

Spring 2022

Connect Powder Mill Road

An Acton and Maynard Collaboration



ACKNOWLEDGMENTS

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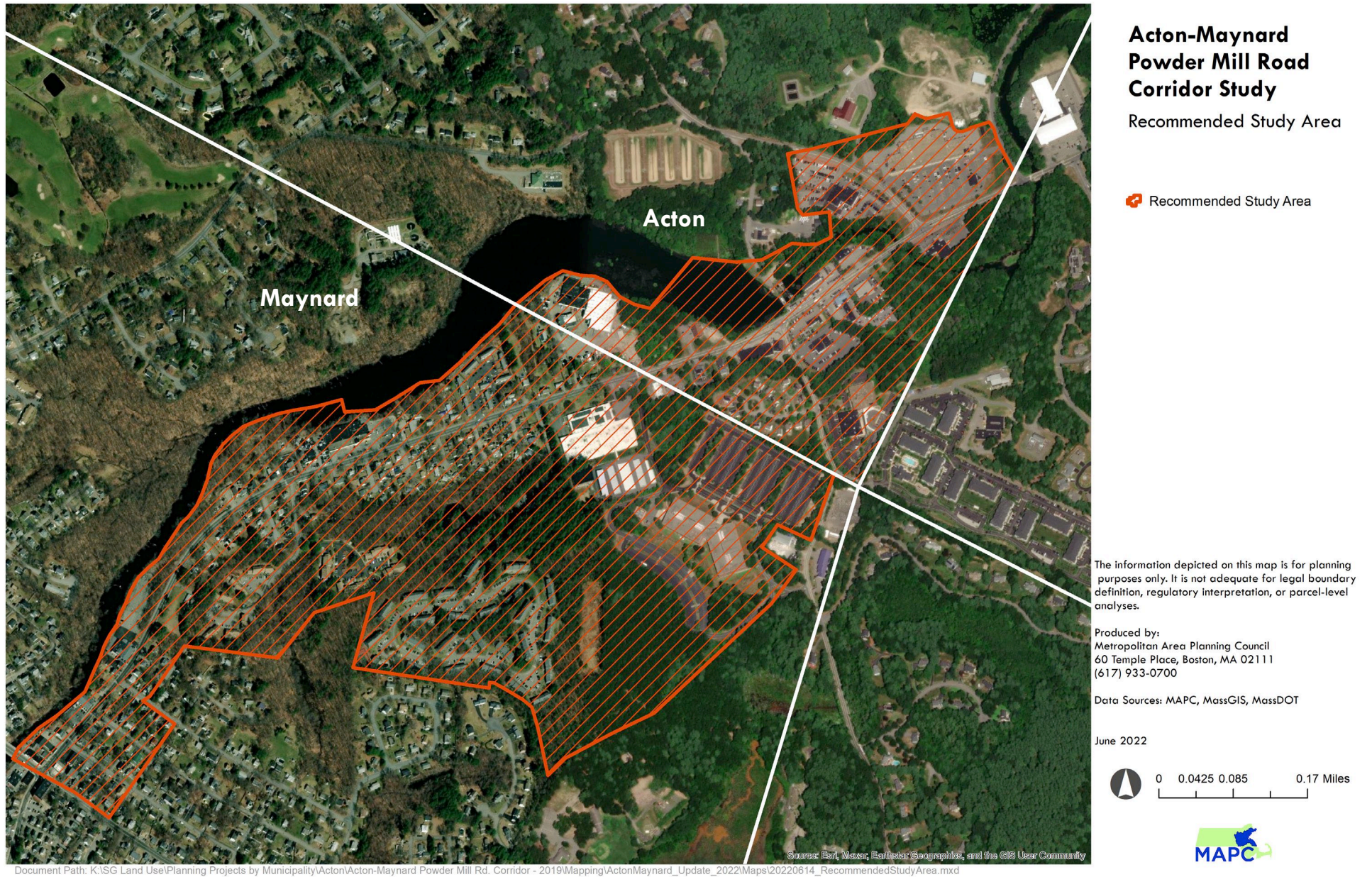
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OVERVIEW

Connecting Maynard, Acton and West Concord, the Powder Mill Road Corridor (Route 62) consists of approximately one mile in Maynard and a half mile in Acton. The corridor is a designated Priority Development Area (PDA) within Maynard. In Acton the corridor is locally identified as a target area for employment-oriented development. Toward the western portion of this study area, the Powder Mill Corridor emerges from Maynard's well-defined, vibrant and mixed-use Downtown area. Likewise, the Acton portion of the corridor pushes west from an outlying strip shopping area located southwest of its Technology District. Both portions immediately disintegrate into a haphazard, disconnected strip of commercial, industrial and residential sprawl. Maps of the study area are shown in Figures 1 and 2.

Figure 1. Aerial View of the Study Area



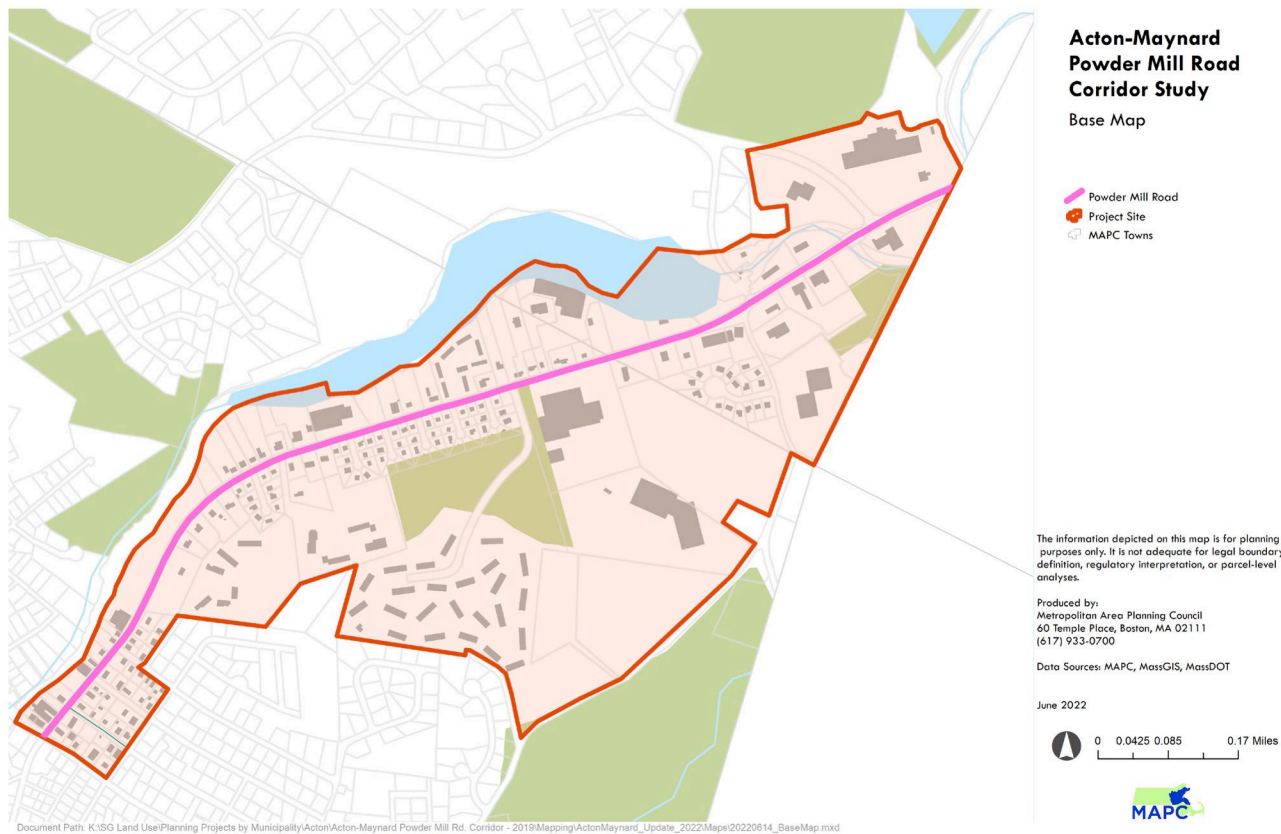


Figure 2. Powder Mill Road Study Area

Powder Mill Road is undeniably an active and economically viable corridor that possesses a number of outstanding advantages and opportunities that could potentially be built upon:

- » It is a gateway to Downtown Maynard and its Maynard Cultural District. It could easily be connected to safely accommodate pedestrians and bicyclists, leading to less automobile dependent circulation within Downtown.
- » Acton's Technology District, Powder Mill Plaza, and numerous larger businesses currently existing in the immediate vicinity can provide services, entertainment, educational, and employment opportunities without requiring new development.
- » Numerous small businesses flourish along the corridor in both Maynard and Acton.
- » A number of desirable single-family neighborhoods, multi-family developments, and two senior developments administered by the Maynard Housing Authority border the corridor, including three of the town's deed-restricted affordable housing communities. In addition to providing an instant critical mass, the residential areas could all benefit from an improved non-auto dependent connection with surrounding

businesses, services, and amenities located along the corridor.

- » A new 40B rental housing project at the Maynard/Acton town line could invigorate the corridor with an influx of new residents looking for local shopping, services and restaurants within walking distance.
- » A 37-acre vacant office park campus is sited on the corridor. It will be the site of the Beijing Royal School that is currently being developed within the existing structures located on the site.
- » The north side of the corridor follows the Assabet River. This portion of the river is currently unutilized and environmentally neglected. A plan to “reclaim” the riverfront could create new recreational and economic opportunities, with the potential to rehabilitate a vital natural resource.
- » With safe pedestrian and bicycle infrastructure, the corridor could make Route 62 a safe connection between the Assabet River Rail Trail and the Bruce Freeman Rail Trail, in addition to any future links that could occur.

There are currently a number of projects underway on the Powder Mill Road Corridor that are driving forward innovation and a variety of uses for future visitors. The goal of this effort is to develop a multi-jurisdictional plan that not only addresses conditions that negatively affect adjacent communities, but also offers an opportunity to blueprint a formula to “retrofit” existing sprawl development.

Concurrent with this study, it should be noted that other planning initiatives help to inform the corridor plan.

- » In 2020, the Town of Acton was awarded a MassWorks Infrastructure Grant. The grant will fund intersection, sidewalk and streetscape improvements along the corridor to support the construction of Powder Mill Place, as well as upgrades to the Middle Fort Pond Wastewater Treatment Facility.
- » In 2021, the Town of Maynard undertook the process of a Housing Production Plan update. The goal of the update is to build on the 2015 Housing Production Plan and identify new challenges and goals for building housing in the town.



Views along the corridor



Assabet River

EXISTING CONDITIONS

INTRODUCTION

Understanding the existing conditions of a study area and community at large is important for several reasons:

- It helps set the context and provide a base-line understanding that can help plan for the future.
- Although the planning effort is largely community-driven, information from existing conditions can help residents and other stakeholders provide more well-informed input.
- An understanding of existing conditions, including the regulatory framework and local market, informs the recommendations by articulating what changes may need to be made to realize the future vision.

MARKET STUDY

To prepare for public engagement to establish a shared vision for the corridor, MAPC completed an analysis of current market conditions on the Powder Mill Road Corridor. It is also essential to recognize that this analysis was partially conducted during the COVID-19 pandemic, which resulted in a large-scale shutdown and a dramatic drop in retail activity. This crisis will undoubtedly be reflected moving forward and depending on its duration may influence some of the future recommendations of this report.

Figure 3. Development Mix on Powder Mill Road

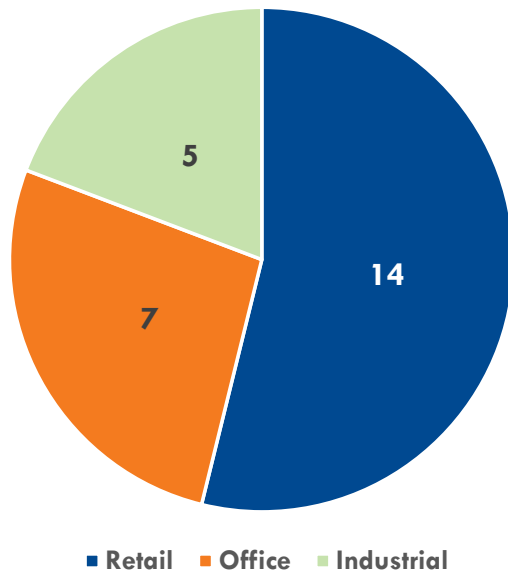
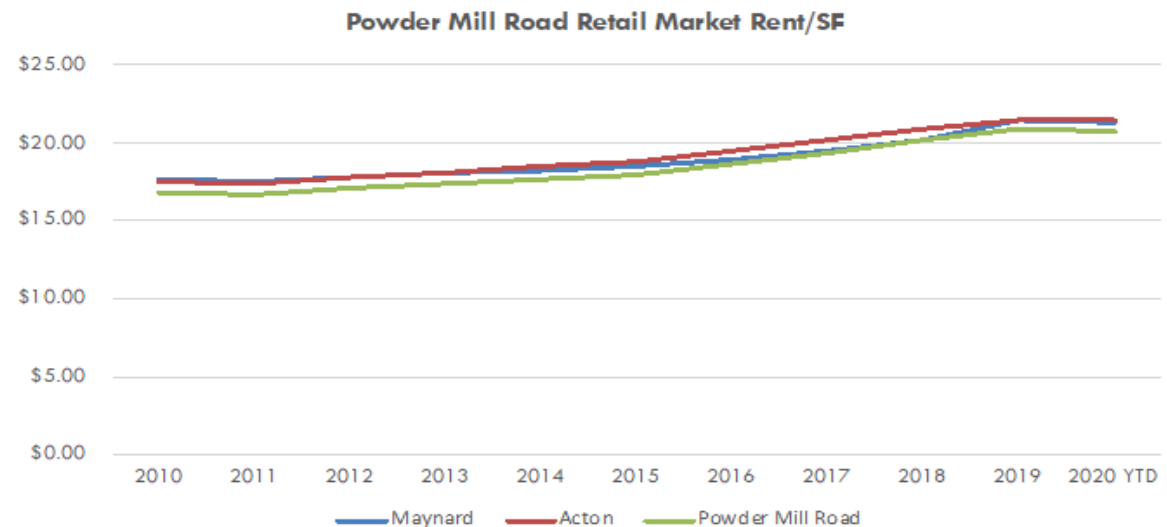


Table 1. Retail Space

Total Retail Square Feet	Total Buildings	Average Market Rent per Square Foot in 2020 YTD	Vacancy Rate in 2020 YTD
220,000 SF	14	\$20.79	35%

Figure 4. Powder Mill Road Retail Rent per Square Foot



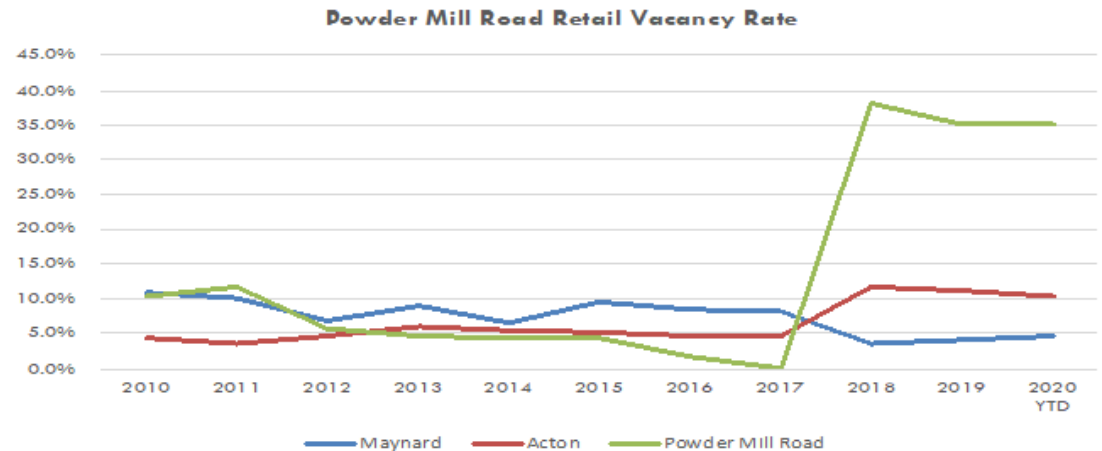
Development Context

An evaluation of real estate indicators, such as price per square foot for retail, office, and industrial buildings from CoStar informed this analysis.

