



TOWN OF MAYNARD
Office of Municipal Services

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MEMORANDUM

To: Kevin Sweet, Town Administrator
From: Bill Nemser, Town Planner
Date: September 1, 2016
CC: Andrew Scribner-MacLean, Assistant Town Administrator
Subject: MAPC report on our joint Complete Street program

The attached report represents the conclusion of the MAPC grant. The grant included a workshop, community outreach from MAPC and staff, and a five day temporary pilot program for the Downtown area. The report contains an excellent summary of the temporary improvements. It also includes references along with analysis and recommendations.

I would like to include my takeaways from the MAPC report as well. While most of them are consistent with the MAPC report, I think there are enough differences worth including.

1. Further Public Education - While the bike lanes tend to receive the greatest share of attention, there are many more aspects of a Complete Streets program that should be considered for the community. Some examples include: sidewalks, street furniture, "parklets", traffic calming, pedestrian crossings, etc.
2. Main Street requires additional study on what improvements may be most beneficial to downtown and the community. Regardless of whether or not there is a bike lane there are opportunities for Complete Streets features such as sidewalk widening, pedestrian crossings or other streetscape features. The two-lane width of Main Street allows for multiple possibilities without losing any parking. I recommend the Town consider traffic calming measures between Nason and Waltham Streets. In addition to safety, this will increase visibility of the downtown shopping area, provide for a pleasant pedestrian experience and promote safety.
3. Summer Street through downtown also requires additional analysis. The level of confusion for those unfamiliar with the westbound lane changes, and other features result in both higher rates of speed, traffic driving through designated parking spaces and a very dangerous intersection for cyclists.
4. A plan should be undertaken immediately to ensure pedestrian/bicyclist connections between the Rail Trail and schools (as well as other key community destinations).
5. Bicycles have a legal right to the road under state law. The Town should post signage to this effect in areas not served by bike lanes.
6. A fresh effort to emphasize improvement of pedestrian amenities would not only bolster Maynard's reputation as MetroWest's most walkable community but also would provide an effective tool for furthering the Town's current and future economic development efforts.

Please feel free to contact me if you have any questions.

Bill Nemser, AICP, LEED AP - Town Planner



MAYNARD TEMPORARY STREET IMPROVEMENT PROJECT

AUGUST 2016



Town of Maynard
195 Main Street
Maynard, MA 01754

Acknowledgments

MAPC would like to thank our project partners from the Town of Maynard for their assistance and input throughout this project.

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Project Summary

In May 2016, the Town of Maynard, in conjunction with the Metropolitan Area Planning Council (MAPC), engaged the community on ways to make the downtown more walkable and bike-friendly. The conversation yielded a number of short-term and long-term opportunities that can improve safety, provide community amenities, and enliven the downtown. Based on community input, the Town and MAPC installed temporary street improvements on Main Street, Nason Street, and Summer Street in late July 2016. The pilot project's goal was to demonstrate ways that the roadways could be redesigned to be more welcoming to all users. The temporary configuration utilized materials such as white tape, cones, delineators, and spray chalk to create elements such as curb extensions, bike lanes, a "parklet," and other features promoting non-automobile oriented circulation throughout downtown.



1. The Complete Streets Movement

For decades roadways were designed primarily (or solely) to address the needs of automobiles. In recent years, however, many communities in the metropolitan Boston region have realized the benefits of ensuring roadways meet the needs of all residents, employees, and visitors through implementation of “complete streets.” Complete streets are a set of principles that refer to roadways that are safe, comfortable, and accessible for all users regardless of age, ability, income, or how one chooses to travel. In particular, these principles take into account the unique needs of children, seniors, people with disabilities, and those who do not have access to a private vehicle (approximately 150 households in Maynard do not own a vehicle).

Complete streets are not a standard set of designs that apply to all roadways; rather, they are a set of context-specific principles to apply when planning, designing, constructing, and maintaining a community’s streets. That is, a complete street in a bustling town center may be different from that of a quiet residential street. Similarly, a complete street in an urban city may include different elements from a suburban or rural community.

