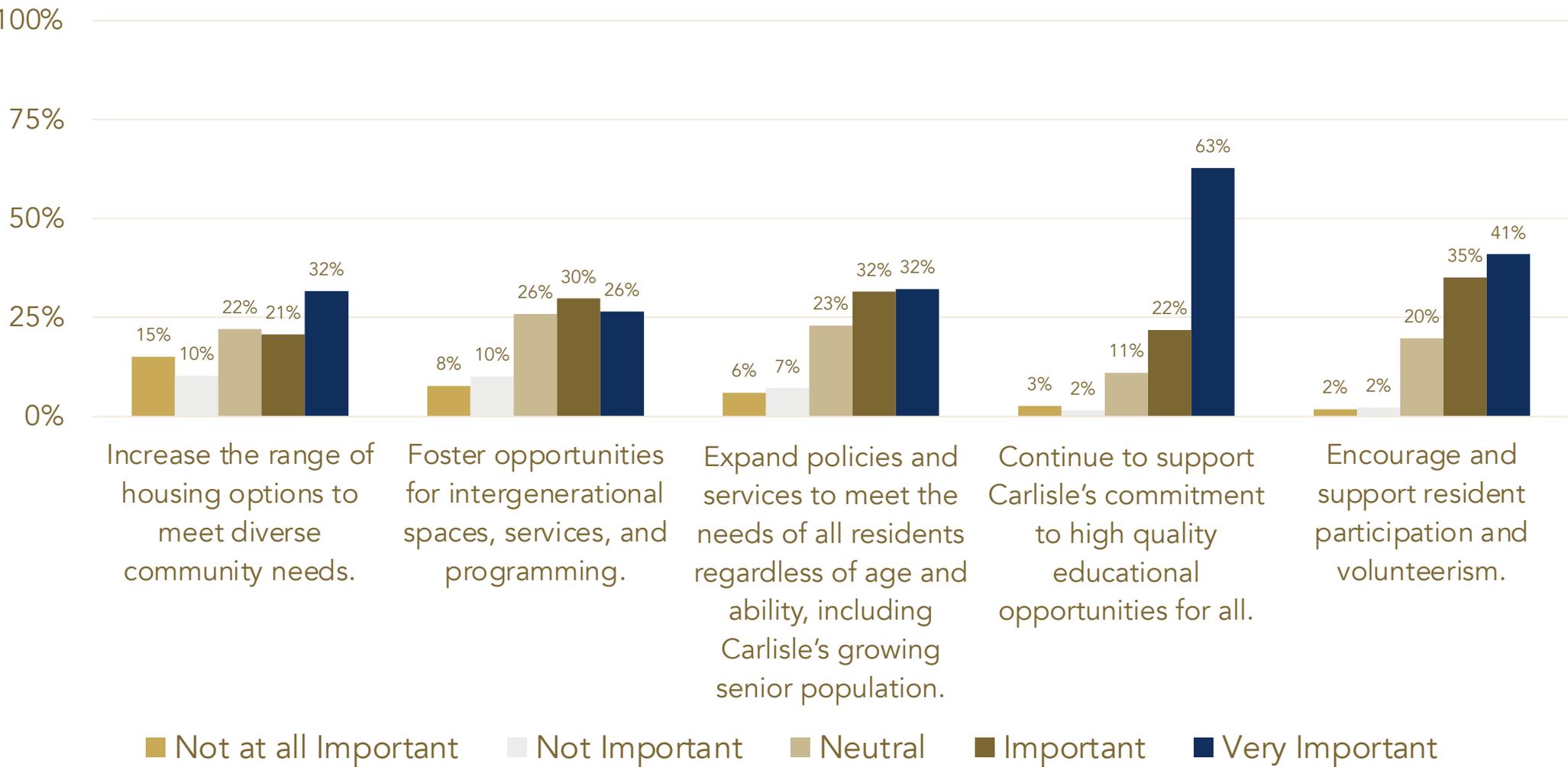
CONNECTIVITY & ACCESS GOALS



ENVIRONMENTAL STEWARDSHIP GOALS



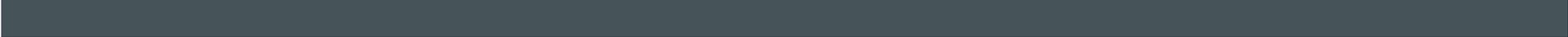
CARING COMMUNITY GOALS





SURVEY TRENDS

DIFFERENCES AMONG LENGTH OF TIME IN CARLISLE





SURVEY TRENDS

CARLISLE CHARACTER

- Preserving and promoting agricultural land use and traditions more strongly supported by residents of > 20 years than residents of ≤ 10 years

FISCAL SUSTAINABILITY

- Newer residents somewhat more likely to identify supporting local businesses as important compared to residents of > 20 years

CONNECTIVITY & ACCESS

- Walkability more important to newer residents
- Collaboration between and among staff and volunteers more important to longer-term residents

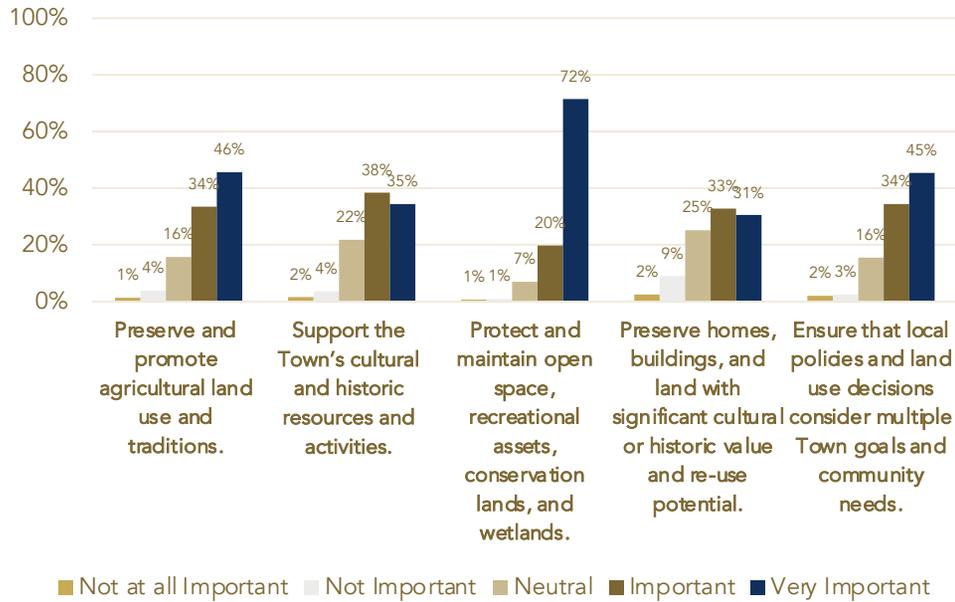
ENVIRONMENTAL STEWARDSHIP

- Residents of > 20 Years generally less supportive of environmental stewardship goals except for protecting water resources and wetlands

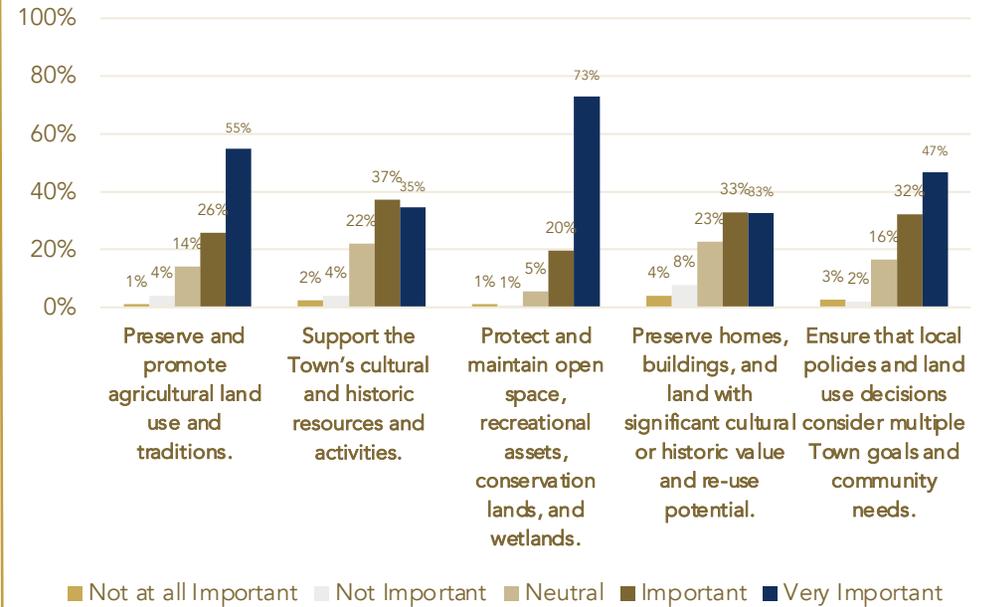
CARING COMMUNITY

- Increasing range of housing options consistently the most split goal
- Support for schools more important to newer residents compared to longer-term residents

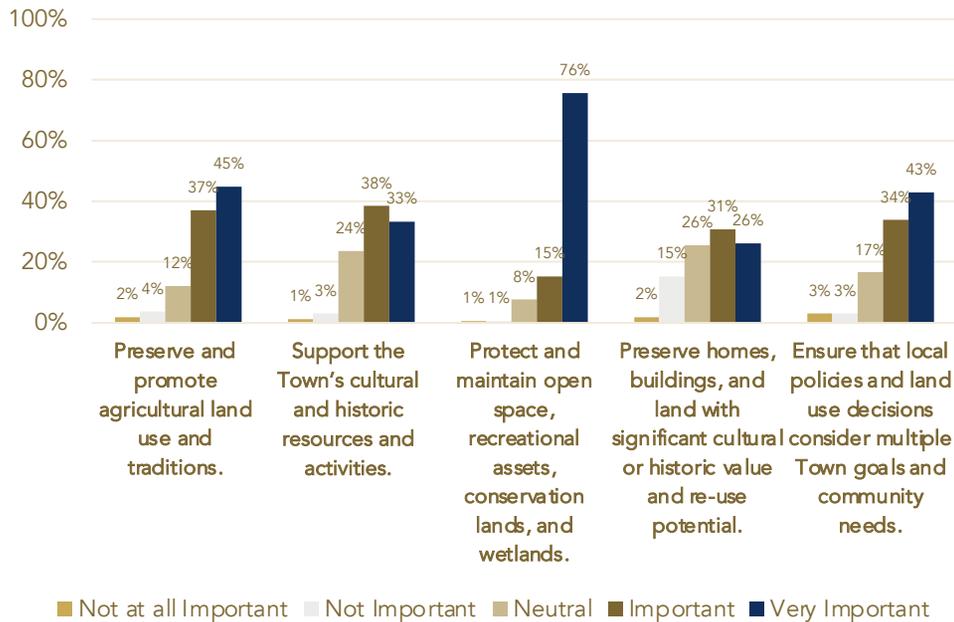
Carlisle Character: All Responses (695)



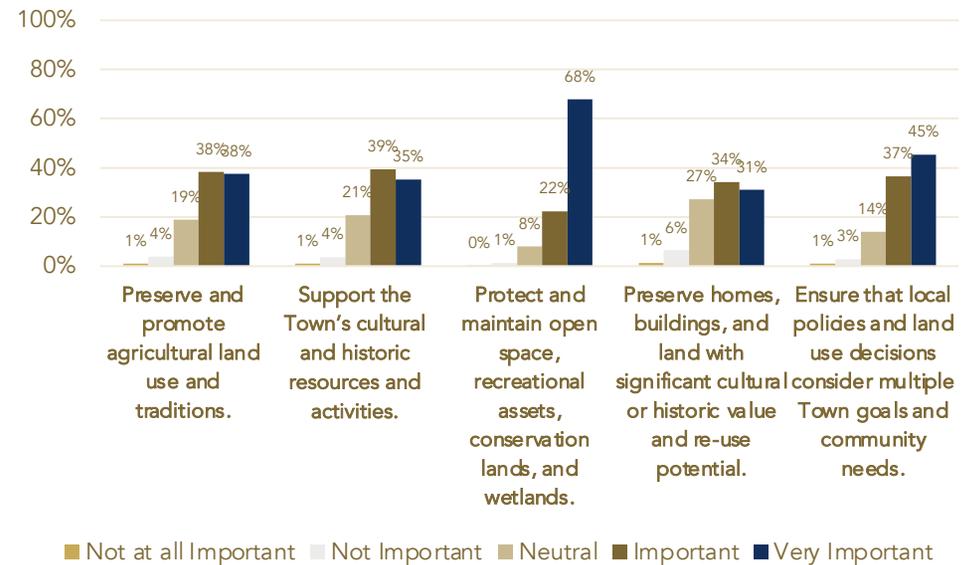
Carlisle Character: > 20 Years in Carlisle



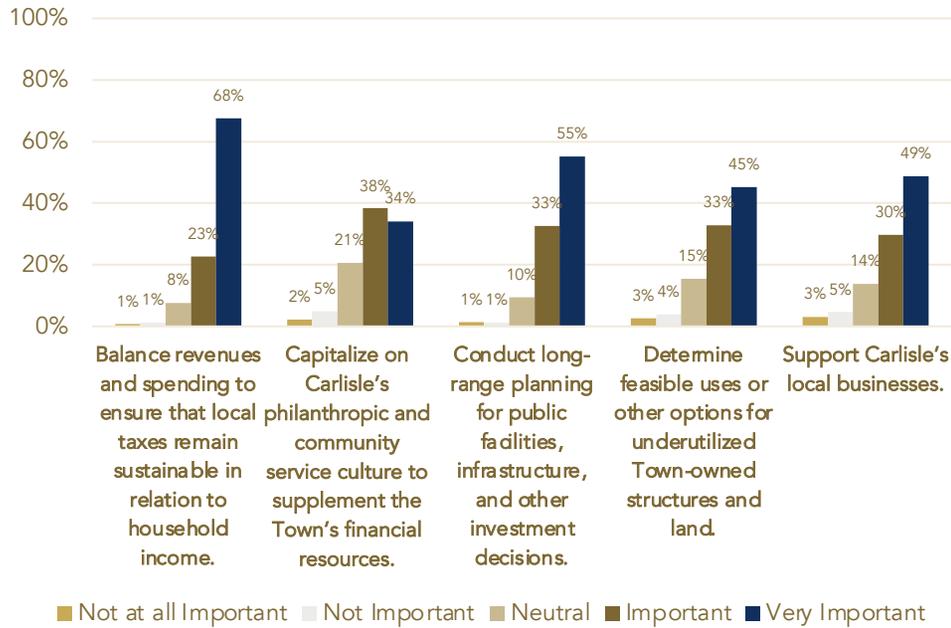
Carlisle Character: 11-20 Years in Carlisle



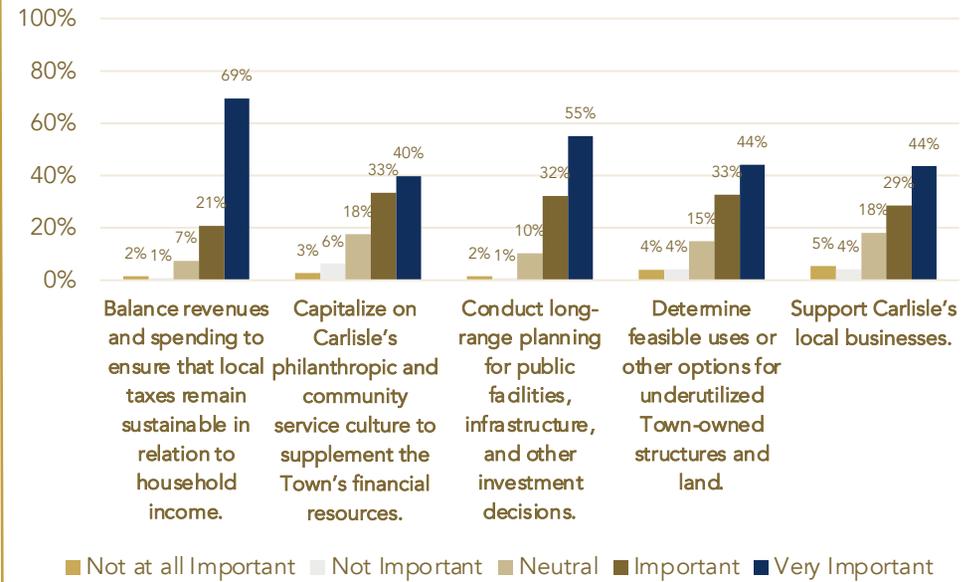
Carlisle Character: ≤ 10 Years in Carlisle (284)



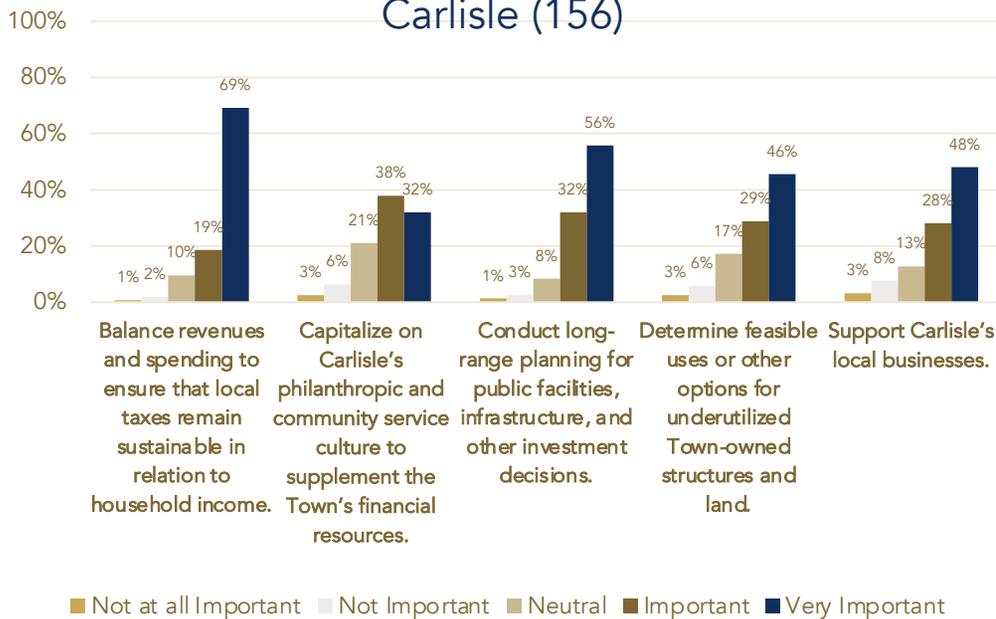
Fiscal Sustainability: All Responses (695)



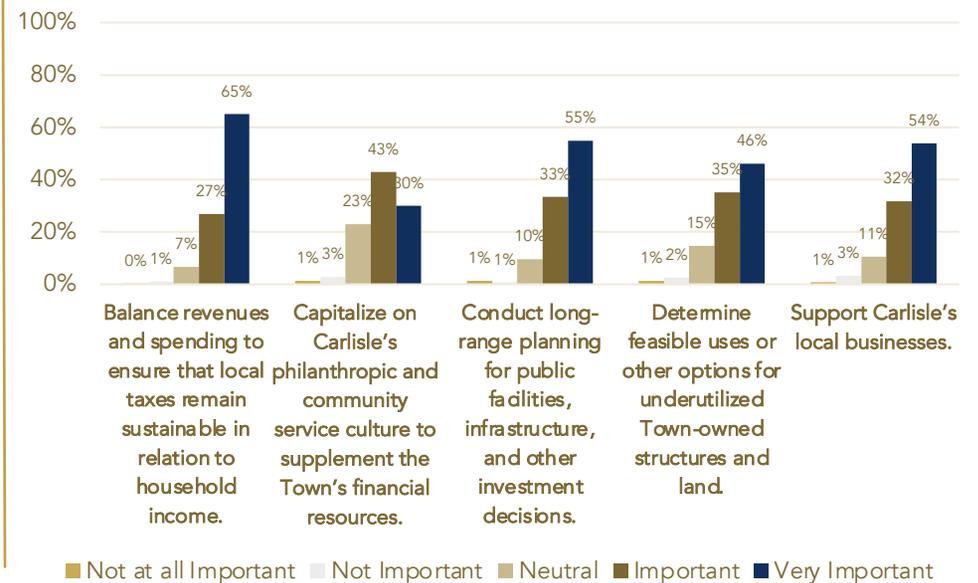
Fiscal Sustainability: > 20 Years in Carlisle (255)



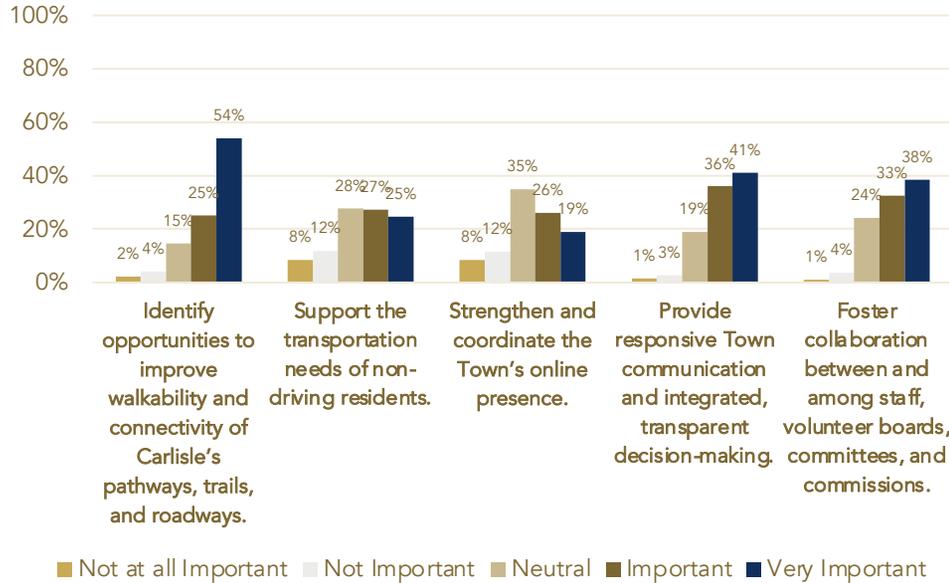
Fiscal Sustainability: 11-20 Years in Carlisle (156)



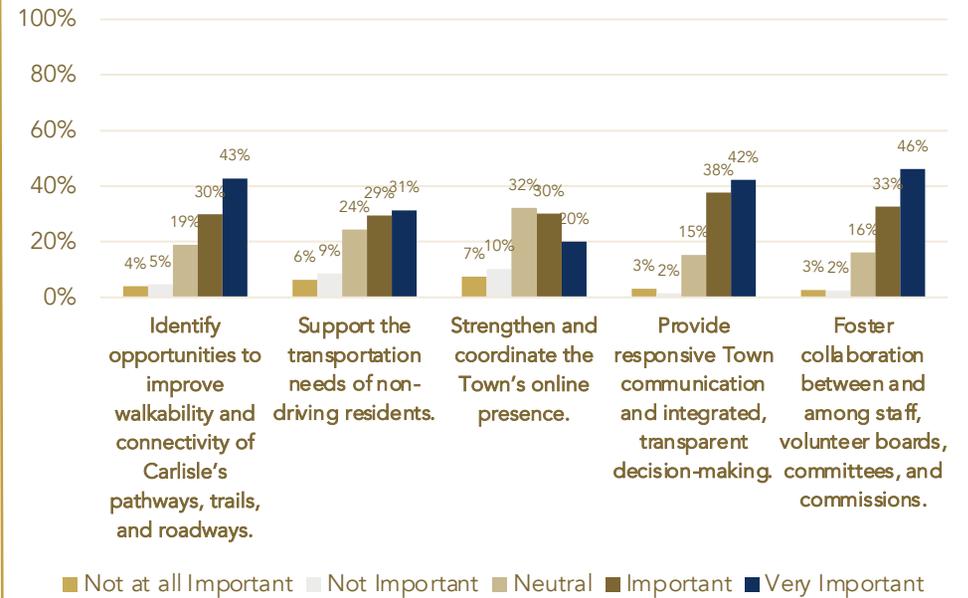
Fiscal Sustainability: ≤ 10 Years in Carlisle (284)



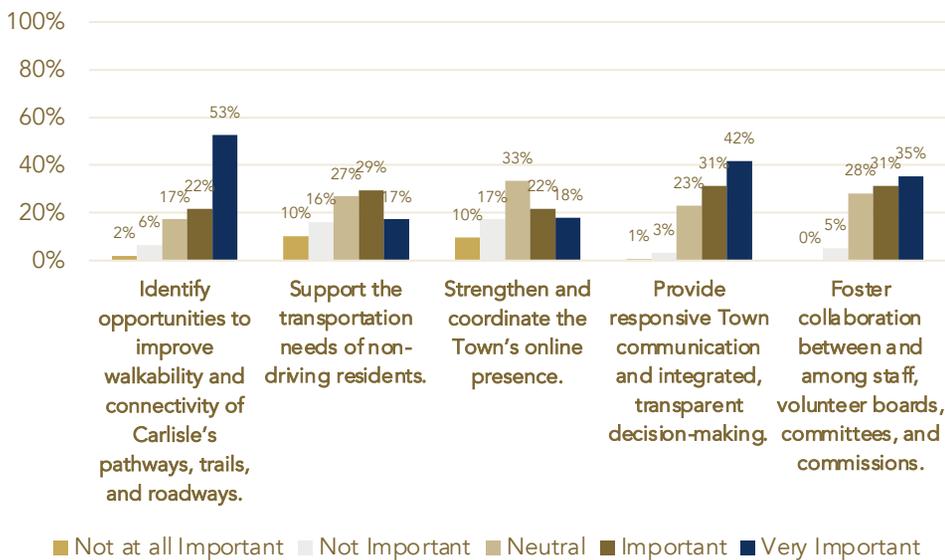
Connectivity & Access: All Responses (695)



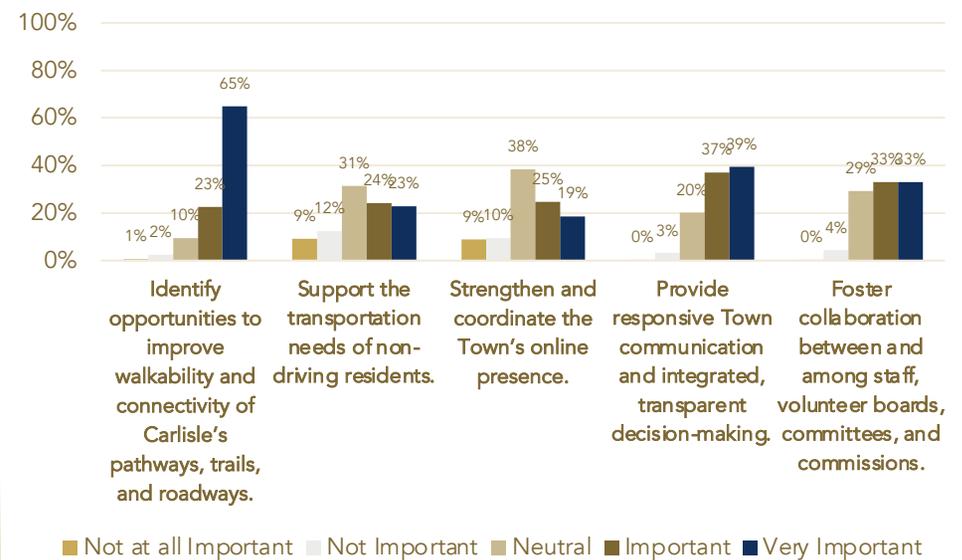
Connectivity & Access: > 20 Years in Carlisle (255)



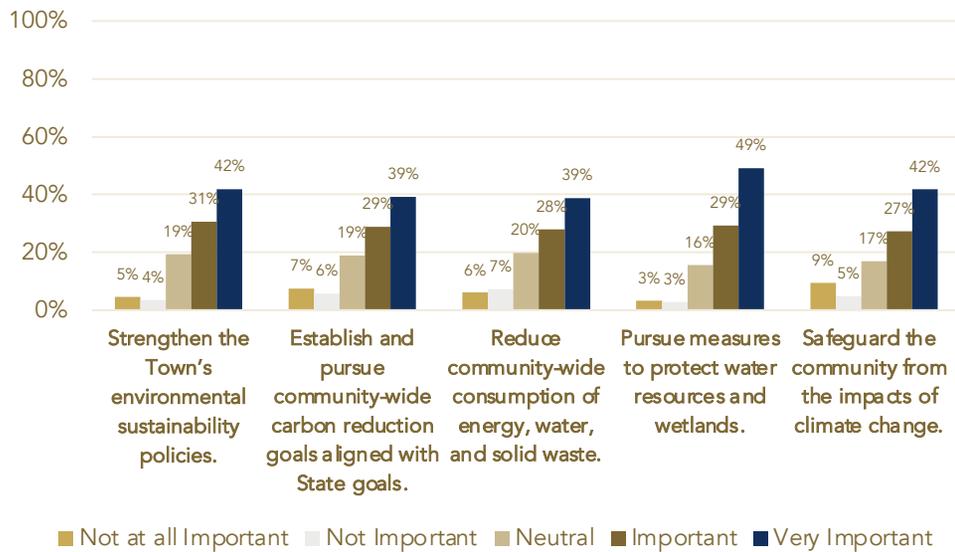
Connectivity & Access: 11-20 Years in Carlisle (156)