CoStar is an online database of private real estate information. Information is gathered through brokers, building owners and websites dedicated to providing broker information.

The retail market on Powder Mill Road is consistent with the trends experienced by both Acton and Maynard. The Market Rent/SF (square foot) on Powder Mill Road in 2020 YTD is \$20.79 which is slightly lower than Maynard's and Acton's town wide retail market rent as a whole (Maynard is \$21.34 and Acton \$21.50). Vacancy rates, however, are much higher than both communities. The 35% vacancy rate on Powder Mill Road is much higher than the Maynard's 4.6% retail vacancy rate and Acton's 10.4% vacancy rate.

Figure 5. Powder Mill Road Retail Vacancy



Note: The sharp increase in 2017 vacancy rates could be explained by Stratus relocating

Table 2. Office Space

Total Office Square Feet	Total Buildings	Average Market Rent per Square Foot in 2020 YTD	Vacancy Rate in 2020 YTD
423,000 SF	7	\$28.13	72.8%

The office market on Powder Mill Road is smaller than the retail market and departs slightly from market rent and vacancy rate trends in both Acton and Maynard. The Market Rent/SF on Powder Mill Road in 2020 YTD is \$28.13 which is considerably higher than the Maynard' town wide office market rent rate of \$21.20 and Acton of \$21.47.

It is possible that this higher rent is one contributing factor to the higher office vacancy rate of 72.8% on Powder Mill Road. Maynard has an office vacancy rate of 37.7% and Acton of 16.4%. For comparison, in February 2022, the National Office Vacancy Rate was remaining stable around 15.7%. Boston had the tightest office market in the United States, recording an average vacancy rate of 10.5% in February 2022.¹ It should be noted that the upcoming occupancy of the Beijing Royal School, an international learning institution, on the site of the former Stratus Campus could change this market significantly.

¹<https://www.commercialedge.com/blog/national-office-report/#:~:text=The%20National%20Office%20Vacancy%20Rate,rate%20of%2010.5%25%20in%20February>

Figure 6. Powder Mill Road Office Rent

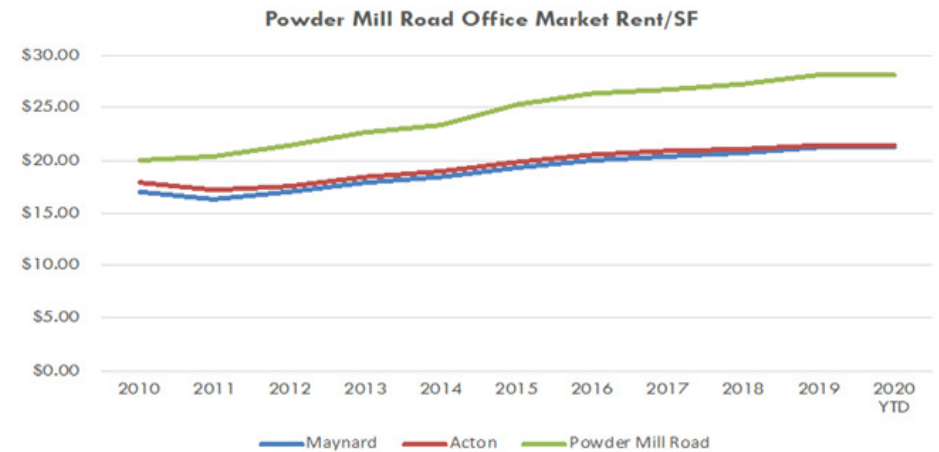
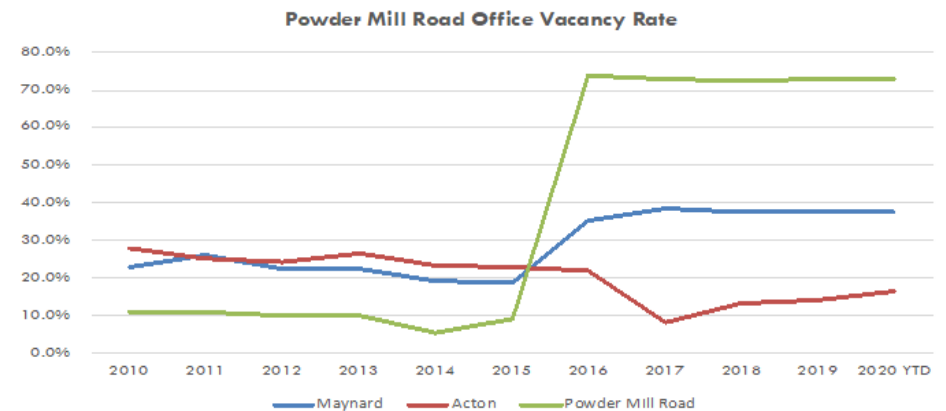


Figure 7. Powder Mill Road Office Vacancy



Market rent trends for the industrial market on Powder Mill Road seem consistent with Acton and Maynard, but vacancy rates are significantly lower. The Market Rent/SF on Powder Mill Road in 2020 YTD is \$8.23, which is only slightly lower than Maynard's town wide office rent rate of \$11.67/sf and Acton's rate of \$11.21/sf. The 2020 YTD vacancy rate for Powder Mill Road specifically was not available, however in 2019 the recorded rate was 0%. In Maynard it was 28% and in Acton 1.4%.

The MAPC team also looked how the Powder Mill Road market did within the context of the Concord/Maynard retail and office submarket (see Table 3). The submarket includes Littleton, Boxborough, Concord, Maynard, Hudson, Sudbury, Wayland and Weston.

Figure 8. Powder Mill Road Industrial Rent

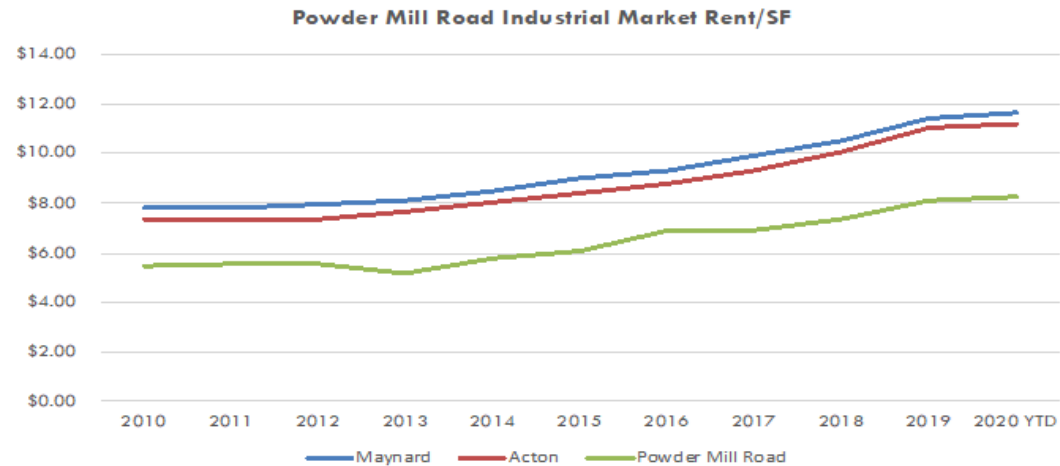


Figure 9. Powder Mill Road Industrial Vacancy

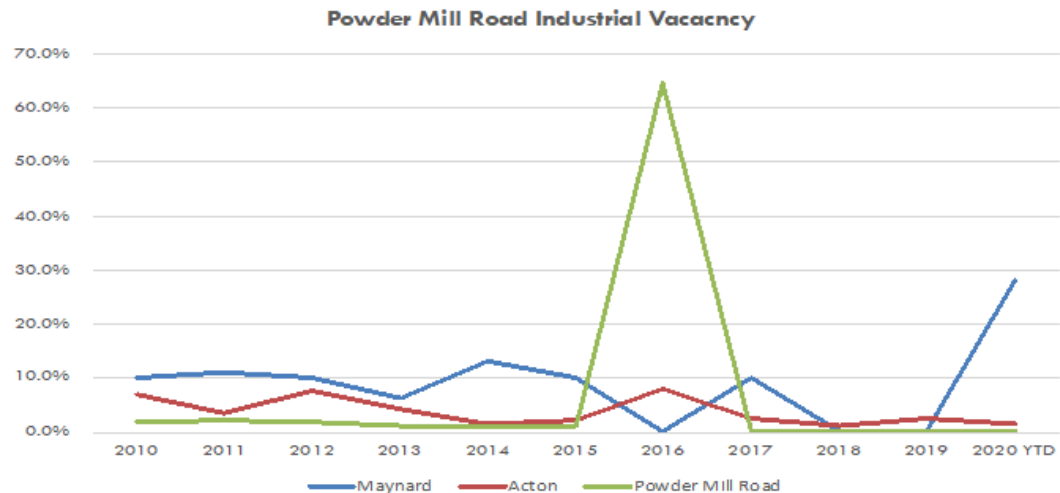


Table 3. Submarket Comparison

Retail Area	Market Rent/SF YTD 2020	Vacancy Rate YTD 2020	Under Construction YTD 2020
Concord/Maynard Submarket	\$22.06	4.7%	324,000 SF
Powder Mill Road	\$20.79	35%	0 SF
Office Area	Market Rent/SF YTD 2020	Vacancy Rate YTD 2020	Under Construction YTD 2020
Concord/Maynard Submarket	\$23.49	12.2%	0 SF
Powder Mill Road	\$28.13	72.8%	0 SF
Industrial Area	Market Rent/SF YTD 2020	Vacancy Rate YTD 2020	Under Construction YTD 2020
Concord/Maynard Submarket	\$11.36	4.4%	160,000 SF
Powder Mill Road	\$8.23	0%	0 SF

Retail Analysis

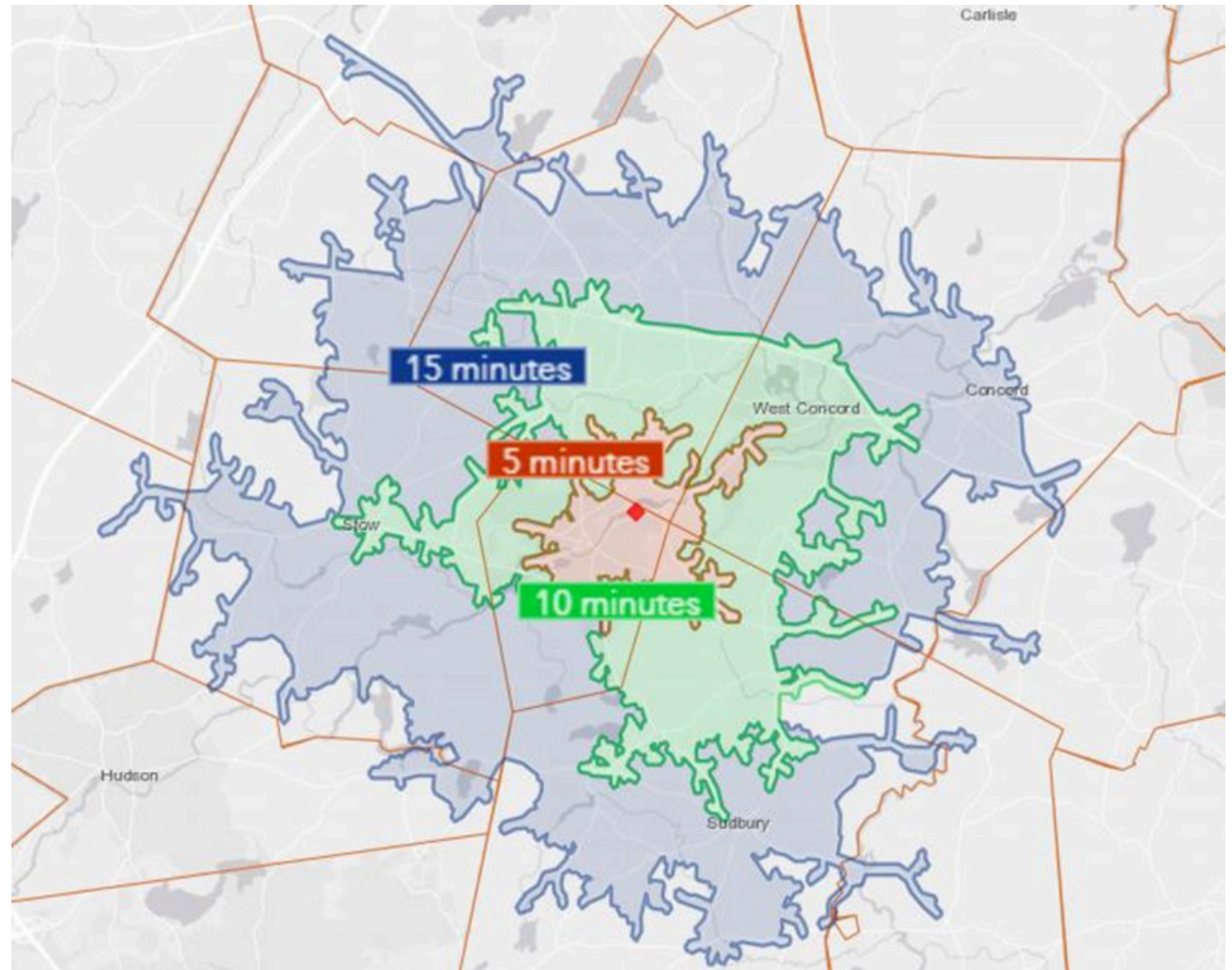
Trade Area

In order to estimate the amount of additional retail and food services businesses the towns can support; it is important to first identify a trade area. The trade area is the geographic area from which a retail establishment generates sales. There are many factors to consider when determining a primary trade area including the distance and time that people may be willing to travel in order to reach a destination, any physical or geographic barriers as well as regional competition. For the Powder Mill Road study area, MAPC selected 15 Powder Mill Road on the Acton/Maynard border as a central point within the Powder Mill district and looked at three drive times to define the trade area.

