



Manchester-by-the-Sea, An MBTA Community FINAL CLIENT REPORT, DECEMBER 2023

Prepared for:
The Town of Manchester-by-the-Sea

Prepared by:

11.360 Community Growth & Land Use Planning



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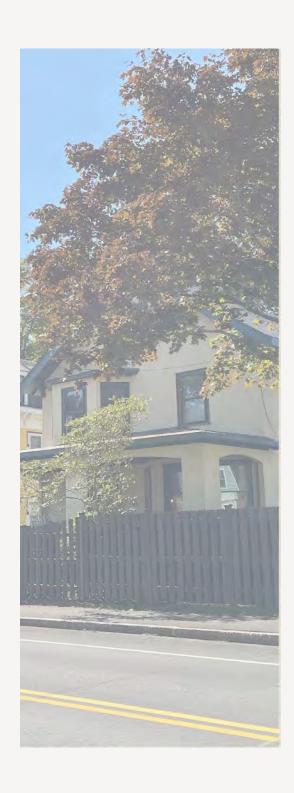
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Manchester-by-the-Sea, An MBTA Community

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The Town of Manchester-by-the-Sea 11.360 Community Growth & Land Use Planning

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Image source for the pictures above and on chapter title pages: class photography. Cover image source: Marinas.com

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Executive Summary

What if, 30 years from now, Manchester-by-the-Sea (Manchester) could maintain the town character and amenities that make it a wonderful place to live, while welcoming newcomers and offering plenty of types of housing for its aging population and families? Where there are now usually-vacant parking spaces, there might be a town green, housing, and walkable amenities.

The MBTA Communities Act requires Manchesterby-the-Sea to rezone 39 acres to allow 15 units/ acre residential development by right by the end of 2024. At least 17 acres must be within a half-mile radius of the MBTA Commuter Rail station. This report overviews how this legislation affects Manchester and examples of how the town can come into compliance with the MBTA Communities Act. We show some examples of areas that could be rezoned to illustrate the zoning process and key factors to consider. We show several ways these could be combined to meet the requirements and envision how change over time could look. This is not to suggest any particular sites are better than others or that our visions are the best future for these areas. Rather, we imagine how even if change does come to Manchester-by-the-Sea, the town need not lose its character or connection to nature. Rather. zoning to comply with the MBTA Communities Act can be an opportunity for Manchester-bythe-Sea to envision its future.

This report is the culmination of our work in Community Growth and Land Use Planning, an MIT course taught by Jeff Levine and David Gamble in fall 2023. We started our work in September by learning about Manchester-by-the-Sea through meetings with town officials, site visits, and research. We learned about the MBTA Communities Act and processes for development in municipalities. To decide what sites to study

Figure i: Illustrated Representation of Redesigned Train Station Area



Illustrated representation of a redesigned train station area. Source: class design

for potential rezoning, we paired our observations with regulatory and environmental research. We presented these case study sites to the town's MBTA Zoning Task Force in late October and spent the following weeks refining our research and imagining what the future could look like at one of the sites we studied.

In this report, we offer several pathways to compliance, but more importantly we suggest key considerations for choosing sites to rezone and illustrate how what may seem like a big change is actually likely to be gradual and can be done in a way that preserves what residents love most while adding value for all members of the community. We also hope the compilation of background research provides helpful context.

The MBTA Communities Act requires rezoning of 39 acres in Manchester-by-the-Sea, but rezoning alone will not immediately beget new development. In the meantime, Manchester has the opportunity to use the Act as a chance to bolster Manchester's water and transportation systems. As new buildings begin to arrive that are sensitive to the design character of Manchester, they can also help address severe housing shortages and housing unaffordability. By exploring case study sites in the community, we show how historical, environmental, and economic considerations can come together to support a walkable, affordable, and beautiful Manchester-by-the-Sea.



Manchester-by-the-Sea, an MBTA Community









Community Growth and Land Use Planning class, fall 2023. Source: class photography

Overview

This report presents the work conducted by students of the course Community Growth and Land Use Planning at the MIT Department of Urban Studies and Planning, focusing on how Manchester-by-the-Sea can consider necessary zoning amendments to comply with the MBTA Communities Act. This course has the dual mission of providing students with the opportunity to develop practical skills in a real-world setting, while also providing its municipal partners throughout Massachusetts, including in previous years Medford and Arlington, with support navigating local planning challenges.

From September to December 2023, we had the opportunity to gain a rich understanding of Manchester-by-the-Sea through site visits, field and desk research, and interactions with key community members, to whom we express our deep gratitude for their openness and facilitation in making this study possible. The process helped us gain invaluable insights into the complexities of promoting sustainable, responsible development that is sensitive to the needs of the community, including its historic character and culture.

Our work was conducted in accordance with principles considering sustainable growth, transparent community dialogue, and visionary design. Our strategies tie in both existing density near the downtown and less dense neighborhoods farther away, prioritizing ways to sensitively upzone existing two- to three-family buildings and also create opportunities from surface parking lots and developable land. Throughout the process, we stayed in constant dialogue with Town planners to ensure consistency with how the Town sees itself growing.

This report starts with an **overview** of Manchester-by-the-Sea, covering its history, environmental conditions, socioeconomic factors, current and predicted infrastructure, and housing situation as they relate to zoning for multi-family housing. Following this, we explain the MBTA Communities Act's **purpose and its specific requirements** for Manchester-by-the-Sea, providing a foundation for our proposals, which unfold in three stages.

The first stage identifies a **selection of sites** to consider rezoning, aiming to include a variety of spaces with different extant densities. These sites were evaluated based on their flood risk, rezoning impacts on infrastructure and parking, and recommendations for phased development, followed by an application of multiple scenarios that incorporate different sites based on their suitability in meeting the requirements. The second stage provides a more tangible **understanding of potential developments** in these sites, exploring in greater detail the area around the train station and commercial downtown with potential urban design outcomes. The third stage concludes with **zoning recommendations**.

Through this process we seek to exemplify the various considerations surrounding Manchester-by-the-Sea's zoning changes and possible visions of density and growth that could promote sustainable and integrated planning. We believe that in the face of community and state challenges in housing supply, the MBTA Communities Act could be an opportunity to plan for a flourishing and equitable future.

Figure 1: Community Engagement Timeline



Community Engagement

What We've Heard

Community engagement efforts have included attending public township meetings and speaking directly with the MBTA Task Force. Through these engagements, we've been able to identify the town's top priorities in complying with the MBTA Communities Act.

1. Respecting the town's character

Residents cherish the quaint, historical character of Manchester-by-the-Sea. When discussing new development, many have referred specifically to Rantoul Street in Beverly, MA—a strip with numerous recently-built, four- to six-story multi-family buildings with a prominent street presence—as an example of what they do not want to see built in their Town. There have been frequent discussions on zoning strategies to ensure that new buildings fit in with the existing urban fabric, for example creating design guidelines for housing developers. These would advise on height, materials, landscaping and might emphasize historical elements such as gabled windows and roofs.

2. Preserving the historic district

Manchester's historic district is an important asset to the town. Zoning amendments through the MBTA Communities Act present an opportunity to preserve and restore some of these old buildings, as well as identify what qualities are necessary for new development to harmonize with the old.

3. Adjusting parking and mitigating traffic congestion

New development will likely create demand for additional parking spaces, and these should be thoughtfully located. A careful balance of shared off-street parking and limited on-street parking will ensure that denser areas, including the downtown core, do not become congested, and minimize constraints on developers that would make it difficult to comply with the Act.



Our first class visit to Manchester-by-the-Sea. Source: class photography

4. Ensuring minimal impact on water and sewage system

It is essential that Manchester's water and sewage system remains healthy and adequately serves its residents under the rezoning. The Department of Public Works and the Town Administrator believe the current system does have capacity to handle new development, although insufficient capacity is a legitimate reason to deny new developers a building permit.

5. Increasing affordable housing

Manchester residents care about the affordability of their town, which is currently short of meeting the state's safe harbor under Chapter 40B. If properly implemented, the rezoning presents an opportunity for Manchester produce enough affordable housing to meet the safe harbor requirement (by, for example, mandating an affordability percentage above 10% for new developments). This could set the town up to accrue enough affordable housing such that local zoning laws become the primary regulator of future development.

Looking Ahead

As Manchester continues to engage and inform its residents on the MBTA Communities Act, we recommend the following strategies to ensure all residents are included in conversations and the decision-making process. We hope these strategies will not only increase local participation around the MBTA Communities Act, but also in future civic matters.

1. Engage young residents

Manchester's young residents are likely to have valuable perspectives on the future of their hometown, but their voices are not often represented at town meetings and other formal engagements. We recommend hosting community engagement events on school campuses and other locations frequented by children, teenagers, and parents. These engagements might include educational sessions and participatory workshops during school assemblies, parent-teacher nights, and open houses. Online surveys and well-placed suggestion boxes can be made available for those who cannot attend in-person events. Youth civic engagement can be encouraged through student ambassador programs that allow select students to take ownership of specific causes and advocacy trainings that equip high schoolers with the skills to engage local officials.

2. Create more opportunities for participatory engagement

The town has provided residents with various opportunities to learn about the MBTA Communities Act. A valuable next step would be to encourage input from residents on their vision for the future of Manchester and what they hope the rezoning accomplishes. The town has previously implemented community engagement strategies that collect local input such as interactive mapping and dot exercises. Similar strategies could be used to allow residents to share their personal opinions, but also for the town to gather critical information from residents that might inform its internal processes.

3. Encourage more attendance at MBTA Task Force meetings

Limited regular attendance of just 13% of residents at local board or committee meetings was noted in the 2016 Visioning for the Master Plan report¹ and we noticed a similar trend at the meetings we attended. For busy parents of younger children, it could be especially hard to make meetings. We recommend not only improving outreach (through social media, local bulletins boards, and newsletters) to include more residents but also polling and sending surveys to younger families to ask about times that work well for them.



Class presentation to the MBTA Task Force, October 26, 2023. Source: class photography



Pop up engagement at events like community festivals is one potential strategy to reach families and youth - important and often underrepresented voices in planning conversations. Source: class photography

¹ Metropolitan Area Planning Council, "Manchester-by-the-Sea Visioning for the Master Plan," December 2016, https://manchester.ma.us/DocumentCenter/View/1378/Manchester-Master-Plan-Vision-Report?bidld=.



Manchester-by-the-Sea Today



Background

Manchester-by-the-Sea is a charming New England community with beautiful views, historic architecture, and a walkable downtown. Some of our team's favorite places to explore have been the Manchester-by-the-Sea Public Library, Singing Beach, and Masconomo Park. In the course of our research, we got to learn about all of the reasons that people have and continue to love living in Manchester-by-the-Sea.

One member of our team found the book Manchester-by-the-Sea 1645-1995: 350 Years,² and we were struck by some of things that Manchester-by-the-Sea residents had to say:

- "Growing up in Manchester, I remember Lincoln Street hill being closed to traffic in the winter so we could slide" - Barbara Haskell Hemeon
- "Manchester has its own field of dreams in fact, it has three! Lincoln Fields, Brook Street field, and Masconomo Park." -James Powers (Grade 6)
- "When I was growing up in Manchester, we had many more trains and buses than now, and our mail was delivered twice a day."
 -Louise Morley Murphy
- "I love Manchester's beautiful woods, where I pick up pretty leaves and pine cones."
 -Deede Dixon (Grade 1)



Vintage postcard of Manchester-by-the-Sea. Source: Amazon

Manchester is a small community of 5,354 residents³ encompassing 7.7 square miles in Essex County on the northeastern Massachusetts coast. Located 32 miles from Boston, the town can be reached by train on the MBTA's Rockport Line and by road on Massachusetts Routes 128 and 127.

The town's land surface ranges up to 160 feet above sea level. A 12.8-mile tidal shoreline provides several beautiful beaches used by locals and visitors alike in the summer months. It is anticipated that due to climate change, the water at the shoreline will flood or partially flood these beaches as well as the areas around the train station by the end of the century.

Before European colonization in the 17th century, the Agawam people of the Algonquin Tribe inhabited Manchester-by-the-Sea. Through the beginning of United States history, Manchester primarily functioned as a fishing village. In the mid-nineteenth century, the town began to attract wealthy summer residents from Boston.

Today, Manchester has retained some of that history relative to its neighbors in the rest of the state. Its median household income of \$193,279 was more than double the median across Massachusetts. Its racial demographic composition is more than 93% White, compared to the state as a whole at 68%. Though Manchester's population has diversified some over the last few decades, it is important to put in context the role that zoning and housing development have play in racial segregation, documented extensively by scholars such as Yamahtta-Taylor 2019⁴; Rothstein 2016⁵, to put in context some of the political objectives behind zoning laws such as the MBTA Communities Act.⁶

² Town of Manchester, Manchester-by-the-Sea 1645 to 1995: 350 Years (Manchester, 1995).

³ U.S. Census Bureau, "American Community Survey 5-Year Data (2017-2021)," June 15, 2023, https://www.census.gov/data/developers/data-sets/acs-5year.html.

⁴ Taylor, Keeanga-Yamahtta. Race for Profit: How Banks and the Real Estate Industry Undermined Black Homeownership. University of North Carolina Press, 2019.

⁵ Rothstein, Richard. The Color of Law: A Forgotten History of How Our Government Segregated America. Economic Policy Institute. 2017. https://www.epi.org/publication/the-color-of-law-a-forgotten-history-of-how-our-government-segregated-america/.

⁶ Cowan, Spencer M. "Anti-Snob Land Use Laws, Suburban Exclusion, and Housing Opportunity." Journal of Urban Affairs 28, no. 3 (June 1, 2006): 295–313.https://doi.org/10.1111/j.1469-9906.2006.00293.x





Residents young and old enjoy Manchester's recreation areas. Source: class photography

Manchester is also an aging town; the median age is 48, 20% higher than the Massachusetts median. 60% of the population is 40 or over and according to even more current 2022 Census Bureau data, the population has declined by -0.7% since 2020.⁷

Although the split in population by age isn't that notable now, in the coming years it will increasingly become an issue as some older families look to downsize and their kids search for a place nearby. This is exacerbated by high property prices; the median value of owner-occupied units is \$881,500, also double the same number in Massachusetts. The two-pronged issue of both an older and younger population that can't afford to live in town has helped inform our rezoning proposals for the town.

Housing in Manchester-by-the-Sea

Like many other Massachusetts communities, Manchester-by-the-Sea is an aging community. Unfortunately, members of the community looking to downsize to smaller homes are met with limited options for staying in Manchester-by-the-Sea.

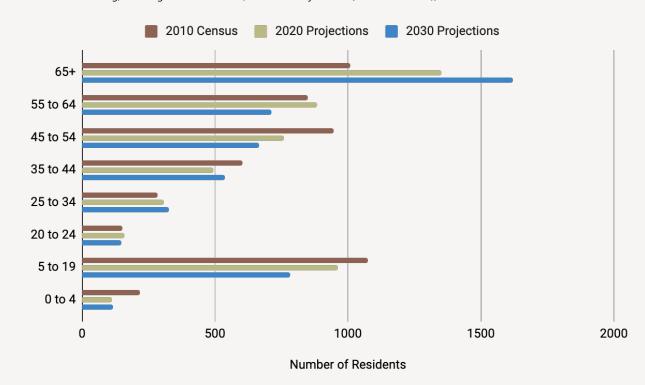
At the same time, regional school enrollment has declined.⁸ Families with young children, like

seniors, have few options for housing that fits their needs and budgets within the community. These trends illustrate the need for more housing variety at a range of prices in Manchester-by-the-Sea needs to meet the needs of existing residents and potential residents who cannot find a place in the community today.

Manchester-Essex Regional School District (MERSD) total enrollment has decreased from 1,528 in the 2010-2011 school year to 1,221 in the 2022-2023 year.

Figure 2: Changes in Age Distribution: 2010 and Projections for 2020 and 2030

Data: Karen Sunnarborg, "Housing Production Plan" (Manchester-by-the-Sea, December 2020), 16.



⁷ U.S. Census Bureau, "American Community Survey 1-Year Data (2022)," September 14, 2023, https://www.census.gov/programs-surveys/acs/news/data-releases/2022/release.html.

^{8 &}quot;Enrollment Data," Massachusetts Department of Elementary and Secondary Education, January 3, 2023, https://www.doe.mass.edu/infoservices/reports/enroll/default.html.

The community has seen very limited new construction in recent decades, as shown in Figure 3. Homes that are available are often unaffordable for young families or seniors on a fixed income. According to the 2020 Housing Production Plan Manchester-by-the-Sea also has the highest housing prices on the North Shore. Prices in Manchester-by-the-Sea compared to nearby communities are shown in Figure 4. Unfortunately, this lack of new construction has put price pressure on families looking to move to or stay in Manchester-by-the-Sea.