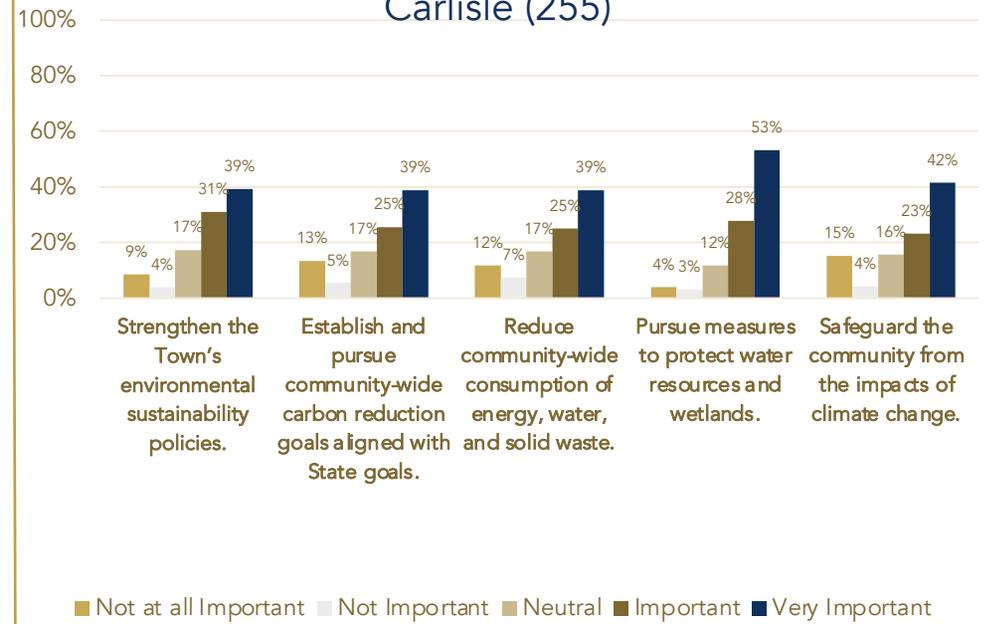
Connectivity & Access: ≤ 10 Years in Carlisle (284)



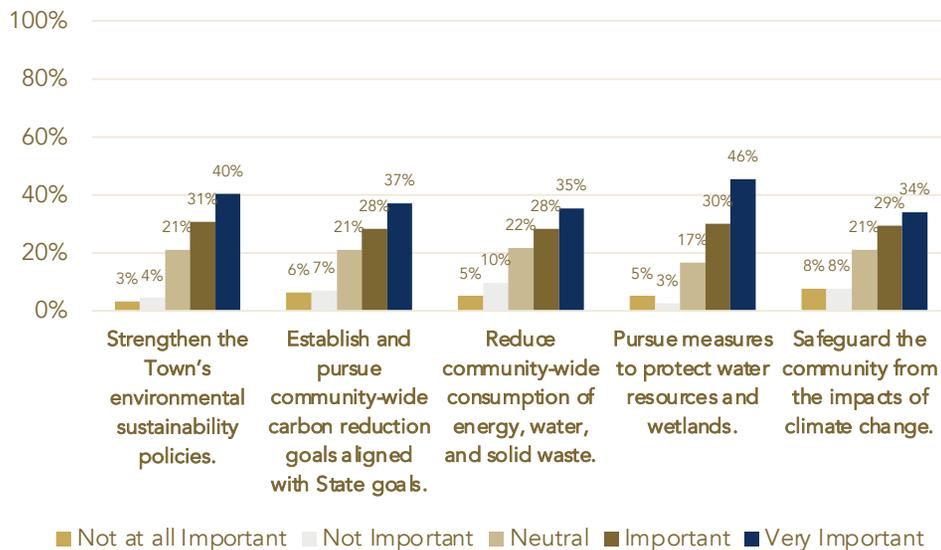
Environmental Stewardship: All Responses (695)



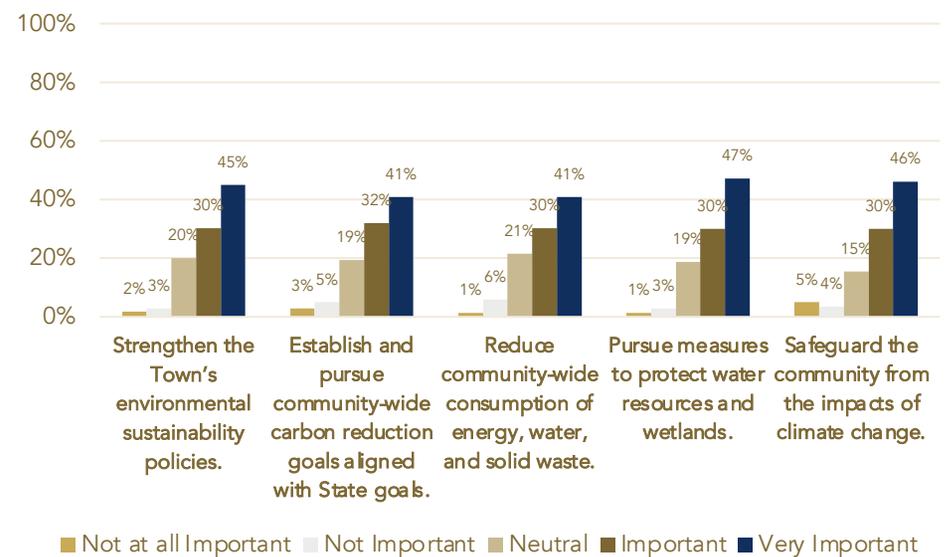
Environmental Stewardship: > 20 Years in Carlisle (255)



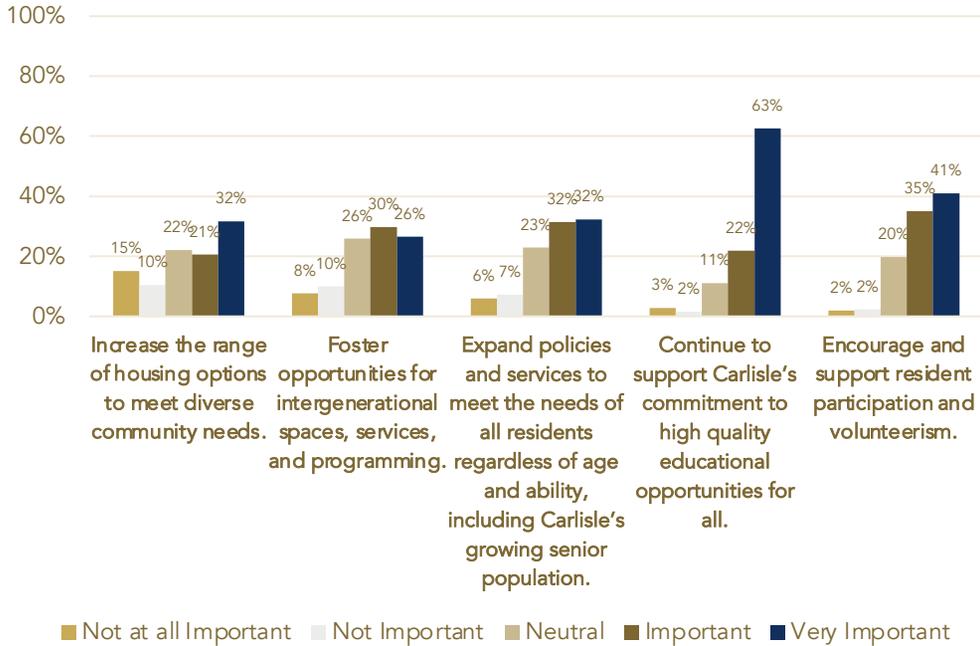
Environmental Stewardship: 11-20 Years in Carlisle (156)



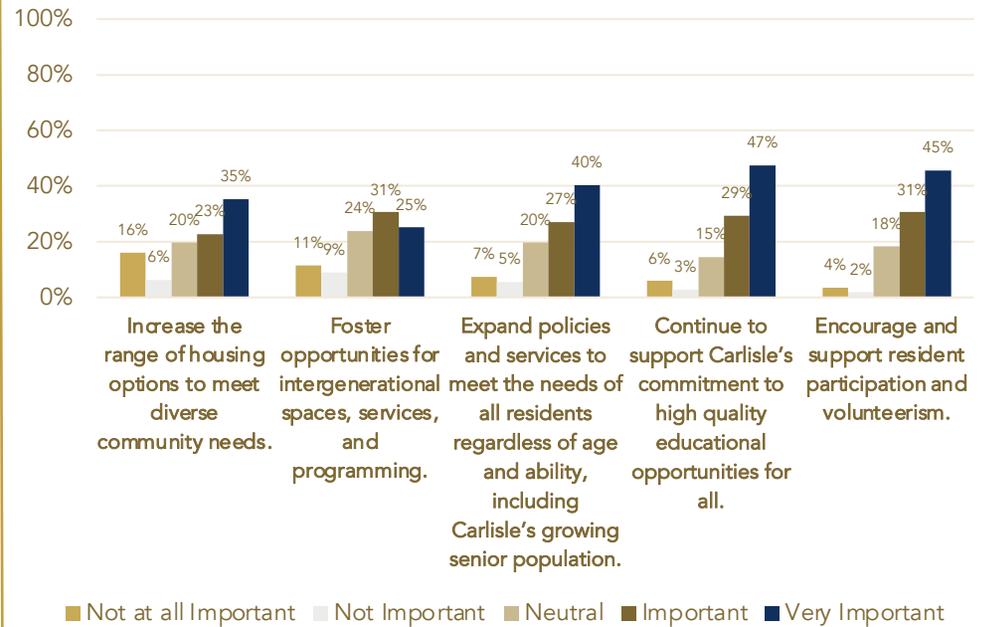
Environmental Stewardship: ≤ 10 Years in Carlisle (284)



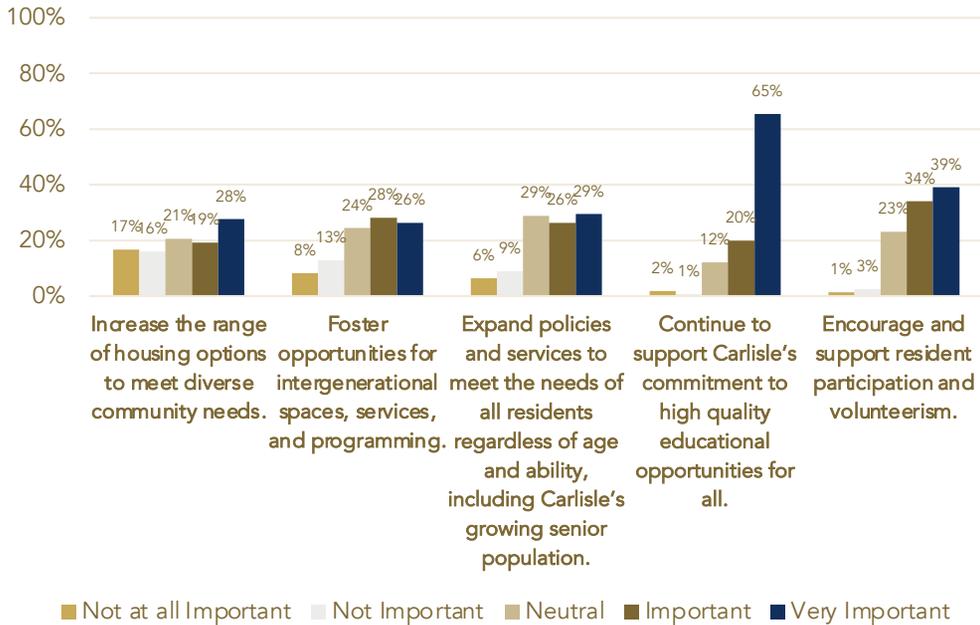
Caring Community: All Responses (695)



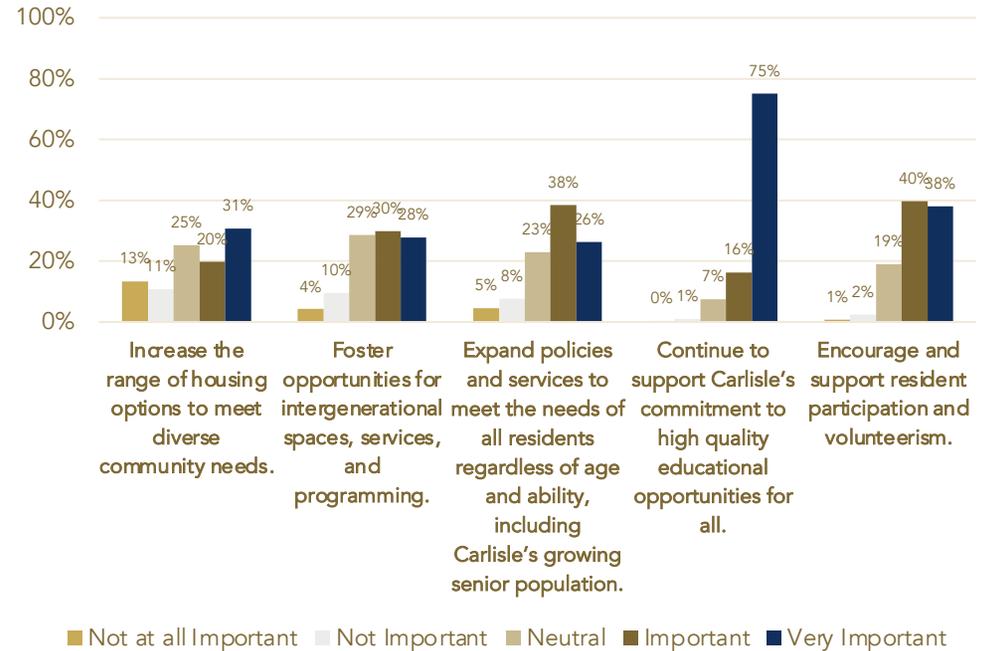
Caring Community: > 20 Years in Carlisle (255)



Caring Community: 11-20 Years in Carlisle (156)



Caring Community: ≤ 10 Years in Carlisle (284)

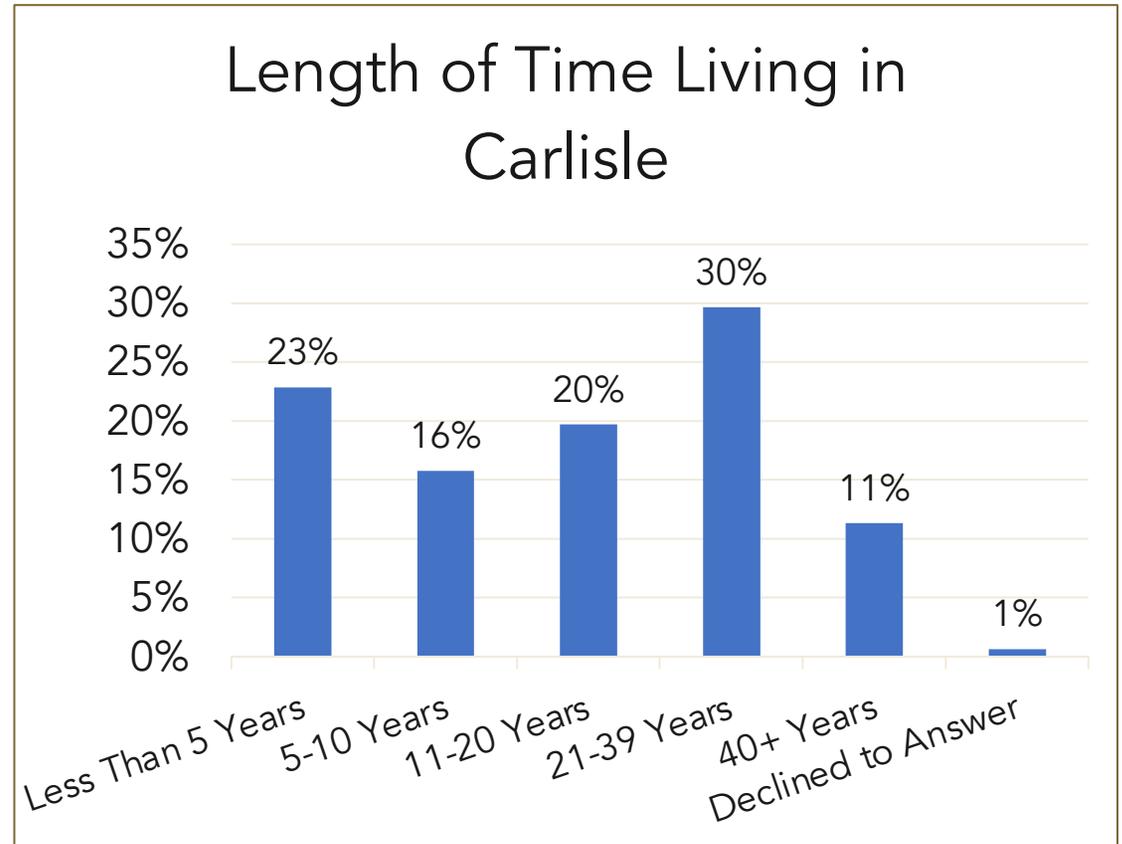


MASTER PLAN STEERING COMMITTEE FALL 2021 COMMUNITY SURVEY SUMMARY

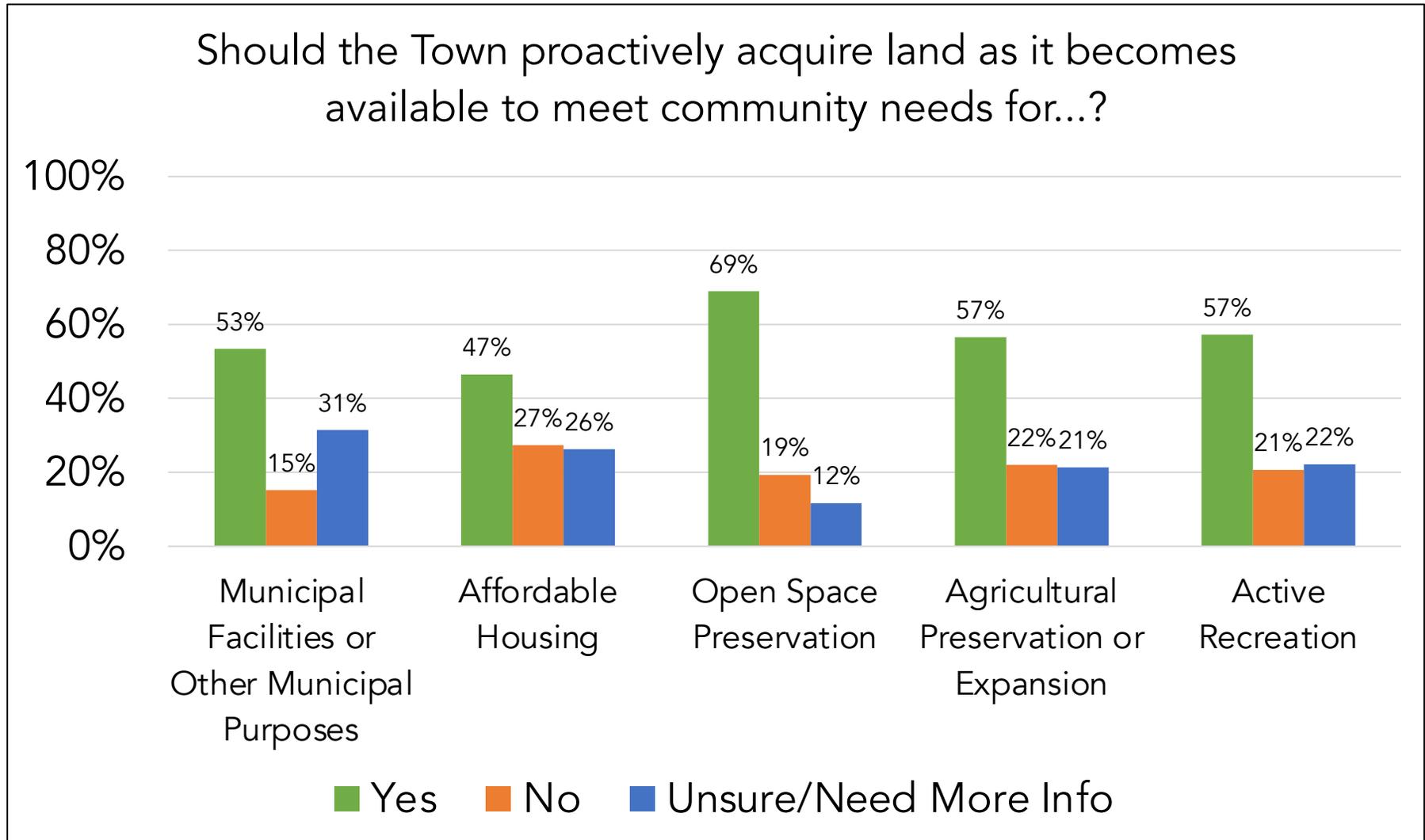


SURVEY TRENDS

- 608 electronic responses
- 26 paper responses
- Average age of respondents: 56
- Highest responses from those living in Carlisle 21-39 years, second highest from those living in Carlisle less than 5 years

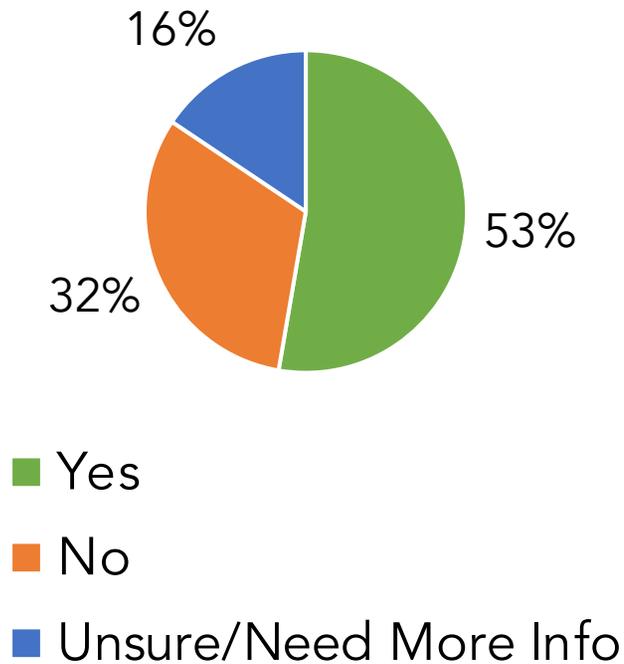


LAND ACQUISITION

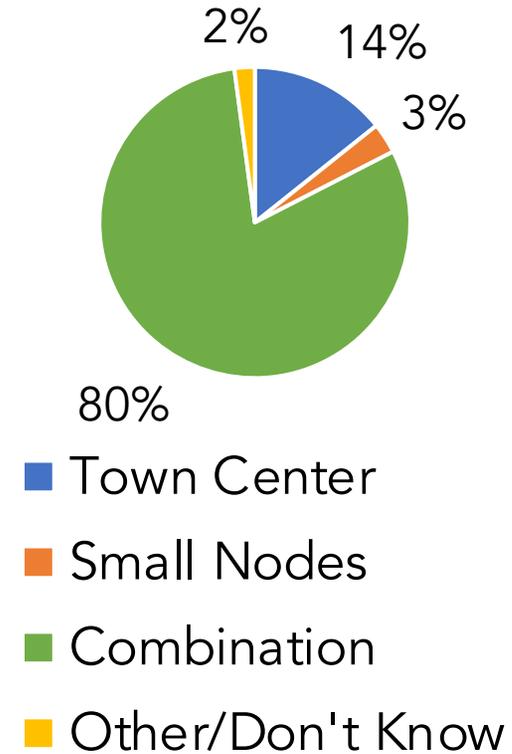


COMMERCIAL ACTIVITY

Would you like to see more goods and services in Carlisle provided it is in keeping with the town's character?

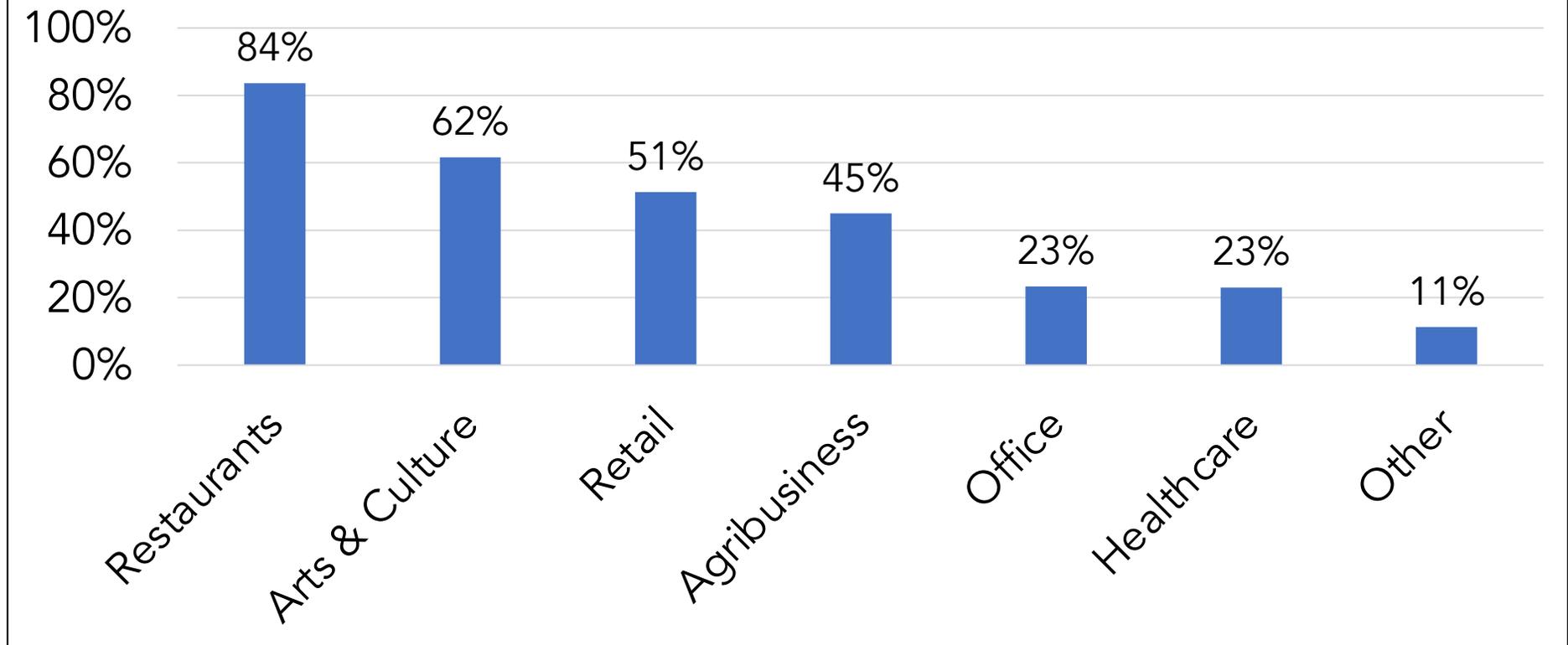


You indicated that you would like to see increased activity in Carlisle. Where would you like to see commercial activity?



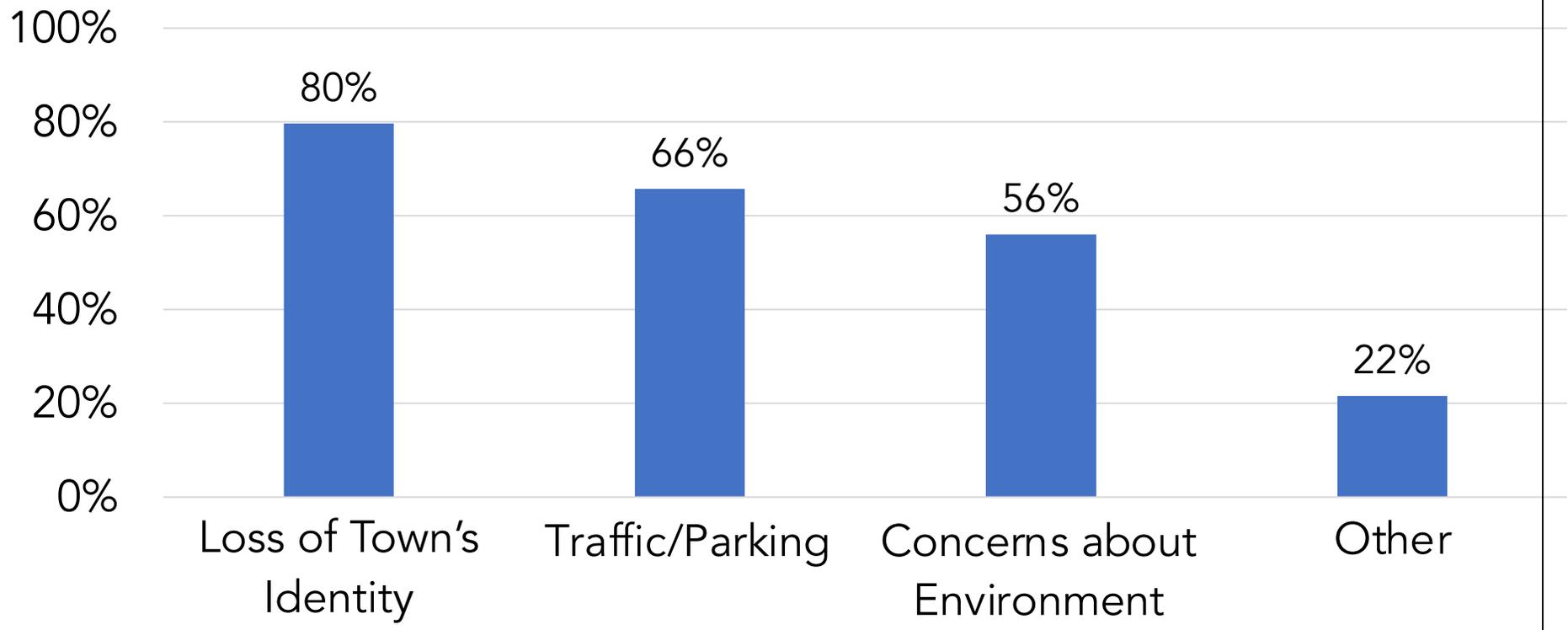
COMMERCIAL ACTIVITY

You indicated that you would like to see increased activity in Carlisle. What types of commercial uses would you like to see?