The ten-minute drive time is the primary market as it is reasonable to assume that people would be willing to travel this distance to attain goods and services within the study area. For comparison and to account for a more local and regional draw, MAPC staff also considered a secondary trade area of a fifteen-minute drive time and a local trade area of a five-minute drive time.

Drive times are displayed in the Figure 10 map.

Figure 10. Market Area Drive Times



Source: ESRI Business Analyst

There are about 8,024 people, or 3,413 households within a five-minute drive time, which is also the fifteen to twenty-minute walk time, including the local market along Powder Mill Road. The median household income for the area is \$111,028, with a disposable income of \$82,601. Disposable household income (income remaining after income taxes have been accounted for) provides an indication of the goods and services families can purchase on the market. The population within a ten-minute drive almost triples to 23,037, with households having \$109,187 in disposable income. People within a fifteen-minute drive, which stretches into Concord, Carlisle, Littleton, Boxborough, Stow, Hudson, and Sudbury, had about \$118,856 in disposable income.

Retail Opportunity Gap Analysis

MAPC staff analyzed ESRI Business Analyst data within the defined trade areas in order to conduct a retail gap analysis. A retail opportunity or gap analysis looks at the overall demand for retail goods and services within a designated trade area based on the spending potential of the households (demand), and the actual sales for those goods and services within the market area (supply). The difference between the demand and

Table 4. Powder Mill Area Drive Times

	Local 5-Minute Drive	Primary-Regional 10-Minute Drive	Secondary-Regional 15-Minute Drive
Population	8,024	23,037	32,028
Number of Households	3,413	8,066	11,264
Median Household Income	\$111,028	\$154,898	\$171,440
Median Household Disposable Income	\$82,601	\$109,187	\$118,856

Source: ESRI Business Analyst

supply is called the retail “gap.” If the demand exceeds the supply, there is “leakage,” meaning that residents must travel outside the area to purchase those goods. In such cases, there is an opportunity to capture some of this spending within the market area to support new retail investment. When there is greater supply than demand, there is a “surplus,” meaning consumers from outside the market area are coming in to purchase these goods and services. In such cases, there is limited or no opportunity for additional retail development. Thus, the retail gap analysis provides a snapshot of potential opportunities for retailers to locate within an area.

In Table 5 is a summary of the retail opportunity gap analysis by industry group and trade area. Figures in red are negative numbers that indicate there is a surplus of sales within the trade area. Where figures are positive, that indicates a retail gap or leakage and represent potential opportunities for more retail in the area.

Table 5. Retail Opportunity Gap Analysis

Industry Summary	NAICS	Local Trade Area 5-Minute Drive Time	Primary Trade Area 10-Minute Drive Time	Secondary Trade Area 15-Minute Drive Time
Total Retail Trade and Food & Drink		\$39,041,698	\$267,194,703	\$323,797,961
Total Retail		\$35,124,421	\$233,517,238	\$269,949,021
Total Food & Drink		\$3,917,276	\$33,677,466	\$53,848,940
Downtown and Mixed-Use Oriented Industry Groups				
Furniture & Home Furnishings Stores	442	\$3,628,076	\$7,770,846	\$2,304,428
Electronics & Appliance Stores	443	-\$5,636,687	\$10,143,559	\$17,396,853
Building Materials, Garden Equip. & Supply	444	\$3,879,433	\$15,019,217	\$33,030,051
Food & Beverage Stores	445	\$11,304,062	\$8,731,335	\$42,800,412
Health and Personal Care	446, 4461	\$742,224	\$8,329,119	\$16,089,354
Clothing & Clothing Accessories	448	\$8,187,534	\$30,027,793	\$29,872,413
Sporting Goods, Hobby, Book and Music Stores	451	\$3,946,591	\$15,152,764	\$16,597,908
Miscellaneous Store Retailers	453	\$557,012	\$12,199,498	\$11,924,851
Special Food Services	7223	\$541,972	\$1,278,675	\$1,928,701
Drinking Places - Alcoholic Beverages	7224	\$821,034	\$2,831,555	\$4,448,468
Restaurants/Other Eating Places	7225	\$2,554,270	\$29,567,235	\$47,471,770

Table 5 indicates that there are many opportunities for additional food service and retail. MAPC staff uses a conservative capture rate to analyze the retail gap and understand the potential for additional establishments. This capture rate acknowledges that any single retail district will never be able to re-capture the full amount of retail leakage. Competition from regional shopping areas as well as other local districts and online shopping will always draw business away from the study area. When analyzing the market potential within the trade areas, MAPC uses a 15% capture rate respectively. Using this methodology, the market within each of the trade areas could likely support the industries detailed.

It is important to note that the data is not a prediction for what will occur within the study area, rather it is an opportunity or estimate of retail space that could be supported based on the gap analysis figure, average sales per square foot of different store types, average store sizes in downtown areas, and an estimated spending capture within each trade area.

There are many factors that influence whether a retail store or restaurant may want to locate in a particular area. Some of the additional factors that impact the decision to locate a new retail establishment include:

- » Availability and quality of the retail space
- » Size of the spaces available
- » Location of the space - is this a place where many people are passing by?
- » Foot traffic
- » Rents and terms
- » Parking - is it available nearby or within a short walk?
- » Product or service price points
- » Marketing
- » Business plan and acumen
- » Zoning and other regulatory obstacles
- » Permitting and inspection processes

Although the potential exists for more retail, based on the numbers, the amount captured may be less, dependent on the above factors.

Consumer Spending Habits

Among the likelihood of demand within the three trade areas on Powder Mill Road, consumer spending habits for apparel display a higher than average purchasing pattern than the nation as a whole, according to ESRI's US Market Potential Index, a database that measures the likely demand for a product or service for the area. That is, there is a relative likelihood of the adults or households in the specified trade area

to exhibit certain consumer behavior compared to the U.S. Women's clothing and shoe sales were above the U.S. average for all three trade areas, showing the potential for these types of businesses to do well within the area.

However, competition with online retailers paints an uncertain future for the apparel industry, not only in Acton and Maynard, but in the MAPC region and the nation as a whole. Traditional retailers, without their own brands, or without a focus on e-commerce or a dedication to specialty products that are not carried by online retailers, have been seeing a significant decline nationwide. These uses also typically require large tracts of land and locations proximate to major highways that provide direct regional access, with few options. Some potential may exist for smaller retailers; however, additional residential densities, along with transportation infrastructure improvements, would be required to support these establishments.

Table 6. Trade Area Spending Habits and Retail Market Potential

Product/Consumer Behavior	Average Number of Adults/Households		
	Local Area (5-Min Walk)	Primary Area (10-Min Drive)	Secondary Area (15-Min Drive)
Total Population, 18+	6,249	23,037	32,028
Bought any men's clothing in last 12 months	2,898	9,066	12,567
Bought any women's clothing in last 12 months	2,843	8,270	11,272
Bought clothing for child <13 years in last 6 months	1,571	4,940	6,576
Bought any shoes in last 12 months	3,552	10,511	14,421
Homes had any home improvement in last 12 months	882	2,806	4,245
Usually buy based on quality - not price	1,202	3,664	5,404
Price is usually more important than brand name	1,617	4,372	5,770

Source: ESRI US Market Potential Index

Regarding consumer behavior, adults within the three trade areas are more likely than the national average to buy items based on quality instead of price. They also are more likely to buy items on credit and show greater interest to buy items that are environmentally friendly and/or support a charity, when compared to the rest of the country. They are also more likely to purchase organic food compared to the rest of the country, use professional cleaning services, and travel. On the other hand, all three trade areas are lower than the national average at shopping at convenience stores, owning an Android phone, and vehicle ownership.

Table 7. Trade Area Restaurant Market Potential

Product/Consumer Behavior	Average Number of Adults/Households		
	Local Area (5-Min Walk)	Primary Area (10-Min Drive)	Secondary Area (15-Min Drive)
Drank beer/ale in last 6 months	2,957	8,816	12,060
Went to a bar/night club in last 12 months	1,324	3,805	4,834
Dined out in last 12 months	3,663	11,602	15,939
Went to family restaurant in last 6 months	4,630	14,012	19,103
Went to family restaurant: 4+ times a month	1,492	4,805	6,626
Went to fast food/drive-in restaurant in last 6 months	5,597	16,252	21,750
Went to fast food/drive-in restaurant 9+ times/month	2,226	6,631	8,788
Went to fine dining restaurant last month	1,070	3,678	5,380
Went to fine dining restaurant 3+ times last month	394	1,223	1,831

Restaurant Market Potential

The trade area market potential for restaurants displayed higher than average fine dining eating and nightlife activities within all three trade areas. Moreover, in the secondary trade area there was more than double the national average of adults who went to a fine dining restaurants three times in the last month. The local trade area did significantly better than the national average in visiting sit-down restaurants like The Cheesecake Factory, TGI Friday's and California Pizza Kitchen.

People within the secondary trade area are also more likely to have dined at fast food restaurants such as Dunkin', Boston Market, Chipotle, and Panera, within the last six months. However, those seem to be the exception as most other fast-food restaurants ranked lower and as a whole, people within the trade area generally did not visit fast food restaurants as often as the rest of the country.

Recreation Expenditures

Table 8 shows recreation expenditures, which is the average amount of total yearly expenditures of activities for households. For example, for winter sports equipment, since most of the spending is done solely during the winter months, and some people are not winter sports enthusiasts, and spend nothing, it could be assumed that the average amount of total yearly expenditures for this niche market could be low. People within the three trade areas were more than likely to have more disposable income and spend more money than the rest of the country. Compared to the national average, people within the trade areas were three to four times as likely to spend money on camp fees. Additionally, other outdoor recreation activities, such as purchasing recreational vehicles and docking fees ranked considerably higher than the rest of the country.

Table 8. Trade Area Spending Potential Index on Recreation

Recreational Activity	Local Area Spending Potential	Avg \$ Spent	Local Area Spending Potential	Avg \$ Spent	Local Area Spending Potential	Avg \$ Spent
Camp Fees	312	\$209	371	\$248	454	\$304
Recreational Vehicles and Fees	215	\$343	277	\$442	332	\$531
Docking and Landing Fees for Boats and Planes	186	\$18	266	\$25	322	\$31
Winter Sports Equipment	237	\$13	280	\$15	316	\$17
Fees for Recreational Lessons	201	\$289	268	\$385	312	\$448
Membership Fees for Social/Recreation/Civic Clubs	194	\$458	257	\$609	303	\$717
Tickets to Theatre/ Operas/ Concerts	2,226	\$6,631	8,788			
Entertainment/Recreation Fees and Admissions	187	\$1,336	250	\$1,785	292	\$2,084
Admission to Sporting Events, excluding Trips	169	\$107	242	\$153	290	\$183

Industry Analysis

In order to determine the potential office demand in Acton and Maynard, MAPC staff analyzed economic trends in both towns as well as regional trends in the office, retail, and industrial markets. Acton had a total of 10,141 jobs in 2018, an increase of 4% in five years, when Acton had 9,728 (see Table 9). During the same time period, Maynard jobs grew by 2%, from 3,487 in 2013 to 3,551 in 2018. With 2013 wages adjusted for inflation, all industries in Acton saw a 34% growth of wages between the five-year time period, from an average of \$1,057 to \$1,419. Additionally, Maynard saw wages grow slightly, from \$1,464 to \$1,498.

Economic Trends

Office-based industries overall in Acton saw a 1% increase in the number of jobs between 2013 and 2018. However, there are specific office-based industries that have seen substantial job growth. Information has experienced 31% job growth between 2013 and 2018, adding a total of 84 jobs. Educational Services saw 6% growth, adding 69 jobs within five years.

During the same time, Maynard saw the largest growth in Administration and Waste Services, growing by 355%, and 401 jobs between 2013 and 2018. This is followed by Professional and

Technical Services, with 110, or 27% of jobs, added. This was followed by positions within the Information industry, which did not register any positions in 2013, and contained 95 jobs by 2018. The towns may want to focus on continuing to grow these industries as they consider strategies for attracting additional office opportunities.

With regards to industrial jobs, both towns saw an increase of positions within the Manufacturing, Construction, and, for Acton, Transportation and Warehousing trades. Manufacturing saw the biggest increase in both towns, with Acton gaining 447 positions in the five years, and Maynard gaining 188 at the same time. For Acton, there was a gain of 164 Construction jobs and 95 Transportation and Warehousing jobs during the time period.

Weekly wages for both communities generally increased during the five-year period. In 2018 dollars, wages increased the most within the Information trade for Acton, growing by an average of \$636 (from \$1,493 to \$2,129), a 43% increase. As of 2018, the highest paying industry in Acton was Professional and Technical Services, which earned a weekly average of \$2,211. This is followed by Information (\$2,129) and Manufacturing (\$2,003).

Maynard saw the most wage growth (85%) in the Manufacturing sector, with average weekly wages

growing from \$1,935 to \$3,571 from 2013 to 2018. Manufacturing is also the highest paying industry in Maynard in 2018. This was followed by Professional and Technical Services at \$2,251, and Wholesale Trade at \$1,823. Please keep in mind that for Maynard wage growth data was not available for Information, Management of Companies and Enterprises, Educational Services, Arts, Entertainment, and Recreation, and Transportation and Warehousing. Note that the 2013 wage data was adjusted for inflation.