Out of a total of 2,293 year-round housing units in Manchester, just 115 (5.02%) are considered affordable by the Massachusetts Office of Housing and Livable Communities.¹⁰ Until Manchester-bythe-Sea reaches the safe harbor threshold of 10% affordable units, developers can bypass elements of local zoning review to build housing developments with at least 20–25% of affordable units.

According to the 2020 Town of Manchester Housing Production plan, there is a shortage of 190 home ownership units that are affordable to households making less than 80% of the area median income (AMI), a shortage of 24 rental units that are affordable to households making between 50-80% of AMI, and a shortage of 140 rental units for households making less than 30% of area median income. These estimates are likely undercounts, since more people would likely move to Manchester-by-the-Sea given affordable options for housing.

Figure 3: Housing Units by Year Structure Was Built

Data: Sunnarborg, "Housing Production Plan," 27.

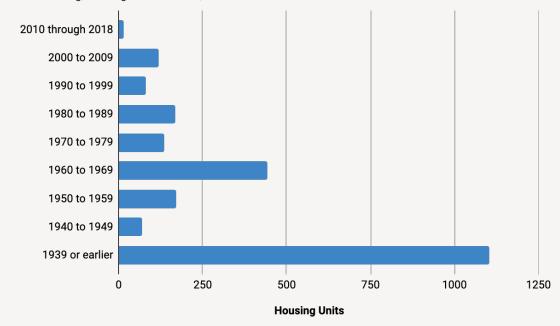
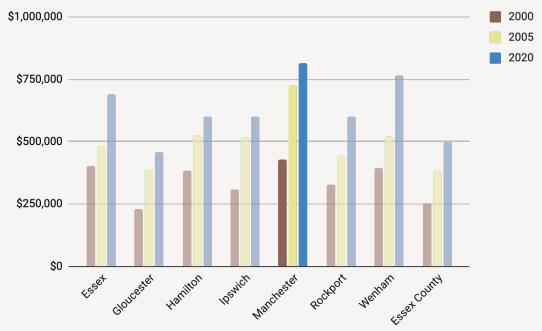


Figure 4: Median Single-Family Home Values, North Shore

Data: Sunnarborg, "Housing Production Plan," 34.



⁹ Sunnarborg, "Housing Production Plan," 33.

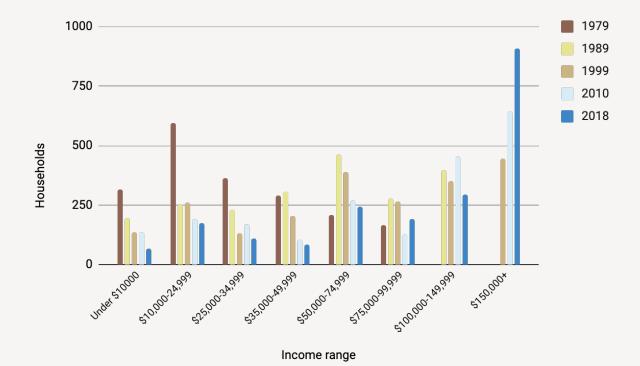
¹⁰ Massachusetts Executive Office of Housing and Livable Communities, "Chapter 40B Subsidized Housing Inventory," June 29, 2023, https://www.mass.gov/doc/subsidized-housing-inventory-2/download.

¹¹ Sunnarborg, "Housing Production Plan," 42–3.

Figure 5: Change in Income Distribution, 1979-2018

Note: Figures not adjusted for inflation.

Data: Sunnarborg, "Housing Production Plan," 24



Today, Manchester is not accessible to moderate and lower income families who would otherwise wish to move to the community. This means that the town is becoming less diverse economically, as people who work as school teachers, librarians, service workers, and others are unable to afford housing in the community. Figure 5 shows how these changes over time in the community. Incomes have increased substantially with the median household income increasing by 69% since 1999, from \$73,467 to \$124,025, outpacing the rate of inflation during this period of 54.7%.

Historical development trends and current zoning that largely allows only single family homes have contributed to these shortages and price pressures, but there are steps that the community can take to reverse these without major changes to life in Manchester-by-the-Sea. By zoning for higher density and reducing barriers to building housing, the community can support more diversity, help seniors age in the town they have called home, and allow families to build wealth without being financially burdened by housing costs.



Apartments by Sawmill Brook. Source: class photography

Existing Multi-Family Housing in Manchester

The spatial distribution of multi-family housing in Manchester (Figure 6) speaks to two trends: subdivision of historic homes into multiple units, and higher lot sizes outside of the historic core. Most of Manchester's multi-family housing is located in the historic core, including the majority of the complexes of 4+ units. There are multiple historic homes in Manchester's core which have been converted into 4+ units. Some of the properties in the historic core with two units have the larger unit along the street frontage, with an accessory dwelling unit (ADU) or secondary building in the backyard. Outside the historic core, multi-family development results in smaller lot coverage percentages than near the train station.

Most—but far from all—homes in Manchester are single-family detached homes (77%, see Figure 7). Among attached housing types, there is a fairly even distribution of units between single-family attached (3%), 2-family (5%), 3- to 4-family (5%), and 5- to 9-family (9%). Buildings with more than 10 units currently make up just 2% of the town's housing stock. However, the healthy presence in Manchester-by-the-Sea of multi-family housing in the range of 2–10 units per structure indicates that the town already has healthy experience with multi-family housing, which makes up nearly a quarter of its total units. Figure 8 spotlights some existing multi-family design examples in the Town.

Figure 6: Existing Multi-Family Housing in Manchester

Data: MassGIS

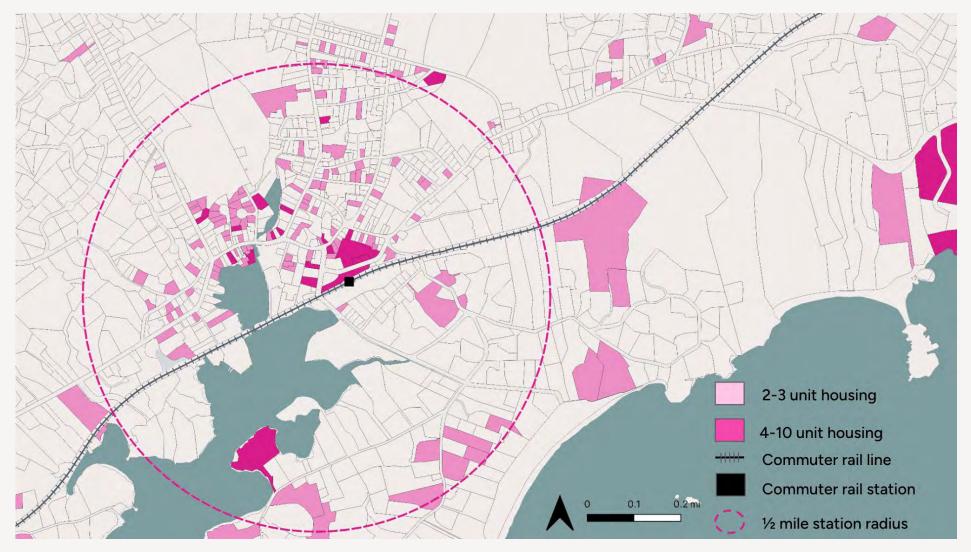


Figure 7: Housing Units by Units in Structure, 2022

Data: U.S. Census Bureau, "American Community Survey 5-Year Data (2018-2022)," December 7, 2023, https://www.census.gov/programs-surveys/acs/news/data-releases/2022/release.html.

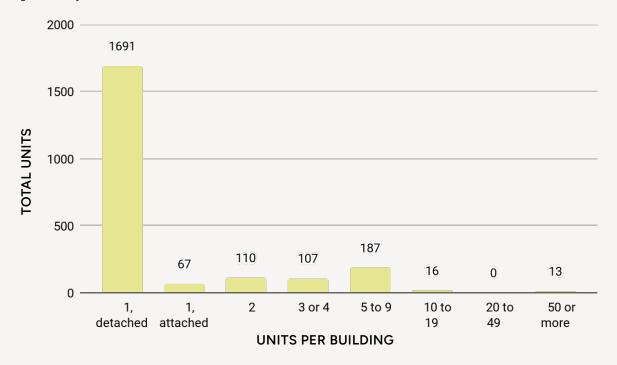


Figure 8: Variety in Existing Multi-Family Housing Designs

Data: MassGIS. Note: Estimated unit count



50 & 56 Beach Street
29.6 units/acre
6 units / 0.20 acres
Multi-family housing



21 Pine St.
29.31 units/acre
9 units* / 0.31 acres
Residential condominiums



1 & 3 School Street
91.7 units/acre
13 units / 0.14 acres
Multi-family housing

Financial Challenges to Building Housing

One component of Manchester-by-the-Sea's high property values are its high land values. High land values in Manchester serve as a barrier to the construction of new housing, and may point to better financial opportunities for adaptive reuse and smaller, infill projects initiated by current owners.

Disruptions to supply chains and labor markets led to enormous increases in prices of hard costs (building materials and supplies) throughout 2020, 2021, and 2022. However, even as the pandemic's visible effects on the economy have receded, it has continued to have far reaching impacts on construction. We were unable to evaluate hyper-local development conditions due to a lack of recent development in Manchester, but regional trends painted a clear picture of increasing costs of development.

Leslie Reid, CEO of Madison Park Development Corporation in Boston, shared with us that both the labor and material costs of construction in the Boston area have increased by a third between spring 2022 and fall 2023. Similarly, a senior planner with the Salem Department of Planning and Community Development confirmed to us that both the construction and financing costs of development have risen significantly in the past few years along the North Shore of Massachusetts. Across the state, the current market is forestalling development. As such, upzoning changes that go into effect in the near future will take longer than normal to lead to the construction of new units, because the housing market will need to recover before developers can get expected returns building in Massachusetts.

Research on construction costs for multi-family developments indicate that soft costs, which cover all costs other than land and hard costs including design, engineering, financing, and permit fees, typically account for 20-30% of total development costs in multi-family developments.¹² Manchester-by-the-Sea has direct control over certain soft costs, namely zoning and permitting processes, which it can use to attract the type of development that would be beneficial to the town. The "by right" zoning reforms required by the MBTA Communities Act are intended to significantly reduce the time and costs for zoning and permitting approvals for multi-family developments. Manchester-by-the-Sea can further reduce soft costs by streamlining the zoning and permitting process and creating clear timelines for site plan review. Importantly, limiting uncertainties around time spent on permit processing and approval also improves financial feasibility as drawn-out approvals increase project costs and developer risk.

In general, per-unit costs are lower for larger multi-family developments (100+ units) compared to medium or small developments due to economies of scale. This is because the cost of acquiring the land remains unchanged no matter the scale of the development, and some infrastructure improvements and administrative processes do not rise proportionally with increases in the number of units. However, costs of labor and



This section of Manchester's downtown does not comply with current zoning. Source: Expedia

"Much of the building stock in the historic core of Manchester, which is located in the General District, is non-compliant with the current zoning requirements."

materials do rise relatively proportionately with increases to the number of units. As such, when the real estate market faces high hard costs, as it does currently, the economies of scale are diminished and larger developments are not significantly more profitable than smaller developments. As a result, even larger projects which experience the financial efficiency of economies of scale are not currently being built in Massachusetts.

Current Zoning

Manchester's Existing Zoning Districts

Manchester-by-the-Sea employs a zoning code which designates each parcel in the town as belonging to either the General District, the Limited Commercial District, or one of six residential districts. Manchester strictly limits construction that is allowed in its town by-right, preferring to instead forbid certain types of development or to guide potential construction through the Zoning Board of Appeals. The majority of Manchester's land area belongs to one of the six residential districts (see Figure 9). However, the majority of Manchester's historic core is contained in the General District, and the Limited Commercial District encompasses the less-developed lands north of Route 128.

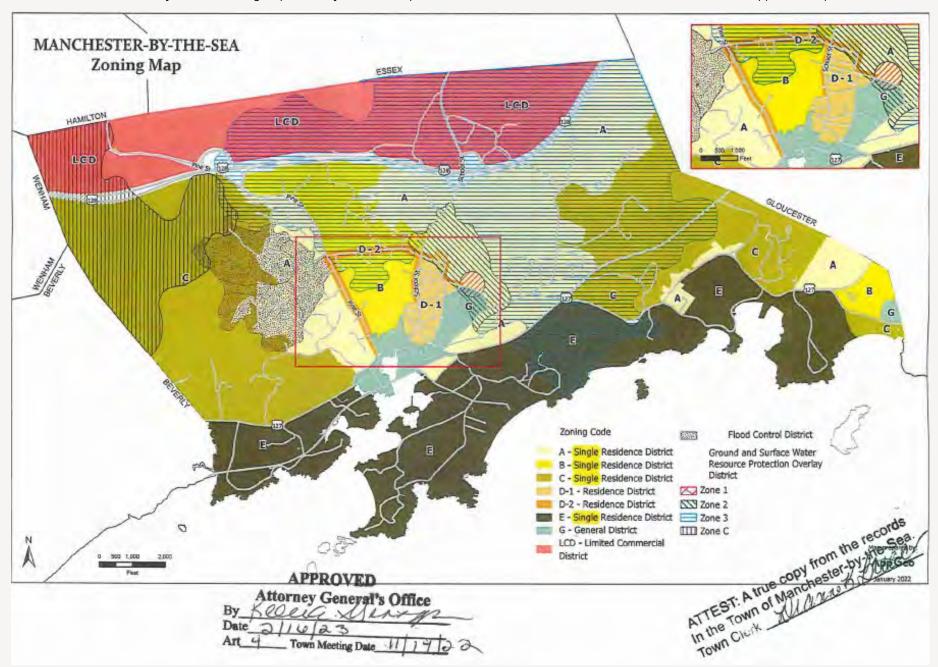
¹² Hannah Hoyt, "More for Less? An Inquiry into Design and Construction Strategies for Addressing Multi-family Housing Costs" (Cambridge, MA: Harvard Joint Center for Housing Studies, March 2020), 8, https://www.jchs.harvard.edu/research-areas/working-papers/more-less-inquiry-design-and-construction-strategies-addressing.

¹³ Daniel Garcia-Diaz, "Low-Income Housing Tax Credit: Improved Data and Oversight Would Strengthen Cost Assessment and Fraud Risk Management," Report to the Chairman, Committee on the Judiciary, U.S. Senate (U.S. Government Accountability Office, September 18, 2018), 26, https://www.gao.gov/assets/gao-18-637.pdf.

^{14 &}quot;Zoning By-Law," Manchester-by-the-Sea 3.1 (2023), https://www.manchester.ma.us/DocumentCenter/View/4818/Zoning-By-law-Final?bidId=.

Figure 9: Zoning Map of Manchester-by-the-Sea

Data: Town of Manchester-by-the-Sea Zoning Map, February 16, 2023, https://www.manchester.ma.us/DocumentCenter/View/5980/AG-approved-map-11142022.



While the different residential districts allow for similar types of development, albeit with greatly varying dimensional requirements, the Limited Commercial District and the General District put forward significantly different zoning schemes. The Limited Commercial District does not allow the construction of any residential buildings, and allows commercial uses that are otherwise not allowed by-right in other zones in the town. The General District is the zone within the town with the least demanding dimensional requirements, and is the only district in town where homes can be converted to two-family or three-family building by-right. Notably, much of the building stock in the historic core of Manchester, which is located in the General District, is non-compliant with the current zoning requirements.

The most prominent zoning considerations the MBTA Communities Act requires communities to report which Manchester has in their zoning are: types of housing allowed by right, minimum lot size, maximum building height, maximum lot coverage, parking requirements, and setbacks. The MBTA Communities Act also asks communities to put forward policies regarding maximum dwelling units per acre, and maximum number of units per lot.

With the exception of the General District, and carve outs for Residential Conservation Clusters, Manchester does little to support the creation of new multi-family development. The General District is the only zone in Manchester in which two family dwellings can be built by right. In Residential District 2, proposals for two-family dwelling units go to the Zoning Board of Appeals, and in all other zones two-family dwelling units are not allowed. Multi-family dwelling units of up to 4 units are subject to the Planning Board's approval in the General District, and are not allowed in any other district.



Non-compliant parcels and structures near the train station. Source: class photography

Residential Conservation Clusters are subject to Planning Board approval in all zoning districts except for in the Limited Commercial District, where they are not allowed. Residential Conservation Clusters enable developers to slightly relax zoning requirements, so as to be able to develop more of their land and produce more units. The Residential Conservation Clusters are proportional to the regulations of the various zoning districts, such that they are not a huge boon to developers. Most of Manchester's residential zoning districts only allow for single-family homes on large plots of land, such that the loosening of those regulations is still unfavorable to multi-family development.