Example of a context-sensitive complete street on a small town’s main street.

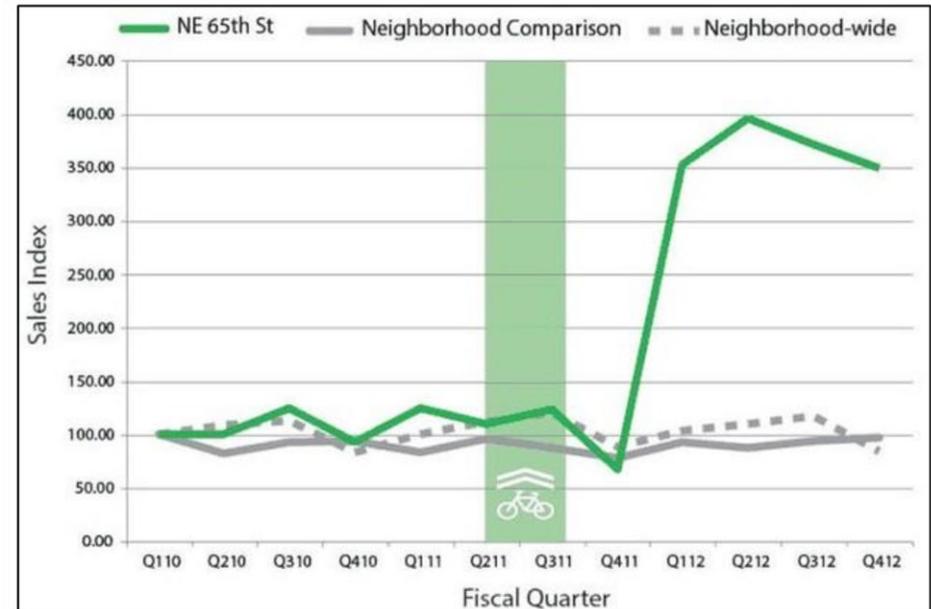


Background

Implementation of complete streets can have numerous benefits related to economic development, safety, public health, reducing traffic congestion, and others. For example, a study of 37 complete streets projects by Kaiser Permanente found numerous positively associated economic impacts, including higher employment and property values, new businesses, higher retail sales, and increased private investment.¹ Another case study examined the economic impact of adding a bicycle lane and removing on-street parking in Seattle.² Within a fiscal quarter, the street saw a 400% spike in the businesses' sales along the street (sustained in future quarters) compared to prior the intervention. Although the study did not definitively determine a correlation between the bike lane installation and increase in sales, there was no similar spike in comparable streets throughout the neighborhood.

From a safety perspective, Smart Growth America has cited numerous statistics illustrating how inclusions of complete streets elements can reduce crashes between vehicles and pedestrians or cyclists. Inclusion of infrastructure such as sidewalks has been shown to reduce crashes by 88%. Making a community more walkable and bike-friendly can also improve public health by making physical activity a part of one's everyday routine. For example, walking ten minutes each way to and from a store meets the national recommended minimum daily physical activity requirements. It can also lessen traffic congestion by providing options for people to travel in ways other than solely vehicles. Research suggests that many people will walk a half mile and bike two miles if the trip is safe and comfortable.

Comparison of sales before and after installation of bike lane in Seattle. The street with the bike lane experienced a spike in sales post installation, whereas comparable neighboring streets did not.