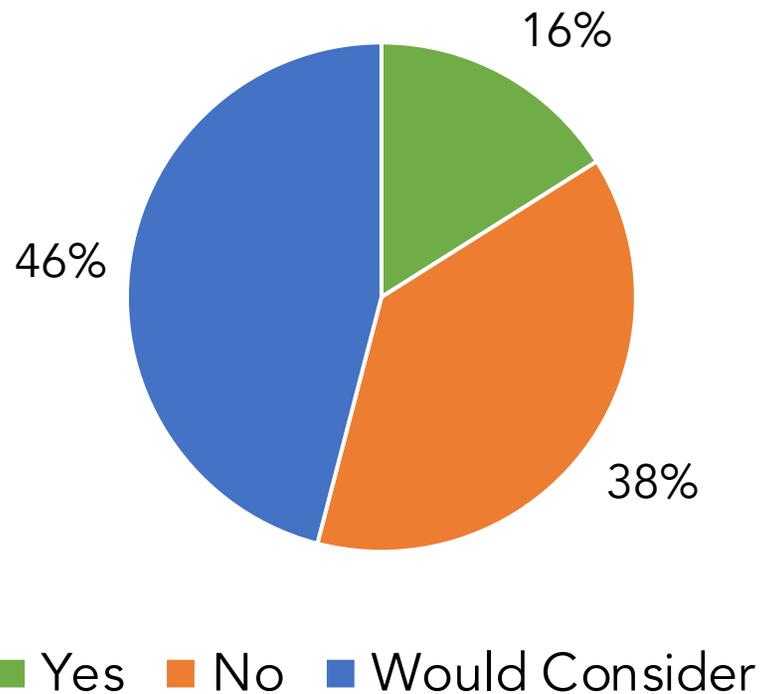
COMMERCIAL ACTIVITY

You indicated that you do not want to see increased commercial activity in Carlisle. What concerns do you have?



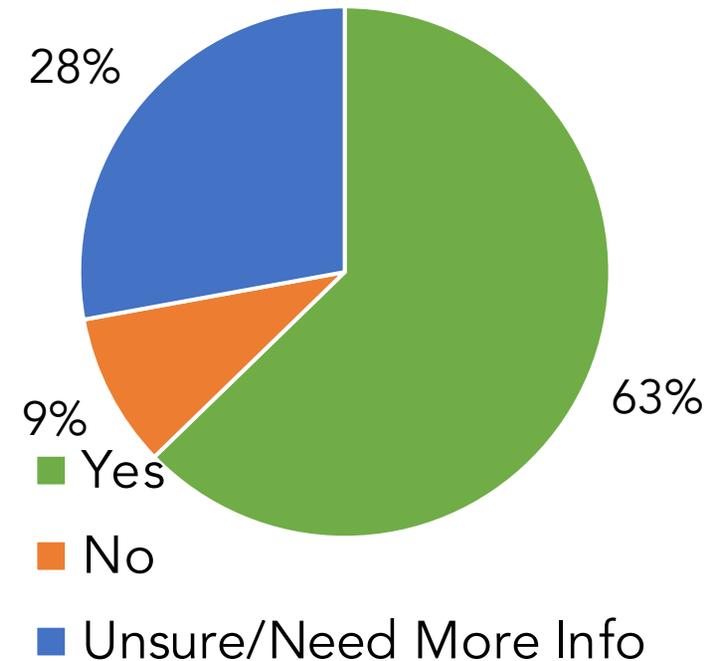
FISCAL IMPACT

Are there current town needs for which you would consider paying increased property taxes worthwhile?



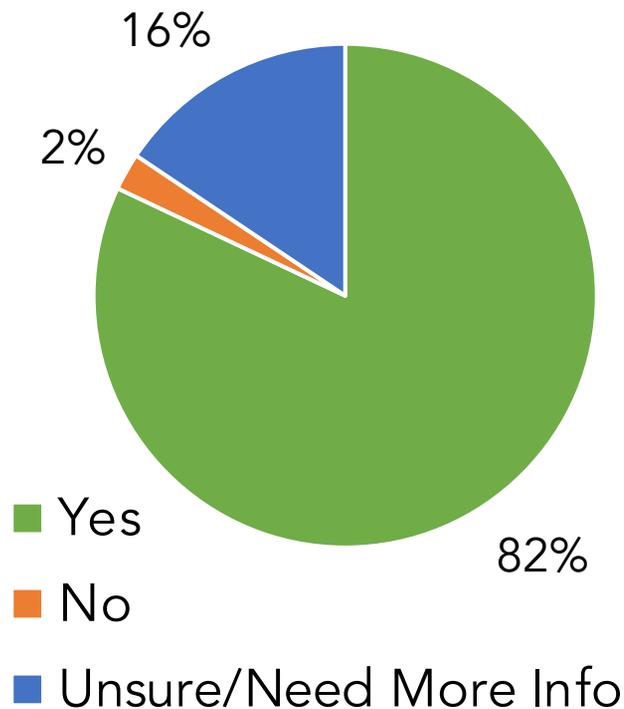
REGIONALIZATION

Should the Town explore the advantages and disadvantages of establishing interlocal agreements or participating in other regionalized services?

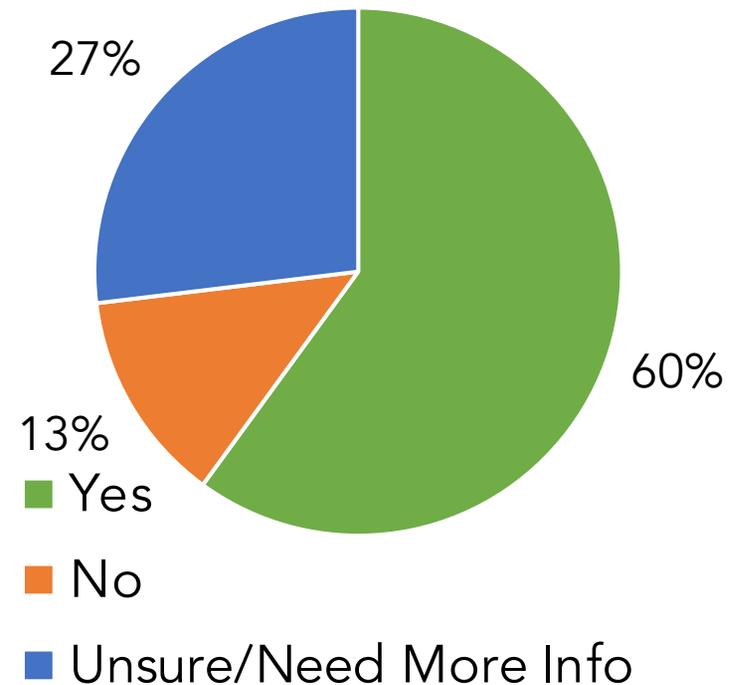


FACILITIES

Should the Town develop and follow a multi-year Planned Preventative Maintenance (PPM) program?

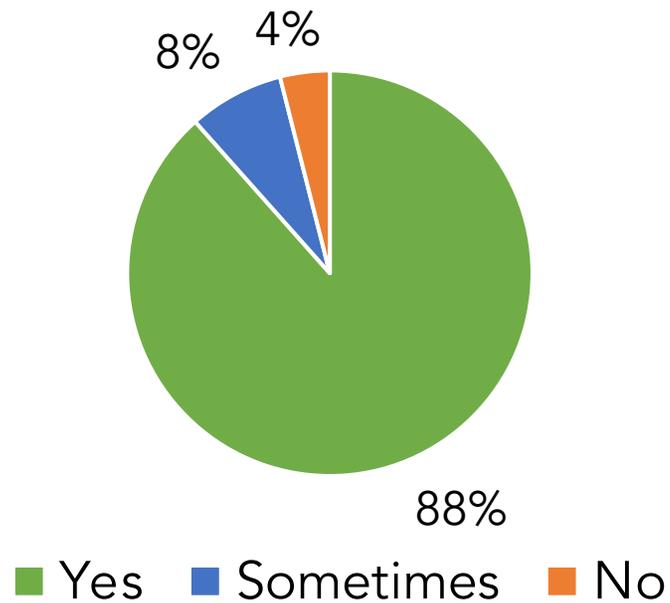


Should the town allocate funding to develop a long-term facilities plan to guide decisions?

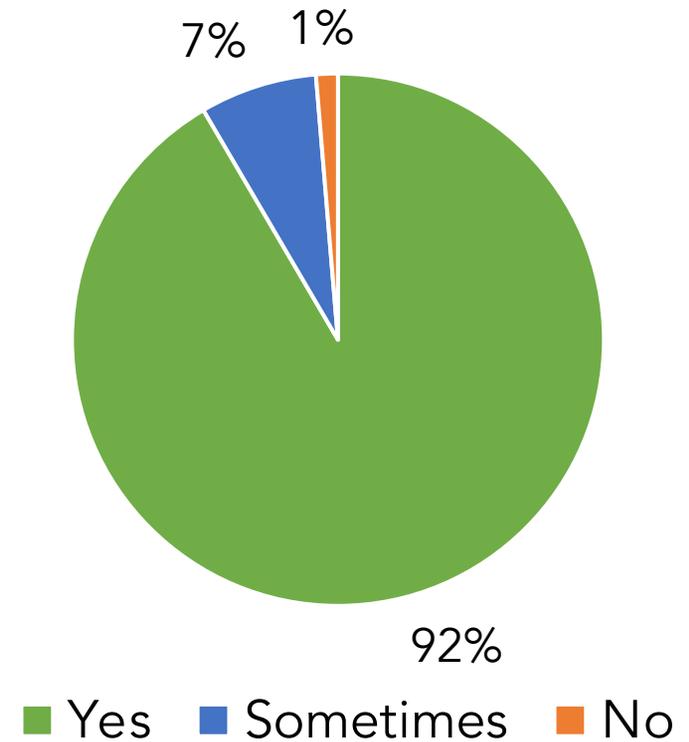


TRANSFER STATION

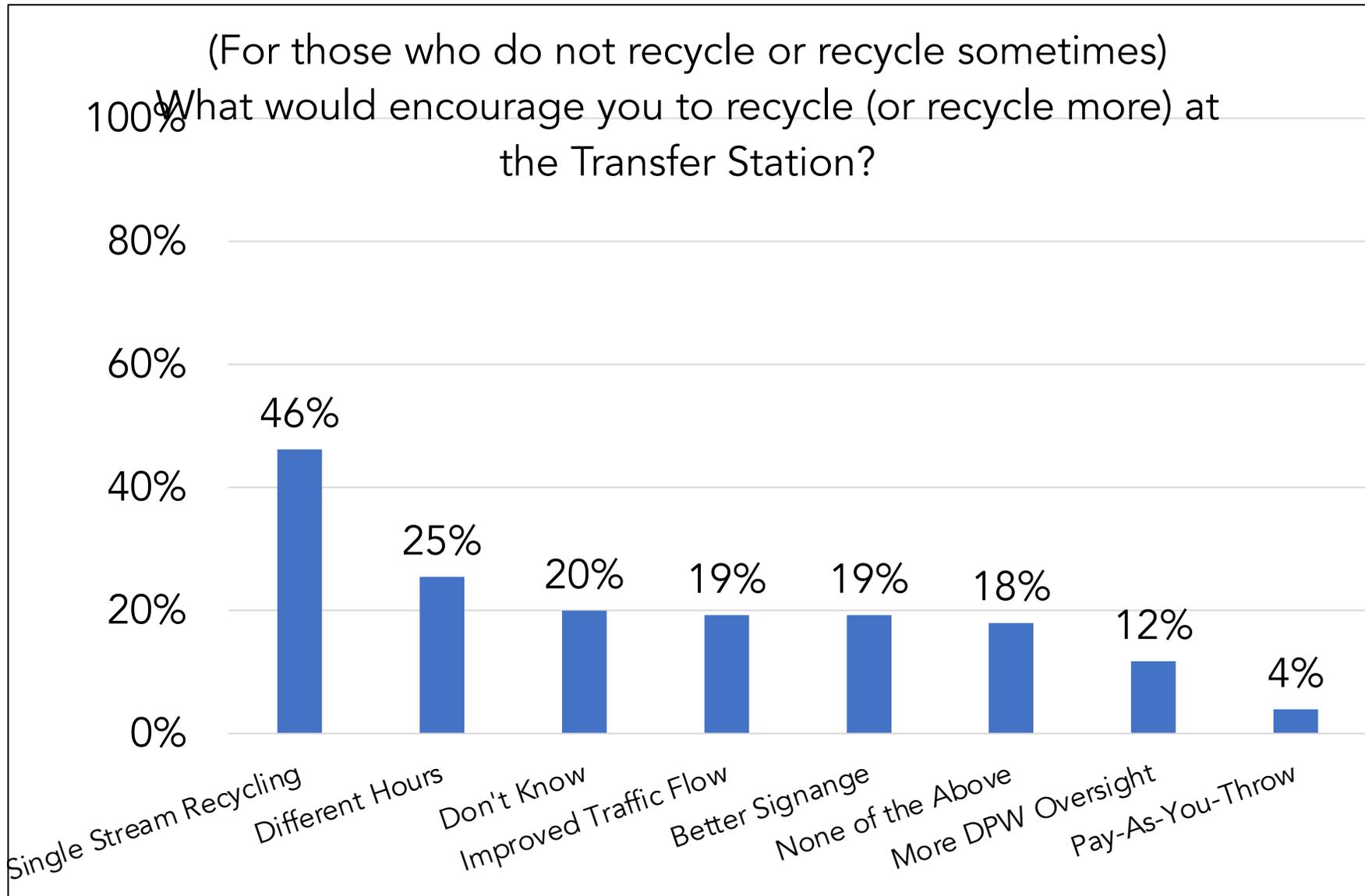
Do you or someone in your household take household waste to the Carlisle transfer station?



Do you recycle at the Transfer Station?

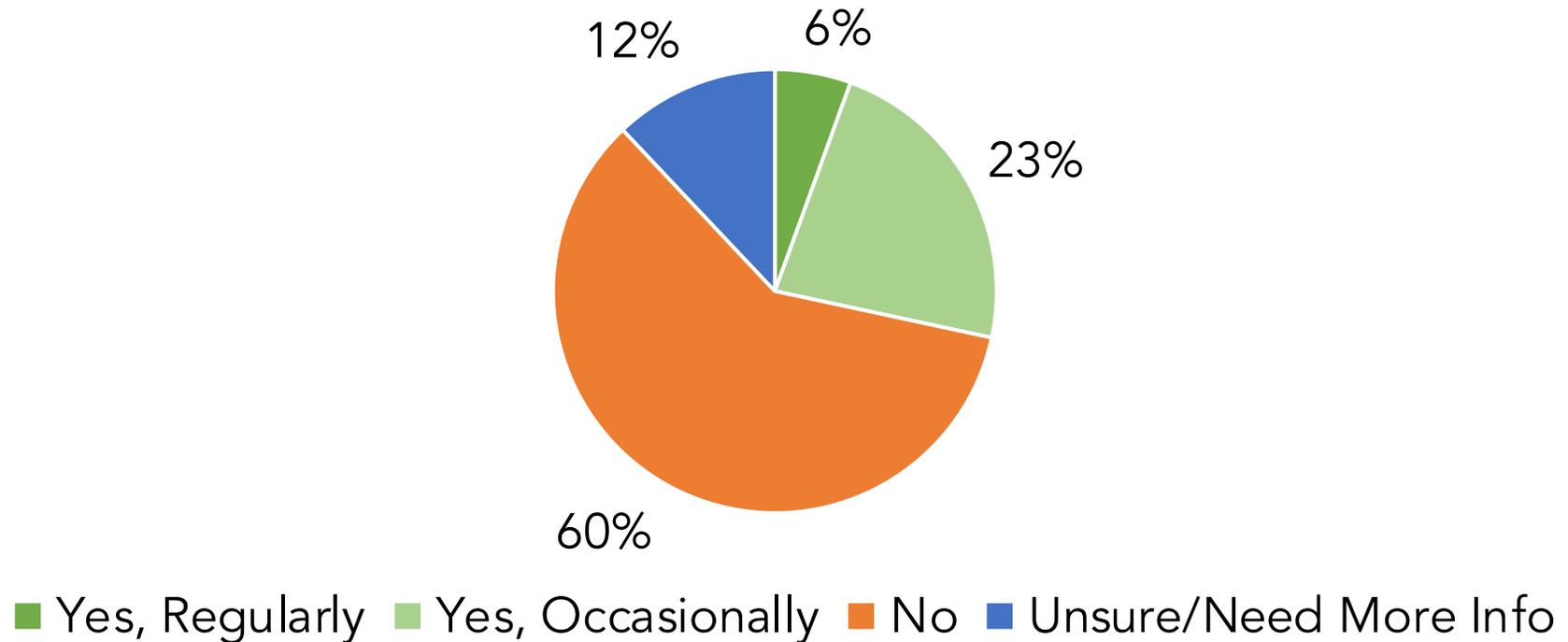


TRANSFER STATION

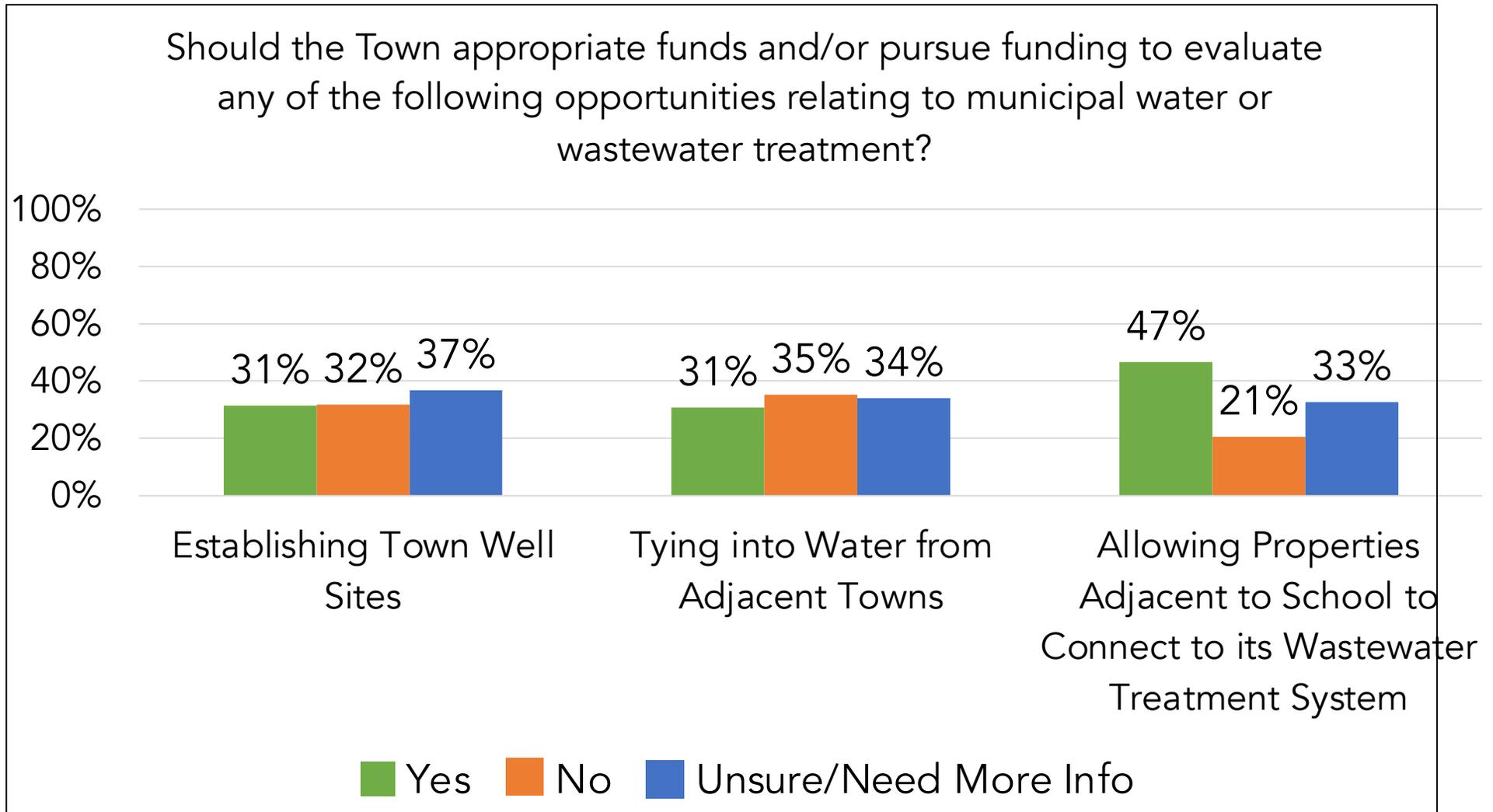


TRANSPORTATION

If available, would you or anyone in your household use a public shuttle service (such as Cross Town Connect) to travel to neighboring towns or to the commuter rail?

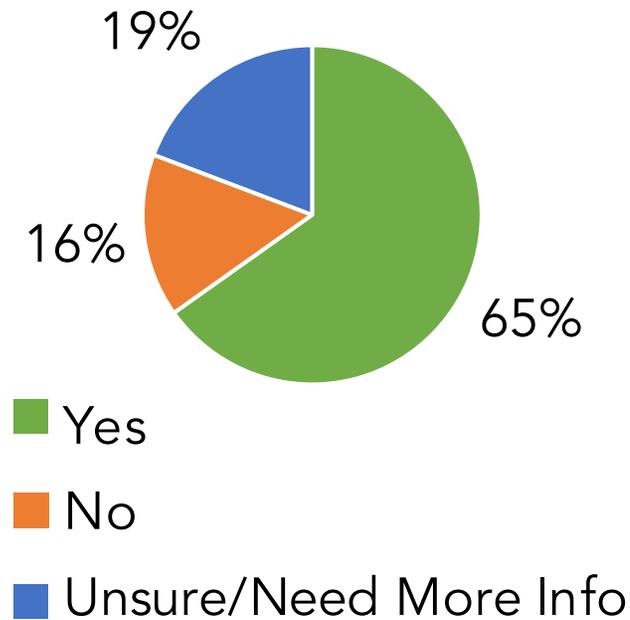


WATER & WASTEWATER

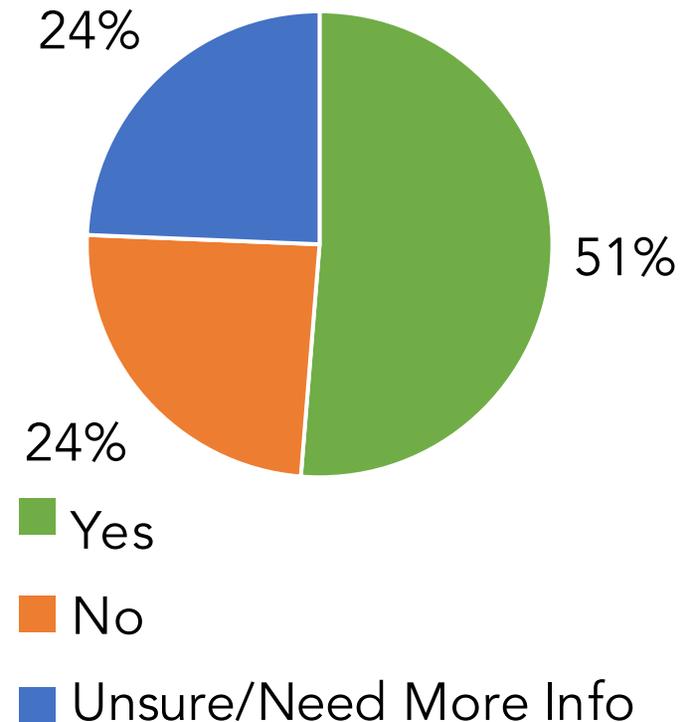


HOUSING

Should the Town allow small multi-family development in keeping with town character in select areas to allow for "missing middle" housing?

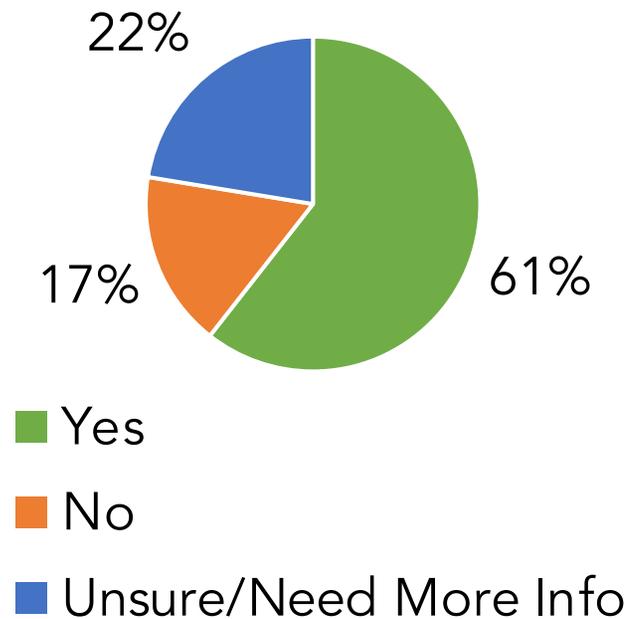


Should the Town explore policies to increase Carlisle's affordable housing stock?

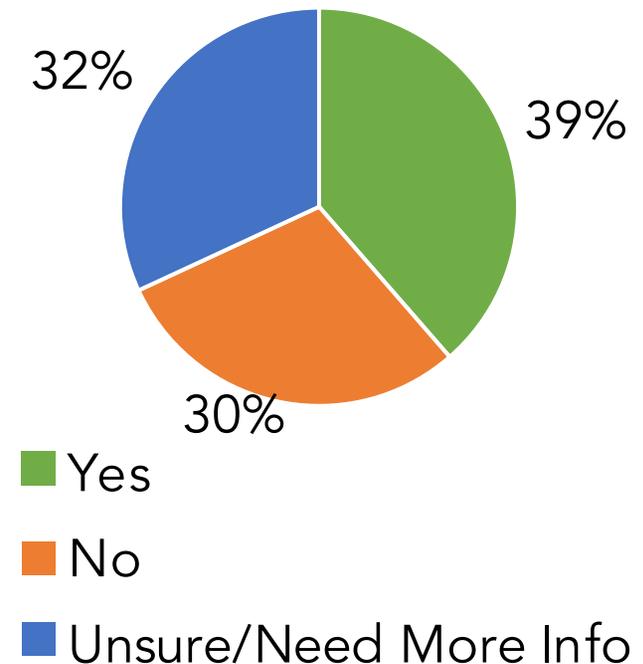


ENVIRONMENTAL STEWARDSHIP

Would you support the adoption of a policy restricting the use of fossil fuels in new construction and major renovations?

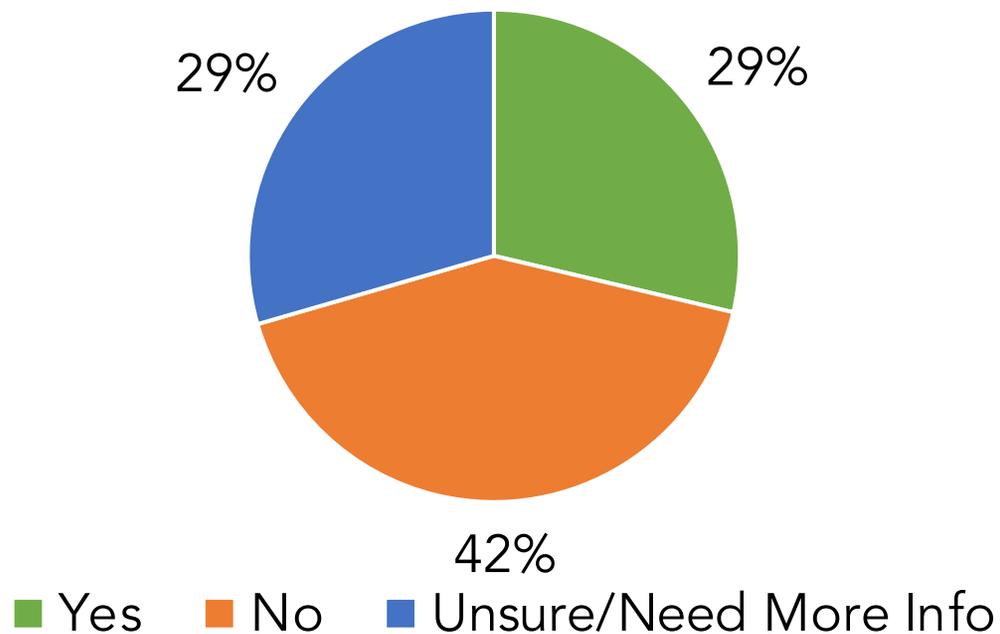


Should the Town consider dedicating professional staff to support its environmental sustainability efforts?