Table 9. Comparative Employment Analysis

		Acton			Maynard		
		2013	2018	%Change	2013	2018	%Change
51	Information	271	355	31%	-	95	-
52	Finance and Insurance	146	166	14%	99	41	-59%
53	Real Estate and Rental and Leasing	72	71	-1%	46	50	9%
54	Professional and Technical Services	1,274	1,162	-9%	402	512	27%
55	Management of Companies and Enterprises	58	62	7%	-	-	-
56	Administrative and Waste Services	201	255	27%	113	514	355%
61	Educational Services	1,241	1,310	6%	-	-	-
62	Health Care and Social Assistance	1,479	1,417	-4%	86	154	79%
Office/Institutional Sectors-Building Type		4,742	4,798	1%	746	1,366	83%
44-45	Retail Trade	1,750	1,600	-9%	234	192	-18%
71	Arts, Entertainment, and Recreation	201	205	2%	18	-	-
72	Accommodation and Food Services	568	510	-10%	586	455	-22%
81	Other Services, Except Public Administration	351	369	5%	75	100	33%
Retail/Commercial & Other Building Type		2,870	2,684	-6%	913	747	-18%
23	Construction	428	592	38%	129	142	10%
31-33	Manufacturing	889	1,336	50%	137	325	137%
42	Wholesale Trade	395	202	-49%	71	15	-79%
48-49	Transportation and Warehousing	148	243	64%	-	-	-
Industrial/Warehousing Building Types		1,860	2,373	28%	337	482	43%
Total, All Industries		9,728	10,141	4%	3,487	3,551	2%

Source: MA Department of Labor and Workforce Development

Table 10. Average Weekly Wage Comparison

		Acton			Maynard		
		2013	2018	%Change	2013	2018	%Change
51	Information	\$1,493	\$2,129	43%	-	\$1,713	-
52	Finance and Insurance	\$1,250	\$1,558	25%	\$1,063	\$1,099	3%
53	Real Estate and Rental and Leasing	\$1,233	\$1,280	4%	\$918	\$670	-27%
54	Professional and Technical Services	\$1,980	\$2,211	12%	\$2,509	\$2,251	-10%
55	Management of Companies and Enterprises	\$833	\$843	1%	-	-	-
56	Administrative and Waste Services	\$879	\$989	13%	\$927	\$777	-16%
61	Educational Services	\$843	\$934	11%	-	-	-
62	Health Care and Social Assistance	\$855	\$1,058	24%	\$526	\$757	44%
Office/Institutional Sectors-Building Type		\$1,171	\$1,375	17%	\$1,189	\$1,211	2%
44-45	Retail Trade	\$602	\$693	15%	\$573	\$564	-2%
71	Arts, Entertainment, and Recreation	\$416	\$446	7%	\$158	-	-
72	Accommodation and Food Services	\$326	\$443	36%	\$480	\$558	16%
81	Other Services, Except Public Administration	\$661	\$709	7%	\$638	\$684	7%
Retail/Commercial & Other Building Type		\$501	\$573	14%	\$462	\$602	30%
23	Construction	\$1,298	\$1,364	5%	\$1,252	\$1,411	13%
31-33	Manufacturing	\$1,467	\$2,003	37%	\$1,935	\$3,571	85%
42	Wholesale Trade	\$1,696	\$1,424	-16%	\$1,744	\$1,823	5%
48-49	Transportation and Warehousing	\$1,225	\$1,419	16%	-	-	-
Industrial/Warehousing Building Types		\$1,422	\$1,553	9%	\$1,644	\$2,268	38%
Total, All Industries		\$1,057	\$1,419	34%	\$1,464	\$1,498	2%

Source: MA Department of Labor and Workforce Development



Commercial plaza on the corridor

OVERVIEW

MAPC was commissioned by the towns of Acton and Maynard to review and evaluate existing conditions along the Powder Mill Road corridor to help establish a vision for the future of this area which connects Acton to downtown Maynard. To prepare for public engagement during the development of a shared vision for the corridor, MAPC has completed an analysis of current zoning in the area. What follows is an analysis of the existing zoning and some of the issues within the regulatory framework that may be addressed through plan recommendations.

KEY TAKEAWAYS

- » The zoning district boundaries do not distinguish land uses immediately along Powder Mill Road from those set further back from the roadway, contributing to a lack of sense of place.
- » The Zoning Bylaws are limited in their ability to shape public accessibility within the study area. Form-based code, design standards, or similar regulations would allow the towns to use zoning in a way that can create a more cohesive streetscape along the corridor. This includes improved pedestrian and bicycle pathways that could provide better access and utilization of the river.
- » The districts in the study area permit land uses based on very specific types of businesses, which may put more restrictions on some uses allowed by special permit that are similar to other uses allowed by right. Rather than listing each specific permitted use, the bylaws could allow general types of uses that fall under categories or focus more on the form of buildings rather than on specific uses.
- » Most districts that regulate the area directly adjacent to Powder Mill Road, even business districts, favor single-family housing development and do not encourage other housing types such as vertical mixed-use and multifamily housing that provide for a more walkable environment. This type of housing can benefit businesses by creating a nearby critical customer base and by generating consistent foot traffic.²
- » Land use patterns and the lack of other transportation alternatives in the study area contribute to the auto-oriented nature of this area. Parking space minimum requirements with limited parking lot design guidelines discourage redevelopment opportunities on sites that lack sufficient land to develop prescriptive amounts of parking. Furthermore, providing parking is costly and may impact the financial feasibility of a redevelopment project.
- » Within the study area covering each town, 43 parcels have lot sizes that do not meet the minimum lot size in their respective zoning districts. The non-conforming parcels in Maynard will require additional review for redevelopment or expansion. Non-conforming lots in Acton can only be expanded if they are a residential use (none of the Acton parcels in the study area appear to be non-conforming). 103 of the parcels in the study area meet the minimum lot size and can be developed in accordance with standard regulations. 64 parcels exceed two times the minimum lot size. While these larger parcels can be developed without conflicting with the Zoning Bylaws, they do show an opportunity to better align zoning with existing parcels and land uses.

² A 230-unit multi-family development at 2-18 Powder Mill Road in Acton is under construction near the town border. 25% of the units will be deed-restricted Affordable Housing units. However, this development is a result of a 40B Comprehensive Permit, and not subject to the town's underlying Zoning Bylaws described here.

ZONING DISTRICTS AND GENERAL REQUIREMENTS

There are seven zoning districts within the study area, one in Acton and six in Maynard. Acton's portion of the study area is zoned as the Powder Mill (PM) Zoning District. In Maynard, the study area includes the Business (B) District, the Downtown Mixed-Use Overlay (DOD) District, the Industrial (I) District, the Single-Residence (S-1) District, the General Residence (GR) District, and the Garden Apartment (GA) District. Permitted uses and regulations of note are described in the sections below. Dimensional requirements for each district are detailed in Table 11.

Figure 11. Zoning Districts in the Study Area

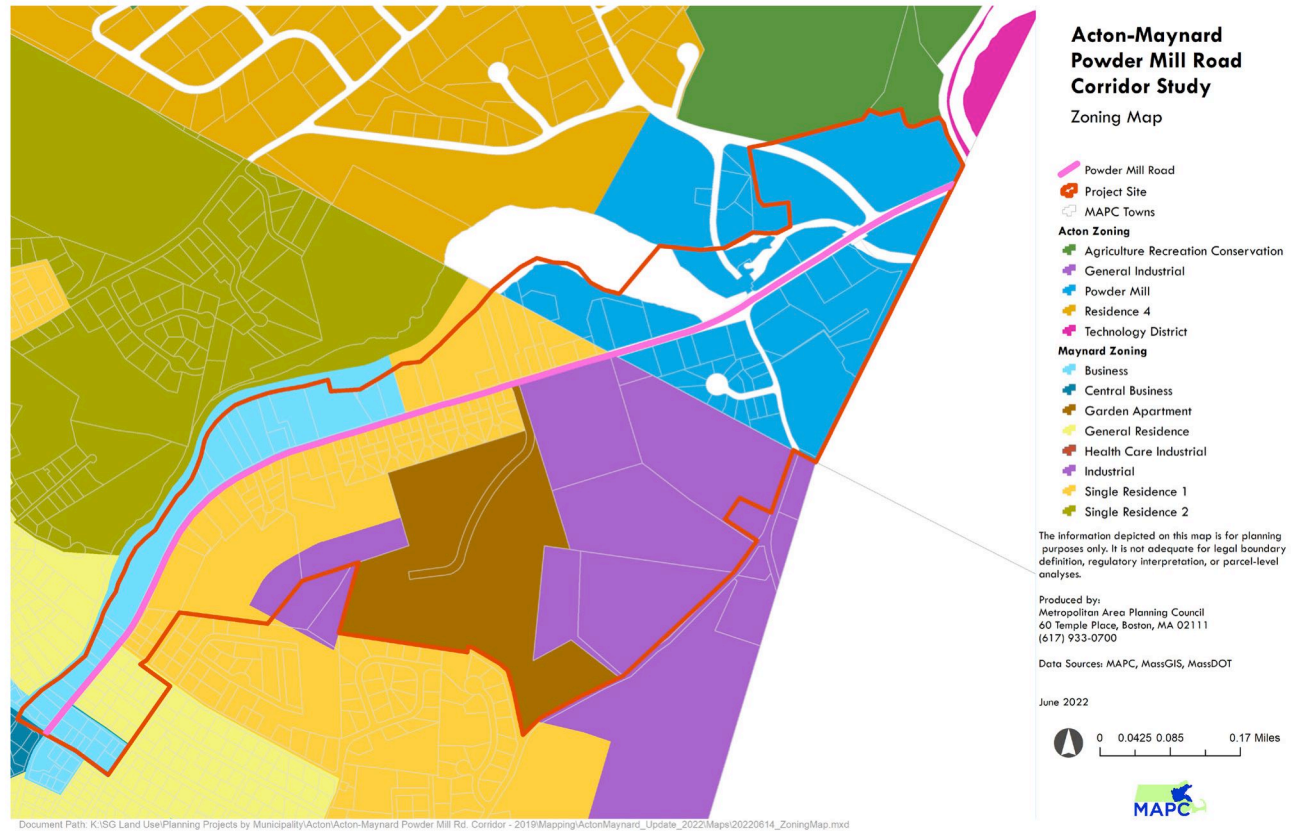


Table 11. Minimum Lot Size Requirements and Median Size of Lots by Zoning District

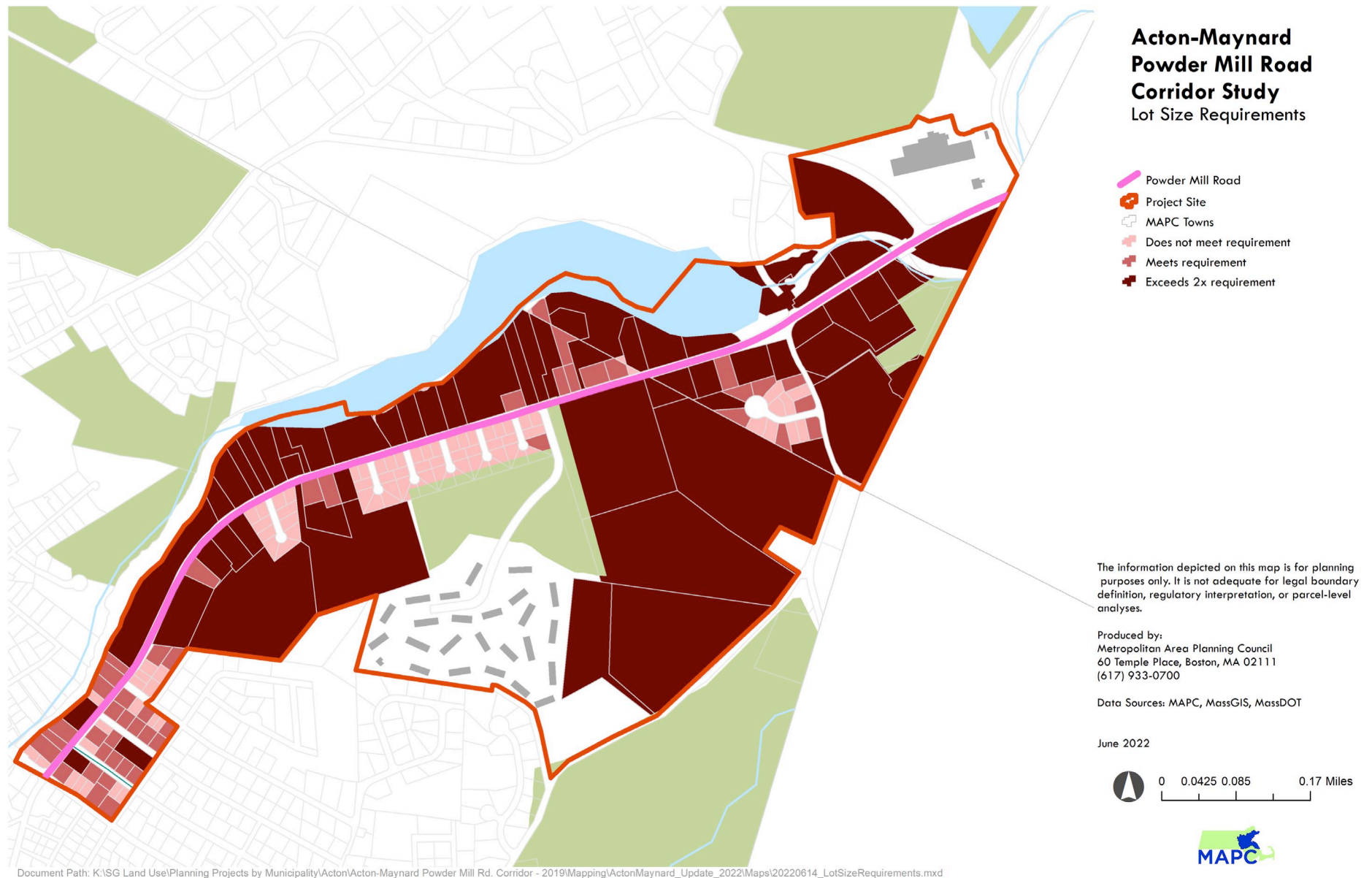
Zoning District	Type	Town	Minimum Lot Size Requirement (square feet)	Median Size of Lots
PM	Business	Acton	10,000	13,522 Sq. Ft.
B	Business	Maynard	7,000	261,743 Sq. Ft.
DOD	Business	Maynard	1,500 per dwelling unit	8,405 Sq. Ft.
S-1	Residential	Maynard	10,000	7,354 Sq. Ft.
GR	Residential	Maynard	7,000	151,622 Sq. Ft.
GA	Residential	Maynard	43,560	*1,625,468 Sq. Ft.
I	Industrial	Maynard	40,000	453,176 Sq. Ft.

*(total square ft for garden apartment district) given that the town does not separate them into parcels

Note that density bonuses (where permitted) and inclusionary zoning provisions can result in greater densities within the study area.

There are 43 non-conforming parcels shown as light pink in Figure 12, all of which are in the General Residence and Single Residence 1 Districts in Maynard. Generally, redevelopment and expansion of a non-conforming structure requires a special permit or variance. In Maynard, single and two-family homes can be expanded or redeveloped provided that such proposed reconstruction, extension, alteration, or change does not increase the gross floor area of the existing structure by more than 25% and meets other requirements. Acton has a similar exception for single and two-family housing that restricts expansions of the existing structure to 15%.

Figure 12. Map of Parcels Meeting and Exceeding Minimum Lot Size Requirements



Powder Mill Road (PM) District – Acton

The Powder Mill Road (PM) District runs along Powder Mill Road in Acton, covering the area where the Stop and Shop is located (Powder Mill Plaza) and surrounding properties, as well as the area of Powder Mill Road that leads to the town border with Maynard. Acton's Zoning Bylaws do not state a specific purpose for the PM District. This district is classified in Section 2.1 under business districts along with the Kelley's Corner (KC) District and Limited Business (LB) District (both outside the study area).