¹ Safer Streets, Stronger Economies: Complete Streets Project Outcomes from across the Country. Smart Growth America. March 2015. <http://www.smartgrowthamerica.org/documents/safer-streets-stronger-economies.pdf>

² Bikenomics: Measuring the Economic Impact of Bicycle Facilities on Neighborhood Business Districts. Kyle Rowe, University of Washington, College of Built Environments. July 2013. <https://docs.google.com/file/d/0B0xHj6OM3QVWMUxScjZuMndxVkk/edit>

Complete Streets Elements

The following are a selection of complete streets elements considered for the temporary pilot project³:

Bike Lanes

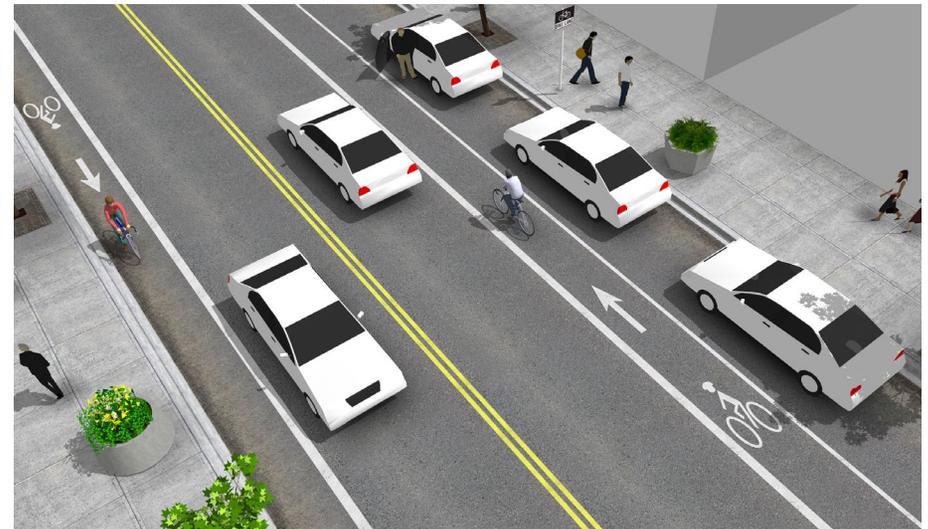
A conventional bike lane is defined as a portion of the roadway that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes enable bicyclists to ride at their preferred speed without interference from prevailing traffic conditions and facilitate predictable behavior and movements between bicyclists and motorists. Bicycle lanes may be as narrow as four feet in width, although five to six feet is preferred, especially when adjacent to on-street parking.

A buffered bicycle lane is a conventional bicycle lane paired with a painted buffer space separating the bicycle lane from adjacent motor vehicle traffic and/or parking lane.

A separated bicycle lane, sometimes referred to as a cycle track, is a bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. A cycle track is physically separated from motor traffic and distinct from the sidewalk. They have different forms but all share common elements—they provide space that is intended to be exclusively or primarily used for bicycles, and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. There

are a variety of materials that can be used to create the separation from moving vehicles, including placing the separated bicycle lane on the curb side of on-street parking. The Federal Highway Administration (FHWA) has recently created planning and design guide for separated bicycle lanes.

Diagram of a conventional bicycle lane (source: NACTO)



³ Descriptions are primarily from the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide and Urban Street Design Guide. These resources, available online (<http://nacto.org/publication/urban-street-design-guide> and <http://nacto.org/publication/urban-bikeway-design-guide>) provide design guidance for creating streets that are safe and enjoyable by pedestrians and bicyclists.

Background

Diagram of a buffered bicycle lane (source: NACTO)