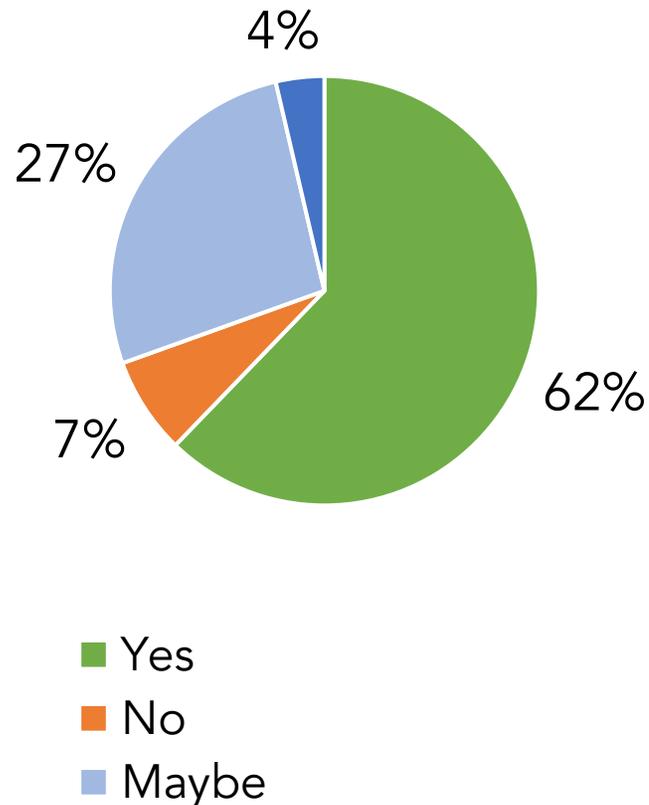
HISTORIC RESOURCES

Should the town study and designate additional historic districts beyond the town center or expand the town center?

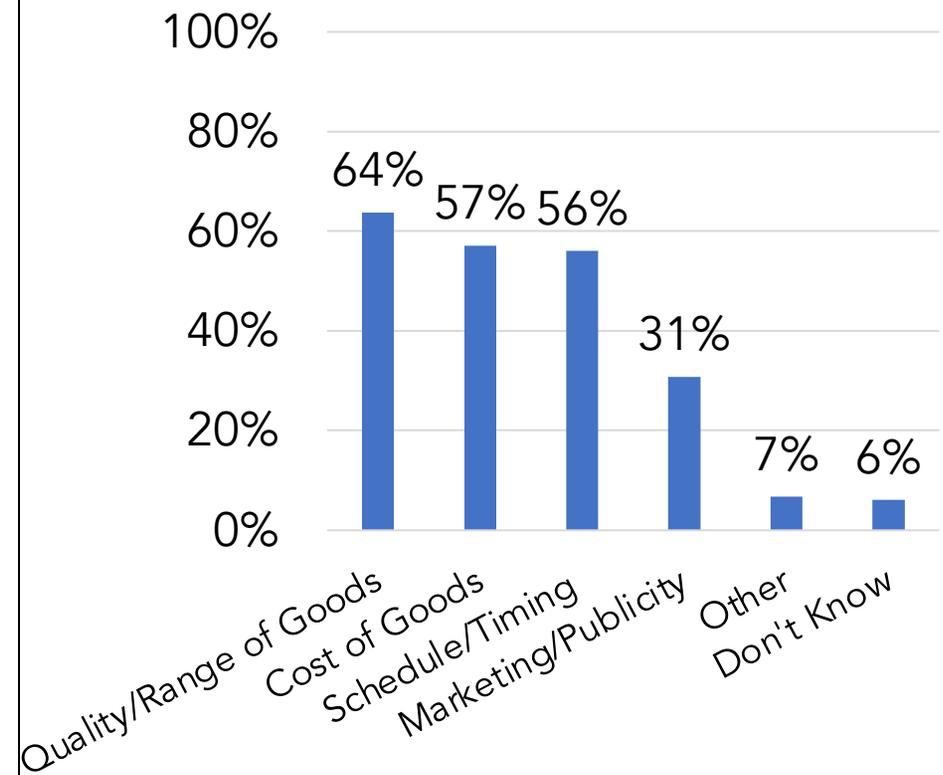


AGRICULTURE

Would you or your household support agricultural activities and initiatives?



If you would "maybe" support agricultural events, initiatives, and sales, what factors contribute to your decision?





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MPSC RESPONSES TO PUBLIC COMMENTS

Introduction

Thank you to members of the community who provided comments on the draft Master Plan. This document includes comments and responses from two periods:

- Phase 1 — January 2022: Town Boards, committees, and commissions were invited to provide input on draft recommendations using an online form.
- Phase 2 — March 2022: The general public was invited to provide input on the full draft plan using an online form. Respondents were asked to indicate whether they were providing feedback as a private citizen or on behalf of a Town body or other organization.

Phase 1 Responses: Draft Recommendations

Planning Board

January 12, 2022

Via Feedback Form for Boards, Committees, and Commissions

Are there recommendations for which your group should be considered a responsible party or resource but it is not currently listed as one? Please indicate by recommendation code (number/letter - e.g., 1D).

10B, 13C, 23E; in general, recommendations in categories 15 and 16 assigned to "proposed planning staff." The Planning Board should be the responsible party for matters assigned to its staff. The Planning Board recommends in general that staff members should not be noted as responsible parties. In all cases, a town board or committee should be the responsible party. the staff member, such as "proposed planning staff" should be listed instead in the resources column.

1. MPSC RESPONSE: Thank you. The Planning Board has been added to 10B, 13C, and 23E and references to proposed planning staff as responsible parties have been removed.

Does your group have any suggestions or comments about other responsible parties or resources that may be missing or misplaced? Please indicate by recommendation code (number/letter - e.g., 1D).

You should identify one lead for each recommendation. the other responsible parties should be listed in alphabetical order as stakeholders or supporting responsible parties or something like that.

2. MPSC RESPONSE: The MPSC feels determining this level of specificity can be an initial task for the Master Plan Implementation Committee.

Are there any recommendations your group feels should have a different timeframe allocation? Remember that this is intended to indicate when action should take place, not how long the action will take. Please indicate by recommendation code (number/letter - e.g., 1D).

Items 4E and 19A will be time-consuming, in part because they are phrased in very general terms. They also have short time frames. it's fine to be aspirational but, speaking for the Planning Board, it's not reasonable that we will be able to devote lots of time to the tasks in 4E in the near term, especially prior to hiring new staff. We recommend that the Master plan implementation committee take the lead on 4E.

3. MPSC RESPONSE: For 4E, the proposed MPIC is listed as a responsible party. (PB is still included as a responsible party, but as noted in MPSC Response #2, the MPIC can coordinate primary responsible parties.) There are readily made tools available for evaluating OSRD bylaws to facilitate 19A. Ideally, staff can assist with this. As to the time frame, 4E and 19A are "Near Term" which we anticipate being on a 1-3 year timeframe for commencing the task, not necessarily completing the task. We hope this provides clarity.

Are there recommendations that your group should be the LEAD responsible party for handling? Please indicate by recommendation code (number/letter - e.g., 1D).

The Planning Board should take the lead on the GIS items, 4B and 10B. For 4B, all the boards and committees in town that are potential users should be listed at stakeholders or responsible parties. We agree the Planning Board should be the lead on 4C (we are the only board listed); the proposed planning staff should be listed as a resource rather than as a responsible party. Planning Board should be lead on 19A. At the meeting, we said we would be lead on 19C but as I look at it, I think it might actually fit better under the Select Board. However, we will be the lead if they don't feel they should be. For 20B and 20C, the Planning Board and the Housing Trust should be co-lead boards, and it should note that they will communicate and coordinate with each other over the next few months to divide up responsibility and work for these two items. On 23E, I was surprised that you do not have the Planning Board listed. We carried out the MVP assessment and I had assumed that if anyone was going to bring this forward, it would be us. However, if someone else would like responsibility, that's fine, we just should discuss to make sure all are clear on who is responsible.

4. MPSC RESPONSE: We have added clarification about the Select Board's role in 19C, particularly as it relates to municipal lighting. The Planning Board has been added to 23E. Thank you.

Are there any recommendations your group disagrees with or feels could be improved upon? Please be as specific as possible in your feedback.

4B - under resources, it is too limited to just note consultant and interlocal agreement. We have begun to work on this and are also considering if the system could be created and run in-house, and what if any skills to develop/run it any new Planning Department employee should have. Note comment above that town staff should not be listed as responsible parties, it should be the boards/committees.

5. MPSC RESPONSE: The narrative in the Carlisle Character chapter explains the recommendation further. We agree that staff time should be added as a potential resource and have made that change.

4E - This is vague and the wording is a bit ambiguous. It says to review to evaluate if things achieve "desired goals." But, what are the desired goals? Shouldn't it say "Master Plan goals?" And would those be the 5 main items identified in your process, or would they be the sub-items under each of the 5 headings?

6. MPSC RESPONSE: Thank you for the feedback on this lack of clarity. The language has been updated to remove reference to "goals" and instead just says "for consistency with this Master Plan."

Under Category 15, the PB members felt there should be an initial recommendation that called for the town to first develop a framework in this area and to evaluate whether professional staff is appropriate. They felt it was confusing to just jump into the specific items without establishing a framework first. In this area in particular, the PB board members wondered why the recommendations were organized in the order they are, shouldn't there be some sense of prioritization or perhaps order them in terms of what should be done first?

Overall, we had quite a bit of discussion about how to organize the items, recognizing that you are doing it following a method, but feeling that some of the items get buried if they come later in the document and it would be good to have some sense of priority or timing to organize a reader as they approach the document.

As an example, we discussed items 1A and 4D, which have a lot of overlap. Some members questioned why you need 1A, isn't it covered by 4D? Also, why is one of the needs from 4D pulled out separately and put in 1A, when other needs aren't similarly pulled out? And the fact that 1A comes first gives it extra prominence. We discussed this for quite a while without necessarily coming to a conclusion.

7. MPSC RESPONSE: The MPSC hopes that having been able to read the supporting narrative for recommendations in the full draft report provides the context the Planning Board was seeking with this comment, which was based upon draft recommendations rather than the full report. The narrative in the full report chapters hopefully clarifies the overlap and relationship between recommendations in greater detail.

Recreation Commission

January 20, 2022

Via Feedback Form for Boards, Committees, and Commissions

Are there recommendations for which your group should be considered a responsible party or resource but it is not currently listed as one? Please indicate by recommendation code (number/letter - e.g., 1D).

1A, 24A, 24C

8. MPSC RESPONSE: Thank you for the feedback. The Recreation Commission has been added to 1A and 24A. 24C specifies “all departments and Town bodies as appropriate.”

Are there any recommendations your group disagrees with or feels could be improved upon? Please be as specific as possible in your feedback.

The recommendation in 21A is not strongly worded enough. The shortage of facility space for programming in Carlisle is known, and addressing the lack of community gathering space has been prioritized by residents. The community center is more than an alternative facility, it is an integral part of the recommendation for a focus on intergenerational opportunities.

9. MPSC RESPONSE: Thank you for your comment. Please see MPSC Response #91 for our response to Planning Board Co-Chair Pete Yelle regarding our wording on 21A.

Do you have any other comments, questions, or concerns about these recommendations or the Master Plan?

The needs, goals, and requests of the Recreation Commission have been largely ignored in these recommendations. What part of this plan addresses the priorities of families for the future of Carlisle? How is childcare addressed? Where will after school programs take place? What support is being offered to working parents?

10. MPSC RESPONSE: Please see Appendix K, Facilities Needs Summary, which acknowledges the existing space deficits for recreation and other community needs. Please also see MPSC Response #91 in this document.

Cultural Council

January 21, 2022

Via Feedback Form for Boards, Committees, and Commissions

Are there any recommendations your group disagrees with or feels could be improved upon? Please be as specific as possible in your feedback.

21B - add Cultural Council to list of departments for community calendar

11. MPSC RESPONSE: Cultural Council has been added to 21B. Thank you.

Are there recommendations for which your group should be considered a responsible party or resource but it is not currently listed as one? Please indicate by recommendation code (number/letter - e.g., 1D).

4D, 7B, 21A

12. MPSC RESPONSE: Cultural Council has been added to 4D, 7B, and 21A.

Do you have any other comments, questions, or concerns about these recommendations or the Master Plan?

Section 3. Support the Town's cultural and historic resources and activities.

Add: 3F. Support the development and/or improvement of indoor and outdoor facilities that support the arts & culture community in Carlisle, reflecting existing and future needs for performances, lectures and art exhibits.

Timeframe: Short term; ongoing

Resources: local funding, public & private grants

Responsible parties: Select Board, Town Administrator, Planning Board, Council on Aging, Carlisle Public Schools, School Committee, proposed planning Staff, Carlisle Cultural Council

Justification: Carlisle has a relatively large and active community of artists, musicians, writers, lecturers, historians, scientists and other people working in the humanities, who all fit under the Cultural Council's (and the Mass. Cultural Council's) definition of cultural practitioners. Yet none of the related action items in Section 3 mention cultural activities. While there are some other recommendations that obliquely include mention of cultural activities and spaces that could be utilized for those activities, we believe a direct reference is called for.

13. MPSC RESPONSE: Thank you for the suggestion for an additional recommendation to support the overarching goal for supporting cultural and historic resources and activities. The recommendation has been added with slight wording changes: "3F. Support the use and/or improvement of indoor and outdoor facilities that support the arts & culture community in Carlisle, reflecting existing and future needs for performances, lectures and art exhibits."

Gleason Public Library Trustees

February 14, 2022

Via Feedback Form for Boards, Committees, and Commissions

Are there recommendations for which your group should be considered a responsible party or resource but it is not currently listed as one? Please indicate by recommendation code (number/letter - e.g., 1D).

3A, 7A and 7E, 12A, 15H, 16C

14. MPSC RESPONSE: We have added the library to recommendations 3A, 7A, and 15H, and 16C. Thank you for these suggestions. Recommendation 12A regarding broadband access was specifically about expanding available access to all households, but we acknowledge and appreciate the library's contributions in this area to households without access to the internet.

Are there any recommendations your group feels should have a different timeframe allocation? Remember that this is intended to indicate when action should take place, not how long the action will take. Please indicate by recommendation code (number/letter - e.g., 1D).

Library space remodel and repairs should take higher priority. Gleason sees itself as the "family room of our community."

15. MPSC RESPONSE: Please see Appendix K, Facilities Needs Summary, which we have updated to address the remodeling and repairs as outlined in the library's strategic plan. We have also added similar language to the narrative of Recommendation 7A for the development of a long-term facilities plan for all municipal facilities.

Are there any recommendations your group disagrees with or feels could be improved upon? Please be as specific as possible in your feedback.

In non-covid times, Gleason had more demand for meeting and personal work space than the building could accommodate. Contrary to what John Ballantine says in a recent Mosquito article, the library is not "fine" with regard to space requirements and Gleason Library trustees are currently in the throes of a major interior space remodel to make better use of its fixed footprint. Highland is not actively under consideration.

16. MPSC RESPONSE: Thank you for your comment. Please see above response.

David Freedman

January 3, 2022

Via email to Jack Troast

Jack,

Happy New Year.

Some details: spelling, capitalization, and punctuation.

On page 4 (7B), the Town-owned property adjacent to Banta-Davis should be spelled Moseley (in text it is missing the first e). Important to properly represent the family that made the land available for purchase.

In same sentence and again on p 11 (21A), Banta-Davis is missing its hyphen.

On pages 3 (5B) and 7 (13C), town boards should be Town boards w/a cap T. On page 10 (18A) it should be cap T in "...Town wells...". On page 12 (22D), it should be cap T in "...Town's existing...".

d

17. MPSC RESPONSE: All edits have been addressed; thank you.

Land Stewardship Committee

January 13, 2022

Via email to Jack Troast

**Comments on the DRAFT Master Plan Recommendations Table
by the Land Stewardship Committee (LSC)**

Submitted by the LSC on January 13, 2022

The LSC's comments are solely directed towards the proposed Environmental Stewardship Committee (ESC). The LSC understands the need for more local efforts to protect the environment, both in and beyond Carlisle, and supports the creation of a new committee to work on important environmental issues. As a permanent subcommittee of the Conservation Commission (ConsCom), the LSC's mission is primarily to help ConsCom manage Town-owned conservation land. However we do occasionally conduct outreach programs that address Town-wide environmental issues, commonly in the form of educational programs. The LSC, for example, has recently initiated an outreach program that will encourage all land owners in Town, both private and public, to modify their lands to provide better habitats for wildlife, including native plants. Further information on our mission is in our founding document which is available on the Town's web site.¹

The LSC does see that there are some significant differences in the proposed mission of the ESC and that of the LSC. LSC's mission is focused on the Town's conservation lands and open spaces, with some additional focus on educational outreach programs. The proposed ESC would have a broader outlook and mission, focusing on issues that mostly do not directly relate to land.

The LSC suggests that some modest changes in the Master Plan recommendations be made:

The Plan should recommend a different name for the new committee, one that does not use the word "stewardship." This would avoid confusion with the Land Stewardship Committee.

The Plan should suggest a general delineation of missions (or responsibilities) between the ESC's role and the roles of ConsCom, the LSC, the Conservation Restriction Advisory Committee, and the Trails Committee. Since some overlap will likely still be present, the Plan should suggest a way to harmoniously work together on ideas and to prevent any conflicts.

The Plan should recommend enough overlapping memberships on the above-mentioned committees to foster cooperation and avoid duplication or conflict.

The Plan might suggest the ESC host an annual meeting of representatives of the above-listed environmental committees, and private groups (e.g., the Carlisle Conservation Foundation, Garden Club), to share information on problems and current activities related to environmental protection.

18. MPSC RESPONSE: Thank you for this feedback regarding the lack of clarity about the role of the proposed Environmental Stewardship Committee and its overlap with the Land Stewardship Committee. Following submission of your January 2022 comment on the plan's draft recommendations, the MPSC added clarification to the narrative for this recommendation that such a committee should have representation from existing Town bodies

¹ LSC Founding Document (2005): [Microsoft Word - Copy of Estab LSP in Carlisle-Word Version-Small.doc \(carlislema.gov\)](#). See especially Sections 4 and 5.

working toward similar missions. Recommendation 14A already suggests quarterly meetings of the chairs of Town bodies to discuss potentially shared initiatives, so that ideally would provide such an opportunity for groups with related or overlapping missions to collaborate.

The Select Board would be responsible for the name and charge of the new committee, and responsibilities of each group (as well as areas where they could overlap) could be clearly delineated. However, per your suggestion, for the purposes of the Master Plan, we now refer to the new committee as the Environmental Sustainability Committee in this plan, understanding that this name may change. It may also make sense for the master plan recommendations relating to land/water/flora/fauna/funga to be addressed by existing committees, rather than the new committee, depending on whether existing committees can take on additional responsibilities. These options can be explored as the new committee is being established.

We have modified Recommendation 15B as follows: Establish an environmental sustainability volunteer committee to work with paid staff on implementation of sustainability and stewardship initiatives.

We have modified the narrative of Recommendation 15B as follows (changes underlined): The Select Board's FY 2022 goals include the establishment of an Environmental Stewardship Committee, so the recommendation to establish such a committee is already backed by Town leadership. What distinguishes this recommendation is that it involves providing staff support to such a committee to ensure its success. This volunteer committee, in conjunction with professional staff, should also act as a liaison to coordinate with local and regional partners and state agencies, as appropriate. Such a committee should take on initiatives as described in 15D and 15H and work in close collaboration with the Conservation Commission, Land Stewardship Committee, and all applicable environmental groups to delineate responsibilities and work loads appropriately. Additionally, this committee could consider hosting an annual or semiannual meeting of representatives from these groups to provide updates and discuss shared initiatives.

Historical Commission

January 19, 2022

Via email to Jack Troast

Hi Jack,

As you know, the Historical Commission will not meet until the end of the month, so we have not discussed the Master Plan with them yet. This reply reflects my and Annette's thoughts. Annette

and I have discussed some of these ideas over the past few years and they are very worthy of consideration.

At this juncture, our concerns are mostly pragmatic and focused on resources. Our commission is a mixture of folks with day jobs and retirees, and many of these folks have served on the commission for many, many years. Additionally, we have asked our members to do more and they willingly have stepped up. We feel the commission is working to capacity and we cannot ask them to take on additional responsibilities.

Therefore, implementation of some of these plans would require hiring consultants on an as needed basis, with oversight provided by the commission. We need to have dedicated financial resources and not rely solely on CPA funding. Ideally, a permanent, part-time historic preservationist position would be created which would eliminate the current admin position and which would support higher level activities, oversight, direction, and continuity. Vision and continuity go hand-in-hand. This is likely the most efficient and best use of any dedicated funds.

A very fine historic preservation study was undertaken in 2009-2010 on a limited number of properties. The survey also laid out a plan for follow-up which has fallen by the wayside. Our priority would be to dedicate time, energy, and resources to implementing this plan. It is sound and deserves further consideration and would eliminate a start-from-scratch approach.

Next, the commission needs access to information which concerns our functioning. For instance, no commission member was aware that we had some limited funds which are accrued via application fees.

We desperately need access to a digital resource management system as we have no expandable storage space, cannot search for information, or create data reports on our historic assets.

Lastly, I will make a pitch to give the commission some real authority. We lack tools and are out of step with current HP practices, such as having a demolition delay by-law in place. Properties are being demolished at a shocking rate. It would be unfortunate if the historic district became a cute theme park in the center of town instead of part of a thriving, protected, and expanded district which adds incredible beauty to our environment and our quality of life.

We would like to congratulate you on the exemplary job you have done with the Master Plan. Thank you for your dedication, time, and effort.

Best regards,

Annette Lee and Kathy Keller
Co-chairs, Historical Commission

19. MPSC RESPONSE: Thank you to the Historical Commission for these comments. The narrative to Recommendation 3A (which was not available at the time the MPSC asked Town bodies to provide feedback on the recommendations) clarifies that this should build upon the

work done on the 2010 Historic Properties Survey. To make this point further, we have adjusted the language to emphasize that this should include exploration of how to successfully implement the recommendations from that plan that have not yet been carried out.

Recommendation 12C addresses the need for digitization of archived records, which ideally could be a collaborative effort that includes the Historical Commission. The narrative of the plan suggests working with the Massachusetts State Historical Records Advisory Board's Roving Archivists for technical assistance and possible grant opportunities.

As for the authority of the Historical Commission, the Town and Historical Commission could further explore how the Historical Commission's authority is defined under MGL. Historical Commissions have authority, as do Historic District Commissions under a different part of the statute. Our understanding is that the Carlisle Historical Commission serves in both roles and should probably have the legal authority of both, although this does not appear to be defined as such in the Town's bylaws:

Carlisle's general bylaws state "The Historical Commission shall have all the powers and duties of historical commissions and historic district commissions as provided in Sect. 8D Chapter 40C of the General Laws." It is worth noting there is no Sect. 8D in c. 40C, so perhaps this was intended to read Section 8D in c.40, which describes the authority of Historical Commissions and is linked below. (There is a *paragraph D*, but it does not apply to the apparent reference.)

Authority of Historical Commissions (MGL c. 40 Section 8D):

<https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section8D>

Authority of Historic District Commissions (MGL c. 40C Section 4):

<https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40C/Section4>

Authority of Historic District Commissions also established as Historical Commissions (MGL c. 40C Section 14):

<https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40C/Section14> (note that "section eight D of chapter forty" refers to the link above for MGL c. 40 Section 8D that describes the authority of Historical Commissions).

Such a review should be done in consultation with Town Counsel, as it is beyond the experience of the MPSC to make recommendations in this regard.

Carlisle Conservation Foundation

January 26, 2022

Via email to Jack Troast

Wed, Jan 26, 2022

Mr. Troast and other members of the Master Plan Steering Committee –

The Carlisle Conservation Foundation (CCF) appreciates the opportunity to provide input to the draft Carlisle Master Plan Draft Implementation Table.

We are heartened to see Protection and maintenance of Open Space—the cornerstone of CCF's mission—as the number 1 item under Goals & Recommendations for Carlisle Character. We are also pleased to be listed as a Resource under 1B and 1C. As CCF is often involved in the evaluation of parcels for possible Town acquisition, we would include CCF as a Resource for 1A as well.

CCF is also a Resource, and could be so listed, for efforts to acquire land for agriculture (2B) and assisting with the development of criteria for evaluating parcels that come out of Chapter 61 protection (4D).

CCF is also pleased to see and fully supports Recommendation #10 for Connectivity: Identifying opportunities for improving walkability and connectivity of Carlisle's pathways, trails, and roadways.

CCF is also committed to Environmental Stewardship, especially Recommendation #19, Protection of land and native flora and fauna.

Again, thanks for the opportunity to provide feedback. If and when actual implementation of any recommendations in the Master Plan are under consideration, CCF can be contacted via email at info@ccf-web.org.

Best regards,

Kelly Guarino
President, Carlisle Conservation Foundation

20. MPSC RESPONSE: The Carlisle Conservation Foundation has been added as a resource to the suggested recommendations. Thank you.

Trails Committee

January 26, 2022

Via email to Carlisle Master Plan

Dear Carlisle Master Plan,

We recently learned that the Draft Master Plan has been distributed to various parties, seeking input prior to presentation to the Select Board. The Trails Committee does not seem to have been included in the distribution, though we have been included as “responsible parties” on several items. Unfortunately, we will not have the opportunity to review this as a full board prior to our meeting on February 4. We offer the following preliminary comments as individuals (chair and vice-chair of the Trails Committee), and we will present them to the full board for ratification at our meeting.

Feel free to contact us if you have any questions

Alan Ankers, chair

Steve Tobin, vice-chair

Carlisle Trails Committee

Section 1 – Carlisle Character

While the Trails Committee is included in the responsible parties for item 1C, we think it would be nice to also be included in 1A and be consulted during the process of evaluating parcels for town acquisition and protection.

21. MPSC RESPONSE: The Trails Committee has been added to 1A. Thank you.

Section 10 – Connectivity & Access

We certainly support efforts to improve walkability and connectivity, but are concerned about item 10D “Provide a statement of environmental impact when developing new or expanded trails.” Depending on the exact intent of this, it could represent a significant and perhaps unnecessary bureaucratic burden on a volunteer committee. If it is just a matter of the proposed new Environmental Stewardship Committee providing the statement, then it is probably not a problem. But if the Trails Committee needs to provide the statement to the Environmental Stewardship Committee in order to justify a new trail, which presumably would require some kind of formal study, this would create a lot of work for which we are probably not qualified, and effectively discourage the development of new trails. We already go through the Cons Com and Land Stewardship Committee for approval when putting new trails on town conservation land, and have to go through the wetland permitting process for any trails near wetlands. A few questions for consideration:

- What is the purpose of this requirement – what problem are we trying to solve?

- Who provides the Statement and to whom?
- What is required to be included in the Statement – does it require a formal study?
- Is it part of a decision-making process or just for the record?
- Would it have to be part of the Planning Board process when new trails are proposed as part of a cluster-type development?
- Would it have to be done for trails in conservation restrictions on private land?

22. MPSC RESPONSE: Thank you to the Trails Committee for this helpful feedback. We have modified Recommendation 10D to read as follows: “10D. Consider environmental impact when developing new or expanded trails. A collaboration of the Trails Committee, Land Stewardship Committee, Conservation Commission, and proposed Environmental Sustainability Committee could establish and document a standard procedure to be used for evaluation prior to the creation of any new trail on Town land. Considerations should include: benefits of the new trail; potential for handicapped-accessibility; the area’s ability to support a proposed trail without significantly degrading the land or its flora and fauna; trail-design features and locations that minimize environmental impacts and the potential for erosion.” Pathway concerns are now addressed in the narrative of the current Complete Streets recommendation (10A).

PHASE 2: COMMENTS ON DRAFT PLAN

David Freedman

February 27, 2022

Via Feedback Form

Providing feedback as private citizen

Exec Summary page i, the word "each" should be added to the final sentence of the first para: "These values were developed into a chapter of this Master Plan and are described below." should become "These values were each developed into a chapter of this Master Plan and are described below." or "Each of these values was developed..."

23. MPSC RESPONSE: Edit applied. Thank you.

On the same introductory page, the value: "Environmental Stewardship: "Carlisle values minimizing its impact on the natural environment and global climate." should be expanded to allow for proactive steps to improve the natural environment and not just to minimize impact (by which I assume you mean "negative impact" and not just "impact" which should be made clear). Examples of proactive actions and not just "minimizing impact" as the value reads:

removing invasive species and planting pollinator gardens and wildflower meadows or putting more land into agriculture

24. MPSC RESPONSE: We have re-worded bullet statement to say “Environmental Stewardship: Carlisle values protecting the natural environment and minimizing its impact on global climate.”

Executive Summary, page iii, in Recommendation 7B, Moseley is misspelled as Mosley. The table then references "Chapter 5, Fiscal Sustainability" which should be "Chapter 4, Fiscal Sustainability." The same error is repeated in the next table for all the Coordinated Fiscal Planning recommendations (6A-C) which also reference Ch 5 instead of Ch 4. Similarly on page iv, the first Environmental Sustainability recommendation, 1C should reference Ch 3, (Carlisle Character), not Ch 3 (Caring Community) and on p. v, the first item 4A should reference Ch 3, (Carlisle Character), not Ch 3 (Caring Community)

25. MPSC RESPONSE: Edits applied. Thank you.

Page D-2 of the plan has this as the second bullet point: <<Housing production has been slowing down in the past ten years, with less than 100 new units created between 2010 and 2019 compared to more than 300 units in many previous decades.>> This is factually incorrect. Table C-3 on page C-13 lists Building permit data for 2010-2018 with a total of 98 units, which apparently has been taken as a full decade ("less than 100 units") despite the fact that it doesn't include 2019. There were 9 permits in 2019 which takes the total to over 100 at 107. ALSO, the data doesn't include the 25 units from Benfield Farms (which were listed in BPs as "Commercial" because the development required construction control), which brings the total to 132 for the decade. The previous decade saw 140 BPs, so 2010-2019 is actually a continuation from the previous decade. So, the slowdown started 20 years ago, not "in the past 10 years." The comparative "compared to 300 units in many previous decades" is unnecessarily vague; instead you could say: "...in each of the 4 decades from 1960 to 1999." Page 1-3 states that 100 new homes have been constructed in the past 10 years; if this refers to 2010-2019, the figure should be, as noted above, 132 units. This may need to be corrected elsewhere.

26. MPSC RESPONSE: Thank you for this feedback. We have addressed the housing unit figures and their descriptions based on this information. Also, on page 1-3 it now refers to construction of single-family homes and specifies the year range.