Manchester has minimum lot size, setback, and maximum lot coverage requirements which guide development towards detached single-family homes. Both the General District and Residential District D have minimum lot sizes of 6,000 square feet and minimum frontages of 60 feet. These requirements make it such that much of the historic core is non-compliant with its zoning. Many lots near the train station have a lot size of around 3,000 square feet and many homes are built up to the street. Setbacks are of particular

importance to development in areas with smaller lot sizes or atypical parcel dimensions. The other residential districts have minimum lot areas of 15,000, 22,500, 45,000, 60,000, and 90,000 square feet. The large lot sizes of the rest of Manchester's zoning districts, which are orders of magnitude larger than those of the General District and Residential District D, make it difficult to build anything but single-family homes on large plots of land.

Maximum lot coverage percentages also vary greatly between Manchester's General District and its residential districts. In the General District, 70% of a lot can have structures and impervious surfaces constructed on it. Meanwhile, in Residential District D, the residential district with the most lenient requirements, 50% of the lot can be developed. Across the other residential districts, the maximum lot coverage percentages are 35%, 30%, and 25%. The low maximum lot coverage percentages of Manchester's residential districts are consistent with the minimum lot area requirements in ensuring that Manchester remains suburban outside of its historic core.

Two policies which Manchester sets at the town level, rather than at the district level, are parking requirements and maximum building height. Manchester requires that single-family homes have 2 parking spaces, two-family homes 3 parking spaces, three-family homes 5 parking spaces, and larger multi-family complexes have 1.5 spaces per unit, rounded up. In the residential districts and in the General District, building heights are capped at 2.5 stories and 35 feet.

Historic District

Manchester's Historic District was established in 1975 to "ensure that changes and additions are harmonious and to prevent the introduction of incongruous elements that might distract from the aesthetic and historic character of the district." Buildings and structures within the local historic district are subject to review by the Historic District Commission. 16

Figure 10 demarcates the boundaries of the Manchester Historic District. The pink region of the map indicates the National Register of Historic Places Historic District (as designated through a process of the National Park Service). The local historic district is the portion of this shaded in green. The district was listed on the National Register of Historic Places in 1990. The Historic District Commission's Design Guidelines apply only to the area shaded in green.

The Manchester Historic District Commission (MHDC) provides *non-binding guidelines* to advise property owners on intentions for design in the district. Each application for construction,



Map of Manchester, drawn by Albert Downs in 1886 and reproduced by the Manchester Historical Society in 1986 to celebrate its centennial. Source: Pictorial Manchester, a Photographic Documentary of Manchester-by-the-Sea.

demolition, or change to a property in the historic district is reviewed on a case-by-case basis by the MHDC who determine whether to issue the appropriate certificate to allow the work to take place. Work that requires an application includes any exterior changes visible to the public on an existing structure, and building or demolishing any building or structure visible to the public. Guidelines for changes to existing and construction of new structures have no methodological requirements; instead, they place emphasis on compatibility with the surroundings. Guidelines for commercial buildings are similar to those for residential.

The charm of Manchester's Historic District comes from the diversity of time periods reflected in the architecture, reflecting nearly every style from the 18th century onward. New construction, therefore, is not expected to imitate past architecture but rather is intended to add diversity to the Historic District while complementing the style of surrounding buildings.¹⁷





Vintage postcards of Manchester. Source: Amazon

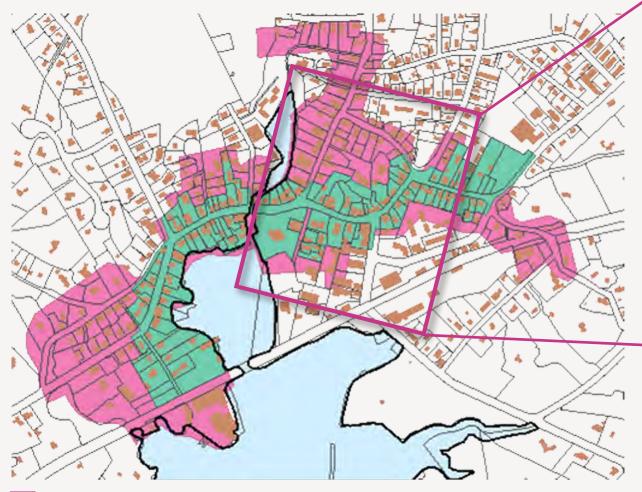
¹⁵ Manchester-by-the-Sea Historic District Commission Design Guidelines (June 2023)

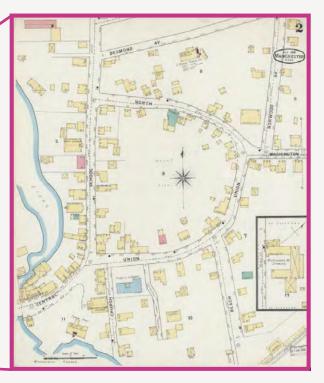
¹⁶ Work on any buildings in the town beyond the Historic District is subject to approval by the Historic Commission, rather than the Historic District Commission.

¹⁷ Manchester-by-the-Sea Historic District Commission, "Manchester-by-the-Sea Historic District Commission Design Guidelines," June 2023, https://www.manchester.ma.us/DocumentCenter/View/6156/2023-HDC-Guidelines.

Figure 10: National Register of Historic Places Historic District and Local Historic District

Source: Manchester-by-the-Sea Historic Design Commission Guidelines, June 2023. https://www.manchester.ma.us/DocumentCenter/View/6156/2023-HDC-Guidelines





A Sanborn map from 1894, above, shows how the historic character from downtown Manchester has remained largely in tact for more than 125 years in part thanks to the local historic district. The MBTA station is visible in the lower left corner. Source: Boston Public Library

- National Register of Historic Places historic district
- Local historic district (design guidelines apply)



Manchester's harbor. Source: class photography

Flood Resilience

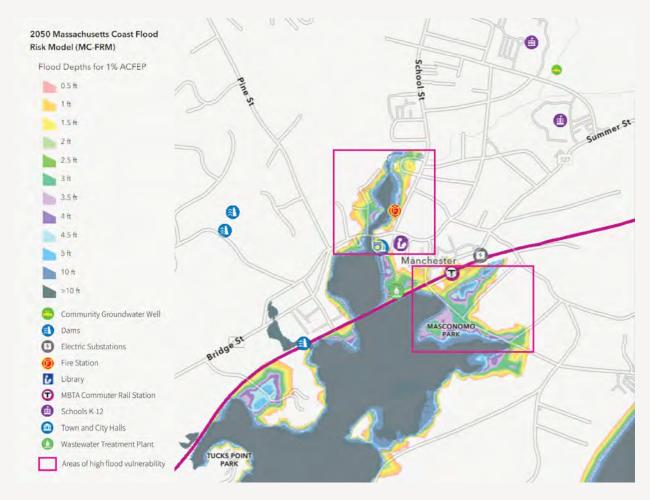
It's in the name: Manchester is by the sea. Manchester's beautiful coastal location affords the town charm but presents development challenges due to coastal flood risk. In the coming decades, the Town will need to consider bolstering its flood adaptation plans, such as by building berms, expanding green space along the coast, and elevating homes and perhaps the railroad. This places limits on potential areas for new housing for the MBTA Communities Act, without flood-proofing measures that can ensure the safety of these developments.

Flood Risk

The Federal Emergency Management Agency (FEMA) has identified flood zones along the coast, around the train station, and along Sawmill Brook. Within these areas, residents have been vulnerable to flooding of their basements in past storms, and boaters have scrambled to bring their boats inland. According to the Massachusetts Coast Flood Risk Model, flood-prone areas will widen out from the boundaries of Central Pond, with flood heights remaining consistently up to 10 feet from a 1% annual storm (a storm that has a 1% chance of occurring in the given year) in 2050.

Figure 11: 2050 1% Annual Storm Flood Depths

Data: Massachusetts Office of Coastal Zone Management, "Massachusetts Sea Level Rise and Coastal Flooding Viewer," accessed December 5, 2023, https://www.mass.gov/info-details/massachusetts-sea-level-rise-and-coastal-flooding-viewer.



The neighborhoods most vulnerable to coastal flooding (boxed in magenta in Figure 11 above), are located around Central Pond on Sawmill Brook and southeast of the train station near Masconomo Park. The Central Pond area is home to the Manchester Fire Department, Cornerstone Church, and multiple residential developments including Powderhouse Apartments and the condominiums at Saw Mill Circle. Just south of

Central Pond are the town hall and public library. The area around Masconomo Park is fortunately buffered by the park's open grassy area, but homes along Tappan Street south of the station are almost certain to experience flooding. The MBTA rail bed itself is comparatively safer, experiencing between 1-2 feet of coastal flooding in 2050. However, some elevation or protection will be necessary.

Inland flooding during storms is also a looming problem for homes throughout Manchester, but especially by Sawmill Brook and Central Pond, where existing water levels can again overflow onto the streets; specific areas identified in the town's Hazard Mitigation Plan are along "the stretch of Sawmill Brook from the Central Street tide gate to the Manchester Essex High School upstream of the Lincoln Street culvert."18 The General zoning district, which encompasses the historic district and downtown, allows the highest percentage of impervious surface cover per lot permitted in the town's zoning, even though most of the zone lies within a floodplain or hurricane inundation zone. According to spatial analysis of satellite land cover data from MassGIS, 19 there are 1.1 million square feet of impervious surfaces within a half mile radius of the train station. The abundance of impervious surfaces has resulted in stormwater runoff during heavy rain.

The coupling of coastal and stormwater flood risk mainly around Sawmill Brook requires Manchester planners to plan carefully for adequate flood protection measures in conjunction with any new development. Most of the land within a half mile of the train station falls within the State Coastal Zone, which puts additional environmental restrictions on development.²⁰ These considerations and the location of flood-prone areas informed our suggested site selections.



Sawmill Brook is vulnerable to storm surge flooding. Source: class photography

In total, around 490 homes are at risk of severe flooding in the next 30 years.²¹ According to analysis by environmental nonprofit The Trustees, Manchester may experience property damage to 207 homes from a 10% annual storm by 2050, and chronic daily tidal flooding could flood 51 buildings by 2050.²²

Existing Interventions

In 2024, the town will begin to address flooding from Sawmill Brook by rebuilding a culvert with funding from a FEMA Building Resilient Infrastructure and Communities grant. The \$4.5 million project will widen the brook's culvert to allow more stormwater to drain to the ocean.

preventing flooding between Elm and School Streets.²³ This corresponds to the top boxed area in Figure 12 and has hopeful implications for existing and future residents.

Water and Sanitation

In the year 2020 Gravelly Pond provided approximately 62 percent of Manchester-by-the-Sea's drinking water—or 142.162 million gallons. The remaining 38 percent (87.006 million gallons) came from the Lincoln Street Well.²⁴

¹⁸ Federal Emergency Management Agency, "Hazard Mitigation Plan" (Manchester-by-the-Sea, April 17, 2018), 2-7, https://manchester.ma.us/DocumentCenter/View/2274/Hazard-Mitigation-Plan-Volume-I_FINAL-2018.

¹⁹ Massachusetts Bureau of Geographic Information, "Land Use and Land Cover Data," 2016, https://www.mass.gov/info-details/massgis-data-2016-land-coverland-use.

²⁰ Massachusetts Office of Coastal Zone Management, "Policy Guide," October 2011, https://www.mass.gov/files/documents/2016/08/qc/czm-policy-guide-october2011.pdf.

²¹ Risk Factor, "Does Manchester-by-the-Sea have Flood Risk?", November 2023, https://riskfactor.com/neighborhood/manchester-by-the-sea-massachusetts/1000265_fsid/flood.

²² Trustees of Reservations, "State of the Coast: Manchester-by-the-Sea," On the Coast, 2019, https://www.onthecoast.thetrust-ees.org/manchesterbythesea.

²³ Stephen Hagan, "Manchester Wins \$4.5M Federal Grant to Fight Sawmill Brook Flooding," Gloucester Daily Times, December 7, 2022, https://www.gloucestertimes.com/news/manchester-wins-4-5m-federal-grant-to-fight-sawmill-brook-flooding/article_279663fa-7589-11ed-80e4-3b10f2a75722.html.

^{24 &}quot;Annual Drinking Water Quality Report (CCR)" (Manchester Water, 2020), 2, https://www.manchester.ma.us/DocumentCenter/View/3845/2020-Manchester-by-the-Sea-Annual-Drinking-Water-Quality-Report-CCR.

As recently as 2018,²⁵ Manchester had a residential consumption between 61 and 76 residential gallons per capita day (rgpcd) and the system had not exceeded its registered volume of 0.72 million gallons per day (mgd). In other words, there is room for population growth in Manchester without affecting water availability for the current population.

Manchester underwent a significant upgrade and expansion of its wastewater treatment plant between 1997 and 1999. The plant operates under EPA-permitted flow limits of 0.67 mgd on an annual average basis. According to the town administrator, the town utilizes less than the permitted flow limit, with an approximate 0.20 million gallon surplus. With a conservative calculation allowing 65 gallons per day per person for the current population of Manchester by the sea, there remains ample capacity for future population growth in the town.

Presently, the Manchester-by-the-Sea sewer division and plant are situated in a high-probability flood zone. As Manchester prepares for future development, it may be prudent to either relocate the plant to a zone with a lower flood risk or to implement adaptive measures to safeguard the current location of the plant.

²⁵ Tata & Howard, "Capital Efficiency Plan," Water System Report (Manchester-by-the-Sea Department of Public Works, February 2018), 11, https://manchester.ma.us/DocumentCenter/View/2600/Water_System_Report_2018.



Vintage postcard. Source: Amazon



Manchester's historic train station. Source: Pictorial Manchester, a Photographic Documentary of Manchester-by-the-Sea

Transportation and Parking

Progress in transportation—first the railroad, and then limited-access highways—have been essential to Manchester's development from an isolated fishing village to a popular beach town within reach of Boston. While the terrain made it unattractive to early settlers, the town became much more accessible with the arrival of the Eastern Railroad (later acquired by the Boston & Maine Railroad) in 1847, which ushered in new wealth and a new era for Manchester. The Eastern Railroad was acquired by the Boston & Maine Railroad in 1884. The Boston & Maine served the town for much of the twentieth century until it passed

its commuter operations to the newly formed Massachusetts Bay Transportation Authority (MBTA) in 1964. For nearly two centuries, regular train service to Boston has spurred the village's development as both a commuter enclave and a summer getaway for beach goers and those able to afford newly constructed estates on the bluffs.

Highways transformed Manchester once again. When Massachusetts Route 128 was completed in 1950s, further connecting residents to jobs, recreation, and healthcare from the comfort and convenience of their own cars, the railroad diminished in prominence as the automobile soared in popularity. The financial precarity of the Boston & Maine and competition from private motor vehicles led to diminished frequency and quality of train service. Though recreation became regional with the rise of shopping malls, Manchester maintained its walkable downtown, which remains essential to the town's charm today.

²⁶ Matthew Swindell (archivist, Manchester Historical Museum), in discussion with the authors, November 22, 2023.

²⁷ In addition to its main station (which still operates today), Manchester was historically served by additional stations at Harbor Street ("West Manchester") and Magnolia Avenue ("Magnolia"). These stations received regular service until the late 1940s. Boston and Maine Railroad, "Northern New England Travel Guide," Timetable, April 28, 1946, 19, https://upload.wikimedia.org/wikipedia/commons/f/f3/Boston_and_Maine_Railroad_1946_timetable.pdf.





Personal vehicles remain as the primary mode of transportation for Manchester-by-the-Sea's working population, with about 58% of the employed population driving alone to their workplaces.²⁸ However, a sizable proportion (about 15%) of the working population uses public transportation, most of whom work outside of Essex County. Though this overview of commute patterns is important for considering high-level transportation and infrastructure needs of the town, it is important to note that this information excludes trip purposes other than work like shopping and recreation that may constitute a heavy portion of all travels. Additionally, the COVID-19 pandemic has affected commute patterns throughout the world, including Manchester-by-the-Sea, shifting transportation planning to focus on more diverse transportation options and purposes.

In the past five years, the annual average daily traffic (AADT) on Route 128 in Manchester-by-the-Sea has dropped significantly, from 41,167 in 2019, to 34,992 AADT in 2020, to 33,992 in

2022.²⁹ Some of the change in traffic is likely attributable to pandemic-spurred shifts in working and travel patterns, such as a greater percentage of residents working remotely.

Manchester's compactness makes it attractive for walking, but for longer trips options other than personal cars remain limited. The only regularly scheduled public transit service in Manchester is the MBTA commuter rail line. At the time of publication, the Rockport line makes 14 round trips daily on weekdays, stopping in Manchester every hour during the morning and evening peak commute periods and every 90 minutes at other times. On weekends, there are 9 round trips on the Rockport line, stopping in Manchester every two hours.³⁰

Commuter rail service offers a valuable connection to workforce opportunities, recreation, and



shopping around the Boston region, but does not serve trips within Manchester. In some cases, residents have taken the need for transportation into their own hands. Two high school students have begun a small-scale operation shuttling visitors between Singing Beach and the train station, a particularly frequent trip during the summer months. Manchester's Council on Aging offers a shuttle service for residents over 60 that resembles paratransit service, carrying seniors door-to-door during business hours and connecting them to expanded grocery options with popular Market Basket and Costco shuttles.