Permitted Uses

The PM District allows a variety of governmental, institutional, and public service uses; business, office, and retail uses; as well as industrial uses such as storage and manufacturing. Single-family housing is allowed by right in the PM District. Section 3.5.6 allows mixed-use as a Combined Business and Dwelling, but this definition limits mixed-use housing units to 4 units. Vertical mixed-use development with more than four housing units and multifamily residential development are not allowed. These housing development regulations seem irregular as vertical mixed-use and multifamily development are typically more

compatible with the commercial uses permitted in the district, while single-family housing is usually not interspersed with these uses, especially along an arterial roadway like Route 62.

Dimensional Regulations

The PM District has a minimum lot size of 10,000 square feet, which is relatively small in relation to Acton's other zoning districts. This lot size provides the flexibility to allow for a range of different developments at various scales. Frontage and front yard setback regulations are less flexible, requiring 100 feet of minimum lot frontage and buildings to be at least 30 feet from the front property line. These requirements orient buildings away from the street, which is consistent with the nature of Route 62 as an arterial roadway but emphasizes automobile parking rather than buildings and storefronts, which consequently makes the area less pedestrian-friendly. The maximum height of buildings in the PM District is 40 feet, which limits the opportunity for larger-scale office buildings and other uses that might require additional density.

Single-Residence 1 (S-1) District – Maynard

Moving west across the town border with Maynard, the immediate area running along

Powder Mill Road to the north is zoned Single-Residence 1 (S-1). The S-1 District extends north of Powder Mill Road to the Assabet River and then extends south of Powder Mill Road further down the corridor to the west.

Permitted Uses

The SR-1 District allows single-family uses by right. No other housing types are permitted. Home occupations (as defined in the Zoning Bylaws) and daycares are permitted by right. Educational and religious institutions are also allowed by right defined by the Dover Amendment.

Dimensional Regulations

The minimum lot size in the S-1 District is 10,000 square feet, the second smallest of all Maynard Zoning Districts aside from the General Residence (GR) District, which is 7,000 square feet. Setback requirements in the S-1 District are the same as in other residential districts aside from the Garden Residential District. The maximum height in the S-1 District is 35 feet.

Industrial (I) District – Maynard

The Industrial (I) District begins at the Maynard/Acton Town boundary. It primarily spans the particularly large parcels south of Powder Mill Road in Maynard.

Permitted Uses

By-right uses within the I District include:

- » manufacturing
- » warehousing
- » technology and research facilities
- » energy generation and solar facilities
- » self-storage facilities.
- » business and professional offices
- » banks
- » car washes
- » municipal and public transit facilities
- » education and religious uses
- » fitness clubs
- » agricultural uses

Marijuana cultivation, testing, and manufacturing uses; wireless communication towers; and for-profit educational institutions are allowed by special permit granted by the Maynard Planning Board.

Dimensional Regulations

The I District has a minimum lot size of 40,000 feet and is consistent with the large parcels in the I District. Minimum setback requirements, shown in Table 2 are deep and emphasize street

connection. These setbacks are also increased by 70 feet when abutting a residential district, 40 feet of which must be landscaped open space with screening. The maximum height in the industrial district is 40 feet which limits the scale of uses, such as larger scale manufacturing or research facilities. The 1990 and 2020 Master Plans discuss the need to redefine industrial and move away from the industrial category of uses all together.

Garden Apartment (GA) District – Maynard

The Garden Apartment (GA) District is located just west of the Industrial District. The majority of the GA District is set back to the south of Powder Mill Road aside from a small access road that leads into the zone. The zone is specifically designed to provide for small housing typologies clustered around open space and includes special standards for this land use in Section 8.2 of the Maynard Zoning Bylaws.

Permitted Uses

The GA District allows garden apartments and no other housing types. Child care centers, institutional uses for education or religious purposes (subject to Dover Amendment criteria) and agricultural uses are also allowed by right.

Special Regulations

Section 8.2 defines standards for garden apartments. Each garden apartment building must have at least three complete family units with full kitchen and bath facilities. Additionally, the following standards apply:

- » Buildings must be set at least 100 feet away from the nearest street or access drive and no entrance can be farther than 250 feet from an off-street parking area.
- » Structures on a lot must be at least 40 feet from other structures and access roads.
- » Lots must include an off-street parking lot sufficient to allow for two parking spaces for each apartment or family unit.

Business (B) District – Maynard

The Business (B) District runs along Powder Mill Road covering the majority of the northern portion of the corridor between Maynard's downtown to the west and the Single-Residence district to the east. The B District also includes a few parcels on the south side of Powder Mill Road.

Permitted Uses

By-right uses within the B District include:

- » businesses

- » offices
- » retail
- » banks
- » restaurants
- » small-scale supermarkets
- » wholesale business
- » educational and religious institutions
- » agricultural uses

Large scale supermarkets, auto-oriented businesses, fast food restaurants, alcohol establishments, hotel/motels, marijuana retailers and dispensaries, and Wireless communication towers are allowed by special permit of the Planning Board.

Single-family and two-family dwellings are allowed by right in the B District. Multifamily dwellings are allowed by special permit through the Planning Board. In-home businesses including home occupations, real-estate offices, and daycare establishments, are allowed by right.

Dimensional Requirements

The Business district has a small minimum lot size of 7,000 square feet, making a variety of developments possible. Elderly housing created

by the Maynard Housing Authority requires a lot of at least 10,000 square feet and meet additional density requirements of 2,000 square feet of lot area per housing unit. Commercial kennels are also subject to a higher minimum lot requirement of 20,000 square feet. The front yard setback requirement in the B District is 30 feet, setting buildings away from the street. Side and rear yard setback requirements are 15 feet but must be increased to 35 feet when abutting an S-1 or S-2 Residential District. The maximum height permitted in the business district is 35 feet, which limits the scale of business uses but is most impactful on multifamily development. Since height is limited, and other dimensional requirements must be met, the allowable density of multifamily development is limited, although Maynard's Inclusionary Zoning Bylaw does provide density bonuses (additional market-rate units) for the provision of dedicated affordable units.

Downtown Mixed-use Overlay (DOD) District – Maynard

The Downtown Overlay District spans Maynard's downtown in the southwest corner of the study area. The purpose of this district, which expands flexibility beyond the underlying zoning (which still applies), is to provide for an organized development of retail, commercial, and residential

uses at a modest density to foster a pedestrian-friendly, vibrant downtown area that utilizes the Assabet River.

Other development characteristics such as the type and tenure of housing, parking, and height are determined by a development agreement between the Planning Board and the applicant. When development includes the rehabilitation of existing first floor retail, it is exempt from minimum parking requirements.

Permitted Uses

The DOD District allows vertical mixed-use development of fewer than six dwelling units by right. Mixed-use buildings with more than six dwellings and multifamily development are allowed by special permit through the Planning Board. Multifamily development is not permitted on lots that front Main Street or Nason Street in parts of the district. The DOD District also stipulates that a majority of space on the ground floor (50%) be used for retail, restaurant, office, and/or medical office use, unless other non-residential uses are authorized by the Maynard Planning Board.

Other development characteristics such as the type and tenure of housing, parking, and height are determined by a development agreement between the Planning Board Planning Board

and the applicant. When development includes the rehabilitation of existing first floor retail, it is exempt from minimum parking requirements.

Dimensional Requirements

The DOD has density requirements of 1,500 square feet per resident unit. The Town's inclusionary zoning bylaw offers a density bonus option by allowing this requirement to be reduced to 800 square feet per residential unit by the Planning Board in exchange for deed-restricted Affordable Housing units accounting for at least 15% of the total units in the development and a donation to the Maynard Community Preservation Fund for the preservation of open space.

However, density is also limited by the maximum height of the district, which is 45 feet (minimum of two stories). The town has had recent success in creating affordable units under the DOD and the potential of bonus units makes an attractive incentive for developers that are concerned about additional costs of deed-restricted Affordable Housing units.

The DOD district requires 20 feet of frontage and a 10-foot front yard setback. There are no side or rear yard setback requirements, except when abutting a residential lot, in which case the setback requirement is 15 feet.

General Residence (GR) District – Maynard

The General Residence (GR) District incorporates a small portion of the study area south of Powder Mill Road to the southwest of the S-1 District.

Permitted Uses

The GR District differs from the S-1 District by allowing both single-family dwellings and two-family dwellings by right. Multifamily dwellings are also allowed in the GR District by special permit. Childcare centers, institutional uses, and agricultural uses are also permitted by right in the GR District.

Dimensional Regulations

The minimum lot size requirement in the GR District is 7,000 square feet, which is the smallest minimum lot size of any residential district in Maynard. The side and rear yard setbacks (15 feet) are also the smallest of any residential district. The front yard setback requirement is 25 feet, which is consistent with the other residential districts in Maynard. The maximum height requirement in the GR District is 35 feet, which limits the number of multifamily housing units that be developed in this zone.

Acton Parking Regulations

Section 6 of the Acton Zoning Bylaw establishes

the minimum parking standards required for different land uses in Acton. For residential uses, two parking spaces are required for all dwelling units and an additional parking space is required for each accessory apartment. The following uses must provide a ratio of parking spaces per square feet of net floor area or other standards:

- » Retail – 1 space/300 square feet
- » Office – 1 space/250 square feet
- » Banks and shopping centers – 3 spaces/1,000 square feet
- » Industrial – 1 space/ 2,000 square feet for the first 20,000 square feet, then 1 space for each additional 10,000 square feet, or one space for each employee on the largest shift, whichever is greater.
- » Restaurants must provide 1 space for every three seats.

Special Parking Regulations

Per Section 6.9 of Acton's Zoning Bylaws, the PM District has special parking regulations that allow for more flexibility than the general parking regulations detailed above. Off-street parking in the PM District is allowed on lots separate from the primary use as long as each of the lots are connected by a common driveway. Collective

parking between different uses is also allowed. The required number of parking spaces for uses in the PM District is 70% of the general parking requirements and in the case of collective parking, 50% is required. These regulations offer flexibility and encourage more efficient use of land.

Parking requirements throughout the town can also be reduced via a special permit by the Acton Board of Selectmen if the development meets the criteria outlined in Section 6.2.3 and Section 10.4.4. The PM District has more flexible parking requirements described in PM District Section of this report. For a full list of parking requirements for all uses, see Section 6.3 of Acton's Zoning Bylaws.

Maynard Parking Regulations

In Maynard, Section 6.1 of the Zoning Bylaw regulates parking. In 2021, the Town updated parking regulations to be less restrictive and promote redevelopment projects or changes of use. Single-family, two-family, and three-family dwellings must provide two spaces per unit. Multi-family uses with four or more units must provide parking based on the number of bedrooms in units: one space per studio apartment, 1.25 per 1-bedroom apartment, 1.5 per 2-bedroom apartment, and 2 spaces for apartments with

three or more bedrooms. The following uses must provide a ratio of parking spaces per square feet of net floor area or other standards:

- » Retail uses - 1 space/250 square feet
- » Professional offices and wholesale establishments must provide – 1 space/ 350 square feet
- » Manufacturing uses – 1 space/ 450 square feet
- » Research and development – 1 space/ 300 square feet
- » Warehouses – 1 space/ 2,000 per square

Based on the interpretation in this report, parking requirements for housing units and commercial uses in a mixed-use development would be added together to establish a parking requirement total. Shared parking is allowed and highly encouraged. Relief from these requirements can be granted by special permit of the Planning Board when development meets criteria in Section 6.1.4 of the Zoning Bylaws.

Parking lots must be designed in accordance with Sections 6.1.8 – 6.1.11 and landscaped with a minimum of a five-foot landscape strip between other property lines consistent with Section 6.1.15. Parking in the Central Business District must be located behind buildings.

HISTORICAL PROPERTIES

The Powder Mill Road Corridor carries a long and involved history being the site for the American Powder Mills, a gunpowder manufacturing site from around 1835 to 1940. The historic mills are accompanied by two historic workers homes which are located at 116 and 118 Powder Mill Road. Both properties are on Maynard's Historically Significant Properties list and are protected by the town's Demolition Delay Bylaw which is enforced by the Maynard Historical Commission in concert with the Building Inspector.



Historic properties at 116 and 118 Powder Mill Road

Source: Google

ASSABET RIVER

The Assabet River stretches approximately 31 miles from its headwaters in Westborough through Concord, where it merges with the Sudbury River to form the Concord River. Historically, the Assabet River has had a legacy of pollution from industrial and municipal runoff sources and is further challenged by an abundance of nutrients that cause excessive plant growth in the river during the summer months. This impacts the river not only from an environmental perspective, but also affects its recreational potential. Within the study area, there are a number of developed sites where stormwater runoff is a particular concern. Additionally, the John Deere site, which has recently been remediated, was the source of hazardous contaminants and its cleanup fell under the jurisdiction the Department of Environmental Protection's (MassDEP's) Waste Site Cleanup Program. Today the health of the river has improved but there is still ongoing pollution from nutrients, salt, and heat.

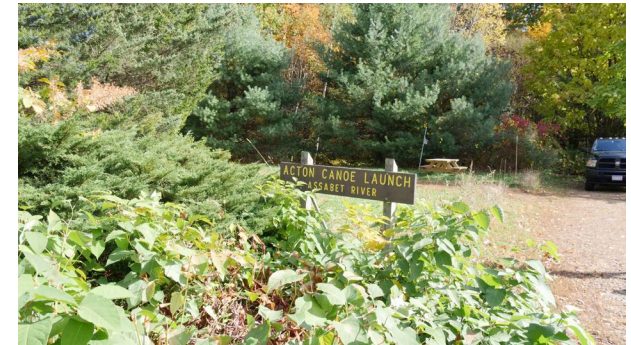
Currently, there is only limited access to the river from within the Powder Mill study area, all of which is in Acton. At 65 Powder Mill Road, there is a canoe launch that was acquired by the Town of Acton via a conservation easement in 2004. It comprises 4.4 acres and includes a parking lot, picnic table, a short path to the water (0.2

miles of trails), and a couple of hundred feet of fisherman's path. It is considered to be safe for kayaking, but too shallow for a canoe in the dry summer, and fish are stocked twice a year, although it is generally recommended that any fish caught should be released.

The other two access points to the Assabet River in Acton are located on Old High Street – the Powder Mill Impoundment and the Powder Mill Dam. The impoundment, known as Ripple Pond, has a surface area of approximately 27 acres. The dam and spillway are in a state of disrepair and the impoundment has been drawn down so that it essentially functions as a channel. ([*Assabet River, Massachusetts Sediment and Dam Removal Feasibility Study, US Army Corps of engineers, September 2010*](#))

While people can get boats and kayaks into the water at the impoundment, there is no official access from the dam site because of potential safety concerns.

In fact, there are numerous barriers that restrict access to the river throughout the study area. This includes areas where physical barriers exist, as well as sites that could provide potential access, but are poorly identified.



Acton Canoe Launch site. The sign runs parallel to the road, so it is not visible to motorists.