The term "open space" in the second sentence in the below paragraph from page C-10 is misleading, since in the previous sentence it refers to "protected open space" but here includes "playing fields and more" which are not "open space" as defined in the OS&RP. To be clearer, the text should perhaps define "open space" as used in the Master Plan, though that may be difficult as it is not used consistently in the MP (particularly in the maps). "According to the 2020 Open Space & Recreation Plan, approximately 35% (about 3,488 acres) of Carlisle’s total land area is

protected open space, which was an increase of 126 acres since the last OSRP update in 2013. It is important to note that open space (both publicly and privately-owned) comes in a variety of forms – from conservation land to forest to playing fields and more."

27. MPSC RESPONSE: "Open space" in terms of land use planning is often defined more generally to include recreational uses, protected and unprotected open spaces, cemeteries, etc. We understand this is confusing since the OS&RP definition does not include playing fields. We have replaced "It is important to note that open space (both publicly and privately-owned) comes in a variety of forms – from conservation land to forest to playing fields and more" with "As defined herein, "open space" includes protected open space and recreational space.

Ranjan Mathew

March 1, 2022

Via Feedback Form

Providing feedback as representative of an official Town body

Carlisle Town Governance Task Force

I find VERY little about DEI and equal treatment of ALL CITIZENS. The Town needs a code of ethics as we enter Town Hall for Employees, Boards etc. Recommend it be framed and placed as you enter Town Hall. Thank you!

28. MPSC RESPONSE: Thank you RJ for your comments regarding a code of ethics. While the issues of Diversity, Inclusion, and Equity were not surveyed during the Community Engagement activities for this Master Plan, they weighed in to a certain extent on the survey input and Master Plan recommendations regarding housing. However, they were never considered on their own merits, and the Master Plan has a gap in these topics, especially as we describe Carlisle as a "Caring Community" in the Master Plan.

We believe it is safe to say that the response from the community in the last year on these issues has raised everyone's awareness and we applaud the continuing efforts in this regard. We acknowledge this gap in the plan, appreciate your raising this oversight, and will share with Town Leadership.

Madeleine Blake, Planning Board Chair

March 3, 2022

Via Email to Jack Troast

“Bigger Picture” Comments

Address the pandemic – Much of the information in the existing conditions reports and the factual premises relied on in the report is three or more years old. In addition, the pandemic upended so many things that we can't assume historical trends are continuing unabated. Before embarking on many of these recommendations, there needs to be an analysis of what current conditions actually are. I think you should put a paragraph or section in the front of the report addressing the pandemic and acknowledging the need to update the information. In particular, the current conditions w/r/t land use/development should be updated, as should the school enrollment figures. Why did you use the 2020-21 figure of only 500 and some kids, and not the 619 figure from 2021-22? Further, in the appendix report at K-2, the projection is for school enrollment to grow to 670 to 730, so shouldn't this be mentioned? Another area that should be mentioned is the new 2020 census data. One of the first steps for the implementation committee should be to incorporate info from the 2020 census. Also, Sara Smith's comment at the meeting about incorporating lessons learned from the pandemic/remote work into space planning is a great idea.

29. MPSC RESPONSE: The Plan now acknowledges the gap in data both in the introduction and on the Appendices introduction page.

The plan does not reference enrollment of 500. It referenced the 2020-2021 figure of 579 because that was what was publicly available at the time of drafting. DESE now has 2021-2022 figures and we have updated this information. The report now indicates that Census 2020 does not currently include age information for population or households. The only Census 2020 information available relates to total population count, total households, and race.

In the appendix report L, there is an assumption that there will be 12 to 15 new homes per year, and that 2022 will see a lot of building permits. I don't think this text needs to be changed, as it notes it's an assumption, but the fact that we might actually be going in the opposite direction should be considered by those thinking about these things. It's too early to tell if this is a short-term aberration caused by the pandemic or if it's the beginning of a long-term trend. However, there were apparently only 2 building permits issued in 2021. No new subdivisions have been applied for since 2014. Although there are two large projects – Stillmeadow Farm and Woodward Village – with approximately 35 total planned residences, after these are built, there may not be much on the horizon. These homes may not be built in 2022 and construction may be stretched

out due to the incredibly high costs right now. There have been several recent examples of larger parcels where the plan appears to be for only one or a few residences, instead of doing a larger development. I don't know any of the particulars of these situations to know if there were site constraints or other unique factors but all of this may bear on whether 12 to 15 homes will occur. Report L is really excellent!! and I hope the authors will think about what the most recent trends might be.

30. MPSC RESPONSE: The estimated new growth of 12- 15 homes per year is based on historic trends and as noted in the comments is an “estimate.” The information provided by David Freedman (see comments dated February 27th) offers confirmation that the total number of units for the past decade is 132 including the Benfield Farms project (13.4 average units per year). These figures have been added to Table C-3 and the text should be revised to reflect the total number of building permits issued between 2010 and 2019 as “just over 10 per year” and with the Benfield Farms apartments- “bringing the total to 132 units for the decade.”

We also agree that the Key Trends and Characteristics of Housing (Appendix D, Page D-2) would be revised to reflect these changes:

“Housing production has been slowing down in the past **twenty years, with **about 132** new units created between 2010 and 2019 compared to more than 300 units in many previous decades.”**

Given the figures are estimates and averages it is quite possible that new homes could be less than 10 in one year and greater than 15 in another year over a 10- year time horizon as reflected on Table C-3. We would agree that high building costs and other “post pandemic” factors may impact 2021- 2022, but the 35 total planned residences at Stillmeadow Farm and Woodward Village represent a 2-3 year inventory of units assuming this new growth estimate. The build-out analysis referenced on page J-2 indicates that the town could add an additional 350 housing units over the next 20-25 years. Approximately 290 would be single-family homes under the current zoning with the balance an estimate of apartment and accessory units. Some of this land will remain open space and some will likely be developed including in higher density clusters.

Highlight the public input – To me, it is a gaping hole that you don't talk up front about all of the public input you received. You should put a section up front that synthesizes and pulls together all of the input. It seems like it really has a story to tell – consistent with past decades, Carlisle's priorities are open space, good schools and prudent financial management. Instead of highlighting this central part of your work, you start with a series of questions that read more like a master plan at the beginning of the process, when in reality you have obtained information that answers many of these questions. For example, on page 1-3, you state that a question is whether

to adopt less restrictive zoning “and make such a trade-off and at what cost is a primary topic for the master plan.” However, it is not actually a primary topic of the master plan, and I don’t think you asked a survey question about whether people want less restrictive zoning (maybe I missed it) or analyzed what types of zoning might have what types of results. So, how is this a primary topic of the master plan? Shouldn’t you focus here on the results of your public input? In another place, you spend two or so pages listing the various events, instead of describing the substance of what was learned.

31. MPSC RESPONSE: We agree with the premise of the comment and have updated to the following language (in the Executive Summary) to clarify that expansion of the tax base is *one* scenario to consider (New text is underlined and replaces previous text referring to “crossroads”):

“Carlisle has grown and flourished from a semi-rural farming community to a prospering upper middle-class town with excellent schools, a mix of very educated town residents, and relatively high taxes. However, like many communities, Carlisle’s financial challenges are very real. Revenue growth is slowing in comparison to surrounding communities, and municipal expenses will likely continue to rise with inflation. There will be an ongoing need for diligent discussions regarding the Town’s finances. In future decision processes, the Town may face options to: continue as-is; increase funding to address staff capacity and capital projects; reduce expenses through regionalization and other means; or investigate whether zoning changes to potentially increase density could grow the tax base. Over a third of the land in Carlisle is protected open space and will remain as such, an accomplishment that sets the town apart from its neighbors and has continually been cited as the top reason people choose to live in Carlisle along with its first-rate schools. For the land that remains, will the community move to protect it, shape its thoughtful development, or take no action?”

Related to how you address public input – you should somewhere include the entirety of the fall 2021 survey. This report will be used as a reference, so there needs to be one place readers can turn to, to find the results of each survey. Also, I question your reliance/suggestion that there should be continued advocacy for certain recommendations. (For example, under the recommendation for an environmental planner, it states that only 39% favored this, which “speaks to the need for continued advocacy.”) This seems to be inconsistent with your stated methodology, which was to be a neutral arbitrator and base your recommendations on the public input received. Stating that certain things need more advocacy reads like you came into the process with pre-established goals. Similarly, in many places, the report justifies recommendations by stating that they are consistent with the Select Board’s goals. However, the master plan report was not supposed to be a means to impose top down goals, such as from the Select Board, but rather to generate “bottoms up” feedback from town residents.

32. MPSC RESPONSE: We agree that the public input should be highlighted, and have added the survey responses to the Appendix and direct the reader there. We also agree that we should strike references to the need for more advocacy based on survey results and have done so.

Disagree with All Text that goes with Recommendation 19A – this text is found on pages 3-5 and 6-8. This entire recommendation seems to be based on a model bylaw and a bylaw review tool on the Mass. Audubon website. I disagree with this method of generating recommendations. Recommendations should be based on analysis of existing conditions *in Carlisle*. Our last two large projects – Stillmeadow Farm and Woodward Village – both resulted in large donations of protected land. Conservation clusters have been used successfully for many years. For this particular model bylaw, the central aspect of it is to make the creation of open space mandatory. I question whether this is legally enforceable – at the end of the bylaw, it states that the drafters “take the position” it complies with state law – which doesn’t necessarily mean it does, or that it wouldn’t be considered a taking by the courts if we try to force people to donate open space. I have heard that towns that have adopted this end up giving waivers – presumably because when the rubber hits the road, they can’t actually enforce something that might be legally questionable. Further, is this responding to a problem in Carlisle, where we have a long-standing tradition of sophisticated land donations? It could do more harm than good and would be extremely difficult to enforce. The other aspect you mention – providing for open space cluster developments on smaller parcels – could be looked at, but it may not result in additional open space protection, due to the interface between wetlands, pre-existing wetland regulation, and these bylaws.

If you want to create a recommendation in this area, perhaps you could suggest, parallel to how the PB should work with the Housing Trust on the housing recommendations, that the PB should consult with Conservation Commission, Carlisle Conservation Foundation and CRAC to determine if any of those groups have suggestions for new or revised bylaws or other strategies for open space protection. Also, I believe state law had some amendments in this area in January 2021 so perhaps that is something that could be looked at.

33. MPSC RESPONSE: We have removed references to the Mass Audubon tool and suggest language about reviewing with existing Carlisle conservation-focused groups.

Staffing

Please don’t make the proposed new planner a responsible party on the far right of the chart. They should be a resource, and a board or committee should be the responsible party. Also, please be aware, that under our current town government structure, it would be difficult for a

planning board employee to support other boards in a manner independent of the planning board.

34. MPSC RESPONSE: Please see MPSC Response #1.

State statute

Could you include an explanation or sentence about why you chose to follow the state statute and address all of the categories included in the statute? Did you decide those categories were a good fit for Carlisle? And I found the graphic where you drew lines from the goals and other items in our plan to the elements in the state statute to be not a good use of space. (Figure 2-2). Why is this information important or necessary? Also, on page 1-4, you say “acknowledging that state law directs the PB to adopt a master plan.” This is inaccurate as the PB does not acknowledge that state law directs this. As I have explained, based on a discussion I had with several folks at MAPC, state law no longer directs Planning Boards to do master plans. There is a formal opinion of the state comptroller that makes it discretionary. Rather, the town bylaw directs the Planning Board to periodically undertake plans and studies. This question has continuing relevance in view of your recommendation for continued planning efforts – there needs to be thought about *what type* of planning we should do in the future.

35. MPSC RESPONSE: We have modified the “Acknowledging” sentence. However, we believe retaining the crosswalk and use of 81D elements for should remain in place for ease of reference, particularly to readers familiar with the state framework.

Comments on specific wording

Page ii – “the town can take steps to proactively grow its tax base” and page 1-8 “the town can make decisions to proactively grow its tax base.” What is the support for these statements? I find it odd that this question is one of the first and most central things you put in the executive summary, but it was not focused on or analyzed in your work. There are no concrete proposals for how to do this or any consideration of whether it would work, and I don’t think you asked in a survey if people would support moving away from 2 acre zoning. Perhaps you could say, this is an important question that we didn’t get to and it should be a focus of future planning efforts? Putting these statements in the executive summary might cause readers to assume there is support later in the report.

A similar statement is on page 1-3. “Should the town adopt less restrictive zoning Carlisle could grow more rapidly.” Also, “restrictive” is a bit of a pejorative term.

36. MPSC RESPONSE: See Response #31, which addresses changes to this language. Growing the tax base is *one* scenario demonstrated in Appendix L, and we adjusted the language to

clarify that there are other scenarios to consider, as well. We have changed “less restrictive” to “Changes in the current zoning might allow Carlisle to grow more rapidly in terms of tax levy and expand its tax base, but this was not studied as part of the plan and could be explored in greater detail.”

p. ii – you state that past decisions were made on an “ad-hoc” basis and it sounds pejorative. What you should note is that our town’s method of decision-making is by town meeting vote. You cannot know what the answer will be until you go through this process and get that vote. Even if you have extensive planning, it will not necessarily change this process – the plan by definition will be carried out by a limited group of people, who will try to anticipate questions and concerns – but all the planning in the world might not make a difference, and the well-planned recommendation still might go down to defeat at town meeting. Thus, decisions will continue to be made, one at a time, by town meeting, and the “ad hoc” characteristic of past decisions will continue. The benefit of long-term planning (in my view) would be to carry out and disseminate factual, legal and policy research so that our traditional method of decision-making can be as well-informed as possible.

37. MPSC RESPONSE: We agree that ad hoc” should be changed to “project by project” planning and have made that change. The focus in the future should be on more coordinated planning in that a more holistic approach (as the master plan suggests) has not been the norm. We agree that Town Meeting makes decisions on a project-by-project basis and that will always be the case, but those decisions should be *guided* by the findings of more coordinated and holistic planning efforts.

p. 1-2 – statement that population is aging and school enrollment is declining. Is this supported by 2020 census data? Also, is the statement on page 1-3 that there are a declining number of households with children born out by 2020 data? See p. K-2 (projecting that school enrollment will grow). Also, page 1-3 says that school enrollment is declining due to a declining number of households with children. However, in the *Mosquito* article reporting on the figures for 2020-21, it gave as reasons home-schooling and children going to private school (which could have been temporary responses to the pandemic).

38. MPSC RESPONSE: We do not have this level of information from the 2020 Census yet. We only have population count, household count, and race. We do not have breakdown by age or household type yet and therefore are using 2020 ACS data, which indicates a decline in the number of households with children. (38.8% in 2020 compared to 50.1% in 2010.) However, ACS’ 2010 figure is significantly higher than the 2010 Census figure of 42.6%, so it will be telling to see the full 2020 Census when it becomes available. The different data sampling methods

between the decennial census and ACS estimates can make it difficult to compare the two data sources.

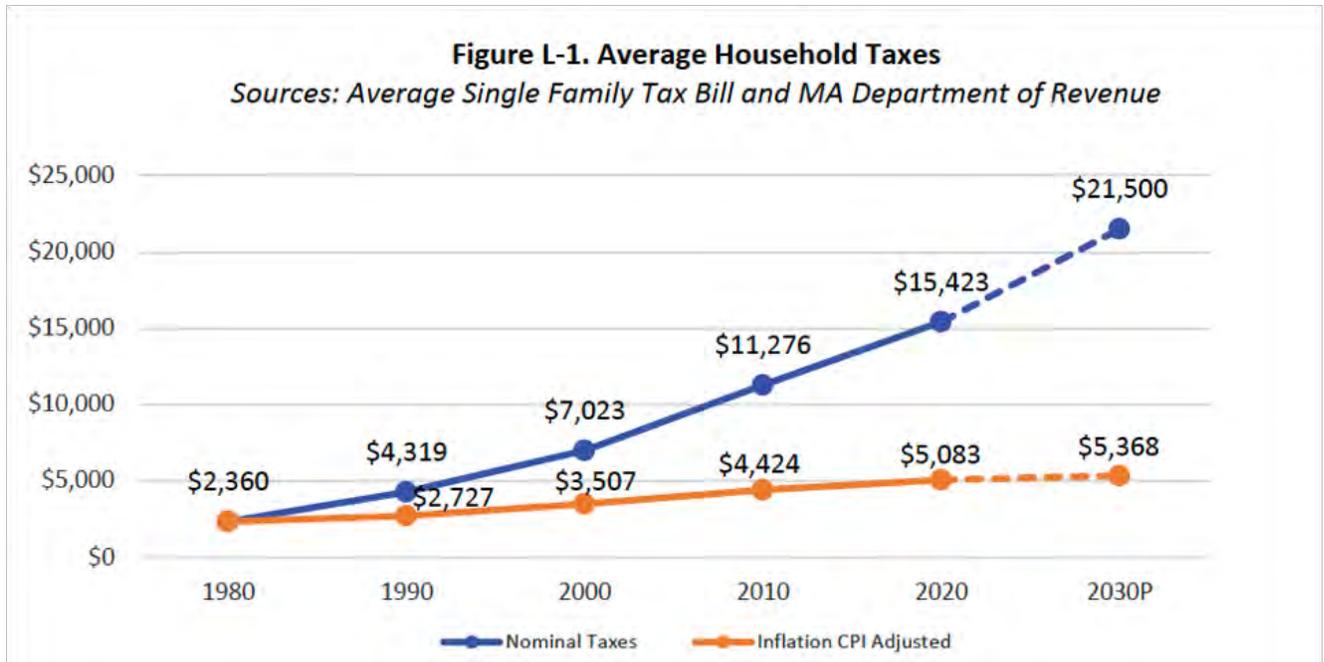
p. 1-2 statement that “residential land values are higher.” I think what you mean is that *residential buildings* (not the land underneath) are more valuable than commercial buildings. That is what the Civic Moxie analysis found.

39. MPSC RESPONSE: Thank you for the comment. We have shifted the text to say “Property values” instead of land values.

p. 1-3 - statement that average taxes have increased by 30%. I assume some of that is due to an ever increasing proportion of large and expensive homes, thereby driving up the average? You should probably explain or footnote that this does not mean that taxes have gone up 30% on an existing home. Also, on page L-2, it says that inflation adjusted real estate taxes have shown “moderate” growth,” which is pretty different than giving readers the impression it’s been 30%. Elsewhere in report L it states that our tax incidence rate rose as a result of the school construction and appears to be stabilizing.

40. MPSC RESPONSE: Figure L-1 included on page L-3 shows how the average tax bill has generated a 37% tax increase, but the tax incidence (a family’s ability to pay) has remained relatively stable, so we have made this clarification to the language on page 1-3. Thank you.

“Carlisle’s slow growth and lack of scale will require that the community continues to seek effective ways to provide essential services in a fiscally sustainable way. Between 2010 and 2020, approximately 100 new single-family homes were constructed. During this time, average taxes have increased by nearly 37%, yet Carlisle continues to be a highly sought-after place to live and raise a family because resident’s median incomes have kept pace.” [Footnote: This is a function of both increased assessed values and tax rate between 2010 to 2020.]



p.4-2 – you use the phrase “while also accommodating residents’ desire for expanded services and facilities.” It’s not clear what the statement that residents want increased services and facilities is based on. It seems out of sync with the results from the fall survey reporting on pages 4-3 and 4-4.

41. MPSC RESPONSE: This observation was in part drawn from the Spring 2021 survey where almost two-thirds (64%) of the responses supported the goal “to expand town services for all residents including seniors.”

p. 4-5 – for the purpose of the governance task force, you should use the warrant language establishing the task force instead of the language you have.

42. MPSC RESPONSE: This language was taken from the Task Force’s website. We have reviewed the warrant language establishing the task force and added the underlined language accordingly: The task force was established by Town Meeting vote in 2021 and “charged with studying the form, organization and practices of Town government and making recommendations to improve the efficacy, efficiency, responsiveness, and transparent functioning thereof.”

p.7-1 – the community is divided over the definition of “affordable” etc. . . . what is the support for this? I don’t think you asked in a survey or tried to determine what people’s definition of

affordable is. What I think you mean is that some people have different opinions about what *type* of affordable housing to build, (not necessarily the definitions) but it seems like something you didn't really focus on.

43. MPSC RESPONSE: We agree and have eliminated language that the community is “divided” on the definition.

p. 7-6 – language on this page. There are a couple of word choices on this page that should be tweaked. In the first paragraph, it says there are “numerous strategies” to promote housing affordability. I worry that this makes it sound like there will be lots of choices and it will be easy to accomplish this, when it may not be so. Then, the paragraph says that LIP should be kept on the Planning Board’s agenda – this should read that it should be kept on the Planning Board *and Select Board* agendas; according to the text in the Open Space report that you refer to, previously, the Planning Board proposed LIP rules, but the Select Board did not act on them, so both were involved. Next, in the second paragraph, there is a sentence that reads “The town could ensure the availability of land for use by the CAHT by updating the ROSC and SROSC guidelines to include a provision that “additional available land” . . . could be granted to the CAHT. This is inaccurate. There was no “additional available land” involved in the recent preliminary proposal on South Street. It is unlikely that there would ever be “additional available land” because you need to assume that developers, once they have decided to use ROSC or SROSC, will build all the units they are allowed. What this comes down to is that you could ask developers to make donations of land or affordable units. Finally, the paragraph says that the Planning Board considered Inclusionary Zoning “on a very preliminary basis several years ago.” Is the preliminary basis language accurate?

44. MPSC RESPONSE: Thank you. We have changed “numerous strategies” to “various strategies” and added the Select Board. Under 20C, we have deleted the second sentence of last paragraph reading “The Town could agree ...” regarding “additional land.”

Regarding inclusionary zoning, we have adjusted the language to read “Although the Planning Board determined in 2015 not to pursue Inclusionary Zoning, this Master Plan recommends that this topic be revisited as a potential strategy for increasing the community’s supply of affordable housing.”

“medium-sized” comments

p. 4-10 – fees in lieu – the text says this is a common way of generating revenue and gives the example of inclusionary zoning. However, when I googled this, I could find only one other example, having to do with Army Corps of Engineer permits. Is it really common and if so what are some other examples? Conceptually, I don't think these fees are “revenue” because they are

to be paid instead of some other pre-existing obligation and just take you back to square one, such as paying to clean up polluted water in the army corps of engineers example. Finally, for inclusionary zoning, we do not have zoning yet that creates the obligation, for which fees could be substituted. The topic of inclusionary zoning should be considered under the housing recommendations and not here.

45. MPSC RESPONSE: Acton has a PILU option and Concord had a Master Plan recommendation to consider PILUs but it does not appear they have amended their bylaw to include this option. Some other examples we are familiar with include Milton, Arlington, and Duxbury.

Of course, this would only be an applicable consideration for Carlisle if the Town adopted IZ. As such, we have moved the description of inclusionary zoning “payments in lieu of units” (PILUs) to the narrative for 20C so it is included with the text on inclusionary zoning.

p. 4-10/Recommendation 9B – current user fees - conduct a comprehensive review of current user fees. I realize you must know this, but fees are constantly being reviewed. The Planning Board reviewed ours three or four years ago and considered doing it again this year but decided to wait until five years had elapsed since the last review. Wasn't there just an entire task force to look at this for the transfer station? Also, for our fees (and possibly other boards), the Planning Board, not the Select Board, is responsible for setting the fees, so some of it is decentralized.

46. MPSC RESPONSE: This is based on Civic Moxie's analysis and is stated in Existed Conditions reports. We propose a change in language to “Conduct a regular review of user fees.”

p. 4-11 – real estate transfer fees – you note that other towns' requests to do this are “pending” at the state level, but I think that understates it. According to an article in the Globe today, the state has *never* approved any town to do this, has denied Boston's request in the past, and it is the subject of intense lobbying/push back from groups who argue it will increase costs. So even if we decided to do this, it's not at all clear we would be able to . . .

47. MPSC RESPONSE: We have added language that it is controversial and note that this opportunity may not become available but that the Town can continue to follow developments on potential legislation.

p. 6-7/Recommendation 18A – town wells and wellhead zoning. We and/or the federal government already own the land in question, so there would be no need for zoning. Ownership is a stronger means of control of land than zoning. I believe the O'Rourke farm status as federally protected reserve means it cannot be developed and thus there is no need to regulate

stormwater and the like. As we already have the wellheads and there is no need for zoning, this item should be deleted.

48. MPSC RESPONSE: We have updated the text to read “Evaluate possible Town well sites and explore additional measures to protect these water resources and the land around them” rather than specifying zoning. It is possible (although further study would be required) that the area requiring additional protection would not align with existing wetlands boundaries or parcel lines, and in fact is often the case.

p. 6-8/footnote 36 – recommendation of a tree protection bylaw. This text and accompanying footnote do not make sense and are mixing concepts. First, the text says that the “town could review the Development standards within the Planning Board rules and regulations . . . to see where they could be strengthened to ensure more sustainable building practices for issues such as tree removal.” We already have strong protection for tree removal in the Development standards (see I.B.1.g on pp. 1-2), which provides that to the extent possible NO trees greater than 8 inches in diameter shall be taken down. This gives the Planning Board a lot of authority to regulate tree removal in the special permits you mention such as the Residential Open Space bylaw. The way the provision is written also gives flexibility to tailor tree removal requirements/protections to particular sites. I don’t believe this needs to be strengthened or changed. It is written consistently with the way most of Carlisle’s development rules are written, which provide for the Planning Board to engage in balancing and make site-specific judgments.

The two bylaws cited in the footnote, from Arlington and Concord, on the other hand, don’t deal with tree removal in the context of development overseen by the Planning Board. They create rules governing the removal of trees on specific house lots. So they are not appropriate examples for what the text is trying to talk about. The words “alternatively” and “development” are confusing in the footnote; because the text talks about Planning Board development, it is not clear that in the footnote, you have switched to talking about a different type of development, namely construction on individual lots of individual homes. If Carlisle were to enact a bylaw such as this, it would be under the Select Board and not the Planning Board, as the Planning Board does not generally regulate activities on individual lots. Before recommending such a thing, you should bear in mind that, compared to Arlington and Concord, Carlisle is much more heavily forested and this type of regulation would be more time-consuming and probably more frequent. Someone would need to enforce it and hold hearings to monitor it, so some sort of regulatory apparatus would have to be put in place. It is pretty hard to build a house and driveway on a vacant parcel in Carlisle without taking down a lot of trees, so it would be worth thinking about what you would be trying to achieve – prohibiting building? Becoming involved in the siting of the house on the lot, etc.? Also, many of the trees in Carlisle are relatively fast-growing pines; should these type of trees be protected or just old growth ones? In short – this concept set forth in the footnote is entirely separate from what is in the text, and if you are going to recommend

this, you should make it into its own separate recommendation and the responsible party should be the Select Board.

49. MPSC RESPONSE: We have removed the references to sustainable building practices from 19A and have removed Footnote 37. We have adjusted the text to 19A to read “Consider adopting an additional or alternative open space residential development or conservation cluster bylaw.”

The narrative for 19A now reads as follows: As part of this review, the Town could consider whether any new alternative or additional open space bylaw would include a smaller minimum acreage requirement than the requirements currently incorporated in the ROSC and SROSC bylaws. This research should be done in consultation with conservation organizations in Town (such as the Conservation Commission and Carlisle Conservation Foundation) and include reviewing examples from other towns as well as guidance from statewide conservation bodies. Additionally, this examination should involve a careful review of recent changes to Section 5 of MGL c. 40A relating to open space residential development.²

In addition, we have added a new recommendation, 19B described below, and bumped the previous 19B and 19C to 19C and 19D.

NEW RECOMMENDATION 19B (Previous 19B bumped to 19C): Explore options and possible methods for, and costs and benefits of, extending regulation of tree cutting to individually-owned parcels of land that would build upon the regulations in place.

NARRATIVE: The importance of mature trees is becoming more widely recognized. Trees play a significant role in climate change mitigation and in protection against climate change hazards (such as preventing flooding and providing shading) while also supporting vital ecosystems. Recognizing that tree cutting is already regulated in certain Planning Board applications, that Conservation Commission already has the authority to regulate tree cutting in their jurisdictional areas, that the town already has a scenic road bylaw that requires consent by the Planning Board to certain removals of trees along scenic roads, and that the tree warden has certain authority as well over tree cutting, this recommendation suggests that the Town explore additional methods for discouraging removal of trees to the extent allowed by state law and consider whether any such additional efforts would outweigh the added cost of development. Given that Carlisle is wooded and that on many lots, homes and driveways could not be built without removal of trees, such research would need to define the goal of any proposed additional regulation and what the legal regulatory mechanisms would be. (*The plan*

² <https://www.mass.gov/info-details/voting-threshold-guidance>

now adds the former footnote 37 explaining Concord and Arlington's tree bylaws as Community Examples rather than a footnote.)

p. 6-9 – Recommendation 19C - noise and lighting – as with the example above of trees, the Planning Board's rules around lighting are designed to be flexible and to give the Planning Board authority and discretion to make site-specific decisions. I don't think these need to be changed. As you note, we already have a noise bylaw. The only item in here that isn't already done is to have a municipal lighting policy and I wonder if this is really necessary? We have only a few municipal buildings, and they already seem to have quite dim lighting. Have you identified a problem in this area that needs to be addressed? Is there a particular building that's too bright? This recommendation seems like a solution in search of a problem . . . if you do keep it, I think a municipal building policy would fall under the Select Board.

50. MPSC RESPONSE: We recognize that connecting the recommendation to the existing noise policy implied that all of the sources of noise and light pollution would fall to the Planning Board when that is incorrect; we have adjusted the text accordingly by removing that wording from the recommendation. While the MPSC did not ask specifically about this issue, the community has indicated strong support for protecting the natural environment, and the MPSC seeks to offer solutions to do so to the greatest extent possible. Lighting is an issue for which there is an increasing body of evidence about its impacts on the environment, and Carlisle is not immune to that, although it clearly is less of a concern for lower density community like Carlisle.