Bicycling could also complement walking and public transit as a sustainable, traffic-free option for short- and medium-distance trips within Manchester, but it is stifled by a lack of infrastructure. While the town's compactness, relatively light

^{28 2021} US Census American Community Survey 5-year Estimates

²⁹ Massachusetts Department of Transportation, "Traffic Volume and Classification in Massachusetts: Interactive Map," Mass.gov, accessed November 22, 2023, https://www.mass.gov/traffic-volume-and-classification-in-massachusetts.

³⁰ Massachusetts Bay Transportation Authority, "Newburyport/Rockport Line Schedule," Commuter Rail, November 4, 2023, https://www.mbta.com/schedules/CR-Newburyport/timetable.

³¹ Stephen Hagan, "Beach Bums Shuttle Service Moves Ahead," Gloucester Daily Times, August 23, 2023, https://www.gloucestertimes.com/news/local_news/beach-bums-shuttle-service-moves-ahead/article_1b788070-4118-11ee-9f4f-cb1547091e9d.html.

³² Manchester-by-the-Sea Council on Aging, "Council on Aging," Manchester-by-the-Sea, Massachusetts, accessed November 22, 2023, https://manchester.ma.us/371/Council-On-Aging.







The bike lane infrastructure above is suitable for confident or fearless bicyclists but not for potential bicyclists who are interested in biking but concerned about safety. Image sources: class photography

traffic, and pre-automobile street network make it extremely suitable for (e-) biking, it is nonetheless daunting for all but the "strong and fearless" few to bike on many streets in Manchester.³³ In particular, key connections like Route 127, Pine Street, and School Street lack protected bike lanes.³⁴ In addition to errands around town, bicycling could serve trips to and from the train station, but biking to the station is hampered by a lack of bike parking nearby that is secure and protected from the elements.

A comprehensive understanding of trips by car, foot, train, and bikes can help guide decisions about transportation infrastructure in Manchester. As one of the most visited beach towns in Massachusetts, Manchester-by-the-Sea needs to accommodate parking needs of its residents as well as seasonal visitors to the town's historic core and Singing Beach. To assess this need, the Metropolitan Area Planning Council (MAPC) conducted a parking analysis of Manchester-bythe-Sea's downtown area in 2023.35 The analysis counted 485 spaces, including 125 on-street spaces, in the study area. The study found that Manchester's downtown has ample parking capacity: less than 85% of spaces were occupied at all times except for a few hours a year during

33 In order to improve the mode share of bicycling, municipalities must develop "all ages and abilities" street infrastructure that allows even the "interested but concerned" group of potential bicyclists—which usually represents the majority of the population—to feel safe. Alta Design and Planning, "Understanding the 'Four Types of Cyclists," August 18, 2017, https://blog.altaplanning.com/understanding-the-four-types-of-cyclists-112e1d2e9a1b.

the busiest summer Saturdays.³⁶ Though parking demand is currently met, MAPC suggested the town improve accessibility further with steps such as:

- Implementing shared parking agreements with local institutions and businesses
- Expanding bicycle parking downtown
- Simplifying parking regulations in off-street lots
- Adding accessible on-street parking spaces
- Encouraging people to park once and visit multiple destinations in a single trip

³⁴ See Massachusetts Department of Transportation, "Separated Bike Lane Planning and Design Guide," 2015, https://www.mass.gov/lists/separated-bike-lane-planning-design-guide, for state guidance on implementing protected bike lanes.

³⁵ Metropolitan Area Planning Council, "Manchester-by-the-Sea Downtown Parking Analysis," April 2023, https://www.manchester.ma.us/DocumentCenter/View/6313/MAPC-Manchester-by-the-Sea-parking-study-report-FINAL-April-2023?bidld=.

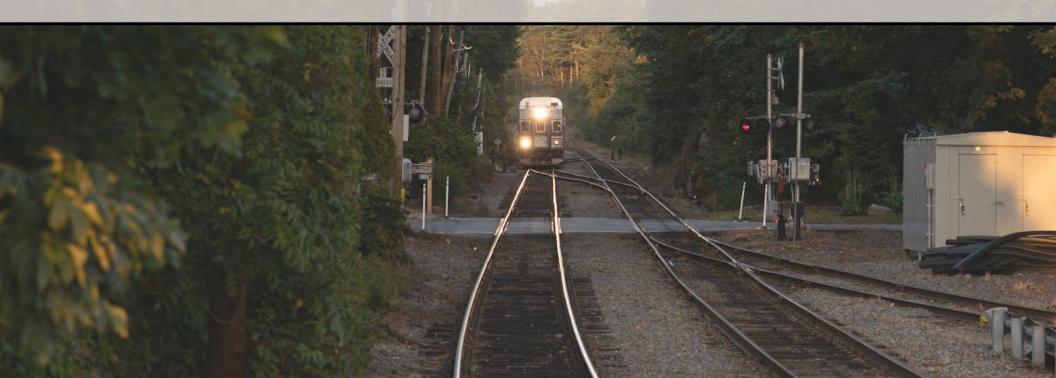
³⁶ The study found that on peak summer days, during peak hours around 1:00 to 2:00 p.m., some off-street lots like the one at Singing Beach reached full capacity.

Manchester-by-the-Sea, an MBTA Community

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MBTA Communities Act



MBTA

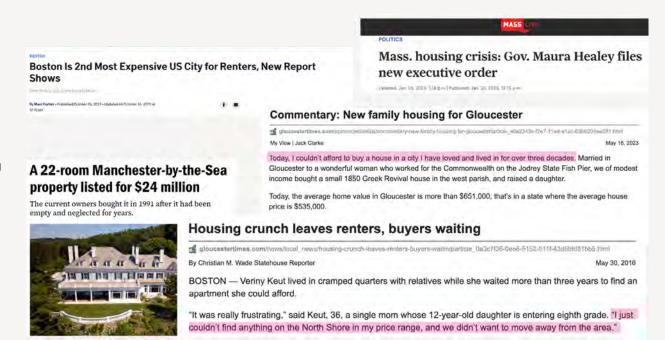
Communities Act

Manchester-by-the-Sea is not alone in its housing shortage; rather, housing affordability is impacting communities across the state. Passed in 2021 as an amendment to the state's Zoning Act (Massachusetts General Law Chapter 40A, Section 3A), the MBTA Communities Act seeks to address the state's urgent need for housing by improving the economic feasibility of housing construction in areas served by the MBTA.

What is the purpose of the MBTA Communities Act?

Over the last twenty years, there has been limited housing production in communities across the country; fewer new homes were built between 2010-2020 than any decade since the 1960s, leading to a national deficit of over 3 million homes that continues to grow.³⁷ Some of the key factors for the construction lull are land availability and prices, rising construction costs, and exclusionary zoning laws (such as minimum lot size and square footage requirements, building height limits, and use restrictions) that make it difficult or impossible to build new housing.

Changing household patterns mean more people are living alone or in two-person households than ever before, and are therefore seeking smaller housing units such as studios and one-bedroom



Local news headlines about housing unaffordability, fall 2023. Sources: MassLive, ABC, Gloucester Times

apartments.³⁸ In many communities, however, local zoning bylaws prohibit new multi-family housing from being built. The result is that it is effectively impossible for many middle- and lower-income residents, including older adults on fixed incomes, young couples beginning their careers, and essential workers in lower-paid industries like education and retail to live in these places, even if they grew up there.

Many communities with exclusionary zoning are exactly the types of places that support economic mobility, with access to good schools, employment, and other amenities. Making it impossible to build affordable housing thereby excludes lower-income people from access to social and economic opportunity. This type of

exclusive zoning has explicit historic roots in racial segregation and continues to impact people of color disproportionately today due to the racial wealth gap.

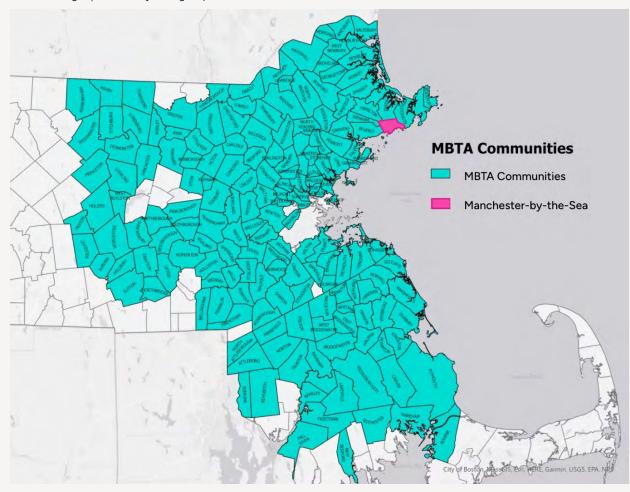
Rising buyer demand for housing with a limited supply means that housing costs for rentals and ownership have skyrocketed in recent years. This is what the state calls a housing affordability crisis. Massachusetts has some of the highest housing costs in the country. The human impact of this means that young families are unable to rent or buy homes in the communities they grew up in, companies are disincentivized from opening offices in Massachusetts and choose to take their jobs elsewhere with lower housing costs, and longtime middle- and lower-income residents are being pushed out because they cannot compete with rising market rents.

³⁷ Adewale A. Maye and Kyle K. Moore, "The Growing Housing Supply Shortage Has Created a Housing Affordability Crisis," Economic Policy Institute, July 14, 2022, https://www.epi.org/blog/the-growing-housing-supply-shortage-has-created-a-housing-affordability-crisis/.

³⁸ Lydia Anderson et al., "Share of One-Person Households More Than Tripled from 1940 to 2020," United States Census Bureau, June 8, 2023, https://www.census.gov/library/stories/2023/06/more-than-a-quarter-all-households-have-one-person.html.

Figure 12: MBTA Communities

Source: Mass.gov | Multi-Family Zoning Requirement for MBTA Communities



The MBTA Communities Act aims to address this crisis by tackling exclusionary zoning, ensuring there is legal capacity for the region to increase its overall housing supply to meet demand. The law requires that 177 "MBTA communities"—towns and cities that have received public transit investments from the state, shown in Figure 12—update their zoning such that each community has capacity for at least one neighborhood-sized district where multi-family housing can be built

by-right (meaning developers do not need to go through long case-by-case negotiations and design reviews, which add cost to projects, to start construction).

Notably, the MBTA Communities Act does not require that any housing actually be built, only that it be permitted in zoning. The law gives MBTA Communities the freedom and flexibility to design their own boundaries and specifications for their multi-family zoning districts, allowing for

The MBTA Communities Act and Affordable Housing

While more affordable housing is needed across the state, the MBTA Communities Act does not include any requirements for income-restricted affordable housing. The MBTA Communities Act is not the state's only housing policy, nor is it intended to be. Laws like 40B, which facilitates the construction of income-restricted affordable housing, and continued housing advocacy for rent stabilization are still important to guarantee that people of all income levels are able to live in Massachusetts.

collaborative community dialogue about where residents want to direct growth in their towns.

The MBTA Communities Act is also a regional planning effort that seeks to encourage development of new destinations and neighborhoods in areas connected to public transportation, thereby allowing residents to live, work, and travel regionally without a car. This is important for meeting state climate goals, because transportation is the largest source of greenhouse gas (GHG) emissions in Massachusetts. Prior to the COVID-19 pandemic, about a quarter of GHG emissions in the Commonwealth came from light-duty vehicles owned and operated by individuals and business owners.³⁹ Moreover, vehicle ownership is financially out of reach for many Massachusetts families. Building new housing near transit ensures that people who cannot drive still have access to the regional economy.

³⁹ Executive Office of Energy and Environmental Affairs, "Massachusetts Clean Energy and Climate Plan for 2025 and 2030," June 30, 2022, 6, https://www.mass.gov/doc/clean-energy-and-climate-plan-for-2025-and-2030/download.

Requirements for Manchester-by-the-Sea

The base law requires each MBTA community zone for a new multi-family district of 15 units per acre that is a "reasonable size" and is immediately surrounding (within a ½ mile radius of) transit infrastructure. The State Department of Housing and Community Development has provided further guidance on the specific numbers for what constitutes a "reasonable size" based on the unique conditions of each community, including population, existing housing stock, and geographic features that make land undevelopable.

Figures 13a and b shows the acreage requirements for Manchester-by-the-Sea, as well as the number of new housing units that would be permitted by multiplying 15 units/acre by the 39 acres that the Town will need to rezone. The minimum size and continuity requirements come from a desire by the state to see towns create new multi-family neighborhoods, not just sites where apartment buildings could be built. Neighborhoods with higher densities support better public realms by providing foot traffic to support local businesses and transit ridership, as well as a comfortable environment that feels welcoming and safe because other people are nearby. Many beloved neighborhoods in Manchester's historic core already have densities of 15 units/acre, but today's zoning does not allow for more of these great places to be built.

"The MBTA Communities Act does not require that any housing actually be built, only that it be permitted in zoning."

Figure 13a: MBTA Communities Act Requirements for Manchester-by-the-Sea

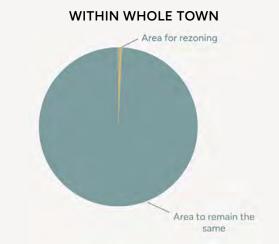
Source: Mass.gov: Multi-Family Zoning Requirement for MBTA Communities (2023)



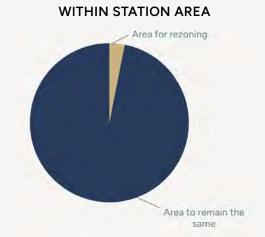
^{*15} units/acre is the average density across rezoned districts

Figure 13b: Land to be Rezoned for MBTA Communities Act Compliance

Source: Mass.gov: Multi-Family Zoning Requirement for MBTA Communities (2023), MassGIS







At least 3.1% of the half-mile area around the MBTA Station will be rezoned (15.6/503 acres)

Strategies for Compliance with the MBTA Communities Act

Consensus Building in Other MBTA Communities

As of November 2023, two towns close to Boston's urban core have finalized zoning changes to satisfy compliance with the MBTA Communities Act. Both Lexington and Brookline⁴⁰ voted overwhelmingly in favor of new zoning plans that include neighborhoods allowing multi-family zoning by right in their respective town meetings.

Ambiguity in what action is required to satisfy the MBTA Communities Act has been a source of tension in many towns. Community engagement to create ample space for clear discussion of what the policy truly requires of a given town is essential to allow productive conversation and development of a plan that serves community members' needs. Manchester's early pattern of community engagement through public forums and tabling at community events will serve the town well in formulating a solution that meets both the housing needs of the community as well as satisfying the policy requirements.

Development Strategies

Infill Development

Infill development such as new multi-family buildings on empty lots or unit additions to existing homes in the village core creates easy access to Manchester's best amenities. By densifying the

Figure 14: High Density Housing Types

Source: MassGIS



50 & 56 Beach Street
29.6 units/acre
6 units / 0.20 acres
Multi-family housing



21 Pine St.

29.31 units/acre
9 units* / 0.31 acres
Residential condominiums





1 & 3 School Street 91.7 units/acre 13 units / 0.14 acres Multi-family housing

village core through infill development, Manchester's village core will be able to support new amenities and community resources and would further strengthen its walkable town center. As a housing development strategy, infill development does not significantly increase housing availability as it is subject to few developable lots that are also financially viable. Nonetheless, infill development can contribute to gentle increases in density that enhance the local neighborhood's amenities.

Figure 14 highlights small homes in Manchester's downtown that could be replicated as infill development. The various housing designs shown in the figure all exist on a single block, and would be allowable by-right via the MBTA Communities Act density allowance of 15 units/acre.

Multi-Family Residential Development

Manchester may also consider zoning that encourages larger multi-family residential developments with 20 or more housing units. As medium and large developments can cross-subsidize the construction costs of the new units, they can provide housing at a wider range of price points. Depending on the size of the development, these projects may require additional infrastructure improvements in the surrounding area to accommodate additional travel, sewage and water needs. The town can work directly with the developer - an option that is not available with smaller infill projects - to address these new infrastructure needs. The new development may also significantly add to the town's tax base which will offset additional costs in the future.

⁴⁰ As a "Rapid Transit" community, Brookline is subject to an earlier compliance deadline than "Commuter Rail" and "Adjacent" communities.



Rendering of the John J. Meany Senior Affordable Housing in Gloucester. Source: SV Design

There have not been any large residential developments in Manchester recently; to provide some examples, we have collected a sample of development projects that have been recently completed or are currently under construction in towns nearby to Manchester:

- Affordable Senior Community: Senior Maple Woods will add 45 new senior-living units in Wenham, MA.⁴¹
- Service-enriched Affordable Senior Housing: John J. Meany Senior Affordable Housing will host 44 new units of affordable senior rental housing in Gloucester, MA.⁴²
- 41 Windover Construction, "Maple Woods, A New Affordable Senior Housing Community, Underway with Project Team Harborlight Homes, Windover Construction, and SV Design," April 21, 2023, https://www.windover.com/blog/maple-woods-a-new-affordable-senior-housing-community-underway-with-project-team-harborlight-homes-windover-construction-and-sv-design/.
- 42 SV Design, "John J. Meany Affordable Senior Housing," accessed December 10, 2023, https://www.svdesign.com/portfolio/john-j-meany-affordable-senior-housing.