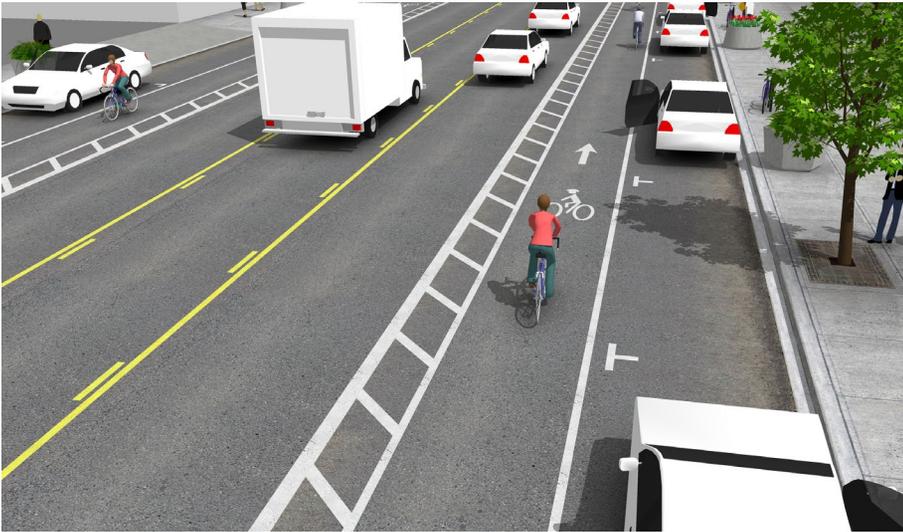


Diagram of a separated bicycle lane (source: NACTO)



Shared lane markings

Shared Lane Markings (“sharrows”) are road markings used to indicate a shared lane environment for bicycles and automobiles. Among other benefits shared lane markings reinforce the legitimacy of bicycle traffic on the street, recommend proper bicyclist positioning, and may be configured to offer directional and wayfinding guidance. It should be noted that sharrows are not a facility type and should not be considered a substitute for bike lanes, cycle tracks, or other separation treatments where these types of facilities are otherwise warranted or space permits.

Bicycle box

A bike box is a designated area at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase. Bike boxes can facilitate bicyclist left turn positioning at an intersection during red signal indication. They also have been shown to reduce the number of vehicles encroaching on crosswalks.

Diagram of shared lane markings (source: NACTO)

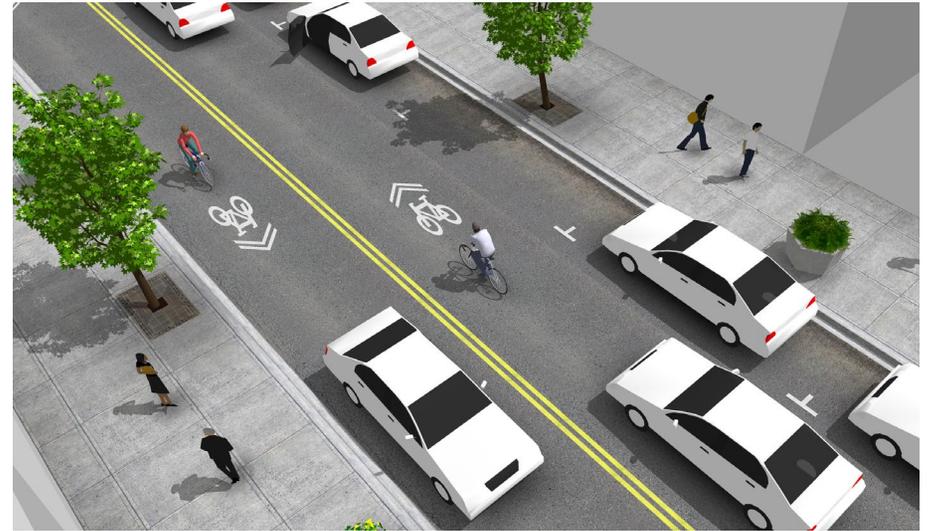


Diagram of a bicycle box (source: NACTO)



Background

Curb Extensions

Curb extensions visually and physically narrow the roadway, creating safer and shorter crossings for pedestrians and increasing overall visibility by aligning them with the parking lane. Curb extensions also tighten intersection curb radii, which encourages slower turning speeds, thus improving safety for pedestrians crossing the street. Finally, curb extensions increase the available space for street furniture, benches, plantings, and street trees.