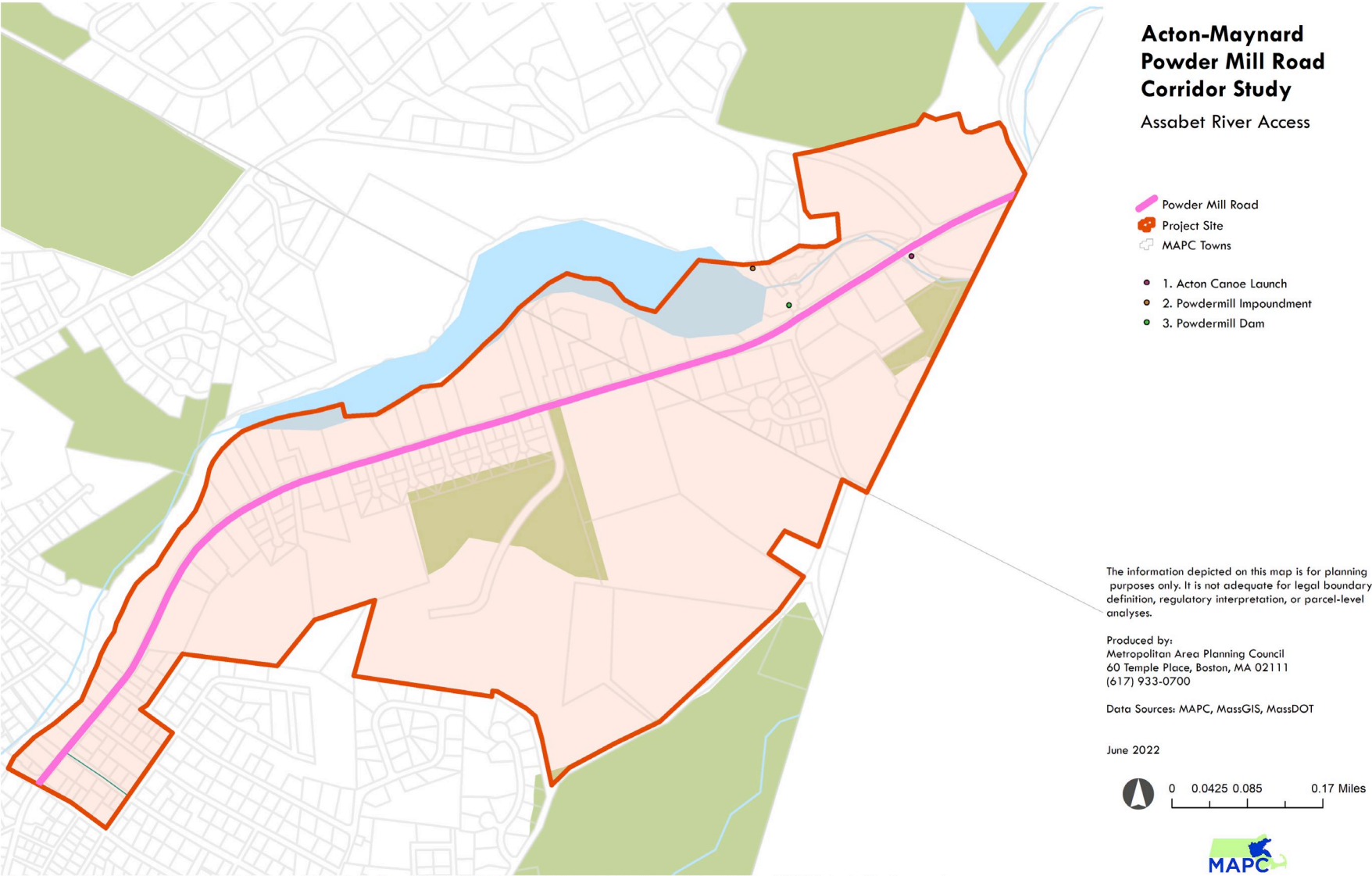


Fishing in the Assabet



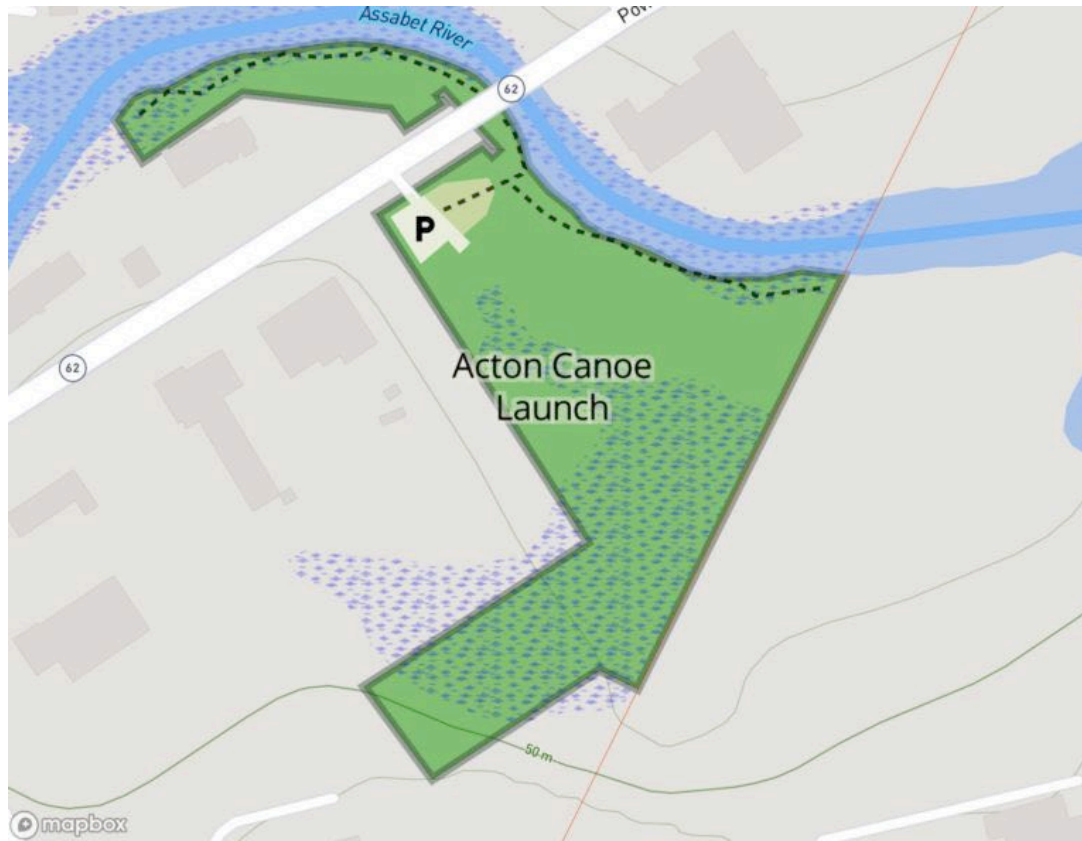
Potential access point in Maynard, but physical barriers need to be overcome

Figure 13. Map of Assabet River Access Points



Document Path: K:\SG Land Use\Planning Projects by Municipality\Acton\Acton-Maynard Powder Mill Rd. Corridor - 2019\Mapping\ActonMaynard_Update_2022\Maps\20220614_AssabetRiverAccess.mxd

Figure 14. Acton Canoe Launch with Trails



Source: <https://trails.actonma.gov/canoe-launch/>

The advantages of enhancing Acton and Maynard's connections with the Assabet River are innumerable. While fostering new interaction with the river can include a variety of initiatives, it can be generally be distilled into five broad goals:

- » Preservation/conservation of crucial environmentally sensitive areas: Land abutting rivers plays a vital role both in regard to water quality and climate change resilience. Preservation and revegetation of key areas along the river with native species will help to improve water quality of the Assabet while protecting important flood storage, providing wildlife corridors, and promoting biodiversity. As flood risk and the presence of invasive species/decline of native species increases with climate change, creating natural buffers along the river will help combat these issues.
- » Creation of recreational opportunities for the public: The Assabet's water quality is not yet to a safe level for swimming, yet numerous other activities such as kayaking, canoeing, wildlife viewing, and catch and release fishing are all recreational opportunities that contribute to the quality of life in Acton and Maynard. Additionally, opportunities to create riverwalks, canoe launches and viewpoints should be pursued.
- » Enhancement of residential property values: Two decades ago, the median value of waterfront properties was 64 percent more than the median value of all homes. Today, the difference has grown to 116 percent: waterfront homes are now worth more than twice that of all homes, according to Zillow. One of the key factors in determining

waterfront value is access: the ease to access water from the property.

- » Maximize commercial value of waterfront: Typically, a waterfront view is considered an asset by many types of businesses. Waterfront dining is ubiquitous in most locations near a water body. On many parts of corridor, restaurants lack a waterfront view and, in some cases, actually block the view of the river. Whether this is due to the condition of the riverfront area, or possibly that people are just not recognizing the possibilities, it represents an absence of a connection with the river. By shifting and assigning a value to transforming the river, a new dimension for waterfront businesses may be viewed entirely different than it is now.
- » Overall improvement of aesthetics: The River in its current state does little, if anything, to enhance the aesthetics of the Powder Mill corridor. Unauthorized dumping and storage are abundant in many segments of the River, and this presents a blighted appearance to the surrounding area as well as the particular location. Concentrated enforcement of and public education regarding existing riverfront regulations, targeted infrastructure investment, increased public access and a sustained effort to communicate a river improvement initiative by both Towns, could result in turning the riverfront into a major and desirable community feature.



Bridge over Powder Mill Road at the Acton Canoe Launch site.



Powder Mill Dam

STREETSCAPE AND SAFETY

Powder Mill Road is a busy corridor that has many visitors a day. Local residents visit shops on the corridor via foot and by car. The corridor is also a major passageway for people driving from West Concord through Acton and Maynard. The current streetscape design on Powder Mill Road Corridor poses several challenges for car users, pedestrians and bicyclists to safely use streets. The MAPC team spoke with staff in both Acton and Maynard and consulted the expertise of transportation planners to understand current conditions.

Portions of the corridor are lacking connected sidewalks due to missing sidewalk segments at several locations. Some areas are limited to sidewalks on one side of the road. A short segment west of Sudbury Road currently has no sidewalks. Several segments have an open curb, where there is no definition between street and parking spaces, or excessively wide driveways. This can pose significant safety challenges to any users. Utility poles and other obstacles can obstruct the ability for pedestrians to navigate along the sidewalks. ADA compliance is not up-to-date or consistent along the corridor. Additionally, there are properties within the corridor that are currently encroaching on the public right-of-way.

Maynard's Complete Streets Funding Program Project Prioritization Plan in 2017 addressed pedestrian improvements along the northerly section of Powder Mill Road. Proposed work included new construction of missing-link sidewalk segments, and crosswalk improvements at intersections and driveways, and would connect housing along Powder Mill Road to the shopping plaza in Acton.



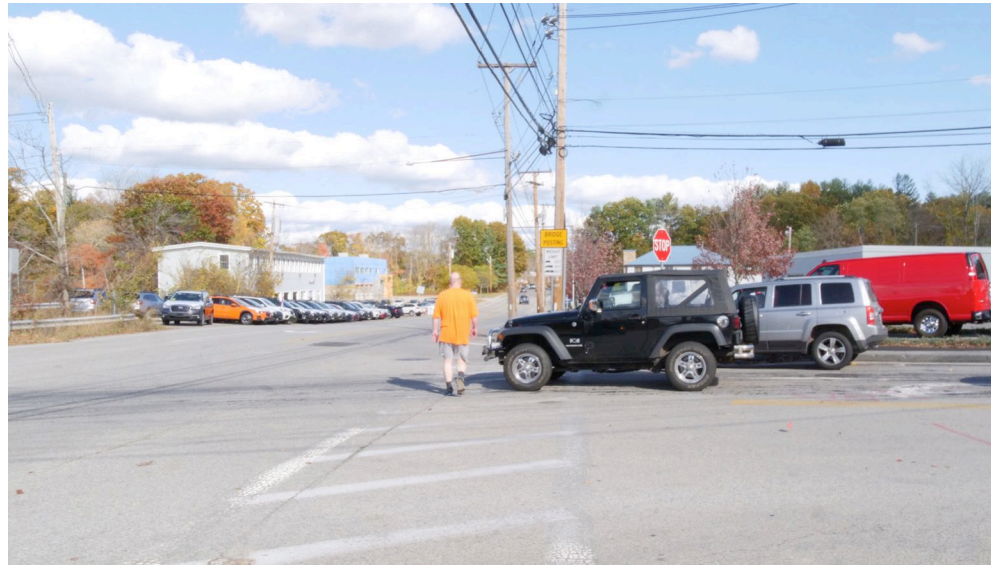
Portions of the roadway have no sidewalks or curbing



No sidewalk and encroachment into the roadway right-of-way



Obstacles to pedestrian safety including utility poles, lack of curbing, and poor pavement conditions



Faded crosswalk



Powder Mill Road abuts the Assabet River, and a lack of stormwater controls allows drainage directly into the river



Pedestrian crossing in middle of street, potentially due to lack of crosswalks



Overgrown vegetation encroaches on sidewalks



Street lacking sidewalk



Sidewalk leading to commercial plaza



INFRASTRUCTURE

An important part of evaluating existing conditions on Powder Mill Road Corridor is to understand the current limitations around water and sewer infrastructure. The MAPC team interviewed the Department of Public Works (DPW) in both Acton and Maynard.

In Acton, there are currently opportunities to address updating and increasing capacity of sewer facilities through the recently awarded MassWorks Infrastructure Grant. The award was prompted by the construction of the Apartments of Powder Mill Place, which will add 230 units of housing in Acton. The DPW in Acton is also evaluating all pumps and facilities to come up with a comprehensive plan and capital plan for the near future.

In Maynard, the constraints around infrastructure are most attributed to water supply. The Town of Maynard's water supply system is outside of the Massachusetts Water Resource Authority and is currently looking at reduced redundancy. The DPW in Maynard is currently working on a water capacity plan to make sure that all future development on the Powder Mill Road Corridor is in accordance with capacity.

It will be important to build redundancy and efficiency into the area's water and sewer systems

just to meet existing demand. However, future growth can only be accommodated if the system is upgraded and expanded. Both Acton and Maynard should actively pursue state grants to support updates to the water and sewer infrastructure.