- Mixed-Use development: Mosaic Mixed-Use Development in downtown Lynn will create 146 new housing units and 3500 square feet of commercial and amenity space.⁴³
- Mixed-income development: Emerson Homes Development in nearby Topsfield was just approved for 44 new mixed-income units.⁴⁴
- Market-rate development: Sedna Beverly Waterfront Apartments in Beverly adds 62 new market-rate housing units in 2021.

Workforce Housing

Workforce housing is affordable for households whose incomes are too high for subsidized housing but are priced out by market rents. MassHousing has \$100 million in its Workforce Housing fund that can be used to finance up to \$100,000 per unit to build rental units that are affordable for individuals or households with incomes at 80-120% AMI. Both new construction and adaptive reuse projects are eligible for Workforce Housing financing from MassHousing at a 0-3% interest rate, limiting overall capital costs for a project. Importantly, the use of MassHousing Workforce funds requires that 20% of built units are affordable for households earning at or below 80% of AMI. The MassHousing Workforce funds could be combined with additional affordable housing funding sources to cover the most affordable units, creating a mixed-income development while contributing to the town's stock of affordable housing units.

There are two recent developments that utilized Workforce Housing financing near Manchester-bythe-Sea. The Beverly Homes development combined workforce housing funds from MassHousing with funding from the Massachusetts Housing Investment Corporation's Healthy Neighborhoods Equity Fund and private capital to build 67 new units near the Beverly MBTA station.¹ The Gateway North development in Lynn created 71 new housing units through a combination of funding from private lenders and federal, state and local funding and financing sources that includes: MassHousing workforce housing funds, the AFL-CIO Housing Investment Trust, City of Lynn HOME funds, EDIC/Lynn, and Lynn's Housing Authority and Neighborhood Development.² These local examples show how local development initiatives can be supported by additional state-level resources.

⁴³ Dellbrook | JKS, "The Mosaic," accessed December 10, 2023, https://www.dellbrookjks.com/project/the-mosaic/.

⁴⁴ Michael McHugh, "Affordable Housing Project for Seniors Moves Forward in Topsfield," Salem News, August 31, 2023, https://www.salemnews.com/news/affordable-housing-project-for-seniors-moves-forward-in-topsfield/article_70a41200-45a3-11ee-a5ec-f79e1d62b2b1.html.

⁴⁵ DMS Design, "Sedna Beverly Waterfront (Multiple Award Winner)," accessed December 10, 2023, https://dmsdesign.com/portfolio/sedna-beverly-waterfront/.

¹ MassHousing, "Holmes Beverly," Multi-family Success Stories (blog), March 18, 2019, https://www.masshousing.com/en/developers/multi-family-articles/holmes-beverly.

² MassHousing, "Gateway North," Multi-family Success Stories (blog), February 25, 2019, https://www.masshousing.com/en/developers/multi-family-articles/gateway-north.



Proposed Sites for Rezoning



Our Site Selection Methodology

In this report, we identify two types of sites for possible rezoning under the MBTA Communities Act. First, we considered sites that already have high unit per acre density, high concentration of multi-family housing, or are on track to meet the density requirement through existing development proposals. These sites were selected because they require minimal zoning changes to comply with the MBTA Communities Act. For example, Figure 15 shows a neighborhood in Manchester's downtown that already meets the MBTA Communities Act's density requirement of 15 units per acre (the same neighborhood that was highlighted in Figure 14).

Second, we considered sites that have a low present day density (less than 10 units per acre) but have high capacity and potential for development to help Manchester meet its Housing Production Plan goals. For example, sites with large surface parking lots or seemingly vacant lots were identified as developable opportunity areas that we explored further. As elaborated further in Chapter 6, our proposed compliance scenarios contain a mix of sites with high existing density and low existing density.

Other considerations were also made when choosing sites. Specifically, we did not choose sites fully in the Historic District to protect the historic character of the town. We also considered flood risk and transit access (i.e. if the site was within a half-mile radius of the Commuter Rail station) for each site.

Figure 15: High Density Neighborhood in Manchester's Downtown

Source: MassGis



Proposed Sites for New Zoning Overlay Districts

In this section, we describe each site, its current conditions and planning considerations for new development in this area, including parking, climate resilience, phasing of development buildout, and financial feasibility.

Figure 16 shows all of the sites considered in this report. Table 1 shows how sites align with our selection criteria discussed in the previous section.

Figure 16: Overall Map of Sites Discussed in This Report



Table 1: Site Selection Criteria

Site	Existing High Density	Available Land to Develop*	Within Historic District?	Acreage
Limited Commercial District (LCD)	✓	X	X	13
Old Essex Road	X	✓	X	22.5
School Street	X	✓	X	6.9
Saw Mill Circle	X	X	X	7.3
Bridge Street	X	✓	X	11.8
Summer Street	X	✓	Partial	12.3
Station Area	✓	✓	Partial	14.2

^{*} Large amounts of greenfield or vacant land for development

Figure 17: Flood Risk in Sites Outside the Half-Mile Radius

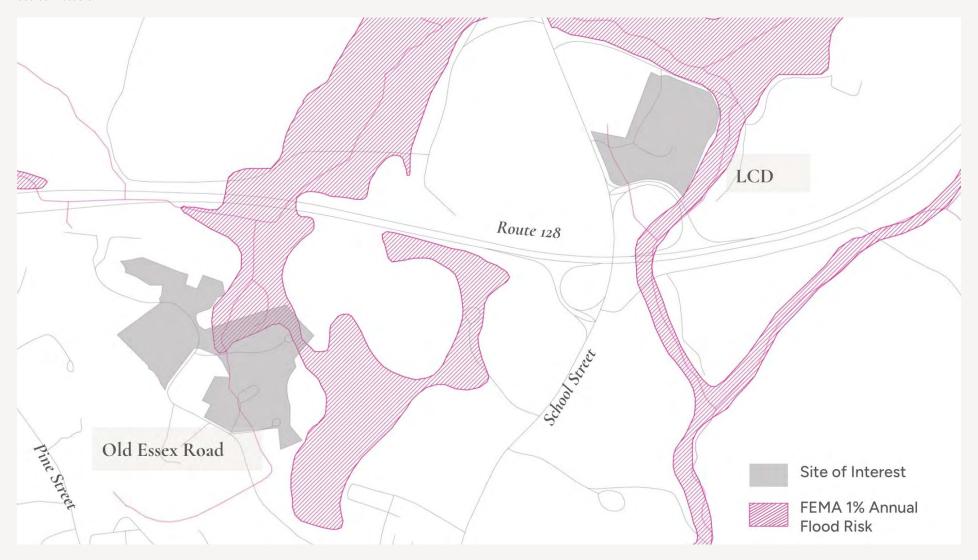


Figure 18: Land Use in Sites Outside the Half-Mile Radius





LCD existing conditions. Source: Google Earth

Limited Commercial District (LCD)

Site Summary

With the potential arrival of a new biotech campus, Cell Signaling, to the former mine east of the Manchester Athletic Club (currently home to storage and manufacturing businesses), 500 potential new employees could benefit from a new neighborhood that contributes to the MBTA Communities Act's density goals. This neighborhood is proposed on a site left of the Cell Signaling development. Gurley Eye Care Associates sits in the center of the site. New residential development at this site would be considered workforce housing, which provides more affordable rents for residents who otherwise have incomes too high for subsidized housing.

Flood Risk

Sawmill Brook travels through the Limited Commercial District. Our selected parcel abuts the brook to the north and east, so surge during heavy rainstorms could risk flooding. The Town should analyze or reference existing analyses of the exact flood heights. Other than precipitation-induced flooding, this site is not at risk to coastal flooding due to its distance from the sea.



Rendering of proposed Cell Signaling development, with LCD site outlined in magenta. Source: HGA Architects

Rezoning Impact

New housing can grow around the Gurley Eye Care Associates office and provide residents with quick access to the Manchester Athletic Club. In reference to the Cell Signaling master plan,46 which features our selected parcel outlined in magenta, housing would also be directly accessible to the new Cell Signaling campus via Atwater Avenue.

Recommendations

- Developers may benefit from working in partnership with Cell Signaling to apply to the MassHousing Workforce Housing fund, under supervision of the Town Planning Board.
- Transit options are limited in Manchester, and a new development above Route 128 would be restrictive for residents in reaching the rest of the town without frequent bus service. Manchester should strongly consider reviving previous proposals for transit service in tandem with any new residential construction in the Limited Commercial District. Such service could be coordinated with a route serving Old Essex Road in the event it sees further development as well.

⁴⁶ HGA Architects, "Cell Signaling Technology at the Old Quarry," https://www.cstoldquarry.com/wp-content/up-loads/2023/02/20230213-Planning-Board-Presentation-sml-Final.pdf.

- In addition to public transit service, traffic impacts from development within the Limited Commercial District should be blunted by improving bicycle and pedestrian infrastructure on School Street to connect the site to Manchester's schools, town center, and beach front.
- Cell Signaling is proposing 535 parking units through a multi-story parking garage. Every effort should be made to share parking between residential and business use at any new parking facility.

Old Essex Road

Site Summary

Old Essex Road is a winding suburban road that extends from the north of Powder House Hill, ending right below the Route 128 highway. Dotted along it are branches of existing two- to three-family housing, including The Plains and just north of Blue Heron Lane, as well as many single family homes. This presents a good opportunity to expand on, as lots are generally large, with space between houses, and if sold in the future, can be repurposed as multi-family housing.

Flood Risk

Located right on top of a northern tributary of Sawmill Brook, this site may experience flooding during heavy rainstorms. The amount of rainfall is not well studied, but the Town should conduct an analysis of stormwater flooding to determine if both existing development and new construction are at significant risk. For coastal flooding, similar to the Sacred Heart site, this neighborhood is not expected to be at risk as it is located far from the coast.

Rezoning Impact

Staying sensitive to the neighborhood's current design would produce new housing that looks similar to The Plains, or yields large houses similar to existing single family homes but that can be subdivided into more units. These homes would also be tucked off the branching roads, providing more of a suburban feel.

Recommendations

 SLV School Street, LLC's 2020 Transportation Impact Assessment, 47 is a helpful reference for understanding the effects on transportation of additional development at sites further from downtown like Old Essex Road and the Limited Commercial District. In the traffic volume analysis, SLV calculated that traffic volume for the month of July is about 14% above the average monthly traffic volume. This increase may account for seasonal influx of vehicles that peak in the summer, but the contributing factor is not specified. There is no specific information regarding parking capacity or inventory for this site. As prefaced in the Infrastructure section, given that this site is not well-connected to the train station and the town center, complementing development with new transit service as well as improvements to bike and pedestrian facilities (on Pine Street, School Street, Pleasant Street, and Old Essex Road) would



Old Essex Road existing conditions. Source: class photography

be an essential component to mitigating trip generation from new residential development located in an otherwise isolated and auto-oriented area.

 As discussed under Flood Risk, the Town should confirm whether existing homes and new development would be under significant risk from stormwater flooding, due to the neighborhood's location right on the northern extension of Sawmill Brook.

⁴⁷ Vanasse & Associates, "Transportation Impact Assessment: Proposed Multi-family Residential Development, School Street, Manchester-by-the-Sea, Massachusetts" (SLV School Street, September 2020), https://manchester.ma.us/DocumentCenter/View/4197/81-Traffic-Impact-Analysis-0920.

Figure 19: Flood Risk in Sites Inside the Half-Mile Radius

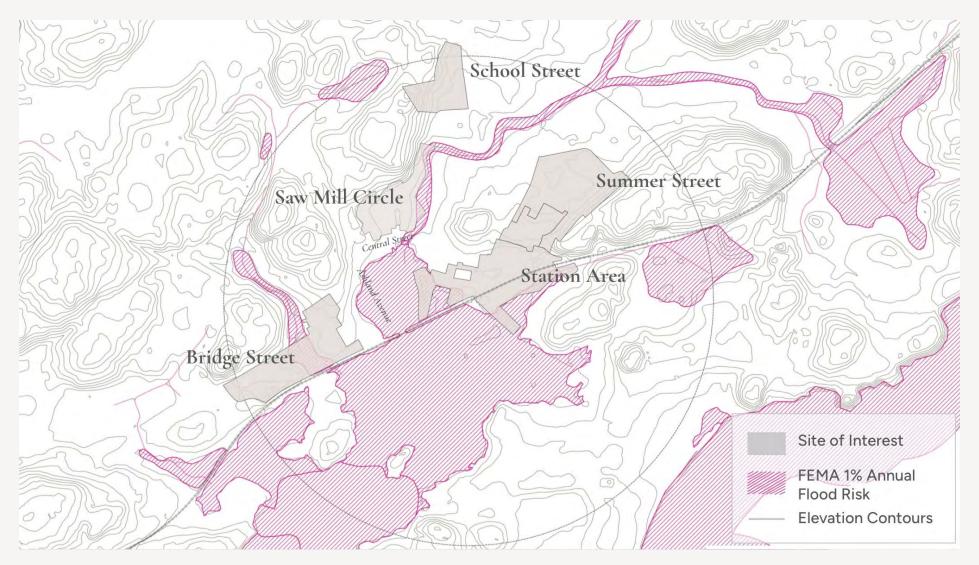


Figure 20: Land Use in Sites Inside the Half-Mile Radius



Figure 21: Historic District Overlap with Sites Inside the Half-Mile Radius





School Street existing conditions. Source: class photography

School Street

Site Summary

The Sacred Heart site is bound by School Street to the east, Burnham Lane to the south, and ends at 80 School Street to the north. In total, the School Street site is 6.9 acres, all of which are developable. The site is primarily composed of single-family homes, and has a current density of 1.7 units/acre. The low density is the product of large lot sizes for single-family homes, particularly those backing onto Powder House Hill, and the presence of multiple non-residential parcels. Most notably, Sacred Heart is the owner of the second largest parcel in this site, and the majority of Sacred Heart's acreage is devoted to its parking lot.

Tara Montessori School is located within our site. The proximity to Tara Montessori School and the train station make this site a great location for younger families who are moving to Manchester, or for young adults choosing to stay after having grown up there. Located north of Manchester's historic core and further from the sea, this site is highly protected from coastal flooding.

Flood Risk

At its distance from the sea, this site is highly protected from coastal flooding and should face little to no risk for existing homes or new construction.

While near Sawmill Brook, it is located far enough above to not face significant precipitation-induced or coastal flooding up until 2070 1% Annual Storm flood depths.

Rezoning Impact

This site is amenity rich due to its proximity to the train station, the historic core, Sacred Heart, and the Montessori school. Significant portions of the developable land included in this site are currently non-residential, or are located at the foot of the Powder House Hill Reservation. As a result, rezoning would most likely be slow to produce new units, but in the end could produce significant changes to the site.

The entirety of this site is located within a half-mile of the train station, but this site is not contiguous with any of our other sites.

Recommendations

· There are various examples worldwide of spaces formerly owned by religious orders that have changed their purpose, transforming into residences, hotels, bars, cultural centers, among others. Conversions allow communities to preserve precious historic buildings that no longer serve their intended purpose by breathing new life into them, rather than allowing the structure to go to decay or demolition. For example, Greater Boston has a "church to condo" pipeline that recognizes changing demographic shifts (higher housing demand, lower church attendance) since some old structures were originally built, and works with property owners and the community to find creative solutions to fund the preservation of these buildings.48



The Cosmopolitan — the former Church of Immaculate Conception built in 1850 — has been reimagined as 63 luxury condominiums in Boston's historic South End neighborhood. Source: Preservation of Affordable Housing

- Behind the Sacred Heart-Manchester, there is a spacious area, currently used as a parking lot, which could be utilized for the construction of multi-family homes. It is a location that is not at risk of flooding and is close to a school, making it an appealing spot for families with children. Additionally, it has quick access to the city center and the train station via School Street.
- In order to mitigate traffic impacts and increase safety on School Street, the Town could construct protected bike infrastructure and improve sidewalks to better link the site with downtown and the train station via active transportation.
- Much of the developable land of this site is currently backyards of homes backing up to the Powder House Hill. These spacious backyards hold opportunities for granny flats and ADUs, or for a redevelopment of an entire parcel where new units are concentrated away from the street.

⁴⁸ Preservation of Affordable Housing, "Greater Boston's Church To Condo Pipeline," October 4, 2021, https://www.poah.org/news/greater-bostons-church-condo-pipeline.