Revised recommendation (now Recommendation 19D): "Explore additional measures to reduce unnecessary noise and outdoor lighting." (Note: We do think the wording of the recommendation should be somewhat general since there are multiple avenues the Town can consider, and the real task is to explore these measures and consider what makes sense for Carlisle.)

Revised narrative: Noise and artificial light can be potentially harmful for humans and can impact wildlife as well. Further, excess lighting causes unnecessary emissions of greenhouse gases, which accelerate climate change. The Town's zoning bylaw addresses lighting in commercial districts and on signs, and the Planning Board has existing regulations to consider the impacts of lighting in its site plan review, special permit ROSC and SROC bylaws, and subdivision rules and regulations. However, some communities specify the desired characteristics of outdoor lighting to reduce light pollution. An appropriate Town body, perhaps the proposed Environmental Sustainability Committee, could be tasked with developing a set of best practices for outdoor lighting. This topic could also be explored as part of the public education and outreach effort relating to environmental stewardship topics, as described in conjunction with Recommendation 15H.

In terms of noise pollution, Article XVI of the Town’s General Bylaws addresses noise resulting from ledge removal and roosters, and the Planning Board’s current Policy for Noise Control addresses noise from “construction activities pursuant to subdivision approvals, site plan approvals and special permits for development under the purview of the Board.” However, neither policy addresses noises from other sources such as lawn equipment. Again, an appropriate Town body could be tasked with exploring additional avenues for addressing noise pollution and reporting on measures that the community may consider.

Recommendation 23B – municipal and waste water treatment – most of the text for this recommendation talks about having a municipal water supply. How is this recommendation different than 18A, and as you mention in 18A, we have already identified two sources for public wells?

51. MPSC RESPONSE: The Committee intends this to be different than 18A because it also addresses wastewater. We feel that it is intended to support health, safety, and the wellness of residents.

p. 7-11 – Review and Improve the use of volunteer support, etc. this recommendation states that we should ensure adequate professional support for volunteer boards, committees and commissions. As I mentioned in the meeting, I don’t agree that all volunteer groups should have professional support. The town should hire professional staff to meet core or statutory functions of the town, and the Select Board and Fin. Com. should make that determination. The way this is worded, there would be no limiting principle for the need to provide professional support.

52. MPSC RESPONSE: We agree that not all volunteer groups require professional support and have changed the language accordingly.

Randy Brown

March 4, 2022

Via Feedback Form

Providing feedback as private citizen

Constructive feedback.

1. 81d guidelines suggest the name of this document in it's final version be Carlisle Master Plan when its submitted to DHCD.

2. 81d provides a legal, approved framework³ that should empower and encourage the Carlisle Planning Board to use the document as a frame of reference for Warrant Articles that must define the capital and operating costs of the project as well as why it has priority among other projects/Warrant Articles. Citizens concerned with fraud, waste and abuse and sustainability can then insist that the project is a high priority project and expect it to be reflected in prior year LRRP (Long Range REQUIREMENT Plan). For at least the past 10 years committees submit only one year requests, never show the most likely costs in future years and never show the operating cost. Currently that type of honest and transparent planning estimates would kill the request since it would be a "big ask".

3. Add a Glossary of Terms. Without one the document can be easily misunderstood.

4. Minimize use of non-actionable, vague terms (such as values, goals, strategies, sustainability...) or move them into another document that is designed to keep or attract residents.

5. The total estimate for future capital projects is understated at \$30M.... and it doesn't include the operating costs or some contingency set-aside for both schools. With taxes already too high just barely paying for schools as-is (66%) and the somewhat discretionary line items the rest of the town needs (33%) it's difficult to see where we cover the operating costs over the 30-50 yr useful life of the building/project.

6. It's unclear how the Planning Board leads or follows the other town committees, BoS or Town Administrator/Manager in implementing any part of a final Master Plan. Perhaps the Highland project could be used as an example. It's an orphan and not being actively championed. The exercise might be used to see how many of the vague terms (above) can be used to support a final decision on Highland without bogging down a higher priority project with the extra burden of proving out the possible usefulness of the Master Plan. It seems unwise to launch the Master Plan without a test run first.

7. The Mosquito archives document the town's failure to enforce charters, site plan reviews, plans, mission statements, CPAF, DHCD, OML, state recommendations, etc. Instead it is commonly understood silos and working behind closed doors will get the Warrant defined, processed and passed. Along the way the legitimate, fully compliant but awkward alternatives (complaints ?) are buried and lost... or not filed in the public record. One hope is the recommendation from the Governance Committee but we're many years from having the trained employees and controls in place as we phase out the "good ole boys" network.

8. We've lived in town for 35 years and don't believe the budgets, required professionalism, transparent decision processes and # of volunteers needed to implement the Master Plan elements will happen fast enough.

9. It reads too much like a sales brochure and an unaffordable wish list of goals and lacks the steps needed to achieve the goals. especially any new steps to be taken by the BoS or Planning

³ <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter41/Section81D>

Board. Even a real "city" like Concord has repeatedly failed to implement most of their several Master Plans. How can Thoreau's "city OF the woods" hope to succeed.

Sorry if I drifted away from "constructive" feedback and wandered into "critical" thinking. I hope some of this helps.

53. MPSC RESPONSE: Thank you very much for your thoughtful comments about the Master Plan. As a 35-year resident and an active and engaged citizen, you have witnessed and recapped your view of Carlisle's strengths and weaknesses regarding decision making processes, priorities, spending, and overall responsiveness to the decisions made at Town Meetings. We believe it is reasonable to raise the issues you have stated and thank you for raising them. The Master Plan is both an aspirational plan reflecting the Town's input to the various surveys, and a practical response of recommendations that address the Town's needs and sense of priorities. We believe that your comments strongly support the case for developing a Master Plan in the first place. Given your past experiences and knowing that we will continue to rely a great deal on the combination of a modest Town staff and a large volunteer corps, you may be justified in your skepticism about the Town's ability to implement the Master Plan. However, we trust that you would agree that it is better to have developed one than to continue without one. We regard the development of the Master Plan as a necessary, but not sufficient, body of work. The effectiveness in implementing the Master Plan will be the key to addressing your concerns including those recommendations that address a longer-range view for financial planning. The Planning Board's acceptance of the Master Plan will support the "frame of reference" that you suggest and the implementation plan will identify the responsible parties. We tried at every step to avoid developing a "sales brochure and an unaffordable wish list of goals" and consistently tied back to survey results when developing recommendations. We were also constantly mindful of the scarce resources, slow revenue growth, and lack of scale that characterize Carlisle. We trust that you would agree with the validity of the recommendations for implementation going forward, and hope that you will consider volunteering to assist with the implementation phase of the Master Plan.

As to some other specific concerns you mentioned —

Regarding the document title: The title of the document is Carlisle Master Plan. It is our view that the plan logo and "Carlisle Forward" branding of the process do not detract from that. For clarity, we adjusted the text in the Executive Summary that refers to the "Carlisle Forward Master Plan" to read "Carlisle Master Plan."

Regarding the request for a glossary: We agree that this is a great idea, but unfortunately the MPSC does not have the bandwidth to take this on at this stage.

Thank you again for your thoughtful comments on this document.

Bob Goldsmith

March 5, 2022

Via Feedback Form

Providing feedback as private citizen

Section 10D. This recommendation (for environmental impact statements for new trails) is unrelated to (and possibly conflicts with) the connectivity goal of this section. The "Key Drivers" section Chapter 5 (which includes this recommendation) states "fragmented with limited connectivity to the Town Center and to a town-wide network." The list of Recommendations in this chapter should address that. For example "Encourage residents to grant trail easements across their private land." Or "Plan for connecting trail networks, especially with Town center."

54. MPSC RESPONSE: Thank you for your comment. In consultation with the Trails Committee, we have modified this recommendation substantially. Please see MPSC Response #22 for detail.

Jonathan DeKock

March 9, 2022

Via Feedback Form

Providing feedback as private citizen

Please remove section 10D. The trails committee does not have the expertise to provide such a statement. It will have the effect of negating the previously stated goal of increasing connectivity because no new trails will be built. Furthermore, most sensitive areas are near wetlands or on conservation land and the Trails Committee already must request permission from ConsComm for wetlands, and the Land Stewards, ConsComm and/or the conservation organization responsible for the land to develop or modify new trails on those lands, so the conversations that need to happen to assess the impact of a trail proposal are already happening. They just don't include this un-necessary bureaucracy.

55. MPSC RESPONSE: Please see MPSC Response #22, which addresses the Trail Committee's comment on this recommendation. Thank you for your feedback.

Pete Yelle, Planning Board Co-Chair

March 13, 2022

Via Email to Jack Troast

1. Carlisle description is often repeated with slight variations. Maybe review and apply one consistent description.
 - a. Executive summary page i
 - b. Page 1-9
 - c. C-1
 - d. L-1
2. The description describes Carlisle as “semi-rural” and “rural”. Propose the report use “rural”.

56. MPSC RESPONSE: Thank you for pointing out areas with duplicative wording. We agree that all descriptions of the Town should be consistent. We prefer the term “semi-rural” as it seems the most accurate and descriptive. This is preferred over any established definitions like Rural-Urban Commuter Area or the MAPC’s 2008 designation of “country suburb” which is distinct from their “rural” designation.

Executive Summary

3. Framework first sentence. the start was the PB gaining funding and creating the MPSC to then advise the PB. Maybe update this opening sentence.

57. MPSC RESPONSE: We would favor no changes to this sentence.

4. “Revenue growth is slowing in comparison to surrounding communities, and municipal expenses will likely continue to rise with inflation. The town is now at a crossroads; the community can take measures to proactively grow its tax base, or it can continue to follow its current pattern of slower incremental growth.”
 - a. It is unclear to me the relevance of Carlisle’s revenue growth rate compared to nbor towns.
 - b. It is unclear what the “crossroads: sentence is really telling me. even with slower incremental growht, shouldnt the town proactively address govt topics to include taxes ?

58. MPSC RESPONSE: Please see MPSC Responses #30 and #31.

5. “For the land that remains, will the community move to protect it, shape its thoughtful development, or take no action?”

a. what is this statement trying to convey to the reader ? Seems very specific to Character, which has a bullet below. Why include in the introductory paragraph of the bullets for this one of 5 framework topics and reads to be snarky. To have protected 35% of town to date would show the “community” is thoughtful and has taken action.

59. MPSC RESPONSE: The Committee seeks to highlight the trade- offs involved in future land use. The Town could (1) continue to focus on protecting open space by preserving land as it becomes available, (2) encourage thoughtful development of land as it becomes available (“thoughtful” in that it can still honor the desire to protect open space if carefully planned), or (3) take no action, which essentially means let the existing zoning and market demands determine the outcome. We believe these distinctions are important and are not making any judgements about past outcomes, only future choices.

6. “rather than making ad-hoc decisions on a project-by-project basis?”””

a. how would you rewrite this to not have a negative connotation. Carlisle has a process that is long and drawn out. Large capital expenditures take years to gain support and funding. So Ad-hoc seems like the wrong description.

60. MPSC RESPONSE: Please see MPSC response #37.

Moving Toward Strategic Planning

7. “the MPSC identified key recommendations that further this goal of enabling the Town to take a more proactive and comprehensive approach to decision-making. These recommendations that are necessary for effective long-range planning have been organized into four focus areas:”

a. The plan has identified some recommendations that will need to be taken in the future by resident volunteers. Is enabling the right word ?

b. the MP is not to be mandate, but should be a guide that residents are enthused to adopt and support. Maybe reword to something like “Those recommendations that strongly align with effective long-range.....”. What is necessary will be born out in time.

61. MPSC RESPONSE: We agree. We have changed “enabling” to “encouraging” and replaced “are necessary for” with “strongly align with.”

8. I think you might add a paragraph in “Moving Toward Strategic Planning” to emphasize Carlisle Town Government is really run by volunteers on elected Boards. If residents want to “improve” Carlisle, they need to participate in this Strategic Planning activity and pick a recommendation to champion.

62. MPSC RESPONSE: Our focus remains on the importance of coordinated strategic planning between all parties.

9. 20B current wording page iii

a. “Pursue regulatory changes to promote housing diversity and allow development of “missing middle” housing in specified areas.”

b. The report toggles between proposing a specific task and proposing a topic be studied. I do not think there has been sufficient input gathered to state regulatory changes are needed to promote housing diversity in Carlisle. This should be reworded to Pursue a study.

63. MPSC RESPONSE: We agree and have modified the language to be modified to read “Explore strategies to promote housing diversity and allow development of “missing middle” housing in specified areas.”

10. Executive Summary page iii

a. “...for understanding both Town finances and creating improved personnel efficiency and organization”

i. i think you want to understand Town finances, organization and operations, and to then assess if and how this may be improved. We can all work to be better, but how this is worded assumes the current personnel/organization is inefficient. That in of itself should be addressed without a MP

64. MPSC RESPONSE: Given the short- term nature of the fiscal planning process we believe that recommendations 6A, 6B and 6C are essential proposals in the Plan. We are not judging the work currently being done by the Finance Committee and the staff which is excellent. Rather we are proposing changes to scope and focus of the process.

This need was highlighted in the recent debate over the coordination and communication efforts between the Finance Committee and the Finance Director as raised by the Governance Task Force. Such communication efforts are critical both for town budgets and longer-term direction of the town. These longer-term perspectives and forecasts may be the purview of Finance Director and the Select Board but it will require strong assistance and coordination from Finance Committee and the Carlisle schools.

11. Executive Summary page iv

- a. **21A.** Support intergenerational community needs by finding space for programs within the existing inventory of municipal properties *or* in a new Community Center to be evaluated as part of the Town Facilities Plan (7A) and Banta Davis conceptual study (7B).
 - i. What are the “needs”. Maybe this needs to be less specific to call out evaluating a “new Community Center”, but to suggest Intergenerational Needs be studied, documented and then assess what facilities may be wanted to support them.

65. MPSC RESPONSE: Please see MPSC Response #91, which addresses this recommendation in the context of its chapter.

12. Executive Summary page iv

- a. 15D. Using the *Path to Zero Emissions* report as a starting point, develop a detailed implementation plan for achieving goals and a framework for tracking and evaluating progress over time
 - i. I propose the “Path to Zero Emissions” is a report that may be in the MP as a reference but should not be in the actual Recommendation and worded to be a “starting point”, unless this report was adopted by Town Meeting.

66. MPSC RESPONSE: Please see MPSC Response #84, which addresses this recommendation in the context of its chapter.

13. Executive Summary page v

- a. **“4A.** Increase staff capacity to facilitate coordinated long-range planning efforts by hiring a Town Planner or similar position.”

- b. “15A. Dedicate professional staff to support environmental stewardship and sustainability efforts.”
- c. “20E. Provide professional staff support for housing related initiatives.”
- d. With all three of these, earlier in the Executive Summary the report says to seek efficiencies and understand Town Hall’s organization. Now you are saying to “increase” staff capacity when it is not yet established an “increase” is warranted. Maybe it is a re-organization.
 - i. refer to 6c “Evaluate municipal organization and staffing structure based upon the findings of the 2021 Governance Task Force and regular assessment of departmental capacity needs.”

67. MPSC RESPONSE: Recommendation 4A has been updated to read “4A. Provide staff capacity to facilitate coordinated long-range planning efforts and if required hire a Town Planner or similar position.” Recommendation 15A to be updated to read “15A. Provide staff capacity to facilitate and support coordinated environmental stewardship and sustainability efforts and if required hire a sustainability coordinator or similar position.” Recommendation 20E has been updated to read “Reorganize staff to support housing related initiatives.” The proposal is to increase staff and volunteer *capacity*, not necessarily to increase staff.

14. Community Context

page 1-9

- a. “Carlisle has an open town meeting form of government with numerous volunteer, elected, and appointed boards and committees, each responsible for specific areas of town governance. “
 - i. Is it Town Meeting and then elected Boards with responsibility for town governance ? committees and advisory groups report to their respective Boards.

68. MPSC RESPONSE: Our focus remains on the importance of coordinated strategic planning through the most effective governance means possible to achieve desired outcomes.

- b. Third paragraph
- c. “Like many towns in New England, Carlisle’s population is aging and school enrollment is declining.”
 - i. Carlisle’s resident age distribution trends like its nbors. As a % of population you have similar density of young families as nbor towns.

ii. Pre-school children population is increasing per the latest survey.

69. MPSC RESPONSE: We agree that the following assumption should be consistently applied as stated on Page L-1, “School enrollment will slowly recover and grow to 670-730 from its low 600⁴ level depending upon changing demographics (more young families) and family size.⁵ This is more or less the capacity of current CPS buildings. School enrollment in the low 700s may involve some incremental classroom and office space needs.”⁶ A similar statement appears on page 1-3: “The Carlisle Public Schools have a capacity of 750 students, yet the student population has held fairly steady at 600 for several years due to the declining number of households with children.”⁷

d. “The tax base is nearly 100% residential; because residential land values are higher than commercial values for the low-density type currently found in Carlisle, this burden is unlikely to change without significant commercial development.’

i. The land value is the same, it is the structure on the land that is lower value.

70. MPSC RESPONSE: Please MPSC Response #39.

bottom of page 1-3

e. “In the last ten years, 100 new homes have been constructed and average taxes have increased by nearly 30%, yet Carlisle continues to be a highly sought-after place to live and raise a family.

i. How are these three statements related ?
100 houses were built, taxes went up, people still want to live here.

ii. Is 30% over the 10years a large variance from
nbor towns ?

iii. What is this saying ?

⁴ Carlisle Public School enrollment 2020-2021

⁵ Estimates based on a cohort model that looks at determinants of school population growth – births, new house construction, and turnover sales. Given the relatively small population of Carlisle each of these population groups contributes 25 to 35 % to the cohort of graduating class students.

⁶ Appendix K-2

⁷ While ACS data indicates this change from 2010-2020, this assumption should be reevaluated when the full 2020 Census is released.

71. MPSC RESPONSE: Please see MPSC Response #30.

f. “Should the Town adopt less restrictive zoning, Carlisle could potentially grow more rapidly in terms of tax levy revenues and perhaps flatten the tax increase curve, but this could come at the expense of its identity as a small town with rural charm.”

i. How does presenting this hypothetical idea advance the report with so much not said in one sentence ?

ii. Is rural charm the only “expense” of less restrictive zoning ? I think this can be worded to include there are both obvious and not so obvious consequences to such a proposal. What are possible consequences in addition to the rural charm identify ? Clean Water ? Higher education expenses with lower tax revenue as higher density housing will likely have young school age residents and their household tax will be lower. So higher students/teacher ? So it is more than just Charm.

72. MPSC RESPONSE: Please see MPSC Response #36.

Page 1-6.

g. “The series of Kitchen Conversations culminated in a large-scale community gathering held in March....”

a. 70-100 residents of 5000 is not “large” scale, 500 of 5000 is not large scale.

73. MPSC RESPONSE: Thank you. We have changed “large scale” to “significant response” when compared to other cities and towns conducting Master Planning.

Page 3-2

b. “Land acquisition and use decisions are not based upon a comprehensive evaluation of a variety of needs, including municipal use, housing, recreation, and open space conservation.”

i. Is this really true ? There is criteria, used by different groups, that feed their input to the SB and the SB has the final say.

74. MPSC RESPONSE: We believe that the Town should adopt comprehensive, town-wide criteria.

- c. “Carlisle Public School currently operates below its maximum capacity. School enrollment was at 579 students in 2021, down from 846 in 2002. The school can accommodate 700-750 students.”
- i. Recent surveys indicate the population with youth is rising.

75. MPSC RESPONSE: Please see MPSC Response #69.

Page 3-5

- d. “...through direct acquisition, acceptance of conservation restrictions, or regulatory changes that encourage or require...”
- i. Carlisle by-laws already provide regulatory paths to preserve open space., while promoting denser building with 3 different cluster by-laws. this suggestion to seek regulatory change should not tbe presented in the report as “the” viable solution, without further research on the topic.

76. MPSC RESPONSE: In the Fall 2021 survey 65% of the respondents believe that the Town should “allow small multifamily development in keeping with town character in select areas to allow for “missing middle” housing.” In addition, another 19% would like more information to determine their preference. This suggests that that options beyond the 15-acre minimum for OSR and other cluster by-laws should be “explored.” It remains an open question if such zoning changes could generate greater revenue per acre than the existing cluster programs.

Page 3-9

- e. **“4A. Increase staff capacity to facilitate coordinated long-range planning efforts by hiring a Town Planner or similar position.**
- i. Back to my comment about this topic in the Executive Summary, the report says to seek efficiencies and understand Town Hall’s organization. Now you are saying to “increase” staff capacity when it is not yet established if and what “increase” may be warranted. Maybe it is a re-organization. We know there is an “opening” with the recent

Planning Administrator retirement. What is the best path forward ? is it to replace the PA or hire a different skill set ?

ii. This recommendation should similar in nature to the language in 6c “Evaluate municipal organization and staffing structure based upon the findings of the 2021 Governance Task Force and regular assessment of departmental capacity needs.”

77. MPSC RESPONSE: Recommendation 4A has been updated to read “4A. Provide staff capacity to facilitate coordinated long-range planning efforts and if required hire a Town Planner or similar position.” Thank you.

Page 4-10

f. **“9B. Conduct a comprehensive review of current user fees.** Carlisle’s non-tax local receipts make up a lower percentage of total revenue than surrounding towns. The Select Board could conduct a comparative review of fees from licenses, permits, and other sources, looking both at neighboring communities as well as other peer communities operating at a similar scale to Carlisle, such as Dover, Sherborn, and Lincoln.”

i. why is the report telling the SB HOW to do this study ? A comparative review would imply the other towns have established their fees in a manner we are assuming is correct. The SB should be allowed to assess HOW fees can be determined, and to then maximize the fee allowed, that is best for Carlisle.

78. MPSC RESPONSE: Please see MPSC Response #46.

Connectivity and Access

page 5-9. Metrics.

g. a metric to evalute 14C is to audit Town Hall Policies/Procedures, by Department, to assess the current institutional processes and knowledge, to identify gaps and then fill the gaps

79. MPSC RESPONSE: We agree with this comment, but this is not a responsibility of the MP.

b. “Many townspeople express skepticism that their fellow citizens are willing to support such efforts, while others may feel that individual actions are not enough to combat the damage incurred on a global scale.”

a. I find this statement to be confrontational and difficult to read. a positive spin to make residents want to participate is more powerful than trying to guilt/shame a reader. this is how i read this. So maybe Many will read it this way.

80. MPSC RESPONSE: We have modified "Many townspeople express skepticism that their fellow citizens are willing to support such efforts, while others may feel that individual actions are not enough to combat the damage incurred on a global scale. Yet, change at the community level is imperative because individual communities know best the specific opportunities within their borders." to read "Some argue that we should leave combating climate change to state and federal governments, yet action at the community level is imperative because individual communities know best the specific opportunities within their borders."

c. “The Carlisle Energy Task Force concluded in its *Path to Zero Emissions* report that Carlisle’s per-capita greenhouse gas emissions (GHG) were around 40% higher than the Massachusetts average in 2017.”

a. The key drivers to the per-capita being 40% higher is exactly what Carlisle is valuing. Privacy, open space, resulting in commuting to work.

b. Many of our nbor communities have 4-8 homes on one 2-acre lot. Did the Path to Zero do a relative evaluation of the “community” at large.

c. How can the push to be green be a positive message ?

81. MPSC RESPONSE: a. We have modified the sentence "The Carlisle Energy Task Force concluded in its Path to Zero Emissions report that Carlisle’s per-capita greenhouse gas emissions (GHG) were around 40% higher than the Massachusetts average in 2017." to read "The Carlisle Energy Task Force estimated in its Path to Zero Emissions report that Carlisle’s per-capita greenhouse gas emissions (GHG) were around 40% higher than the Massachusetts average in 2017." Our intent here is to state a fact objectively, without passing judgment. We think it's important to state this fact because at least some Carlisle residents incorrectly think

that Carlisle's per-capita emissions are lower than for more densely populated communities.

b. The report compared Carlisle residential per-capita emissions (excluding transportation) to Concord, the MA average, and the U.S. average. We did not have data for other neighboring communities. Concord's emissions report was not sufficiently detailed to make comparisons with confidence (and included at least one computational error), but the numbers suggest that Concord's residential per-capita emissions are probably reasonably close to Carlisle's--possibly slightly higher. Concord has a municipal electric utility, which further complicates the comparison because their sources of electricity are different than ours. U.S. residential per-capita emissions were similar to MA's.

c. Our goal was to be objective and factual about where Carlisle's emissions are today. The downside of being overly positive is that it could lull people into a false sense of complacency. The reality is that, at all levels (local, state, nation, and world), progress is well behind that needed to achieve established emissions reduction goals--actually mandates, in MA's case. If anything, we could have been more forceful in making these points.

Page 6-3.

d. **“15A. Dedicate professional staff to support environmental stewardship and sustainability efforts.** While only 39% of survey respondents supported consideration of dedicating support for staff to sustainability efforts, another 30% indicated they would consider with additional information.”

a. Based on sentence #2, it seems this recommendation should be to pursue a study to assess the Town’s desire to fund this.

b. Back to my comment about this topic in the Executive Summary, the report says to seek efficiencies and understand Town Hall’s organization. Now you are saying to “increase” staff capacity when it is not yet established if and what “increase” may be warranted. Maybe it is a re-organization. We know there is an “opening” with the recent Planning Administrator retirement. What is the best path forward ? is it to replace the PA or hire a different skill set ?

c. This recommendation should similar in nature to the language in 6c “Evaluate municipal organization and staffing structure based upon the findings of the 2021 Governance Task Force and regular assessment of departmental capacity needs.”

82. MPSC RESPONSE: Please see MPSC response #67 regarding functional capacity vs. added staff.

Page 6-4.

e. **“15C. Establish and pursue community-wide carbon reduction goals aligned with State goals”**

- a. Maybe the recommendation here is to assess the communities support for such an endeavor. This being a state goal, has not yet become a Carlisle goal, as the community support is unknown at this time.

83. MPSC RESPONSE: Carlisle's decision on goals is probably bimodal. Carlisle can align with State goals, or set no goals at all. As a practical matter, the Town's decision about dedicating professional staff will drive its decision about setting goals. If we decide not to dedicate professional staff, we've effectively decided not to pursue decarbonization in a meaningful way. Therefore, our response to your comments on Recommendation 15A applies here as well.

Page 6-4

f. **“15D. Using the *Path to Zero Emissions* report as a starting point, develop a detailed implementation plan for achieving goals and a framework for tracking and evaluating progress over time.”**

- a. 1) Develop a detailed implementation plan of WHAT ? It is unclear what Plan is being proposed, and what community support exists for this undefined plan. The first task should be to assess the communities desire to define a specific, measurable and attainable plan.
- b. Unless the Town adopted the Path to Zero Emissions report at Town meeting, then 15D should follow 15C. and that is to develop a plan based on the goals discovered in 15C. it is fine to suggest using the Path to Zero Emissions as a reference, but the P2Zero report should not be considered a de facto starting point, unless this was formally adopted by the residents at a Town meeting.

84. MPSC RESPONSE: We have modified the recommendation 15D ("Using the Path to Zero Emissions report as a starting point, develop a detailed implementation plan for achieving goals and a framework for tracking and evaluating progress over time") to read "Develop a detailed implementation plan for achieving carbon-reduction goals and a framework for tracking and evaluating progress over time."

Page 6-6.

g. **“16A. Explore regulatory options to restrict the use of fossil fuels in new construction or major renovations using a Home Rule petition or other means.”**

a. Why not rephrase this to read 16A. “Explore options to incentivize owner/builders to consider using alternative fuels (from fossil fuels) in new construction or major renovations using a Home Rule petition or other means.”

b. In doing so the focus may be Explore more that regulatory options. The recommendation as written now in the report presents itself as already decided this is the one way to get it done.

85. MPSC RESPONSE: The broader wording you suggest is already covered under other recommendations. We have set no limits on the type and number of measures that might be considered. This recommendation is intended to be specific, given a) the precedent set by other communities that are exploring this option, and b) the importance of addressing new construction and avoiding the need for very expensive retrofits down the road if developers/builders/owners make decisions based on short-term considerations only. That said, we imply no linkage between a) the decision to secure professional staff and set goals, and b) the decision to implement mandatory measures. They are completely separate decisions. Text revised to 16A to remove “regulatory” - “Explore options to restrict the use of fossil fuels in new construction or major renovations using a Home Rule petition or other means.”

Caring Community
Key Drivers
Page 7-1

h. “There is an expressed interest in the community to diversify Carlisle’s housing stock, although there is also opposition such changes.”

a. Is this accurate ? do Survey results identify opposition messages ? The current by-laws allow for diverse housing; single family, clusters, apartments. You need builders and land owners who want to pursue this business

86. MPSC RESPONSE: We acknowledge that there was a mixed response on this in the survey and have footnoted accordingly.

Page 7-2.

- i. “Some residents and groups desire a community center that would provide a gathering place for people of all ages to socialize, recreate, enjoy cultural activities, and take part in Town- offered programs.”
 - a. Why is this a key driver, to what ? There is opposition to building more facilities when the current facilities utilization may not be optimized.
 - b. If you note Some desire, I think it is fair to say it Is unknown how many is “Some”,. And there may be as many oppsed to a Community Center.

87. MPSC RESPONSE: We have added a note on the driver that “direct support for this has not been measured.”

Page 7-4

- j. **“20B. Pursue regulatory changes to promote housing diversity and allow development of “missing middle” housing in specified areas.** Missing middle housing refers to housing types between single-family and larger multifamily development, such as 2–4-unit homes, condominiums, town houses, and cottage court developments that cluster small homes around a shared court.”
 - a. I think the word Pursue implies it is a foregone conclusion to do. Line 20C this should read to “Explore strategies to promote housing diversity....” The writer is assuming regulatory changes are required, when in fact this may not be needed nor deliver the desired outcom.
 - b. The paragraph contains a lot of extra “examples” as though this gives support regulatory changes is what is reaquired. I would suggest ending this paragraph as note above, after the second sentence ending with “court”.