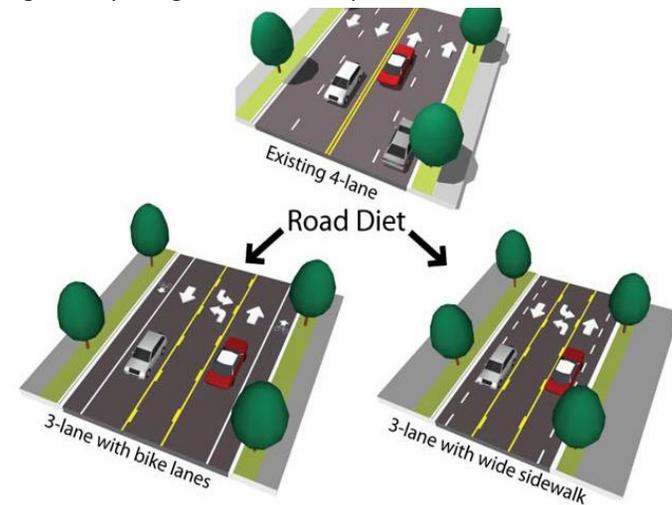
Road Diet

Roadways with excess capacity can act as a barrier for cyclists and pedestrians, encouraging higher than desired speeds and long crossing distances. In these cases the number of vehicular lanes may be reduced. The excess space can be used for bicycle facilities, widened sidewalks, crossing islands, etc.

Example of curb extension with rain garden



Diagram depicting road diet examples



Parklet

A parklet is a conversion of an on-street parking space into a mini-park. By locating a parklet in an active, well-used location (e.g., next to a restaurant), parklets can add vitality to a downtown area. Case studies have shown that parklets increase pedestrian activity and thus may have a positive economic impact on area businesses.⁴ They are typically created by building a platform to extend the sidewalk space and retrofitted with seating, planters, table, etc. However, they are also often installed on a temporary basis. Park(ing) Day is an annual worldwide event where citizens and designers transform on-street parking spaces into parklets for a day.

Examples of parklets



⁴For example, see "From Parking to Park: Transportation Impacts and Value of Parklets." Danielle Dai. Congress for the New Urbanism, Chicago, IL: 2012.

Background

Additional Complete Streets Elements

Although outside the scope of the temporary pilot project, there are numerous additional elements that the Town can consider when implementing complete streets.

High visibility crosswalks



Pedestrian signals



Pedestrian street lighting



Street trees



Rapid flashing beacon



Crossing refuge islands



ADA compliant elements



Wide sidewalks



Traffic calming elements



Maynard and Complete Streets

As a historic New England mill town, Maynard's downtown has a good network of sidewalks, short blocks, buildings with little or no setbacks, parking located in the rear of parcels, and other attributes associated with a walkable environment. In the post-war era, Maynard, like most communities, prioritized vehicular movement. In recent years Maynard has begun to reemphasize the importance of considering all users of the road. In addition to proactively devoting Town funds to sidewalk repairs and construction, in 2013 the Town worked with MAPC on a bicycle/pedestrian prioritization plan. This plan, which focused on bicycle infrastructure needs, identified roadways that could include bicycle facilities without changes to the existing curb-to-curb space. This approach was intended to focus the Town on low-cost solutions that could be implemented incrementally. In 2014, the Town continued laying the groundwork for improving multimodal travel by working on and adopting a complete streets resolution by its Board of Selectmen. Maynard became the first town in the metropolitan Boston region and only the second in the state to formally announce a commitment to implementing complete streets.

In addition to these planning efforts, several factors contribute to today being an opportune time for implementing complete streets principles:

- Demographic trends and a shift in cultural preferences are leading to greater interest in revitalizing traditional New England downtowns.
- The historic Clock Tower Place, now known as "Mill and

Main," is being redeveloped. The redesigned campus will consist of over a million square foot mixed-use development and is gearing up to again become a major employer in the area. (Underscoring this was the recent announcement that Stratus Technology has signed an agreement to locate its 400 person workforce there).

- After a twenty plus year planning effort, construction has recently begun on the Assabet River Rail Trail, a multi-community shared-use path that will provide direct access from downtown Maynard to the Acton commuter rail station.
- MassDOT has recently begun a Complete Streets funding program, that provides up to \$400,000 annually to qualified communities to implement bicycle and pedestrian infrastructure. Maynard has enrolled in the program and will soon begin the prioritization planning requirement, which is the final step before applying for actual construction grants.