Saw Mill Circle existing conditions. Source: class photography

Saw Mill Circle

Site Summary

The Saw Mill Circle site encompasses homes along Elm Street and Morse Court, which includes Sawmill Circle, as well as Powder House Apartments to the east, all located at the base of Powder House Hill and near Central Pond. Two office complexes are also found here, in addition to the bicycle store Riverside Cycle. The site spans a total of 7.3 acres, a majority of which is developable land. As it is located in the General District, two- and three-family housing developments are already present at a density of around 12 units/acre, placing it very close to the required density. Very little infill development would be required to bring it in compliance with the MBTA Communities Act. The site is also located a comfortable walking distance from the downtown and train station.

However, we advise that Town planners treat new development with caution regarding the site's flood risk. It is one of the most vulnerable to heavy flooding and is subject to up to 10 feet of flooding from a major storm in 2050. This may deter future development, unless extensive flood adaptation strategies are undertaken.

Flood Risk

As mentioned, this site is one of the two most flood vulnerable areas within Manchester-bythe-Sea, along with the Train Station Area. Saw Mill Circle is located right on the banks of Central Pond and along Sawmill Brook, which currently overflows during heavy rain and may also overflow with future sea level rise. From a 1% Annual Storm in 2050, Saw Mill Circle is expected to receive up to 10 feet of flooding, which can easily flood residents' basements and cause extensive property damage.

The Sawmill Brook Restoration project, recently invigorated by a FEMA Building Resilient Infrastructure and Communities grant and expected to begin construction in 2024, would reduce this overflow flooding by widening the existing culvert and repairing the brook's boundary walls. With this adaptation measure in place, the Town should analyze the expected reduction in flooding elevations, which may be enough to make homes much safer.

Regardless, we only mention this site despite the current heavy flood risk because of its existing density. A few units of infill housing may be enough to fulfill the required density, but it comes at the risk of new residents potentially experiencing heavy monetary and property losses. We provide recommendations for how to proceed below

Rezoning Impact

Rezoning the Saw Mill Circle site would recognize the Town's effort in already constructing two- to three-family housing and its density of 12 units/ acre. Very little new housing would have to be built to then achieve the required density, which can take place in the form of infill in the parking lots between the office complexes.

Recommendations

- The most appealing aspect of this area is its abundance of existing townhouses, at a density of 12 units/acre with 88 units already in place. The site is not only accustomed to the types of buildings needed to accommodate more housing but also familiar with greater density. Another positive aspect is that the facades and construction styles of existing buildings could be replicated, preserving the neighborhood's character. Building only a few more units could bring it in compliance with the MBTA Communities Act, and we recommend potentially reducing parking lot sizes for the office buildings to make room for housing.
- To address the site's severe flood risk, we recommend several strategies. For current homeowners that haven't already done so, the Town should strongly encourage them to purchase flood insurance. As with the Train Station Area, we suggest that zoning require new development be elevated to at least 2 feet above the base flood elevation. New homes, if any, should also be located as far as reasonably possible from the water. For land use adaptation strategies, we recommend the Town analyze the results of the Sawmill Brook Restoration project to see how much future flood risk can be reduced, and to continue monitoring overflow levels from the brook. Parking lots that are replaced with new housing should also try to further reduce the level of impervious surfaces by substituting permeable pavement for asphalt.
- Similar to the Summer Street site, this site is walkable to downtown and located within half a mile of the train station. While we do not foresee major issues with regard to parking or challenges in constructing new buildings, we believe this area would benefit from protected bike infrastructure on Route 127, School Street, and Pine Street.

Bridge Street

Site Summary

Boatyard/Bridge Street's boundaries are the train tracks to the south, Bridge Street or Bennett Street to the north, Norton's Point Road to the west, and Ashland Avenue to the east. The site includes the parcels in the small triangle between Bennett Street, Bridge Street, and Ashland Avenue, but does not include the parcels along Ashland Avenue south of Bridge Street. In total, this site contains 11.8 acres, with the majority of the land being developable, and existing development having a density of 2.7 units/acre.

The majority of the residences within this site are single family homes, but there are a few two-family homes and condominiums. There is also a multi-parcel parking lot and vehicle storage area continuing southwards from 32 Bridge Street which totals 1.6 acres. The low units/acre figure is driven by large lot sizes and the lack of housing on the parking lot parcels. Notably, the residential parcels with large lot sizes tend to have proportionately low levels of impervious surfaces.

Upzoning the Boatyard/Bridge Street site is an opportunity to zone for more housing in a way that is hidden and not disruptive to the town's historical character yet increases the population of folks who are walkable to the downtown and train station, while prioritizing development in areas with low flood risk.

Flood Risk

According to the Massachusetts Coastal Flood Risk Model, none of this site is vulnerable to flooding by 2050.⁴⁹ Just east of the site, the area east of Ashland Avenue is vulnerable to flooding by 2050, with flood heights of up to 4 feet encroaching on boat parking. Elsewhere outside of the site, sea-level driven flooding is not predicted to travel past the train tracks into this area. Furthermore, the abundance of green spaces and natural water features, such as the inlet south of Bridge Street, can provide absorption and drainage of incoming floodwaters.

Rezoning Impact

The site strategically excludes the selection of homes that overlap with the Historic District. As a result, new development will not risk changes to historic homes and can instead take advantage of infill opportunities. Moreover, the eastern boundary of the site is drawn to the west of Ashland Avenue, so as not to include properties that are vulnerable to flooding.

The majority of this site lies within a half-mile of the train station, but is not contiguous to any of the other proposed sites within a half-mile of the train station. Including this site would make a significant difference toward reaching the required number of rezoned acres within a half-mile of the train station.



Bridge Street existing conditions. Source: Google Earth

Recommendations

- Housing can be added that is sensitive to the site's existing design styles. The homes on large plots of land within this site are dissimilar from those built on parcels in the eastern half of the site, such that there are multiple different building typologies present in this site. A key consideration for such new construction is designing houses that look like existing single-family homes but can be split into multiple units, similar to buildings that are closer to downtown.
- This site is quite close to Manchester-by-the-Sea's town hall and historic core. Upzoning this site could help grow the charm of Manchester's historic downtown by replicating the building form of homes along Bennett Street throughout the rest of the site.
- The boatyard site would benefit from improved multi-modal connections to the town center and train station with the implementation of protected bike infrastructure on Route 127.
- This site is close to the downtown and has low flood risk.

⁴⁹ Massachusetts Office of Coastal Zone Management, "Massachusetts Sea Level Rise and Coastal Flooding Viewer."



Summer Street existing conditions. Source: class photography

Summer Street

Site Summary

The Summer Street site describes the neighborhoods in the northeast portion of the General District, bounded by Brook Street, Norwood Avenue, and Washington Street. It is home already to many condos, in addition to single family homes, several of which along Washington Street are historic. In order to prevent overlap with this part of the historic district but still maintain contiguity with the Train Station Area below, we suggest either incorporating a line of houses along the eastern edge of Summer Street that are not in the historic district, or only including a small portion of homes along Washington Street such that they are enough to connect the two sites.

Flood Risk

Situated more inland, this site is insulated from coastal flooding, making it much more appealing for residents and adding greater density. In the event of a hurricane, the storm surge would stretch inland via Sawmill Brook, but would not reach this neighborhood on and around Summer Street.

Rezoning Impact

This location is not large enough to meet contiguity requirements unless combined with the Train Station Area, but it has great potential because the current zoning allows for multi-family housing, although not by-right.

Recommendations

- This site has many positive attributes: it is close to the train station, within a reasonable walking distance of the downtown, and located near the school (important for attracting younger families). Additionally, it already has numerous homes with hidden density, suggesting that the arrival of new families would not excessively alter the neighborhood's current dynamics.
- There are currently several multi-family housing units (condominiums) in the area, which could be replicated. In other words, the zone is already accustomed to this type of construction, so the impact of new buildings of a similar style would not significantly change the dynamics of the place. This is crucial when considering the preservation of the culture and idiosyncrasy of the neighborhoods in Manchester-by-the-Sea.
- Currently, the availability of parking spaces is not problematic. Given that the area lacks commercial space, the risk and impact are even lower. However, as mentioned for the Train Station Area, it might be worth considering a reduction in the required parking spaces per unit for future constructions.
- This site is within a reasonable walking distance to the station, thus aligning with the spirit of the MBTA Communities Act and transit-oriented development.

As Manchester seeks to improve its bikeability, School Street and Summer Street (Route 127) should be considered for protected bike infrastructure to ensure safe connections between the neighborhood and the town center.

Station Area

Site Summary

The Train Station Area encompasses the Harbor's Point shopping center, Crosby's Marketplace, and development around the Commuter Rail station, as well as commercial parcels to the north up until Washington Street that include the Sea Breeze Variety gas station, and commercial parcels to the west of Beach Street that include Cape Ann Savings Bank and the Manchester Masonic Lodge. Zoned within the General District and located at the Town's transit center and commercial downtown, this site presents a natural starting point for Manchester to embrace its existing abundance of residential and mixed-use density. Currently, the majority of the site near the train station is home to a large surface parking lot, which has the potential to be transformed with more shops and housing that echo the surrounding streets.

Flood Risk

Flood depths under a 2050 1% Annual Storm may reach up to 2 feet by the Commuter Rail station, concentrated around Allens Health Mart Pharmacy. ⁵⁰ Similarly, the neighborhood west of Beach Street, which includes numerous businesses, the Postal Office, and the Manchester Sewer Division, is subject to up to 4 feet of flooding. While not included in this site, neighboring singlefamily homes along Tappan Street are the most

⁵⁰ Massachusetts Office of Coastal Zone Management, "Massachusetts Sea Level Rise and Coastal Flooding Viewer."



Station Area existing conditions. Source: class photography

vulnerable in the general area, with backyards receiving floodwater influxes of up to 10 feet.

In response, new development in the site should be elevated to the appropriate height with additional dry and wet flood-proofing measures, and green spaces should be expanded to absorb incoming coastal flooding. Areas under greater flood depths should strongly consider concentrating less density there, unless developers are willing to elevate new buildings.

Rezoning Impact

As discussed in the "Transportation and Parking" section earlier in this report, downtown Manchester-by-the-Sea has enough parking available to meet demand, as parking occupancy is consistently below 85%, meaning that in most instances, people driving should be able to find a parking space within a short walk (five minutes or less) from their destination. This area includes a total of 485 parking spaces, 125 of which are on-street. The MBTA owns 71 parking slots at the train station, which will be retained regardless of development.

Nevertheless, multi-family zoning requirements for MBTA communities may increase this demand. Depending on site location and development characteristics, new multi-family housing may generate additional demand for short-term vehicle trips downtown and/or long-term downtown parking needs.

Development in this area that is closer to commercial areas and commuter rail could reduce the reliance on motor vehicles as more residents could live within walking distance to goods and services.

Recommendations

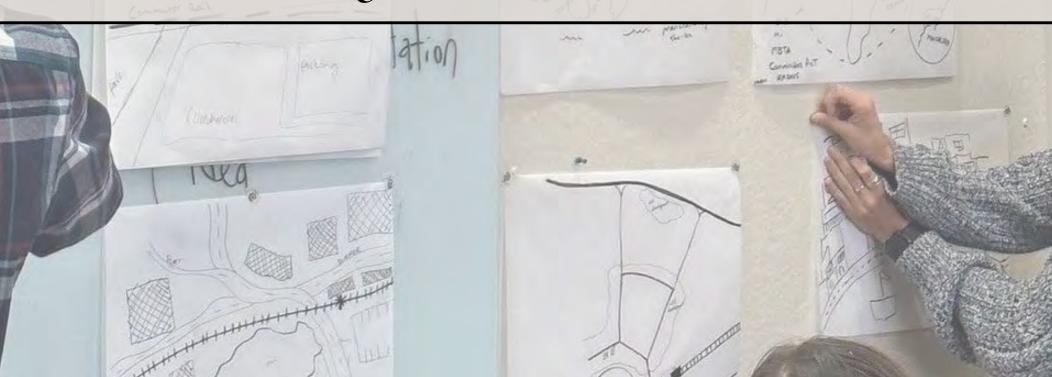
- This site is home to a busy shopping district, so considering mixed-use developments that incorporate ground floors for businesses could ensure new housing in currently unused spaces, without neglecting the commercial activities already taking place in the area.
- As this site is heavily prone to flooding, it is essential to develop urban planning guidelines that contribute to flood adaptation and protect residents' homes, property, and businesses. We strongly recommend creating a zoning amendment that requires new development to be elevated to 2 feet above the base flood elevation in line with FEMA's Freeboard Value Approach. We also recommend reducing the impervious surface of the station parking lot by adding green spaces on the western side of the site, closer to the coast, to assist in both seawater and stormwater absorption.
- Green spaces, such as through a town green, can also facilitate and enhance the visual and aesthetic environment of the area, ensuring that the distinctive character of Manchesterby-the-Sea is not compromised.

- The central train station could be refurbished by preserving its historical structure and adding a town green and coffee space to create a new area where people can enjoy and gather. This approach aims to broaden the station's use beyond exclusive transportation purposes, enhancing it as a communal space for social interactions.
- Crosby's Marketplace and the Sea Breeze
 Variety gas station are recognizable corner stones of the shopping district. Should new
 development come to this site, we advise that
 it be phased to ensure both the grocery and
 gas station are always open.
- While currently there is sufficient parking space, it may be compromised in the future. However, in line with the goal of reducing car usage by creating multi-family housing near the train station, it is recommended to reconsider the amount of parking space required per unit. This would provide a dual benefit: saving space exclusively designated for cars, which could be allocated to more green areas or other uses, and reducing environmental pollution by discouraging vehicle use. In this regard, if we identify a potential opportunity to develop a bike path that connects this part of the city with strategic arteries, as well as other commercial and tourist areas.

Manchester-by-the-Sea, an MBTA Community

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Speculative Design Concept: A Redesigned Station Area

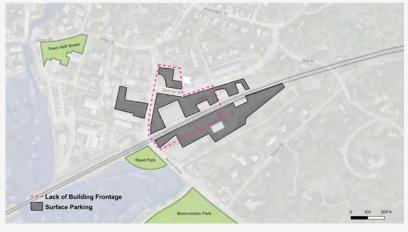
Although the main goal of the MBTA Communities Act is to increase housing density, zoning reform also presents an opportunity to consider a more holistic plan for the town. For example, the town might consider a larger site plan that includes public amenities, considers overall connectivity, and addresses environmental risks, in addition to new housing. In this section, we propose one such plan for the Train Station Area that extends the historic village to the train station, creates a new community gathering space, and mitigates sea level rise and increased flooding risks.

We chose this area because it presents a unique opportunity to bring an increased sense of place to Manchester's downtown core, but similar visioning exercises could be done for any of our case study sites described in previous sections.

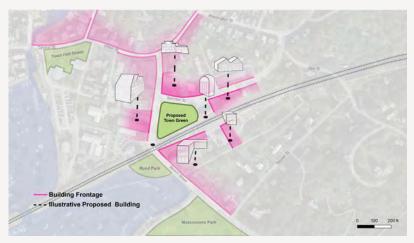
Manchester's downtown is marked by three important public green spaces and many historic building frontages, both of which create an inviting urban core. The train station area, however, lacks these elements and is instead surrounded by surface parking lots. To better integrate the station with the downtown's existing character and expand on some of the area's desirable features, we propose a central town green and surrounding mixed use development that connects the historic streetscape.



Existing building frontage and parks in downtown Manchester.



Gap in building frontage and existing surface parking lots around station.



Proposed development to connect streetscape with new mixed-use buildings and connect existing parks with new central town green.



Figure 22: Illustrative Site Plan for a Revitalized Station Area

The site plan in Figure 22, above, illustrates our proposal in more detail. Most notably, the grocery store would be relocated across Summer Street to allow for a new town green. A mix of retail storefronts and low-rise apartments would fill in the parking lots.

Our proposal includes a hypothetical phased development plan, illustrated in Figure 23, to ensure minimal disruption to the community. Importantly, the grocery store and community center remain open and accessible throughout our proposed conceptual transformation of the station area into a welcoming mixed-use area comprises six phases of development.

Figure 23: Revitalized Station Area Hypothetical Phasing Plan



Six phases of development

Phase 1: First, Standley's Garage at the north corner of Beach St of Summer St will be removed and a new mixed-use building that houses the grocery store, community center, and two floors of residential units will be developed in its place. In this new location, the community center is both more centrally located and more proximate to the town hall. The existing community center and grocery store would remain open during construction.

Phase 2: Next, a new station building and cafe with three floors of housing and adjacent commuter rail parking are developed along Summer St, on the north side of the train tracks. The bank and the couple of stores currently in this site would be removed, soon to find a new home in the retail space created in the upcoming phases.

Phase 3: To introduce additional housing to the station area, the third phase adds a building with ground floor retail and two floors of housing where the Harbor's Point shopping mall currently sits. The building offers lovely views into the harbor and defines the rail line and edge of Beach Street, reallocating parking spots that currently line the railroad to the back of the building.

Phase 4: As a new community center has been built, it is now possible to replace the existing community center with a three floor residential building and add parking to the east side of the site.