88. MPSC RESPONSE: We have adjusted 20B to read “Explore strategies to promote housing diversity and allow development of “missing middle” housing in specified areas.”

Page 7-5.

- k. **“20C. Explore regulatory and policy changes to promote housing affordability.”**

- a. Like 20B the recommendation should be to “Explore strategies to promote housing affordability”. This may or may not require regulatory and/or policy changes.

89. MPSC RESPONSE: We have adjusted 20C adjusted to read “Explore strategies to promote housing affordability.”

Page 7-6.

l. “20E. Provide professional staff support for housing related initiatives.”

- a. Back to my comment on this topic to assign staff, in the Executive Summary, the report says to seek efficiencies and understand Town Hall’s organization. Now you are saying to assign staff capacity when it is not yet established if and what tasks are required to be supported.

90. MPSC COMMENT: Please see MPSC Response #67.

Page 7-7

- m. **“21A. Support intergenerational community needs by finding space for programs within the existing inventory of municipal properties *or* in a new Community Center to be evaluated as part of the Town Facilities Plan (7A) and Banta-Davis conceptual study (7B).** The Council on Aging’s 2022-2023 Strategic Plan includes a goal of continuing to advocate for a dedicated senior space. **While it is premature for this Master Plan to recommend a newly constructed community center without a more comprehensive analysis of space needs, available existing facilities and municipal land, integrated costs of the multiple facilities projects and their impact on households, the plan does recognize the need for both designated COA space and opportunities for intergenerational programming. Such a space could also help meet A scenario involving a new community center could be included in the suggested Facilities Plan, as well as options for utilizing space in existing buildings to provide context. Regardless of the community’s decision on a new community center, the Town should prioritize the development of a dedicated space for seniors, and such an assumption is included in the Facilities Needs Summary MPSC Report included Appendix K of this plan.**

- a. i think 21A should be updated to be facility neutral and read “The Master Plan recommend a comprehensive analysis intergenerational program space needs, available existing facilities and municipal land, and the possible need for new facilities, integrated costs of the multiple

facilities projects and their impact on household tax be undertaken.” then be done.

b. Where is the “need” for “both designated COA space and opportunities for intergenerational programming” clearly documented, if a comprehensive study has not been completed yet.

c. I do think it is premature and as such the MPSC should consider removing the highlighted text.

91. MPSC RESPONSE: With respect to Recommendations 21A and 21B the Master Plan Steering Committee believes that it is important to remain “facility neutral” and allow the long-term facilities study- included as Recommendations 7A and 7B- to determine the best use of existing municipal facilities and land. That said, the Committee also believes that it is important to recognize the need for community spaces as contemplated in the 2017 community center study. We believe we have identified these needs in Appendix K of the plan which identifies 7,000 SF of community space for seniors, recreation, and cultural programming as well as an additional 7,000 of expansion at the school (some of which could address community needs). In addition to Appendix K the language in the report consistently highlights this challenge of matching the space needs with either existing or expanded facilities or new construction.

Recommendations 7A and 7B are introduced in the Executive Summary on page iv as a critical and necessary component of coordinated strategic planning to be undertaken by the town. The need for coordinated facilities planning is one of four key planning elements in addition to the needs for coordinated land use planning, fiscal planning and planning for sustainability highlighted in the Plan. The facilities planning process is more fully described on pages 4-5 through 4-8.

In recommending the full support of “intergenerational community needs” by finding space within existing facilities or in a new community center we believe that this need has been highlighted as a critical element in the overall planning and this offers a better approach than attempting to compare competing needs as a means to evaluate particular projects. On page 7-7 the plan states:

“While it is premature for this Master Plan to recommend a newly constructed community center without a more comprehensive analysis of space needs, available existing facilities and municipal land, integrated costs of the multiple facilities projects and their impact on households, the plan does recognize the need for both dedicated COA space and opportunities for intergenerational programming. Such a space study could also help evaluate a scenario involving a new community center which could be included in the suggested Facilities Plan review, as well as options for utilizing space in existing buildings to provide context. Regardless of the community’s decision on a new community center, the Town should prioritize the development of a dedicated space for seniors, and such an assumption is included in the

Facilities Needs Summary MPSC Report included Appendix K of this plan.” [Minor text edits are underlined.]

Looking at the specific language in greater detail:

Based on the need for coordinated long-term facilities planning, the MPSC believes that “...it is premature for this Master Plan to recommend a newly constructed community center without a more comprehensive analysis addressing space needs...” and the other elements bearing on the decision including the cost and the fiscal “impact on households.” --

While the MPSC agrees that it is necessary to conduct “a more comprehensive analysis addressing space needs, available existing facilities and municipal land, integrated costs of the multiple facilities projects, and their impact on households...” it also recognizes “the need for dedicated space for both COA and intergenerational programming” based on the 2017 community center study and feedback received in the master planning process. For this reason, we believe this language on page 7-7 should remain in the plan.

We believe that such a study would help determine various scenarios including “a scenario involving a new community center” and “options for utilizing space in existing buildings to provide context.”

Most importantly, “Regardless of the community’s decision on a new community center, the Town should prioritize the development of dedicated spaces for senior and community programming and such an assumption is included in the Facilities Needs Summary MPSC Report included Appendix K of this plan.”

Also, almost two-thirds (64%) of the responses supported the goal “to expand town services for all residents including seniors” as reported in the Spring survey.

Appendix K, page K-8 illustrates 17,000 SF of additional space (COA- 3,000 SF, RecCom- 4,000 SF and Town Hall- 3,000 SF; CPS- 7,000 SF). The purpose of the facility study would be to evaluate the questions raised by RecCom and determine the best way to address these types of community and after school space needs- in a community center or dispersed through various existing facilities.

The Recreation Commission has requested that the Master Plan endorse the Community Center as a formal recommendation but given the need to confirm final space requirements and evaluate any options within the existing footprint, as well as fiscal and land constraints, the MPSC believes that this position as stated on Page 7-7 strikes a balance to reflect the existing conditions, the community feedback, the feedback from Boards and Committees, and the need to study the matter further.

Verbal comments made by the Planning Board (Sarah Cassidy Smith) suggesting that the requirements for the community spaces and the need for a community center should be reassessed post pandemic have been incorporated into the facilities exhibit, Appendix K.

Implementation
Page 8-2

n. **“Annual Goal Setting: Town Departments.** Town departments should also take part in annual goal-setting that calls on staff to focus on at least one master plan goal or strategy as they plan their new year’s operations and programs. The Town Administrator should facilitate a discussion with department heads and staff to determine a subset of the Master Plan’s recommendations that are to be worked on in a given year.

a. Where Town employees “work” for a Board, the Board should set the goal.

92. MPSC RESPONSE: We wish to emphasize recommendation calls on staff to focus on at least one underlying *Master Plan* goal. We have provided clarification: “The Select Board should first facilitate discussions with other elected boards and committees and the Town Administrator, who should work with department heads and staff to determine a subset of the Master Plan’s recommendations that are to be worked on in a given year.”

Page 8-5.

o. Resources. There are four columns to the table. In Column 3, the primary resource are volunteers (elected Boards and appointed committees).

p. Responsible Parties. There are four columns to the table. In Column 4, the responsible parties, should not list “proposed planning staff” in any variation thereof.

a. The primary Board leading that task will assess and assign which tasks to town employees, at the Boards discretion. The Board may elect to appoint a committee.

93. MPSC RESPONSE: Please see MPSC Response #1.

Page 8-7

q. **“4A.** Increase staff capacity to facilitate coordinated long- range planning efforts by hiring a Town Planner or similar position.

a. The Goal should be to “Explore staffing requirements/organization to facilitate coordinated long- range planning efforts”. not just off the bat increase staff capacity. is staffing optimal in Town Hall ? is the organization setup correctly to be most effective ?

94. MPSC RESPONSE: Recommendation 4A has been updated to read “4A. Provide staff capacity to facilitate coordinated long-range planning efforts and if required hire a Town Planner or similar position.”

Page 8-14

r. **“15A.** Dedicate professional staff to support environmental stewardship and sustainability efforts.”

s. The Goal should be to “Explore what staffing resources may be needed to support support environmental stewardship and sustainability efforts.”

95. MPSC RESPONSE: The master plan survey showed that Carlisle residents are roughly evenly split among those who support considering dedicating staff, those who don't, and those who don't know. Additional surveys are unlikely to clarify further the consensus of the community. Further, this is a time-sensitive decision, with significant consequences associated with additional delay. The Path to Zero Emissions report demonstrates why Carlisle needs professional staff to tackle carbon emissions in a serious way. The report was written and all supporting analysis was conducted through a public process from start to finish that included a three-month public review period. We presented results from the draft report to the Select Board (May 2019), the Planning Board (March 2020), the School Committee (March 2020), and the community at large (FRS in January 2020, library in February 2020, and COA in May 2020).

Page 8-15

t. **“15B.** Establish environmental stewardship volunteer committee to work with paid staff to develop and implement plan. Coordinate with local and regional partners and state agencies, as appropriate.”

a. The task here is to get a volunteer committee to establish environmental stewardship goals the community at large will support.

96. MPSC RESPONSE: Thank you for this comment. The state has established goals for emissions reductions for 2030 and 2050. These goals are actually mandates rather than simply targets.

We don't believe Carlisle should set goals that are different than the state goals and we support having the (to be renamed) environmental stewardship committee engage in this process as part of the implementation plan, working closely with the supporting Town staff. This environmental stewardship committee could also set goals regarding environmental concerns related to protection of land, water, flora, fauna, and funga.

Page 8-14.

- u. **"15D.** Using the *Path to Zero Emissions* report as a starting point, develop a detailed implementation plan for achieving goals and a framework for tracking and evaluating progress over time."
 - a. This task is to develop a plan to achieve the goals discovered and defined in 15C. the Path to Zero can be a reference but not having been adopted by any Town Board or at Town meeting should not be recommended as a starting point, unless vetted in 15C.

97. MPSC RESPONSE: Please see MPSC Response #84.

Page 8-16.

- v. **"16A.** Explore regulatory options to restrict the use of fossil fuels in new construction or major renovations using a Home Rule petition or other means."
 - a. Why not rephrase this to read 16A. "Explore options to incentivize owner/builders to consider using alternative fuels (from fossil fuels) in new construction or major renovations using a Home Rule petition or other means."

98. MPSC RESPONSE: Please see MPSC Response #85.

Page 8-17

- w. **"20B.** Pursue regulatory changes to promote housing diversity and allow development of "missing middle" housing in specified areas."
 - a. Rework to "Explore strategies to promote ..."

99. MPSC RESPONSE: Please see MPSC Responses #63 and #87.

Page 8-17

- x. **“20C.** Explore regulatory and policy changes to promote housing affordability.
 - a. Rerword to “Explore strategies to promote ...”

100. MPSC RESPONSE: 20C has been adjusted to read “Explore strategies to promote housing affordability.”

Page 8-18

- y. **“21A.** Support intergenerational community needs by finding space for programs within the existing inventory of municipal properties *or* in a new Community Center to be evaluated as part of the Town Facilities Plan (7A) and Banta-Davis conceptual study (7B).
 - a. Suggest to rephrase to **“21A.** Conduct a comprehensive study to document the intergenerational community space needs, to include identifying space for documented programs within the existing inventory of municipal properties *or* in a new facility to be evaluated as part of the Town Facilities Plan (7A) and Banta-Davis conceptual study (7B).

101. MPSC RESPONSE: Please MPSC Response #91.

Mary E. Russell

March 16, 2022

Via email to general Town Planning email

Providing feedback as private citizen

As an avid (daily) user of the amazing Carlisle Trails and recipient of one of the Carlisle trekker awards, I write regarding regarding Section 5.5 .

10D. Provide a statement of environmental impact when developing new or expanded trails. Such a practice would support the Select Board’s FY 2022 goal to “ensuring the environmental impact is considered for all town projects and purchases.” When considering the expansion of trails, the Trails Committee can be tasked with providing a statement discussing the area’s ability to support additional trails without significant degradation of the land or its flora and fauna, whether additional trails would increase the spread of invasive species, and other environmental considerations. The requirements for such a statement and supporting criteria should be developed collaboratively by the Trails Committee, Conservation Commission, the proposed Environmental Stewardship Committee, and other interested parties such as the Carlisle Conservation Foundation.

Clearly, the "devil is in the detail" for interpretation and implementation of the language above and the so called "statement". Ascertaining significant degradation of the land or its flora and fauna, whether additional trails would increase the spread of invasive species, and other environmental considerations would be a challenge whether by judgment or assessments.

My concern with this language is that it may introduce bureaucratic complexity & protracted timelines. To date, the Carlisle Trails are a model for our neighboring communities following the natural paths created by flow of wildlife with signage to keep humans on track. Most of the trails are appropriately but not overly maintained without obvious measuring of the "degradation".

If the town's goal is more formal organization environmental oversight and documentation for the trails (not a housing development, road,...) as the language suggests then more people (three committees), process and funding will be required to implement any new or expanded trails. If the goal is to respect and preserve the natural surroundings while minimizing organization burden, make it simple and with more flexible language. As mother nature has taught us—more is not necessarily better.

Mary E Russell
maryrussell343@comcast.net
343 Russell St

102. MPSC RESPONSE: Please see MPSC Response #22 to the Trails Committee. Thank you for your comment.

Nancy Kronenberg

March 18, 2022

Via Feedback Form

Providing feedback as private citizen

I find it unacceptable that Benfield repairs are neither part of the town's goals (in the form of responsibility for housing initiated, financed, and supported by the town) or plans to address. At the very least we should have: 1) survey of residents about health of living conditions, 2) professional evaluation of complaints (I can assure you that there are complaints) and an action plan that the town can execute.

I would very much appreciate a response on Benfield.

As to priorities, who can not agree with preserving the rural nature and historical heritage? These things are important. But I think the library and recreational facilities ought to be lower priority

than fixing the problems at Benfield, even if that means Carlisle taking responsibility for things we think/wish others should be responsible for!

103. MPSC RESPONSE: Thank you for your comment. While Benfield is a privately run operation on land leased from the town, the Town is currently working to facilitate repairs to Benfield to the extent that it can using CPA funds.

I am also tired of having the inhabitants of public buildings return endlessly on a 5-20 year cycle, requesting expensive repairs and expansions. If we can't manage these projects better for longevity, then we should consider paying professionals to do it with durability as one of the requirements.

104. MPSC RESPONSE: Please see Master Plan Recommendation 7A, which specifically suggests developing longterm facilities plan, as well as 7C, which focuses on planned preventative maintenance of Town buildings. Thank you for your comment.

Kay Hurley

March 22, 2022

Via Feedback Form

Providing feedback as private citizen

First, thank you for all the work to put this together and for the many excellent recommendations. It's a huge document so my feedback is constrained. Thank you for the opportunity.

The vision statement on page 2-2 feels like a statement of status quo. Can it be made more visionary and aspirational? Given the level of appreciation for land protected from development, our dependence on well water, and the interest in environmental sustainability,

I could imagine in 15 - 20 years a "town that is 100% organic, in the top 10 of lowest carbon footprint, top 10 of highest carbon sequestration in the state." Several of the recommendations support a vision of that kind. Please, some kind of aspirational vision.

105. MPSC RESPONSE: Thank you for your kind words and for taking the time to provide feedback on this document. The vision statement we propose is intentionally broad so that it encompasses all five values. Your suggestion, while excellent, focuses primarily on only one of these five values. While it may seem like this vision statement reflects the status quo, Carlisle

has much work to do to ensure that this vision will still be true in 10 or 20 years. Business as usual will not be adequate.

Item 1C on protection of natural resources. If environmental stewardship is truly a value, can it be aligned with financial allocation so that Cons Comm and Land Stewards are adequately funded?

106. MPSC RESPONSE: We have not included specific budgetary recommendations for recommendations as part of this Master Plan.

Item 10 D on environmental impact. Absolutely! Happy to see that we already have such a goal for "all town projects and purchases." I suggest any t it should be more than a goal, it should be a requirement.

107. MPSC RESPONSE: Please see MPSC Response #22 to the Trails Committee.

Item 16 A on ideas for new construction. Yes, and more! Starting with fossil fuel restriction is great but let's shoot for LEEDs (or equivalent) on new houses, composting toilets, recycled grey water, etc.

108. MPSC RESPONSE: 16A is presented as a specific example, not as a limitation on scope. Recommendation 15D covers much of what 16A may miss.

Item 19 B Yes, of course "exploration of sensitive alternatives to pesticides and herbicides" but for a 15 -20 yr plan I suggest we aspire to more than exploration and go for prohibiting non-organic chemicals on both public and private land. Could we start with setting example and showing leadership by protecting all town land and private land with ag restrictions from the application of non-organic chemicals?

109. MPSC RESPONSE: Our intention is to focus on environmentally safe alternatives, without specifying whether those alternatives are organic or non-organic. At this point in time, our sense is that the community would not be receptive to an outright ban on certain chemicals. We also expect that the community will need to make difficult trade-offs. For example, would it be environmentally better to carefully apply a chemical herbicide to control an environmentally dangerous invasive plant when no practical alternative can be found?

We have modified Recommendation 2A as follows:

2A Reestablish and build a robust Agricultural Commission. The Agricultural Commission is

currently inactive and has not met since February 2020, but did prepare priority initiatives for the 2020/2021 OSRP as a final task. Reinvigorating the Agricultural Commission will allow for the successful implementation of recommendations that can strengthen community support for agriculture and can pursue grants and other means that encourage farmers to engage in environmentally sensitive practices. Further, the Land Stewardship Committee and the proposed Environmental Sustainability Committee (see Recommendation 15B) can collaborate with the Agricultural Commission to promote environmentally sensitive agricultural practices in conjunction with Recommendation 19C.

Item 20. Affordability of housing in Carlisle is incompatible with 2 acre zoning. Can we state this plainly? Can we clarify the goal?

110. MPSC RESPONSE: We intended for the goal to be broad enough to encompass numerous strategies to promote housing diversity, which may include zoning changes. However, we also defer to the ongoing Housing Production Plan, which will involve the identification of barriers (which may include zoning) to affordable housing, and also specific strategies to increase the affordability of housing in Carlisle.

Item 21 on intergenerational programs. Feels like there is internal inconsistency between 'intergenerational' (which I would support) or about space dedicated for seniors. Can this be clarified? As a senior, I wouldn't support space where younger family members and friends were excluded.

111. MPSC RESPONSE: Thank you for this comment. We have amended the text to reflect that the intent is for dedicated spaces for COA and intergenerational uses.

Cosmo Catalano

March 24, 2022

Via Feedback Form

Providing feedback as private citizen - representing "Non-retirees age 40 and under"

This draft needs better protections against bad-faith use.

Master Plan Recommendations 1 (Protect and maintain open space, recreational assets, conservation lands, and wetlands), 2 (Preserve and promote agricultural land use and traditions.) and to a lesser extent 3 "(Support the Town's cultural and historic resources and activities", emphasis on "historic") can—and almost certainly *will*—be misused to prevent development

of other Master Plan objectives around pedestrian safety, housing needs, and alternative sources of revenue.

Already the Trails committee has expressed concerns about item 10D's requirement for Environmental Impact Statements in designing new trail projects. I am personally disheartened to see that section's open-ended statements about "degradation" of land riven with edge effects from single-family development on oversized plots, and concern about "invasive species" in areas already where bittersweet and barberry are already rampant.

The very real concern around promoting and managing sustainable ecosystems in our natural areas—as with any other long-term goal for the Town—needs to be tempered with the knowledge that every recommendation we make is a potential tool for later obstruction. Language on what we truly want our outcomes to be must be as specific as possible to prevent this misuse, and emotionally resonant, broadly ambiguous terms like “character” and “traditions” should be stricken entirely.

112. MPSC RESPONSE: We tried to put forth a balanced approach to the trade-offs between a) protecting the environment and preserving Carlisle’s character, and b) providing affordable housing and increasing revenue sources. We think the best Carlisle can do is recognize these competing interests and ensure we don’t ignore either as we move forward.

Our use of the term “traditions” refers specifically to agricultural traditions in every case. Similarly, we define “character” based on what we know Carlisle residents value about their community. When used in context, we don’t find these terms ambiguous.

Thank you for reading the Master Plan and providing this feedback.

Tim Gordon

March 24, 2022

Via Feedback Form

Providing feedback as private citizen

I have not thoroughly read the entire report, but having skimmed it all and read certain sections in depth I think it is quite well done. The only 'typo' I would call attention to is on page 219 where a truncated sentence appears to have left St. Irene's off the list of local churches. Thank you.

113. MPSC RESPONSE: Thank you for catching this. We have edited the document.

Marilyn Cugini

March 24, 2022

Via Feedback Form

Providing feedback as private citizen

Thank you to everyone who worked on this massive undertaking. It's an excellent result, well researched and thorough, accurately reflecting the current state of our town and the prioritized goals of the community. Perhaps even more emphasis on the weighted priorities could be made; for example, environmental protection and open space is much more important to the community than historic preservation. Given that we will be severely constrained by financial limitations, it will be particularly important to pursue the most important goals over the less important goals. Not every initiative is equally important. The Plan offers suggested metrics for each goal, but there is no overall mapping/analysis of the weighted prioritization of all the goals. That would be helpful for decision making going forward. Great work, all!

114. MPSC RESPONSE: Thank you for your kind words and especially thanks for the comments about metrics and priorities. We have had several discussions regarding just how proscriptive we think that, what is basically a policy document, should be. We have always tried to take the lead from the survey results regarding priorities and have tried to reflect the community's priorities as we developed the Outline for the Implementation Plan. We hope that the recommendations regarding implementation timing will help reinforce this sense of priorities. As you have pointed out and as we have continued to discuss, if everything is a priority, then nothing is a priority. Also, the recommendations regarding fiscal planning and taking a longer view of the impact of Town Meeting decisions should help in this regard. The Master Planning Steering Committee has developed a "Financial Model" of the Town with a ten year horizon that examines wages and salaries, capital expenses, the impact of both new and retiring debt, and the growth in revenues as determined by new home construction in various zoning options. This is a new tool for the Select Board, the Finance Committee, and the Town Finance Director that we hope will allow such decisions to be presented to Town Meeting in a more meaningful way. We couldn't agree more with your comments, and thank you for taking the time to review the Master Plan and share your thoughts.

Judy Asarkof

March 24, 2022

Via Feedback Form

Providing feedback as private citizen

I am writing these comments as a private citizen who has been in Town over 20 years and who is familiar with many issues in Town. I am discussing stuff associated with boards and committees as it applies to your Plan - but again - it is MY opinion and observations - not connected by any boards or committees I have been or are currently on.

First: You keep mentioning Environmental Stewardship Committee as a name for a new committee to over-see some of these focuses. We have a Land Stewardship Committee which is trying to do good things in town (more on that later). PLEASE consider either absorbing Land Stewardship Committee (currently under the thumb of Cons Com) and utilizing their passion, expertise and long time knowledge in town OR call the new committee Environmental Sustainability - which is exactly what you are focused on and work closely with Land Stewardship. You risk seriously confusing towns people with the word Stewardship used in 2 ways.

115. MPSC RESPONSE: While the Select Board would be responsible for the name and charge of the new Environmental Stewardship Committee, the MPSC acknowledges the confusion of duplicating the term “stewardship” in the names of two committees and has settled on Environmental Sustainability Committee in reference to the proposed committee for the purposes of the MP. We have replaced references to the proposed Environmental Stewardship Committee with Environmental Sustainability Committee.

Regarding 1A When discussing land conservation in town - you need to LOOK at what types of land we have in regards to its role for our current issues. Namely insects and birds dying at an unprecedented rate. We have MANY acres of woods set aside which is great. We have almost NO meadows set aside AS MEADOWS. Towle Field has for the 20 years I've lived here been treated as a golf course recreation area - mowed 2-4 times of year. This is USELESS for wildlife and explains why the bobolinks were driven out, etc. Mowing is the issue here and LSC is currently proposing mowing protocols adopted by Sudbury Valley Trustees, Audubon, other KNOWLEDGEABLE towns, Xerces.org (leader in conservation of insects and birds), etc. We need to conserve meadow and other special habitats and do it right - not what is cheapest!!!!!! per inadequate funding from SB to Cons Com. And not what has been done for years and remains the choice because Cons Com is too busy approving wetland impacts to focus on true conservation of Town Lands.

116. MPSC RESPONSE: Please see Recommendation and accompanying narrative, which we have modified (underlined text) to read: 1C Develop and implement management plans to protect natural resources against ecosystem threats, including invasive species, plant diseases, contamination, and over-use. The priority initiatives of various groups provided for the 2020/2021 OSRP address the need for management of the Town’s natural resources and conservation properties. Most notably the Conservation Commission’s priority initiatives provide clear and specific actions relating to the management and protection of natural

resources, although other groups including the Conservation Restriction Advisory Committee, Land Stewardship Committee, and Trails Committee also include applicable actions relating to this recommendation. Consideration should be given to managing protected open space as meaningful natural habitat.

1C I repeat - The Conservation Commission wish to do an excellent job is all that they are tasked to do but their main role is to review and discuss the potential impacts to wetlands from development, building or other actions. They are SO over-worked and over-whelmed by each meeting they have NO TIME for proper consideration of the Conservation Lands in town they are tasked to "manage". Sylvia is alone with no assistant these days and is straight out trying to prepare all the materials for the wetland filings. And none of them have time to become educated in current best management practices for Town Conservation Land Management.

117. MPSC RESPONSE: We have added the following to the narrative for Recommendation 1C: "The management plans should consider the adequacy of current staff and volunteer resources, and make appropriate recommendations accordingly." Please also see MPSC Response #18 above.

2B Farming is often NOT CONDUCIVE nor compatible with conservation of wildlife or maintaining healthy ecosystems. It affects the soil microbes and texture if tilled, it often kills and maims any wildlife, farmers are allowed to impact wetlands and kill wildlife via exemptions from rules others follow. Xerces.org and NRCS recently have come out with recommendations and tutorials AND grants to encourage farmers to include the planting of native plants for pollinators and migrating birds and I believe Carlisle should REQUIRE this in all farms in Town. And in regards to farming ON Conservation Land - it should not be conventional crops using GMO corn, use of heavy pesticides or herbicides and all farming on Conservation Land should work closing with Land Stewardship to ensure State Listed Species of Concern and other wildlife is enhanced and not destroyed. Same with the habitat - the farming should limit the amount of negative impact it has on the Conservation Areas.

118. MPSC RESPONSE: Please see Response #109 above.

2D/8A The Bog House at the Cranberry Bog is currently occupied Free OF CHARGE by Farmer Duffy's 2 sons. I do not understand this! The Town could rent the two flats for between 2000-4000 per month! Currently we get nothing. Farmer Duffy no longer has use of the Cranberry bog and merely is paid to mow the edges. So he mows for a LARGE fee and the sons get free rent. This smacks to me of something confusing.

In addition - Farmer Duffy is asked by Cons Com to keep the bog neat - mows the edges at exactly the wrong time to be conducive to wildlife. Cutting down plants that are in bloom (native plants by the way) and killing insects, affecting birds and likely also killing nestlings depending upon when he is mowing. His son is on record in a youtube video saying that Foss Farm is a useless wasteland and not worth their efforts to stay on the roads into that area - so clearly they don't value wildlife habitat. I would like to see anyone farming or managing ANY of the conservation areas to put habitat health and sustainability FIRST!

119. MPSC RESPONSE: Please see MPSC Response #116 above.

4C I don't know why we have to consider adding commercial activities to Carlisle when in 4-8 minutes we have 5 other highly commercialized towns giving us ALL we need. By adding commercial focus - we degrade the special characteristics of town. I am aware that the schools bring some families here. But that does not mean they need to also bring their interests in city like environments with them. If they came to USE the school - they should adopt the current focus of the town to be a haven from the rest of the world's messes!

In your metrics of Carlisle Character - many folks like to see pretty open space along the roads not realizing that most of what they see is a fairly useless monoculture crop of hay or mowed fields. The woods have value but IF we are to actually mean to focus on Environmental Sustainability - we need to recognize that meadows that are filled with grasses/flowers and dotted with a few shrubs here and there are supporting rich swaths of wildlife. This is meaningful open space. There is not real use of just "pretty" anymore in a world that is technically struggling to survive. If Carlisle wants to slow down Climate Change and the disruption it will cause - it needs to support all its habitats - even those "viewsapes" that people inappropriately think are pretty while they are in fact - mostly artificial.

120. MPSC RESPONSE: Please see MPSC Response #116 above.

9B Much of our land - while called "Conservation Land" is actually recreational in use. If we wanted to improve the health of the land - we would manage it for both - take Foss for example. It can have dog walkers, boy scouts, community farmers AND be habitat. But not is the folks who are unaware of the damage they are causing are not asked to change their ways. This should be a focus - environmentally manage lands for multi use - means there are restrictions of where to go sometimes , there are paths where you stay on the path, there are dirt roads leading to the veg gardens where you stay ON the road and sand speed bumps keep the speeds such that they stop killing many important species of wildlife each year.

In addition - because Carlisle has more trails than other places nearby - MANY folks come to our trails. I know in the kitchen conversations someone recommended this as I heard them - if you

are looking for revenue and want the open space to carry its weight - CHARGE for parking!! There is no reason not too! For Carlisle folks - it could be included in a dump sticker! There would be costs for checking for stickers. Dog walkers who make a living at it come often and usually do NOT follow the dog regulations. I like Cranes Beach up in Ipswich and VALUE it immensely. I have NEVER been disturbed at paying a fee to get into the area as I knew my fee went to maintaining the ability to protect such a beautiful spot.