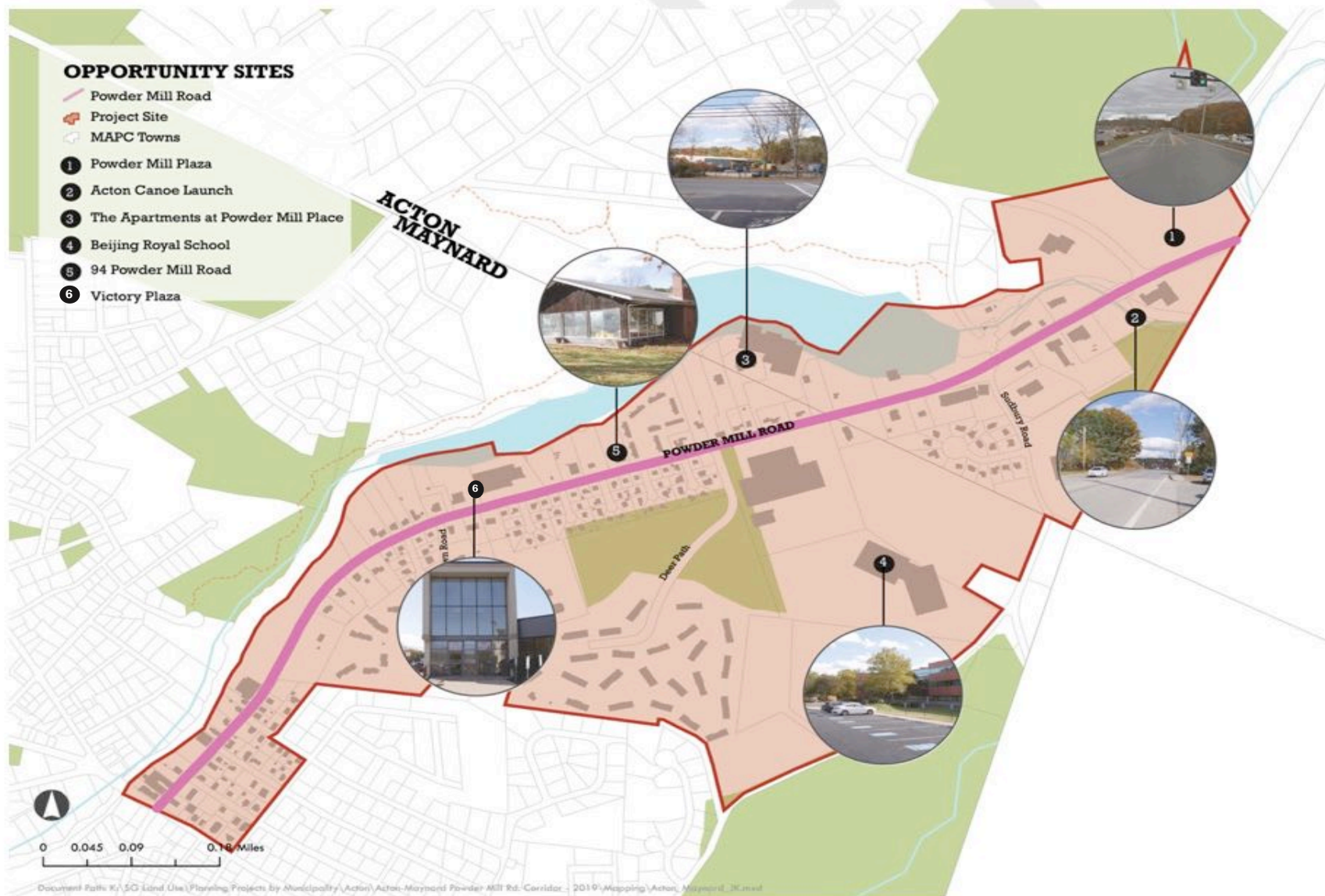
OVERVIEW

Several areas of opportunity exist on the Powder Mill Road Corridor that can change how the corridor looks and feels 5-10 years from now. Each site identified falls under the category of the following themes which guide redevelopment on the corridor:

- » Residential opportunity - Sites for residential and mixed-use development either already being built or future development
- » Commercial opportunity - Sites that can offer commercial amenities or services to residents and visitors who come through the corridor
- » River access - Sites that could offer key access to the Assabet River
- » Pedestrian infrastructure - Sites that help guide streetscape improvements with better access and safety for pedestrian and cyclists

AREAS OF
OPPORTUNITY

Figure 15. Opportunity Sites

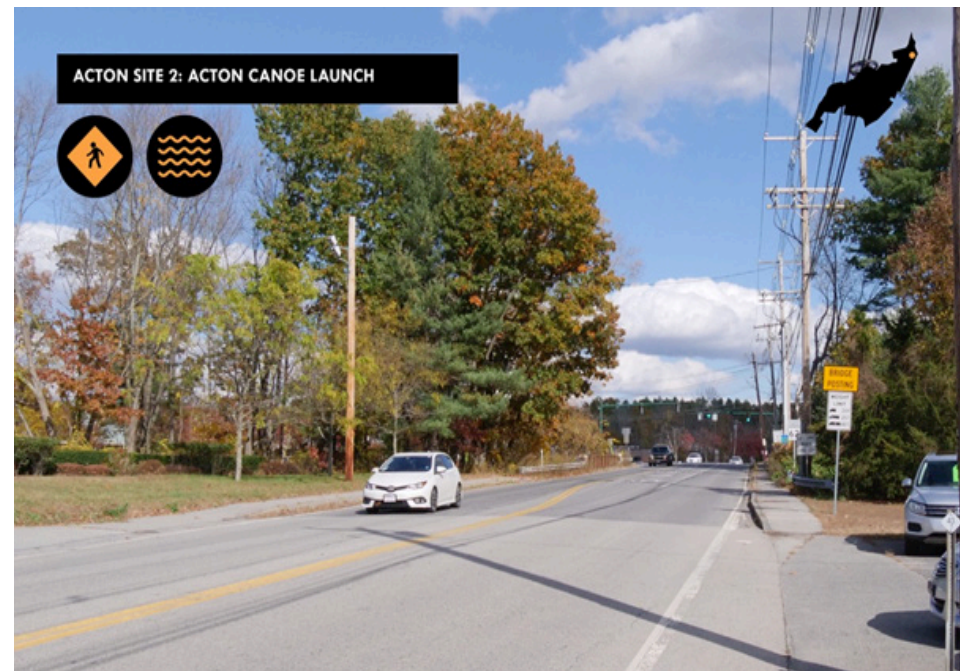


ACTON



The intersection across from Powder Mill Plaza presents several challenges as related to pedestrian and bicycle safety. There are currently missing sidewalks and crosswalks in several locations on one side of the corridor. Additionally, a short segment west of Sudbury Road lacks sidewalks on both sides.

Challenges around pedestrian safety and access continue onto the area surrounding the Acton Canoe Launch. This area presents a number of segments with open curbs with no definition between the street and parking, or excessively wide driveways. As a result, there can be the problem of encroachment into the public right-of-way. Additionally, wayfinding towards the waterfront is a challenge with signage for the Assabet River Canoe Launch facing perpendicular to the roadway, which makes it hard to see.



In early 2017, a developer reached out to the Towns of Acton and Maynard to discuss the development of a 254-unit apartment complex on land that straddles the town lines. This project is known as Powder Mill Place. As originally conceived, Powder Mill Place was to distribute residential units in both Maynard and Acton. However, the developer has withdrawn the application to build in Maynard and will now construct 230 units in Acton.

The development presents an opportunity to invigorate the corridor with an influx of new residents looking for local shopping, services and restaurants within walking distance. The development will also include a river walk.



MAYNARD

Beijing Royal School (BRS) representatives met with Town staff in August 2019 and with the Economic Development Committee in September 2019 to gain additional understanding of and lay initial groundwork for moving forward with the development of the campus at 111 Powder Mill Road. The plans include the creation a school campus serving students in grades kindergarten through 12, along with providing a day care for younger children. Other proposed uses on the site include technical and medical research spaces, and recreational opportunities open to the Maynard community. However, the COVID-19 pandemic has substantially delayed the opening

plans for the school in part because school officials have been unable to come to Maynard to advance the permitting for the project.

BRS is in the process of creating a campus master plan and the internal redevelopment of the main building has been underway. In addition to the school, a significant research and development presence is a core goal of this initiative. This component of the project is influenced by the campus' proximity to metropolitan Boston. According to the BRS team, they intend to design the campus in a way that benefits the community at large through amenities, cultural offerings, and educational opportunities.

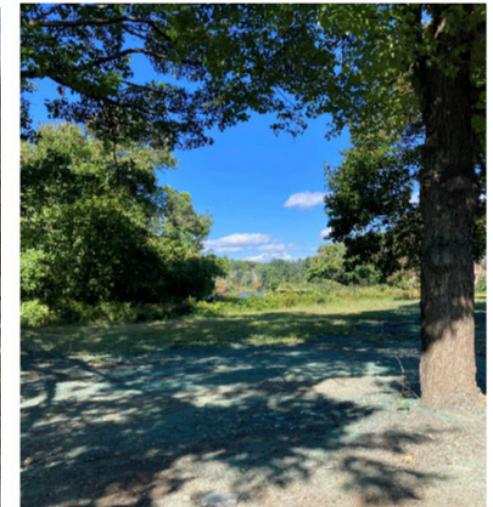
“The siting of the Beijing Royal School campus at 111 Powder Mill Road, the 287,000 square foot site of the former Stratus campus, presents a unique and exciting opportunity that can create a regional asset for the Town. The school has indicated their interest in significantly expanding the campus over the next few years and ultimately adding dormitories, research space, and a cultural center. The school will allow Maynard to further participate in the educational economy; however, it also highlights the need for the Town to proactively plan for and invest in infrastructure improvements. Upgrading of the water, sewer, and roadway infrastructure will reduce the chance of a large-scale system failure and allow for the accommodation of desirable developments along the Powder Mill Corridor.”

From Maynard 2020 Master Plan, p. LU-12,
http://maynardmp.com/pdf/Maynard%20MP_Master%20Plan_FINAL.pdf



94 Powder Mill Road, as well as the adjacent parcels in this area, provides a unique opportunity for the Town of Maynard to re-imagine access to the Assabet River. One of the key factors in determining waterfront value is access: the ease to access water from the property. Many of Maynard's waterfront properties, like 94 Powder Mill Road, have direct access to the Assabet which could potentially maximize commercial values. By shifting and assigning a value to transforming the River, a new dimension for Maynard's waterfront businesses may be viewed entirely different than it is now: particularly as the Cultural District matures. Additionally, with proper re-zoning based on community input, the size of the parcels can allow for uses that supplement existing economic engines on the Corridor in a meaningful way.

This property was a listed 21E hazardous waste site requiring remediation. The site was littered with equipment, trash, empty and full oil barrels, and other debris. As of September 2021, much of the site has been successfully cleaned up so that it is now potentially developable. The photos to the right show the site in April 2019 and September 2021.



Similar to 94 Powder Mill Road, Victory Plaza offers an opportunity for establishment of an improved waterfront connection for public access to the Assabet River. This connection could offer an existing location with the opportunity to provide of variety of in-demand services for existing residents or as needs evolve with development along the corridor.



OVERVIEW

It was important for the MAPC team to understand the assets and challenges on Powder Mill Road Corridor as experienced by current users. As part of the outreach process, the MAPC team conducted several one-on-one video interviews and phone calls to stakeholders with varying interest in the corridor. This included residents, business owners, property owners, developers and economic development organizations. The team also hosted two community forums where there was robust conversation and feedback from the audience on the future of Powder Mill Road.

WHAT DID WE HEAR?



River Access

People are excited to establish more access to the Assabet River. More open space and walkable paths are welcomed by community members in both towns. However, there are concerns about protecting the environment. We heard from the community that they would welcome public space that is adjacent to the Assabet River. Some ideas included riverfront parks, nice open plazas and dog parks. We also heard from the community that protecting the river should be a priority, especially if there is any development along the water.



Streetscapes

There is interest in rethinking streetscape design. Safety is a main concern, and the communities are interested in safer crosswalks, sidewalks and bike lanes. We heard from the community it would be great to see separated bike lanes and enhanced sidewalks on the corridor. We also heard that safety and cleanliness of the corridor was a main concern. People want to feel safe walking to shopping plazas and recreational areas.



Affordability

Affordability is a priority for both Acton and Maynard. This project needs to address how future development will offer new affordable housing options and expanded housing stock. We heard from the community that new housing should address affordability and the future vacuums in the housing market.



Business Growth

There is demand for new types of businesses along the corridor including restaurants and coffee shops. There is consensus that this would not only benefit the larger community but the existing businesses on Powder Mill who would no longer be the “one stop” destination for visitors. We heard that the community is interested in new types of business in the corridor that cater to more unique retail and food businesses. We also heard from business owners that they would welcome businesses that were complimentary to their own services, allowing visitors to the corridor to stay for longer stretches of time.



Support for Small Businesses

Business owners on the corridor are interested in receiving more assistance and support from town hall, similar to the kind of support that Downtown businesses currently receive. We heard from business owners that they would like to feel more supported as a community of small businesses in a unique area of both towns.

WHO DID WE HEAR FROM?



Phone interviews with
Powder Mill Road
business owners,
property owners, and
developers



Conversations with
Assabet Valley Chamber
of Commerce, Town
Officials, and former
residents



Attendees from two
community forums held
on December 3, 2020 and
April 8, 2021



Participants of the
online open house held
from December 3 -
December 17, 2020

OVERVIEW

The zoning along the Powder Mill Road corridor study area should be updated to make the corridor a destination rather than a pass-through district by encouraging uses that allow residents and visitors to shop and eat locally, and enjoy the Assabet River recreational opportunities. With the impending occupancy of the apartments at Powder Mill Place and the addition of the Beijing Royal School, an international learning institution, the corridor's market potential is likely to increase. The following recommendations provide ways for the towns to shape this future development and continue working towards making the corridor more pedestrian-friendly and inviting.

RECOMMENDATION 1

Create an overlay zoning district to ensure future development along the corridor aligns with the community's vision for Powder Mill Road.

What is an overlay zoning district?

An overlay zone is essentially a special zoning district placed over an existing district, a portion of a district, or a combination of districts. The overlay zone typically includes a set of regulations that are applied to property within the overlay zone in addition to, or as an alternative to, the requirements of the underlying zoning district.

Why create one?

The purpose of the recommended overlay zoning district here, ideally adopted by both Acton and Maynard, could create more flexibility and inter-municipal consistency for development and redevelopment along Powder Mill Road. Overlay zoning districts also provide an opportunity for comprehensive mitigation of impacts on natural features along a corridor (see also recommendations related to the Assabet River) and coordinated multimodal transportation facilities (see also recommendations related to complete streets). The overlay zoning district could also remedy issues with existing non-conforming uses and lots.

What should be addressed?

The district should address the following zoning and land use issues, explained more in the next pages, to help achieve the desired outcomes for the corridor (note: these recommendations apply to both Acton and Maynard with the goal being that both towns adopt the same zoning language):

- » Use regulations
- » Housing
- » Parking
- » Dimensional standards
- » Design guidelines
- » Landscaping, buffers, and screening

Use Regulations

The existing zoning districts in the study area permit land uses based on very specific types of businesses, which may put more restrictions on some uses allowed by special permit that are similar to other uses allowed by right. Rather than listing each specific permitted use, the overlay zoning district could allow general types of uses that fall under categories or focus more on the form of buildings rather than on specific uses. The allowable uses could be expanded to encourage a mix of retail and restaurants, hotel/inns, entertainment spaces, office, educational, medical, and similar uses while prohibiting auto-centric uses such as gas stations, automobile repair, self-storage facilities, car washes, etc. Additionally, industrial uses along the corridor should be prohibited such as warehousing and manufacturing.