Phase 5: The current Crosby's Marketplace can now be removed as the grocery store relocates into the space carved out for it in the first phase, opening up a valuable plot at the center of town and right next to the station. The town green can now be implemented.

Phase 6: Finally, completing the redevelopment of the station area, a final mixed-use building with ground floor retail and two floors of housing is constructed across from the town green, on the west side of Beach St. The building frontage helps to define the space around the town green, tucking away ample parking in the back.

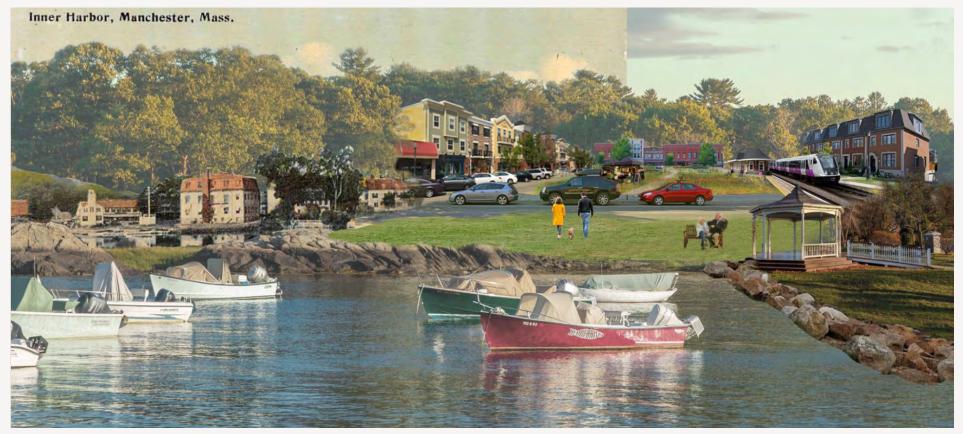
Once complete, this redevelopment will establish a continuous and well-connected streetscape that draws pedestrians between each of the public greens as well as a distinct town center for gathering, programming, and commuting—all while meeting the upzoning requirements of the MBTA Communities Act.

The five new buildings imagined in this proposal, no taller than three stories each to blend in seamlessly with existing buildings, provide 44,300 square feet of retail space, 122 residential units at a density of 23 units per acre, and approximately 260 discreetly located parking spots. This would be an increase in all metrics over existing conditions within this site.

Figure 24: Station Area Design Programming



Figure 25: Illustrated Representation of Redesigned Train Station Area, View From Harbor



The gestural representation above depicts what the train station area could look like if housing, commerce, transportation, and green permeable space activated the space into a town green that welcomes commuter rail passengers, pedestrians, and drivers to the heart of Manchester-by-the-Sea at Beach and Summer streets. Source: class design

By focusing on the station area as a portal to the town's open spaces, diverse local commerce, and walkable neighborhoods, we believe this proposal is an amplification of Manchester's existing assets. Further, this redevelopment calls for a modernized revival of Manchester's attractive bygone train station building, which had been demolished by the late twentieth century and replaced with a laundromat.⁵¹ Manchester's station today greets

rail passengers with parking lots and gravel and few amenities: there is little cover from the elements, limited seating, and no restroom access.

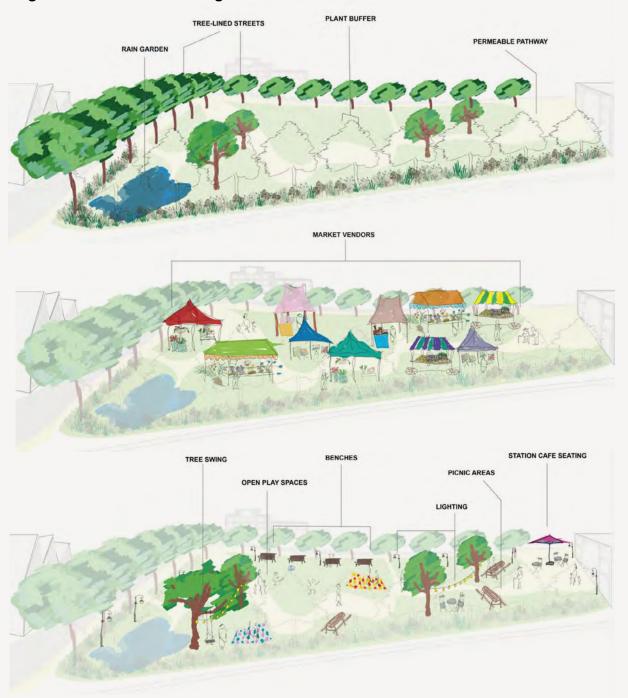
A new station building with good public amenities that faces onto the inviting, flexible space of a town green would make Manchester feel more accessible for work and leisure trips alike.



Postcard depicting Manchester-by-the-Sea's historic train station. Source: Ebay

⁵¹ Alan P. Henry, "There's No Depot like an Old Depot," Boston Globe, August 10, 1977.

Figure 26: Town Green Design Features



We envision the town green as the new focal point of Manchester's downtown and hope it to be a vibrant center with adaptable and evolving uses. Given that this area is not immune to flood risks, we propose using exclusively permeable surfaces and abundant foliage to absorb excess rainfall and flooding. Trees can provide a visual buffer to the surrounding roads and adjacent railroad tracks. Together, these natural elements will also contribute to the overall beautification of the space. When equipped with the necessary infrastructure, the town green can serve as both a place for recreation and leisure—strolling, eating, picnicking, playing, reading, passing time—and for community events—farmer's markets, concerts, rallies, clinics, celebrations. Housing and businesses around the town green continue to meet the needs of Manchester residents and provide potential for a diverse population to enjoy all the town has to offer.

Apart from the MBTA-owned railroad, the land included in our redevelopment proposal is currently owned by various private entities. Ideally, ownership of the parcels would be consolidated so that redevelopment can be overseen by one developer or coordinated via a public-private partnership. There are several ways in which Manchester could achieve this, including: (1) establishing a tax increment financing (TIF) district to generate the funds needed for public or mixed public and private ownership and redevelopment; and (2) specifying that the overlay districts will trigger a development and design review for any projects exceeding 15 units/acre, under which circumstances the Town can negotiate with developers for public amenities such as the town green.

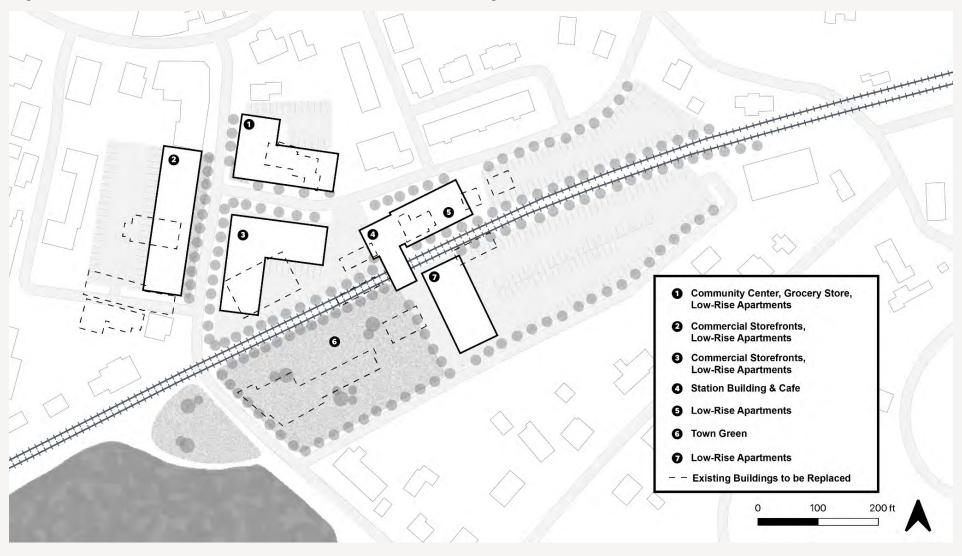
This proposal is one of many similar approaches Manchester can take to redevelop its downtown and meet the MBTA Communities Act requirements. For example, in Figure 28, we've illustrated another potential scheme in which the town green is located south of the train tracks.

Figure 27: Illustrated Representation of Redesigned Train Station Area



Illustrated representation of a redesigned train station area. Source: class design

Figure 28: Alternative Illustrative Site Plan for Station Area Redesign



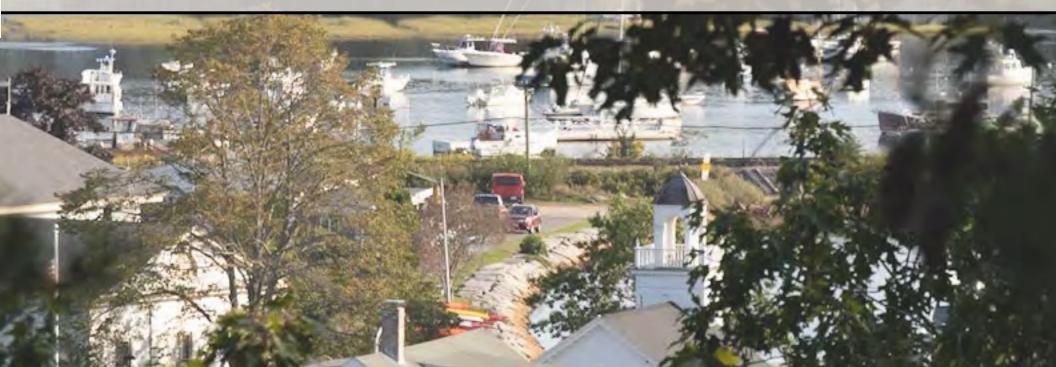
This alternative design moves the town green south of the train station to address higher flood vulnerability in that area. This would act as apermeable surface to absorb incoming floodwaters, making the station more flood resilient overall.

Manchester-by-the-Sea, an MBTA Community

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Accommodating New Growth





Source: class photography

Zoning Recommendations

Establish New Multi-Family Residential and Mixed-Use Development Overlay Districts

We recommend creating new overlay districts that supersede existing zoning regulations to allow new multi-family residential development that meets the requirements of the MBTA Communities Act. This allows amendments to Manchester's Zoning By-Law without redrawing all zoning boundaries already established. It also allows new development areas to cross existing zoning boundaries, as is the case with our proposed sites presented above. Our recommended zoning parameters are not site-specific, with the exception of a proposed mixed-use development district near the Train Station area. This approach allows Manchester to choose the combination of sites, with its unique set of opportunities and challenges, that best reflects the town's values.

Multi-family Residential Overlay District

To comply with the MBTA Communities Act, the following zoning requirements can be applied to any combination of the proposed sites where such combination meets the town's requirements related to contiguity, total area, and area within

½ mile of the commuter rail station. We propose these zoning and dimensional requirements based on their simplicity and considering the context of Manchester's current zoning requirements and built environment as it stands today.

In the multi-family residential overlay district, we propose no minimum lot requirements for new development or additions to an existing building. Multi-family development would be allowed by-right up to 15 dwelling units / acre, rounding up, with no fewer than 3 units allowed on any one parcel within the multi-family residential overlay district. New multi-family buildings could be built up to 3 stories, at a maximum story height of 15 feet, with a pitched roof. Lots that are 10,000 square feet or smaller may not exceed a maximum lot coverage of 70% including structures and impervious surfaces; all other lots larger than 10,000 square feet must not exceed 50% maximum lot coverage.

Manchester's MBTA Task Force may also consider additional dimensional requirements such as set-backs and build-to lines, however, we recommend any such requirements to follow the current General District dimensional requirements. Regarding set-back requirements, the Town might investigate how setback requirements

can be used to encourage a pedestrian-friendly public realm through parklets, wide sidewalks, or other mobility enhancements like bike paths. Additionally, given the extensive area covered by impervious surfaces in the General District and nearby residential areas at risk of flooding, new zoning overlay districts should limit the amount of impervious parking lot coverage. Finally, we recommend that Manchester assume zero minimum parking requirements for all multi-family developments within the overlay district, discussed in more detail in a proceeding section.

Many existing buildings in the village core of Manchester do not conform with the town's current zoning by-laws, making it difficult to build new structures or add-on to existing structures without seeking special permits or zoning variances. With these proposed zoning regulations for a new multi-family residential overlay district, any owners of existing buildings in the new district pursuing renovations and structural additions up to the allowable unit amount will not be subject to extra review if they conform to the overlay district zoning requirements.

Mixed-use Development Overlay District

To facilitate new commercial development in the town's existing village core and preserve pedestrian access to amenities, Manchester could additionally consider a mixed-use development overlay district in a substantial portion of the Train Station Area site discussed in the previous chapters. A mandatory mixed-use development district does not comply with the MBTA Communities Act requirement for zoning that allows multi-family development by-right, however, Manchester may count up to 146 housing units, or 25% of the total requirement of 585 housing units, from such a mandatory mixed-use district.

A mixed-use development district would require non-residential use of the ground floor in all new developments in the district and should

Figure 29: Proposed Mixed-Use Overlay District



Mixed-Use Development District Parcels

Local Historic District

"allow a broad mix of non-residential uses as-of-right in keeping with the nature of the area", not to exceed 33% of the total building square footage as required by Section 3A. The MBTA Communities Act prohibits any minimum parking requirements for these non-residential uses. The Executive Office of Housing and Livable Communities (EOHLC) must pre-approve the location of such a mixed-use development district at least 90 days before the town votes on the new overlay district to confirm it complies with Section 3A

quidelines.52

The proposed site boundaries of the Train Station Area cover 14.2 acres, which represents 36% of the required 39 acres to be re-zoned for multi-family development; therefore, the entire Train Station Area is too large to be considered for the mixed-use development district altogether. To complement existing non-residential

52 "Zoning," Ch. 40A Massachusetts General Law § 3A.

and mixed-use buildings in the area, Manchester could define a mixed-use development district around the intersection of Summer St and Beach St and around the immediate vicinity of the commuter rail station.

The proposed mixed-use development district covers 8.2 acres (shown in Figure 27) and has a new unit capacity of 85 units given the 38 existing units in the district (8.2 ac x 15 du/ac - 38 existing units). For this mixed-use development district to count toward the 3A housing requirements, Manchester must show that it can accommodate non-residential ground floor uses while meeting the required unit capacity to be developable by-right. If this area is not able to accommodate 85 new housing units with non-residential use on the ground floor under the same zoning requirements for the proposed multi-family residential district, Manchester could increase the maximum number of stories that can be built from 3 stories to 4 stories in this site. Alternatively, Manchester could lower the unit requirement in this site to be offset by increased density allowance in other districts.

Remove Minimum Parking Requirements

Minimum parking requirements force developers to take on these costs of parking and pass them on to renters through increased rents. Structured parking, which includes garage and underground parking, can increase costs 10-12% for market-priced multi-family developments and up to 25% for affordable housing development.⁵³ Garage parking is especially expensive as it represents an opportunity cost to the developer who could have built more leasable space. A recent study by the Metropolitan Area Planning Council (MAPC) found that 30% of parking spots in multi-family parking lots in the Boston metro area were empty

⁵³ Hoyt, "More for Less?," 50.



Example of a parking lot that could be shared by tenants and public users. Source: class photography

at peak demand time.⁵⁴ Meanwhile lower-income families and seniors typically own cars at a lower rate than the average household. When towns and cities require a set number of parking spaces per unit, households with fewer cars than the per-unit requirement end up subsidizing the cost of extra parking for their neighbors.

Given this context, we recommend the elimination of minimum parking requirements in the proposed multi-family residential and mixed-use development overlay districts. Note that Section 3A does not allow minimum parking requirements for non-residential uses within any mixed-use development district that counts toward the 3A minimum zoning requirements. Research from other cities and towns that have removed minimum parking requirements shows that on average developers choose to build less parking

than would have been required under minimum parking requirements, but still build sufficient parking to meet the needs of residents given the transportation context of the site.⁵⁵ Anecdotal evidence suggests that developers continue to feel pressure from lenders to build parking to maximize marketability of the development.⁵⁶ Notably, many larger cities have eliminated citywide minimum parking requirements in the last 5 years, however, there is a longer history of towns

511482.2017.1368031.

and suburban areas removing minimum parking requirements in downtown areas, main street or commercial districts, and village cores without negative consequences.⁵⁷

Concerns about removing off-street parking minimums tend to revolve around on-street parking capacity. Fortunately, Manchester-by-the-Sea already has an on-street resident parking permit program that can be modified to fit the town's changing needs amidst population growth, while recognizing that during the summer there are several weekends where beach tourism can cause parking challenges. Potential changes to the program in the future could be to extend the parking permit throughout the whole year, create a pricing scheme where each additional permit issued to a household costs more than the previous, and create different types of residential parking permits that differentiate access to the town lots, on-street parking, and Singing Beach parking.