Lastly on this subject - I have had dogs for 35 years. I prefer to walk my dogs with NO OTHER PEOPLE AND DOGS around - only because it is more peaceful. I would pay \$1000.00 per year for the ability to walk my dogs (alone or with my own dog friends) for 1 hour in 1 conservation land 2-4 times a week!!! I'd even be willing to pay up to \$5000.00 because I personally like to photograph the nature of Carlisle but I can't as I must always be on the alert watching for inexperienced dog owners with unsocialized dogs coming near us. To me - setting aside 2 days in the middle of the week for this would generate TONS of income that could go toward Environmental Sustainability. In addition, dog phobic folks, folks with injuries, folks that just don't like dogs, folks with kids - would be able to sign up to walk for an hour with no concerns. To me it is only fair and brings in income.

121. MPSC RESPONSE: We have added the following to the narrative for Recommendation 9B: "This review could include consideration of establishing fees for parking at Town-owned open space and recreational fields."

We have modified Recommendation 19B (now 19C) as follows (underlined portion new):

19[C, formerly B] Promote environmentally sensitive and sustainable agricultural, gardening, and lawn/recreational field care practices. This action can be addressed both as part of the community education curriculum recommended in Recommendation 15H and also through the Planned Preventative Maintenance plan referenced in Recommendation 7C, which could include a policy for environmentally friendly maintenance of recreational and other municipal lawns and gardens, including the exploration of environmentally sensitive alternatives to pesticides and herbicides. Guidelines can be established for multi-use land to balance the needs of humans and the protection of the environment.

10D I LIKE the idea of assessing the impact when creating trails. In Concord, the relatively new conservation area October Farm added a trail that wasn't really a trail when they first took over the property. It was a trail on the esker that ran alongside a beautiful ponded area that USED to see alot of waterfowl nest and unusual bird species. I used to go there before it became a conservation area. When you add a trail into sensitive areas - you impact LOTS of things. I feel it is imperative to be careful when adding trails!

AND just as important - Carlisle is for shame!! oblivious about the damage done by cars during amphibian migration times in spring. Leslie Thomas and I asked either Cons Com or SB to close the streets for the 1 night like MANY OTHER TOWNS do in the few highly important areas. I also asked a trail be closed for a few days when tiny baby toads were just emerging on a trail into Malcolm Land but no - refused. Thus, hundreds of the toads are squashed by bikes and oblivious walkers who for some reason don't notice the constant movement under their noses. Keep all this in mind. This year a friend documented a state listed salamander species un-necessarily squashed to death when it was just trying to get to its breeding pond here in Carlisle.

122. MPSC RESPONSE: Please see Response #22 above. We have also modified Recommendation 15H as follows (underlined portion new):

15H: Develop a comprehensive education program on behavioral practices that can lower environmental impacts. Such a program could be developed by the proposed Environmental Stewardship Committee and could include a variety of themes and topics including encouraging telecommuting and other strategies to lower household vehicle miles traveled, weatherization of homes, reducing use of harmful pesticides and herbicides, alerting residents to amphibian migration times and locations, using electric lawn and garden equipment/tools, reducing solid waste consumption and increasing recycling, composting, reducing water consumption, maintaining smaller lawn areas, and more. This program could involve creating online materials, housing online environmental information sources, holding workshops and community events, collaborating with other groups, and more.

15A and B There are many ways the town could improve supporting current environmental needs of the day. Somerville recently adopted a Native Plant Ordinance where town owned properties were required to landscape using native species. As you all likely know - the loss of native species is one thing driving the loss of insects and birds. We could do that here in Carlisle and I go one step further. No developments (like the disaster of Woodward's development) should be allowed to clearcut their whole area without replanting with ONLY native trees, shrubs and perennials.

On the other notes under this section - funding is an issue. Land Stewardship in my mind is stymied doing anything of use because Cons Com is hugely under-staffed and under - funded. If SB keeps an unreasonable number for funding, Cons Com has no choice but to limit funding to do anything for Conservation Lands including only choosing mowers based upon lowest fee. This means you get employees/mowers who do not choose to do things properly. In this day and age - cost is both money as well as proper best management practices.

123. MPSC RESPONSE: Please see MPSC Responses #49, #116, and #117.

16B and 19C I am aware that the energy task force worked hard on a focus aimed at decreasing lighting costs in Town. Unfortunately - they listened to some marketing which led them to utilize LED lights that are flat and over-bright for street lights. There is currently a petition in the US to manage this type of light because of the damage it does to human eyes, how it causes temporary blindness to folks driving cars when they approach said lights, and the strobe like action of these flat LEDs. It is possible to tweak these lights and decrease the brightness, aim them differently and put shields around them. The ones in Concord Center are totally fine although they have some on Monument Street that are horrendous as they are newer and they forgot to tweak them. I am not saying LEDs are a wrong choice but they should be shielded on the sides, aimed down, brightness lowered and changed so they illuminate the ground and not blinding the driver.

You write that Carlisle is actually focused on light pollution in 19C yet in the last 1 year - many properties in MY own neighborhood have installed the current fad of super bright, blue light LEDs that frankly are horrendous. It is all over Carlisle as well! Not only do they emit too much light - ie. my neighbor who is 6 acres away from me - his light lights up my bedroom at night. Luckily he stopped turning it on at night when I found out it was him as we are friends. He had no idea. Light pollution as you indicate is bad for wildlife. I am an insect NUT and I know how much light affects insects. These lights shine MUCH more than old lights which were bad enough. These draw insects from acres and acres away. Might I encourage you to approach the Dark Sky's folks that recently gave a talk in Lexington and via a Native Plant and Pollinator group discussing the extreme issue that has recently occurred with these types of lights. In addition of these lights being over-ly bright, folks believe the concept they are cheaper and they are leaving them on all night.

Lastly - the current flat LEDs are now known to cause migraines and seizures in many susceptible people, a couple car companies are recalling their bright car lights because of the blinding tendencies and large number of accidents starting to be recorded due to the affect on drivers.

124. MPSC RESPONSE: This information will be very useful for implementation of Recommendation 19D (formerly 19C). Thank you.

19B/19H We need a area that includes all information for Carlisle Folks to understand how they can help do their part in the environment. Currently I am involved with a project with several other Carlisle Folks - we call Carlisle Natural History Project. Part of it is a huge database on all biota in Carlisle but part of it is about field trips, we are sponsoring The Eco Zone articles, etc. This might be a useful place to host a listing of resources (current and up to date) for native plants, learning about invasive species, who can help them (I am currently having an invasive species group remove them from my yard as I am busy working on a new mowing protocol for Towle and have no time). Also listing other areas of interest, education on better lighting, best ways to manage your yard for birds and insects to support nature's cycle. I have access to the INCREDIBLE info found on many Facebook groups and have set up an IO group to educate anyone

who cares to focus but I think people fear being asked to volunteer for projects. So no one dares comment on anything although I can see they are reading stuff.

125. MPSC RESPONSE: Please see MPSC Response #122 above.

20B We have LOADS of overly large homes in Carlisle. I support the idea like in Fig 7-4 to divide these big homes into small apartments for folks with less income rather than raping large undeveloped land just to be politically correct. Also - Carlisle is a nice place to live because of open space and zoning. People will pay for this. Please don't dumb Carlisle down to match lowest denominator and have it die like most of the other Town have. Decreasing human population is ultimately the ONLY solution to all of these issues so the fact that we have less kids in school and maybe less people to bring money into Town is not a bad thing. It just means those of us who like to live in one of the last remaining NICE areas within 1 hour of Boston might have to pay a bit more while we can. This does not mean we are bad people. We just need to take the homes we live in and divide them up as they become available.

126. MPSC RESPONSE: This plan currently recommends exploring mechanisms to allow dividing larger existing single family homes into smaller multifamily (i.e., 3- or 4-unit) structures.

23E Climate Change mitigation or slowing it down requires TREES!!!!!!! Tree cutting companies are using the marketing strategy to scare homeowners about trees falling on their home. We need LARGE trees to uptake more CO2 and sequester carbon. Instead the fad is cut down large trees. This is idiotic. There should be a town policy to protect old healthy trees. And unhealthy trees that are not threatening serve hundreds of purposes for wildlife so encourage the town to appreciate them as habitat instead of neatness. I am of the strong opinion!! that if folks want to change Carlisle - they should go back to the city they came from. Also - we need LARGE tracts of land that is not subdivided as trees work to support each other and keep each other upright and strong.

127. MPSC RESPONSE: We have added a new recommendation (19B) relating to measures the Town could explore to protect trees. Please see MPSC Response #49 to Planning Board Chair Madeleine Blake regarding this new recommendation.

24B Volunteers drive Carlisle alot. One issue is that volunteers need to see that their input is working. Or helping. The Land Stewardship Committee is a "support" committee to Conservation Commission. As I indicated earlier - Cons Com is HUGELY over-committed these days with wetland permitting. It almost seems to me that it is a "money-maker" for the town and I hope I am wrong. This intense amount of work means that Cons Com is too busy to focus on what Land

Stewardship comes in to discuss. We are not allotted much time. We are focused on Best Management Practices and yet are grilled more about not increasing any costs. I feel Carlisle has to decide what is important? And in this case - I feel Land Stewardship needs to have authority to move forward on concepts and ideas. We are held back by Cons Com schedule. This is why I personally (these are merely MY opinions) think it would be good to have your Environmental Stewardship Committee either partner with or absorb Land Stewardship Committee - to report to Board of Selectmen (or to be independent). We need to get things done! I will be blunt and say the Earth is clearly dying and being hugely degraded. I feel Carlisle is behind most of the rest of the towns in this area in doing a good job trying to slow this down or minimize people's impact. I HOPE what you are all written and said you want to focus on actually happens because it somewhat feels to me that Carlisle just talks and does nothing.

128. MPSC RESPONSE: Please see MPSC Response #18 regarding the appointing of this proposed committee.

Last 2 comments - Town needs to be proactive about watching what is happening. Our boards and commissions can't do their job unless they are informed. Someone has to either volunteer to drive around ALL the streets and be informed about what they might be seeing.

Example - Humans being the creatures we are have learned to break the rules first and ask for forgiveness later. Ask Sylvia - she deals with this all the time and this is a disaster. This is fine if it is painting a house in the historic district - it can be re--painted.... but if it means destroying a wetland or cutting down 15 trees along a historic scenic road - the trees CAN NOT grow back and the wetland has died. I think there needs to be some sort of message that goes out to (I'm sorry) turn your neighbor in. Like we do if we see a package abandoned and it might be a bomb.

I saw the trees being cut at the corner of River Road and 225 years ago. I assumed like many folks that this was legitimate and ok'd. it was a disaster - no one official knew about it and if I felt more comfortable - maybe I could have stopped that massive clearcut from happening. It is time we ALL take responsibility and put the environment first. If we have the environment - all else will follow. If we focus on building better buildings, or more buildings or different infrastructure and the environment dies - we DIE! There is no more time left - it is now we move to do the right thing.

129. MPSC RESPONSE: Please see MPSC Response #127.

Thank you for taking the time to provide such thorough and important feedback on this Master Plan.

Alan Ankers

March 24, 2022

Via Feedback Form

Providing feedback as private citizen

This is a very comprehensive document and clearly a lot of work has gone into preparing it. As an enthusiastic trails user and member of the Trails Committee, I do have an issue with item 10D, in Chapter 5, which proposes requiring an Environmental Impact Statement for all new trails. This will make creating new trails more difficult and seems like an unnecessary obstacle to the overall goal of improving walkability and access. Compared with other land uses, trails have a minimal environmental impact. Eliminating that impact would require having public land without public access, which seems highly unlikely. Perhaps a better way to approach this would be to simply have the Trails Committee work with ConsCom and the Environmental Stewardship Committee to minimize the environmental impact, and only require an EIS for particularly sensitive areas rather than for all trails.

130. MPSC RESPONSE: Please see MPSC Response #22 to the Trails Committee. Thank you for your comment.

Nick Ognibene

March 28, 2022

Via Feedback Form

Providing feedback as private citizen

I believe that the environmental and sustainability goals in the master plan should be a key priority. Personally I'd be willing to pay higher local taxes to make this happen (and to address other municipal funding issues), and would like to see greater town effort to this end (paid staff seems like a good way of moving forward). I agree that maintaining affordability and enhancing our weak performance on diversity and affordable housing should also be goals, but I tend to think that high real estate prices are a bigger barrier to these goals than local taxes are. I also strongly support even a slight expansion in local business, specifically a restaurant or tavern to serve as an eating/drinking and gathering place. I am not sympathetic to opposition to this type of development done on a very small scale; our town is plenty small and rural, and a single tavern will not undermine this. We could use a public gathering place to associate with the town's character, not unlike the roles played by Fern's and Clark Farm.

131. MPSC RESPONSE: Thank you for this feedback. The MPSC has worked to balance the issues you address, with the understanding that the five overarching values identified as part of this

plan (Carlisle Character, Fiscal Sustainability, Connectivity & Access, Environmental Stewardship, and Caring Community) at times complement each other and at times may be seen as being at odds with each other. As such, we strived to make recommendations that would enable the community to make future decisions in a comprehensive manner with mechanisms for coordinated, long-term planning in place. We appreciate you taking the time to read and respond to this document. Your comments are very thoughtful, and we hope that you will remain engaged with the evolution of the Master Plan as it moves into the Implementation stages.

Warren Spence

March 29, 2022

Via Feedback Form

Providing feedback as private citizen

As a ten year member of the Carlisle Trails Committee, the Trails Committee works to maintain current trails, improve trails through the addition of boardwalks and bridges through wetland areas, and carefully plans and proposes new trails.

When planning a new trail, the Trails Committee already works with the Carlisle Conservation Commission, which is the governing body for wetlands protection in our town, and with the Land Stewardship Committee. The Trails Committee also contacts and listens to individual homeowners and neighborhoods regarding trails and trail modifications in neighborhoods in town. The Trails Committee has, on numerous occasions, abandoned some proposed trail projects when neighbors do not want a trail to go forward near them or to be modified. The committee has continually addressed the wishes and requests of residents.

Trails Committee members complete all required paperwork, such as wetland filings and obtaining permissions required by environmental regulations, as overseen by the Carlisle Conservation Commission.

The Trails Committee does not possess the budget nor the capability through our existing volunteer members to complete an extensive environmental impact study. An environmental impact study required in 10D could be used to delay or block a new trail relatively easily. While the vast majority of survey respondents wanted improved walkability and connectivity of Carlisle's pathways and trails, the reality is many homeowners do not want a trail near their own house or in their neighborhood. Due to the extensive amount of wetland and numerous wetland plants in town, 10D could be used to block any trail.

The Carlisle Trails Committee and trails in Carlisle provide access to natural areas in town for all to enjoy. Article 10D, as written, which requires an environmental impact study to be completed

for any new or expanded trail, could well work at cross-purposes to the request by 79% of Master Plan survey respondents to “Identify opportunities to improve walkability and connectivity of Carlisle’s pathways, trails, and roadways.”

With the addition of an environmental impact study and statement, as well as the requirement for Trails to work collaboratively with a proposed new Environmental Stewardship Committee to evaluate any trail proposed, it is clear that adding a new trail or modifying an existing trail system could take an extended time, possibly years, if 10D is implemented. The language in 10D could be used to challenge a new trail or modifying an existing trail due to “the area’s ability to support additional trails without significant degradation of the land or its flora and fauna, whether additional trails would increase the spread of invasive species, and other environmental considerations.” This is a broad statement that would allow special interests or individuals to easily and effectively block trail work.

I am requesting that section 10D of the draft Master Plan document be removed in its entirety as well as all references to it in the document.

Sincerely,

Warren A. Spence
Trails Committee Member
112 Carroll Drive
spen112fam@comcast.net
978-371-1131

132. MPSC RESPONSE: Please see MPSC Response #22 to the Trails Committee. Thank you for your comment.

Carlisle Trails Committee

March 31, 2022

Via Feedback Form

Submitted by Steve Tobin, Secretary and Vice-Chair, Carlisle Trails Committee

Section 1 – Carlisle Character

While the Trails Committee is included in the responsible parties for item 1C, we think it would be nice to also be included in 1A and be consulted during the process of evaluating parcels for town acquisition and protection.

133. MPSC RESPONSE: The Trails Committee has been added to 1A. (See MPSC Response #21.)

Section 10 – Connectivity & Access

We certainly support efforts to improve walkability and connectivity, but are concerned about item 10D “Provide a statement of environmental impact when developing new or expanded trails.” Depending on the exact intent of this, it could represent a significant and perhaps unnecessary bureaucratic burden on a volunteer committee. If it is just a matter of the proposed new Environmental Stewardship Committee providing the statement, then it is probably not a problem. But if the Trails Committee needs to provide the statement to the Environmental Stewardship Committee in order to justify a new trail, which presumably would require some kind of formal study, this would create a lot of work for which we are probably not qualified, and effectively discourage the development of new trails. We already go through the Cons Com and Land Stewardship Committee for approval when putting new trails on town conservation land, and have to go through the wetland permitting process for any trails near wetlands. A few questions for consideration:

- What is the purpose of this requirement – what problem are we trying to solve?
- Who provides the Statement and to whom?
- What is required to be included in the Statement – does it require a formal study?
- Is it part of a decision-making process or just for the record?
- Would it have to be part of the Planning Board process when new trails are proposed as part of a cluster-type development?
- Would it have to be done for trails in conservation restrictions on private land?

134. MPSC RESPONSE: Please see MPSC Response #22. Thank you to the Trails Committee for their assistance in revising this recommendation.

Carlisle Historical Society

March 31, 2022

Via Feedback Form

Submitted by John Troast, Curator and Board Member, Carlisle Historical Society

Comments on the Carlisle Master Plan

Submitted by the Carlisle Historical Society Board of Directors

Highland School - The Society is pleased with the conclusion reached in the Master Plan report that alternative uses should be considered for the Highland School and Bog House. However, the Society would like to see clearer language recommending that discussions about demolition be tabled until all options are fully explored as stated in recommendations 7A and 3D. Talk of demolishing the Highland building raises serious concerns since the town recently used a \$400,000 state matched historic preservation grant to restore the exterior of the building. Moreover, a recent in-depth engineering and construction evaluation by Tocci Builders found the Highland Building to be in good condition, contrary to what some in town have routinely argued. The Highland School is a Carlisle landmark that the Massachusetts Historical Commission report found to be eligible for listing on the National Register of Historic Places. The Town should make a concerted effort to preserve and find uses for its publicly owned historic resources like our neighboring towns have done so successfully.

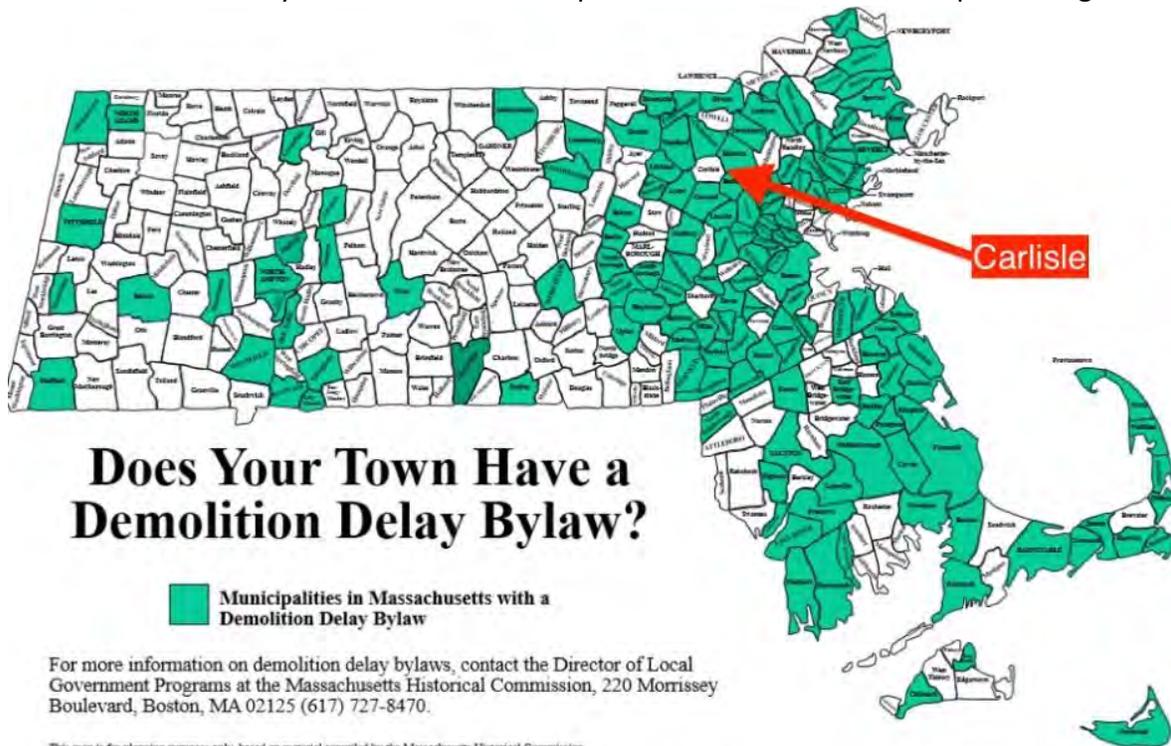
135. MPSC RESPONSE: Tocci Builders evaluated the Highland Building and confirmed that the building is in “good condition” as you suggest. As supported by Recommendations 7A, 3D, and 8A, building reuse should be carefully considered before demolishing any existing building from both an historical preservation perspective and an environmental sustainability perspective.

Complete Streets Initiative - The Society as well as the Historical Commission have received numerous complaints regarding the excessively large and numerous reflective pedestrian signs. These signs degrade the historical integrity of the town center and in our view, they exceed what is necessary to ensure proper public safety. For example, the 36x36 inch signs exceed the state and federal single lane conventional road standard of 30x30. Other towns like Concord have explicitly banned FYG (Fluorescent Yellow-Green) crossing signs in their historic district and we believe that the Town of Carlisle should do the same. Complete Streets projects are important to furthering public safety but based on the sign controversy, it seems less likely that voters will support further such improvements. The Master Plan should amend Recommendation 10A to state that the existing sign pattern be revised to conform to the “context sensitivity” objectives that were clearly outlined in the town’s Complete Streets Policy. There should also be greater transparency and public input for future street improvement projects.

136. MPSC RESPONSE: We have modified Recommendation 10A as follows: “Evaluate the Town’s Complete Streets policy and prioritization plan.” The narrative of the recommendation can address the goal of “context sensitivity” as part of the reason why the Town’s current policy should be evaluated.

Demolition Delay Bylaw - Carlisle is one of the only towns in Middlesex County that lacks a demolition delay bylaw yet there is no recommendation in the master plan to institute a bylaw of this nature. A demolition delay of 6 months to 1 year would provide an opportunity for groups

like the Historical Society to meet with developers and make the case for preserving historic



buildings. It would also provide an opportunity to photo document the building slated for demolition, thereby preserving valuable information as part of the historical record. In our experience, developers have been happy to voluntarily let the Society document buildings slated for demolition. They have also been very open to considering our input and advice. Our engagement efforts with developers and property owners has even led to the preservation of historic buildings slated for demolition. We believe that a demolition delay bylaw would only improve these outreach efforts and help preserve the character of our community.

137. MPSC RESPONSE: The Demolition Delay Bylaw can be considered as part of

recommendation 3A, which proposes the completion of a comprehensive preservation plan. We propose that completion of a comprehensive plan should build on the 2010 MACRIS inventory of historic properties as suggested by the Historic Commission. As part of the comprehensive plan, we would encourage the CHS and the HC to evaluate resources offered by the Massachusetts Historical Commission as set forth in recommendation 3B.

Adaptive Reuse of Historic Buildings - the Historical Society recognizes the need to encourage more “missing middle” housing and also the need to bring historic buildings into the 21st century. Likewise, we support the potential conversion of historic single-family residences to two family residences under the existing bylaw as a sensible form of adaptive reuse. However, we caution against aggressive efforts to convert single family historic residences into apartment style units. Oftentimes, conversion efforts result in substantial damage to the historical integrity of buildings. This was the case with the recent conversion of the Wheat Tavern into apartments.

Many interior features were eliminated, and the entire interior footprint of the building was changed as part of the significant renovation needed to bring the building up to code to support multi-unit residential conversion. The Society believes that adaptive reuse, upgrades, renovation, and weatherization of historic buildings should conform to the Secretary of the Interior’s Standards for the Treatment of Historic Properties.

138. MPSC RESPONSE: Thank you for bringing this resource to the MPSC’s attention. We suggest that the Historical Commission look into these standards and consider them for inclusion in the historic preservation plan suggested in Recommendation 3A.

Historic Preservation Plan - The Historical Society strongly supports recommendation 3A for a town wide historic preservation plan. Our organization would be open to providing expertise and funding for a report of this nature.

139. MPSC RESPONSE: The MPSC has listed the Carlisle Historical Society as a resource to assist with this effort in conjunction with the Carlisle Historical Commission in an effort to meet mutual objectives.

Historic Homeowner Outreach - The Historical Society strongly supports recommendation 3C, and it is something our organization has engaged in for years. We would be happy to support the Historical Commission and/or Planning Board in furtherance of this goal.

140. MPSC RESPONSE: Please see MPSC Response #139.

Green Cemetery - The Society has significant concerns about how little Green Cemetery is addressed in the Master Plan report. There is no mention of the town facilities located in the cemetery - Wilson Memorial Chapel, the Hearse House/Maintenance Building, the Green Crypt, or the Summerhouse. These historic buildings fall under the town's jurisdiction, and many require urgent and costly restoration. The Master Plan also does not consider the need to expand the cemetery in the future. One reason for acquiring the Banta Davis property in the 1970s was to allow for cemetery expansion and future expansion could limit potential uses for the Banta Davis property. Additionally, funding for ongoing cemetery maintenance and management by the DPW is unsustainable. We believe that reinstating the Town's Cemetery Commission to oversee Green Cemetery and the Central Burying Ground would be a wise long-term decision.

141. MPSC RESPONSE: Thank you. The MPSC has added Green Cemetery to the list of municipal facilities on Table K-3 and the capital improvement cost has been noted as "TBD" with a footnote that these costs should be evaluated as part of the facilities long-range planning and PPM objectives included as recommendations 7A and 7C.

Great Brook State Park - The Society is very concerned about the lack of coordination between the State and the Town regarding Great Brook. The park accounts for over 1/10th of Carlisle's total acreage yet the town presently has virtually no jurisdiction or oversight over any changes that could be made to the property in the future. The State is in the process of demolishing vacant historic homes in the park which could be used as affordable rentals under the State Historic Curatorship Program. However, no town authorities were notified of the decision to remove these historic houses. Other issues stemming from lack of coordination with State authorities include the recent addition of more paid parking areas and the ongoing problems that Great Brook Ski Touring Center has experienced with securing a permit to operate their popular cross country ski business. The Society encourages a master plan recommendation establishing a "State & Federal Lands Committee" to serve as a liaison between the Town and State and Federal Authorities regarding stewardship efforts and best practices for Great Brook State Park, Carlisle Pines State Forest, and Great Meadows National Wildlife Refuge.

141. MPSC RESPONSE: The 2010 Historic Properties Survey included a recommendation regarding the expansion of the Great Brook Farm Area Form. Recommendation 3A proposes to build upon this previous plan and explore the implementation of recommendations that thus far have not been addressed, which would include this particular recommendation regarding Great Brook. This could also be accomplished in conjunction with the efforts of the Carlisle Affordable Housing Trust to identify potential housing units as part of with recommendations 20A, 20D, and 20F.

Darlene Spence

March 31, 2022

Via Feedback Form

Providing feedback as private citizen

Regarding Recommendation 15D, to establish an environmental stewardship committee with a paid staff member, this committee's role in relation to other town land and conservation groups needs to be more clearly defined. Currently there are the following committees: Conservation Commission, Land Stewardship, Conservation Restriction Advisory, and Trails Committee. There is also the nonprofit Carlisle Conservation Foundation.

What would be the role of a new Environmental Stewardship Committee with the existing Land Stewardship Committee which share a redundancy in the name alone? What would be the role of the new committee with the other committees? The Conservation Commission has regulatory authority and paid staff in the Conservation Commissioner. Would the proposed paid staff report to the Conservation Commissioner and if not, to whom?

The proposed new committee is likely to run into difficulty as it is not clearly defined. My concern is it is not necessary with the existing groups already doing an excellent job.

143. MPSC RESPONSE: Please see MPSC Response #18 to the Land Stewardship Committee. Thank you for your comment.

Another concern is 10D which requires an environmental impact study before a new trail or expanding a trail system. This recommendation also refers to a proposed Environmental Stewardship Committee. With the previous Deer Commission for hunting in the town, an organized environmental and animal protection group formed who criticized and made it very difficult for the Deer Committee members. My concern is that some members of the same anti hunting group could populate this new stewardship committee and potentially block new trails in the town. Also, I am concerned that 10D may have been authored with this intent.

144. MPSC RESPONSE: We do not envision that the proposed environmental stewardship committee will have jurisdiction over other Town committees, including the Trails Committee. As with any appointed committee, the Select Board will be responsible for appointing members who represent the viewpoints of the community at large. Please see MPSC Response #18 regarding the appointment of this proposed committee and MPSC Response #22 regarding Recommendation 10D.

As noted in the Implementation section, there is already a marked shortage of new volunteers in all town boards and groups. 15D creates another layer of bureaucracy and could have a negative impact on the existing town groups due to the lack of clarity in its role in the current system and the potential for it being given too much blocking power in its role.

145. MPSC RESPONSE: The narrative with Recommendation 15D refers to recommendations in the *Path to Zero Emissions* report around “adopting regulations to limit fossil fuel use.” We assume that you are referring to this specific phrase. Recommendation 16A is a specific example of the type of regulatory policies mentioned in this report. Any such new regulatory policy would be decided by a Town Meeting vote, not by a committee or board. In many cases, state action would be required in addition to a supporting Town Meeting vote before the new regulatory policy would be put in place.

Thank you for taking the time to read and provide comments on the Master Plan.