Housing

Refining requirements for new housing options along the corridor can help both towns achieve housing goals, support the Beijing Royal School, and provide a customer base for existing and future businesses along the corridor. Consider increasing the density of mixed-use and multifamily development beyond four units. An example from existing zoning is Section 3.5.6 of

Acton's PM zoning district, which allows mixed-use as a Combined Business and Dwelling, but this definition limits mixed-use housing units to 4 units. Vertical mixed-use development with more than four housing units and multifamily residential development are not allowed by right or special permit. Consider also allowing vertical mixed-use and multifamily housing, uses that provide for a more walkable environment, by right rather than by special permit.

Maintain affordable housing

Build on Maynard's inclusionary zoning by including provisions in the overlay zoning district that refine or expand efforts to preserve existing affordable housing and increase affordable housing options into the future. In Acton, the overlay zoning district could incorporate inclusionary zoning requirements for large housing developments similar to what has been enacted in Maynard.

2021 Maynard Housing Production Plan Recommendations

The Maynard Housing Production Plan (HPP) that was adopted in 2021 identified potential housing opportunity sites in the Powder Mill Road study area. There are at least three sites an acre or less in this area of the town, representing a combined total of 2.1 acres of redevelopment opportunity.

Additionally, the area includes medium parcels approximately one to four acres in size resulting in at least five sites, representing a combined total of 8.0 acres of available for housing. Finally large parcels about five to 14 acres in size comprise four sites in the study area, representing a combined total of 37.4 acres where housing could be developed, including the site for the Beijing Royal School. The HPP recommends specific housing types appropriate to each of these sections of the study area.

Parking

Current parking requirements contribute to the auto-oriented nature of the corridor. Due to the size of parcels along the corridor, parking requirements may also currently limit redevelopment potential on sites that lack sufficient land to develop prescriptive amounts of parking.

Supply

Inventory the existing parking supply in the corridor. The overlay zoning district could include more flexible parking requirements, such as enacting maximum parking standards and encouraging shared parking agreements.

Parking orientation.

Require that new parking within the overlay zoning district is sited alongside or in the rear of buildings to promote pedestrian-oriented design. Parking on parcels adjacent to the river should consider how parking design can complement and not hinder river access.

Review parking standards

- » Update parking standards to incorporate environmental mitigation to reduce stormwater runoff into the river. This may include permeable pavement installations, tree canopies and bioswales
- » Incorporate landscaping requirements for parking areas
- » Require on-site parking along side of building (or rear where there is adequate space to do so)

Dimensional standards

Within the study area covering each town, 43 parcels have lot sizes that do not meet the **minimum lot size** in their respective zoning districts. These non-conforming parcels require additional review for redevelopment or expansion. Consider decreasing the minimum lot size requirements in the overlay zoning district to align more consistently with existing lot sizes and rectify these non-conformities. Reducing lot sizes to 7,000 square feet for parcels contiguous with Powder Mill Road could enhance redevelopment opportunities. Decreasing the minimum lot size also provides more opportunities for compact, walkable development along the corridor.

Frontage and yard setback regulations are less flexible in sections of the corridor. Consider decreasing front yard setback requirements to 10 feet to promote pedestrian-oriented storefronts and building design. Side and rear yard setbacks should be reviewed in the context of location (especially for parcels along the Assabet River in order to protect the health of the river and encourage appropriate waterfront uses), desired land uses, and abutting uses to identify where these setbacks could be decreased as well. Decreasing minimum lot frontage to 50 feet could also remove barriers to future development.

The **maximum height of buildings** in many parts of the corridor is 40 feet, which limits the opportunity for larger-scale office buildings and other uses that might require additional density. Consider allowing three-story (35 ft.) buildings by right and four-story (45 ft.) buildings by special permit to allow for more dense, compact development in the future.

Design guidelines

Current regulations have limited impact on the public accessibility of the study area. Incorporating design guidelines to promote the desired neighborhood scale, with sidewalks and bikeways, can make the corridor more inviting. Design guidelines can also ensure larger developments fit into the context of the existing community.

Landscaping, buffers and screening

Currently, industrial uses along the corridor are required to have large setbacks and landscaped buffers to mitigate impacts on abutting parcels. The overlay zoning district could further refine where landscaping and buffers can ensure compatibility between abutting uses and parcels and provide for an enhanced pedestrian experience. Given Route 62's role as a major arterial connector between Acton and Maynard, enhanced landscaping and buffering requirements for parcels along the corridor (as well as enforcement of those requirements) can minimize the impact of traffic on pedestrians. The overlay zoning district can build on existing landscaping requirements for parking areas to help shift the focus from an auto-centric corridor to a pedestrian-friendly, walkable area. (See Sections 6.1.8 – 6.1.11 in Maynard's bylaws for landscaping requirements for parking areas). Finally, screening requirements can address issues with unsightly dumpsters or outdoor storage associated with commercial uses, especially for properties abutting the river.



Examples of
mid-scale mixed-
use buildings



RECOMMENDATION 2

Improve access to the Assabet River and the environmental quality of the river.

The residents and town leaders in both Acton and Maynard value the Assabet River as a unique natural resource along the corridor and are excited about the possibility of improving both the river's water quality and access. The Assabet River is still recovering as a legacy site for pollution for many years. Today the health of the river has improved but there is still ongoing pollution from adjacent contaminated sites, nutrients, salt, and heat. Goals for reclaiming the river include preservation and conservation; creation of recreational opportunities; enhancement of property values; maximization of commercial values; and improvement to area aesthetics. Future projects along the corridor can help protect the river and restore its water quality. Through multiple strategies, the Assabet River can become an attractive natural amenity for residents and visitors to the corridor.



Potential access point to Assabet River near Victory Plaza



Assabet River behind Maynard Housing Authority development

Zoning

Zoning changes can directly address strategies to improve the health of the river through regulatory conditions such as requiring property owners or developers to implement certain mitigation measures. There can also be incentives for property owners and developers to provide access to the river through the construction of multi-use paths or the creation of access points (including on-property viewpoints).

- » Establish setbacks from the river and minimum usable open space requirements to ensure a healthy and accessible riverfront. In addition to helping to restore the environmental quality of the river, land can be dedicated for pedestrians, cyclists, boat access, and other amenities.
- » Development mitigation, including stormwater and green infrastructure.
- » Incentives to provide access such as density bonuses.

Open Space Opportunities

Establish viewpoints from private properties along the river and offer zoning incentives through increases in density, for example, to encourage public access. Work with local property owners to look for opportunities to establish a contiguous riverwalk.

Protection of the Riverfront

Redevelopment projects in the riverfront area must have a positive impact and improvement of on-site conditions. Projects should ensure that all relevant performance standards are met per Department of Environmental Protection regulations (310 CMR 10.00) and the Maynard Wetlands Bylaw. An alternatives analysis should be undertaken to ensure that there is “no practicable and substantially equivalent economic alternative” to the proposed project.

Public/Private Partnerships

Continue to expand public/private partnerships between the towns and organizations such as OARS (the Organization for the Assabet, Sudbury and Concord Rivers) and others to keep the area’s communities informed and involved to meaningfully advance a vision for a safe, inclusive, and accessible riverfront in Maynard and Acton.

RECOMMENDATION 3

Incorporate “Complete Streets” features to make the corridor safer for all residents.

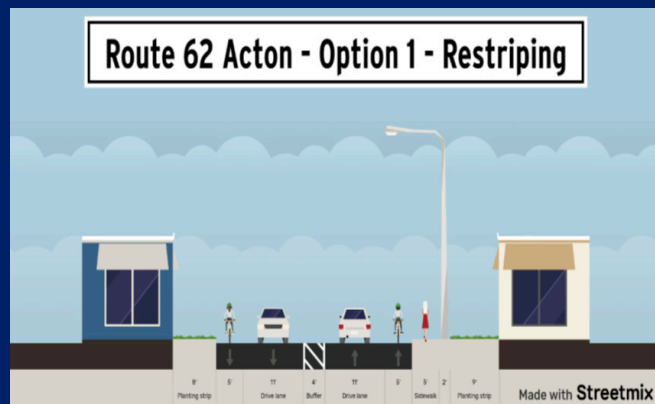
A number of challenges face pedestrians, bicyclists, and automobiles along the corridor. Safety improvements are needed, as well as amenities for pedestrians and bicyclists. The Town of Acton received a MassWorks grant which, in part, is for Complete Streets (including intersection, sidewalk, streetscape improvements) and enhancements made pursuant to that project should be incorporated throughout the Powder Mill Road corridor.

A complete streets approach integrates people and place in the planning, design, construction, operation, and maintenance of our transportation networks. This helps to ensure streets put safety over speed, balance the needs of different modes, and support local land uses, economies, cultures, and natural environments. A complete street along Powder Mill Road may include sidewalks, bike lanes (or wide paved shoulders), frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, and/or narrower travel lanes. Recognizing the challenges of the Powder Mill Road corridor including the relatively narrow width, limited right-of-way, and the proximity of

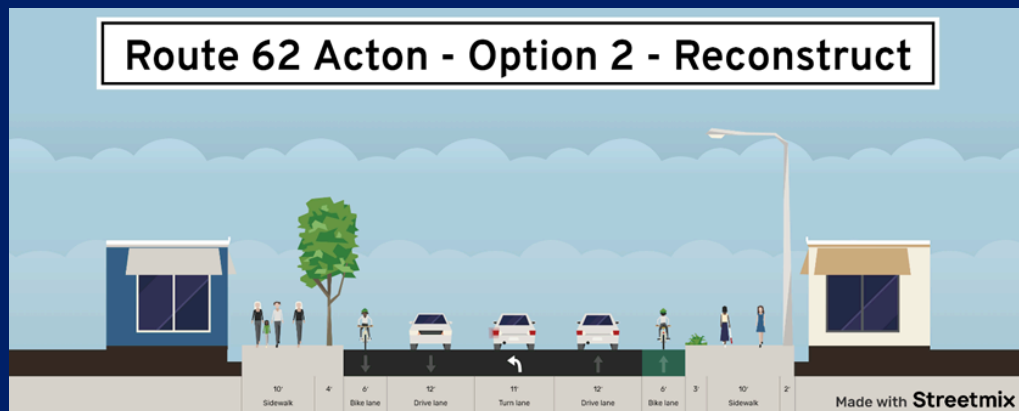
the Assabet River, there are a couple of redesign options that can be considered to implement the overarching goals of a complete streets scenario for the study area.

COMPLETE STREETS OPTIONS

A **short-term solution** could include restriping existing pavement to address some challenges surrounding pedestrian access and safety. The corridor is generally 36' of pavement width, striped as two wide lanes or three lanes with a turn lane. Restriping could be an interim measure in constrained areas like the bridge over the Assabet River.



A **longer-term option** is to reconstruct this section of the corridor. With MassWorks funding now available for the corridor on the Acton side, it is essential to add complete streets elements to the project. The corridor could be reconstructed from the Acton to the Maynard line encompassing the existing Assabet River bridge. Sidewalks can be replaced to be ADA compliant, and a shared-use path could be added on the north side for walking and cycling and a continuous sidewalk on the south side. Specific plans are still being developed for these improvements.



The overlay zoning district can improve safety along the corridor by integrating the following design guidelines required for the approval of any new development along the corridor:

- » Include street trees in landscaping requirements on appropriate widths of the corridor.
- » Incorporate green infrastructure into street design. This could include permeable pavement and porous asphalt, where appropriate (especially on the northern side of the roadway nearest to the Assabet River).
- » Require sidewalk amenities in new development to improve access and aesthetics.
- » Install benches and plant trees and find ways to create civic spaces for people to gather and relax.
- » Adopt driveway design guidelines.
- » Consider lighting requirements.
- » Utilize plantings, fences, etc. to buffer pedestrians from roadway traffic (see also the recommendation for landscaping and buffers).
- » Require safety features including ADA accessible crosswalks and protected bike lanes when new streets are being created.
- » Work with Town and MassDOT code enforcement to remove encroachments into the rights-of-way and buffers along Powder Mill Road that create obstacles to pedestrians and threaten roadway safety.

RECOMMENDATION 4

Design future transportation projects along the corridor to advance community goals.

Safer Streets

Incorporate safety features such as ADA accessible crosswalks, improved lighting, and protected bike lanes.

Environmentally Friendly

Green infrastructure provisions should be required as a condition to any development along the corridor and incorporated into the zoning overlay district. This should include the use of rain gardens, bioswales, on-street buffer strips, and wetlands restoration to control runoff and manage stormwater on-site within lot setbacks and could act as a transition between parking or driveways and open space.

Incentive-Based Green Infrastructure

Bioswales: A channel designed to concentrate and convey stormwater runoff while removing debris and pollution. The bioswale moves water to somewhere else, while also allowing some (but not all) of it to infiltrate. A rain garden is specifically meant to increase infiltration. Bioswales are often used to convey water to a rain garden.

Tree Canopy: To cool down stormwater runoff before the warmer water flows into the river. Options to reduce stormwater temperatures include increasing the shading of the impervious pavement by planting trees within the landscaped areas or installing solar panels over parking spaces and allowing cars to park underneath.

Permeable pavement for parking lots, driveways, and roadways: Include underdrain features to filter stormwater runoff. This allows stormwater to seep through into the soil and mitigate direct stormwater runoff into the river. Pollutant concentrations are reduced by decreasing runoff volumes through infiltration. A successful example of the use of porous pavement can be found on Commercial Street in Provincetown. Installed in 2012, it has been demonstrated enhanced water quality as confirmed by significantly fewer beach closings since the road reconstruction.



Example of bioswales in a parking lot



Tree canopy shading a parking lot



Permeable pavement

FULL LIST OF COMMERCIAL PROPERTIES

FULL LIST OF RETAIL PROPERTIES

Address	Building Name	Type
86 Powder Mill Rd	Old Victory Shopping Mall	Retail (Strip Center)
3 Powder Mill Rd	Jiffy Lube	Retail
35 Powder Mill Rd		Retail
50 Powder Mill Rd		Retail
76 Powder Mill Rd	Acton Ford	Retail
76a Powder Mill Rd	Enterprise Rent-A-Car	Retail
84-96 Powder Mill Rd		Retail (Strip Center)
94 Powder Mill Rd		Retail
115 Powder Mill Rd		Retail
18 Powder Mill Rd		Retail
63 Powder Mill Rd		Retail
76 Powder Mill Rd		Retail
100 Powder Mill Rd	Powder Mill Plaza	Retail (Neighborhood Center)
12 Sudbury Rd		Retail

FULL LIST OF OFFICE PROPERTIES

Address	Building Name	Type
25 Powder Mill Rd		Office
111 Powder Mill Rd		Office
30 Sudbury Rd	Northstar Technologies	Office
20 Powder Mill Rd	River Front Professional Building	Office
32 Powder Mill Rd		Office
77 Powder Mill Rd		Office
31 Powder Mill Rd		Office

FULL LIST OF INDUSTRIAL PROPERTIES

Address	Building Name	Type
66 Old Powder Mill Rd		Industrial
9 Old Sudbury Rd		Industrial
64 Powder Mill Rd		Industrial
2 Powder Mill Rd		Industrial
2-4 Powder Mill Rd		Industrial