Establish a Straightforward Site Plan Review Process

With the proposed multi-family residential and mixed-use development zoning overlay districts, many projects that previously needed a zoning variance or special permit issued by Manchester's Zoning Board of Appeals will be permitted to develop by-right. The site plan review process is an opportunity for Manchester's officials and town staff to be involved in development decisions which may have greater impact on the town of a by-right development in order to craft the best possible development plan for the proposed site and the town. Specifically, a site plan review (SPR) is an opportunity to review developments

⁵⁴ Elise Harmon, "New Study Finds Off-Street Residential Parking Overbuilt across Metro Boston," Metropolitan Area Planning Council, July 24, 2019, https://www.mapc.org/news/new-study-finds-off-street-residential-parking-overbuilt-across-metro-boston/

⁵⁵ See such studies as Daniel Baldwin Hess and Jeffrey Rehler, "Minus Minimums," Journal of the American Planning Association 87, no. 3 (July 3, 2021): 396–408, https://doi.org/10.1080/01944 363.2020.1864225, C. J. Gabbe, Gregory Pierce, and Gordon Clowers, "Parking Policy: The Effects of Residential Minimum Parking Requirements in Seattle," Land Use Policy 91 (February 1, 2020): 104053, https://doi.org/10.1016/j.landusepol.2019.104053, and C. J. Gabbe, "How Do Developers Respond to Land Use Regulations? An Analysis of New Housing in Los Angeles," Housing Policy Debate 28, no. 3 (May 4, 2018): 411–27, https://doi.org/10.1080/10

⁵⁶ Ned Oliver, "Secret Parking Minimums Are Driving up Development Costs," Axios, October 11, 2022, https://www.axios.com/local/richmond/2022/10/11/secret-parking-minimums-developments.

⁵⁷ Parking Reform Network, Parking Mandates Map, accessed December 10, 2023, https://parkingreform.org/resources/mandates-map/.

for layout, scale, appearance, health and safety, and environmental impact and may include thorough evaluations of impact related to parking, traffic, and circulation; drainage and roadway construction; signage and lighting; utilities and screening; and design review. Importantly, SPR cannot be used to deny developments altogether, but rather guide them to better fit the needs and capacities of a community.

Site plan review would not come without costs to the developer - as they need to formally prepare the application documents - or to Manchester as town staff, officials, or the Planning Board need to review documents within a set time frame. Manchester can design the SPR process in a way that limits these costs while maximizing the opportunity for Manchester to work with potential developers to create the best development proposal for the town. Firstly, Manchester should establish a clear timeline and set of responsibilities within the SPR process to define expectations for developers and limit uncertainty in the project. Additionally, a comprehensive site plan review may not be necessary for smaller development projects; Lexington's SPR distinguishes between 'minor' and 'major developments based on the size of the development. Similarly, 'minor' projects may be reviewed by town staff while 'major' developments may require review by the Planning Board as well. Finally, any SPR considerations mentioned in the zoning by-law should have a corresponding set of guidelines and review criteria to communicate exactly what the town wants from new developments. This is particularly important if the town wants to include a design review process within SPR.

A full explanation of the legal requirements and best practices of SPR is beyond the scope of this report, however we recommend two comprehensive sources on developing a SPR process in

Historic Preservation Guidelines

The Manchester Historic Preservation guidelines regarding new construction currently consider the siting, scale, design, and materials of new construction proposals compared to the surrounding area. The Historic Preservation guidelines should more explicitly address height, massing, streetwall, rhythm and pedestrian experience, continuity of wall surface, and facade composition. The town could commission a survey of historic buildings to more formally document trends and examples of these elements to inform new construction proposals, explicitly guiding how new buildings should 'fit in' with the old.

Though the MBTA Communities Act will allow for greater density, there are several approaches where existing building footprints could be preserved:

- Adaptive Reuse: An existing building is repurposed for a new use—for example, a commercial building could be repurposed for residential uses, with a unit density that complies with the MBTA Communities Act.
- Partial Preserve and Addition: Buildings could be partially preserved but additional sections of the building are added to accommodate additional unit density. Note that the Historic District Commission rules still apply.
- Demolition and New Build: Existing buildings could be torn down and replaced with new buildings. Note that the Historic District Commission rules still apply.



Quinlan Terry's group of four new buildings at Market Square in Williamsburg adopts the language of Virginia's 18th-century colonial capital but includes elements not previously seen in the restored town*

*Preservation Alliance for Greater Philadelphia, "Sense of Place: Design Guidelines for New Construction in Historic Districts," 2007, 7, https://preservationalliance.com/wp-content/ uploads/2023/01/SenseofPlace_final.pdf



Patriquin Architects' proposal for new mixed-use multi-family building in New Haven, CT based on historical buildings' massing and design.*

* Ibid.

Table 2: Potential Zoning Compliance Models

		(1)	(2)	(3)	(4)
Site / Statistic	3A Minimums	Train Station Area + Summer Street + Limited Commercial District	Train Station Area + Saw Mill Circle + Old Essex Road	Bridge Street + School Street + Old Essex Road	Train Station Area + Summer Street + Saw Mill Circle + School Street
Total Acreage	39	39.5	44	41.2	40.7
Proposed Acreage as % of Total Acreage Requirement	100%	101%	113%	106%	104%
Acreage within 0.5 mile of Station as % of Total Acreage Requirement	40%	68%	55%	48%	104%
Largest Contiguous District Acreage as % of Total Acreage	50%	67%	51%	55%	65%
Developable Acreage	N/A	36.4	38.5	36.7	38.7
Current Units	N/A	154	255	113	254
Average Density	N/A	3.9	5.8	2.7	6.2
Required Housing Capacity(15hu/ac * total acres)	585	593	660	618	611
Housing Units in Proposed Zoning	N/A	631	632	587	644
Additional Units(proposed zoning - current units)	N/A	477	377	474	390
Zoned Average Density(proposed zoning / developable acres)	15.0	17.3	16.4	16.0	16.6

Massachusetts: the local chapter of the American Planning Association's guidance on site plan review⁵⁸ and a webinar from the Massachusetts Housing Partnership on how site plan review fits into the MBTA Communities Act requirements.⁵⁹

Examples of Achieving Compliance

There are a lot of ways that Manchester could combine different sites to comply with the MBTA Communities Act. Every combination entails a unique set of trade-offs and we encourage the residents of Manchester to determine which set of sites best reflects the town's collective values.

Table 2 presents four potential scenarios that assume different approaches to distributing new multi-family housing capacity throughout the community.

Each of these combinations follows the proposed zoning requirements outlined for the multi-family

residential overlay districts. Note that we assume the Train Station Area and the Summer Street zone are contiguous, however we do not include parcels along Washington Street in our calculations as they fall within the Historic District. We believe the Train Station Area and Summer Street are contiguous because of the visible connection between the two zones across Sea Street and along Summer Street. The parcels along Washington Street could still be included in the new multi-family residential overlay district to make this connection stronger, but further considerations for how the new overlay district interacts

60

⁵⁸ American Planning Association, Massachusetts Chapter, "Site Plan Review," in Guidebook to Massachusetts Land Use, 2021.

⁵⁹ Massachusetts Housing Partnership, Site Plan Review, MBTA Community Webinar Series, 2022, https://www.youtube.com/watch?v=QNrRISUVZ3E.

with the Historic District requirements while maintaining by-right zoning, as required by 3A, will be needed. We also did not assume there was a mixed-use development district within the Train Station Area for the purposes of this exercise, but this can be incorporated based on the recommendations outlined in that section.

Planning and Policy Considerations

Housing is an important component of Manchester-by-the-Sea's ecosystem, but it does not stand alone. Local circulation, environmental phenomena, and infrastructure demands all interact with residences to make the town run. Outlined here are some important considerations that will have to be taken into account to support a sustainable future for the people of Manchester.

Flood Resilience

Plan for sea level rise

Given that coastal infrastructure is a substantial investment, the Town should seek to ensure that resilience projects provide co-benefits such as enhanced or additional public recreation areas. A general idea of where this infrastructure might go and what it may look like can and should influence the siting of new housing, as these projects have a substantial impact on local land values.

Flood-proof existing and new development

Manchester can issue economic incentives or encourage homeowners to flood-proof their homes. Flood-proofing strategies span less expensive actions like clearing roof gutters or replacing asphalt with permeable pavement, to more expensive but more effective actions such as elevating utilities from the basement, installing



Oyster reefs stablize the coast by acting as natural breakwaters that grow and change with the sea. In Rehoboth, Delaware, oyster restoration projects also provide a strong local economy. Source: DNREC Wetlands Monitoring & Assessment Program

backflow valves in home sewer pipes to prevent backups, and installing sump pumps. New homes, single-family or multi-family, should also be built with elevated utilities and preferably outdoor permeable pavement, which can be incorporated into the building code.

Many homes located in a flood zone were built prior to the need for flood insurance from the National Flood Insurance Program. While these homeowners may save money from the lack of insurance payments, they especially should be encouraged to flood-proof their homes, as no insurance money is available to them should their property be damaged.

Follow low impact development best practices

Limit the use of impervious surfaces in higher flood risk zones, especially in historic and downtown areas of Manchester-by-the sea. Organizations such as FEMA and MAPC provide further detailed guidelines for incorporating flood resiliency into zoning and development code.⁶⁰



Making space for water lets this flood vulnerable neighborhood in Cambridge channel where water goes, and additionally creates pleasant public waterfront access. Source: Cambridge Realty

Avoid development in vulnerable areas

Where the Town has identified floodplains, especially those in FEMA's 1% Annual Chance of Flood zones, we recommend that new construction be limited. Adequate flood protection measures such as those listed may help, but flood risk is uncertain over the long term and may endanger homes in the future.

Infrastructure

Accommodating the additional housing units proposed in this report would impact only about 2% of the overall variance between the total flow limit and the current sewer utilization limit. 61 Additionally, the current water usage is far from reaching the registered volume limit, indicating that the impact of accommodating new developments in Manchester would be minimal. However, when considering development in the proposed sites, the town can consider mitigating potential flood risks on key water facilities and continually monitoring the existing water and sewer capacity. When contemplating potential development in

⁶⁰ MAPC, Stormwater Flooding Resources, https://www.mapc.org/resource-library/stormwater-flooding/

⁶¹ Manchester-by-the-Sea Department of Public Works, "Sewage Treatment," Manchester-by-the-Sea, Massachusetts, accessed November 22, 2023, https://www.manchester.ma.us/229/Sewage-Treatment.

Manchester-by-the-Sea, whether these areas presently have existing sewer pipes and if the diameter of the current sewer pipes in these areas can accommodate increased flow need to be considered.

Flood Mitigation for the Wastewater Treatment Plant

As demonstrated in our baseline assessment of the town's water and sewage systems,
Manchester-by-Sea can accommodate a growing population. However, potential development around key facilities like the wastewater treatment plants needs additional considerations if needed under the MBTA Communities Act...

Several studies on Manchester-by-the-Sea's current wastewater treatment plant have high-lighted potential mitigation measures to consider if the current location of the plant need to be rezoned. For example, the Environmental Protection Agency recommended in 2015 that the Town consider protection from potential flood risks and using green infrastructure to protect the wastewater treatment plant (Table 3).

Transportation & Parking

Projected Conditions

Projecting the potential trip generation estimate requires data on the project site's existing average traffic volume, traffic volume at peak hours, traffic direction, and the land use code informing building type and scale (i.e., multi-family housing - midrise) as these factors are decided. Since the potential zoning changes will not detail the building type and scale of future development, exact estimates cannot be generated at this stage. However, based on traffic volumes recorded by the Police Department near the proposed sites,

Table 3: Flood Mitigation for the Wastewater Treatment Plant

Data: Greg Federspiel, "Case Study: Water and Wastewater Utilities Planning for Climate Change" (Manchester-by-the-Sea: Environmental Protection Agency, December 2015), https://toolkit.climate.gov/sites/default/files/Manchester-by-the-Sea_March_2016.pdf.

Threats	Mitigation and Adaptation Strategies	
Flooding from coastal storm	Relocate WWTP to higher ground to avoid damage from coastal storm surge	
	Construct a sea wall on Manchester Harbor to protect the WWTP from coastal storm surge	
	Green infrastructure at the facility to reduce parking lot flooding	
Flooding from heavy precipitation events	Relocate WWTP to higher ground to avoid damage from flooding	
	Green infrastructure in the community to capture stormwater flows	

Table 4: Traffic Volume at Select Locations

Data: "Traffic Studies," Manchester by-the-Sea Police Department, 2023, https://manchestermapd.com/community-resources/traffic-studies/.

Note: The traffic volume accounts for vehicles traveling both ways. The counts in 2020 were recorded mostly in September, except that Brook St was recorded in August. Daily counts of vehicles are not always available, so the count period is included instead to help make an approximate daily total (traffic volume/count period). The exact recording locations have been identified by the longitude and latitude where that information was provided.

Street (Year Recorded)	Traffic Volume (vehicles, 2-way)	Count Period (days)	Relevant Site
Ashland Ave @ RR Crossing (2021)	1,244	7	Bridge St
Sea St @ RR Crossing (2021)	2,878	8	Station Area
School St + Atwater Av (2021)	32,325	7	Limited Commercial District
Brook St (2020)	2,692	7	Summer St
Union St (2020)	53,754	7	Summer St
Central St (2020)	47,842	7	Saw Mill Circle, Summer St
Summer St + Brook St (2020)	26,765	7	Summer St
Summer St + Lincoln St. (2020)	44,754	7	Summer St
Lincoln St. + Arbella St. (2020)	15,073	7	

we can infer that the traffic impact brought forth by additional housing units will not be significant. Estimates are shown in Table 4.

Recommendations

Manchester-by-the-Sea can utilize implementing the MBTA Communities Act as an opportunity to consider non-driving travel modes throughout the town. Alternative transit options can be extended from existing services provided by the county and nearby communities or be created as additional paratransit services. For example, a adding Cape Ann Transportation Authority (CATA) bus route could serve residents well, potentially serving destinations such as Singing Beach, the train station, city hall, and the high school. Additionally, a bus route and accompanying paratransit service available to all residents, not just older adults, could formalize these trips into a service that is available to all residents. Longer-distance buses could be added to complement train service as well, increasing the ease of making a trip to Essex or Ipswich without getting in a car. Transit service particularly serves demographics that cannot drive, such as minors and elders.

Town traffic is particularly challenged on sunny summer weekends, when locals and tourists flock to Singing Beach. The Town should make permanent the pilot shuttle service launched in summer 2023 by enterprising high school students. Additionally, increased bike infrastructure—including bike parking and protected bike lanes—downtown and near the beach could alleviate automobile traffic and enable fun, safe rides during good weather. While there are scattered bike racks downtown currently and a bike rack by the Singing Beach snack shack, increasing the visibility and availability of bike parking can improve the bicycling experience.

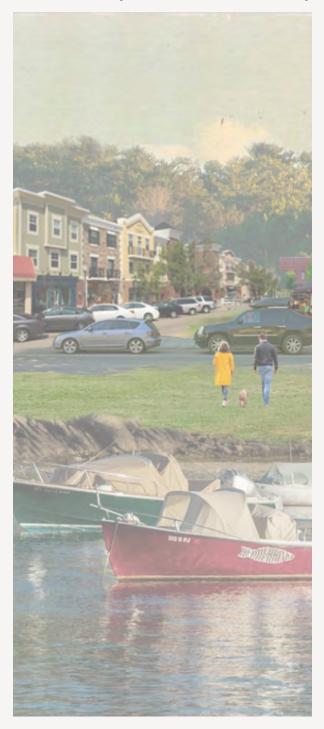
Conclusion

The MBTA Communities Act, according to the state:

"...was enacted to remove barriers to the development of higher-density, transit-oriented housing along the MBTA transportation network to address the Commonwealth's housing crisis, and advance significant climate and transportation goals."63

As a result of this law, Manchester-by-the-Sea will have to rezone 39 acres—less than one percent of the town's total acreage—to allow multi-family housing by the end of December 2024. We hope our analysis, recommendations, and vision for the future of Manchester has demonstrated our enthusiasm for the many wonderful aspects of your historic community. We believe that compliance with the MBTA Communities Act can elevate those elements. Strategies to create additional and stitch together existing open spaces will create a more vibrant public realm, celebrating Manchester's natural beauty and further embedding the historic New England tradition of gathering in the community. Improving transportation in Manchester will better connect residents to their town by improving access to shops, schools, and recreation. We advocate for preserving Manchester's historic designs in new buildings, which will promote the town's distinct feel. And finally, we believe all of these benefits are made possible by the production of more housing downtown, which we advance as a necessary and desirable investment in Manchester's future.

⁶³ Massachusetts Office of the Attorney General, "AG Campbell Issues Advisory on Requirements of MBTA Communities Zoning Law," March 15, 2023. Accessed December 14, 2023: https://www.mass.gov/news/ag-campbell-issues-advisory-on-requirements-of-mbta-communities-zoning-law



⁶² Hagan, "Beach Bums Shuttle Service Moves Ahead,"