Maynard and Complete Streets

These factors, from macro trends to funding opportunities, can combine with previous planning efforts to further the Town's commitment to improving its walking and bicycling environment. Furthermore, the Town is continuing relevant planning efforts. It is now in the scoping phase for a downtown parking analysis to study existing parking needs, provide information on parking capacity, occupancy, duration, and ways to increase the ease and visibility of parking options.

Also related to these efforts was the recently adopted Housing Production Plan produced by MAPC and an upcoming inclusionary zoning project. As the Town continues to grow ensuring people can safely travel throughout the community in a variety of ways will become ever more important.

Downtown Maynard existing conditions



Maynard and Complete Streets



Downtown Temporary Street Improvement Project: Community Input

The Town of Maynard, in conjunction with MAPC, installed a temporary pilot project to test various bicycle and pedestrian improvements in downtown Maynard. This type of temporary project, often termed “tactical urbanism,” and “placemaking,” offers numerous advantages over traditional street improvement planning. Traditionally, transportation planners would spend tens of thousands of dollars studying an area, tens of thousands of dollars (or more) on redesign, and then potentially a million dollars or more on construction. Opportunities for public input were often minimal. Furthermore, once constructed it is extremely costly and time-consuming to make adjustments if aspects of the redesign did not work as planned.

Temporary street improvement projects offer an alternative. Although new and innovative in Massachusetts, these types of projects are gaining popularity. They provide greater community input and installation in a fast, low-cost way, so that the Town can assess the effects prior to a permanent reconstruction.

The Town and MAPC, therefore, began the process for installing a temporary street improvement project by hosting a workshop to the public on May 26, 2016. Approximately twenty members of the public attended this event, which was held at the Maynard Public Library. The program began with a brief presentation on complete streets, including what they are, their benefits, and potential elements. The bulk of the program, however, focused on gathering input from the community. The participants broke into two groups and walked throughout the downtown site of Nason Street, Main Street, Summer Street, and the public parking lot. During the walk participants and facilitators discussed issues

facing pedestrians and bicyclists and had an initial discussion of potential opportunities.

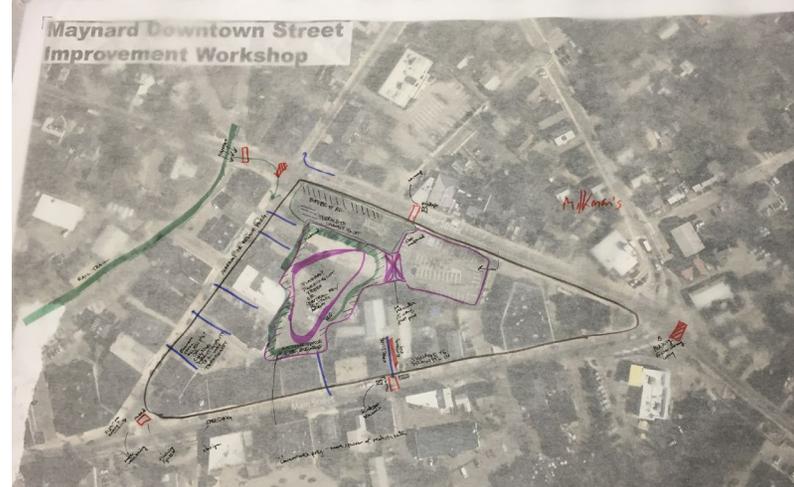
Downtown Maynard temporary pilot project site



Downtown Temporary Street Improvement Project: Community Input

The walk concluded with participants returning to the Library for a facilitated discussion of identifying specific short term and long term improvements. After the meeting, MAPC staff synthesized the meeting notes into diagrams to understand the various thoughts by each of the two groups. MAPC and the Town then worked in an iterative process to develop a feasible temporary pilot program to help inform permanent recommendations.

Downtown Maynard temporary pilot project community forum and synthesized map of community input



Downtown Temporary Street Improvement Project: Installation

On Thursday, July 28, MAPC and Town staff installed the temporary improvements on Nason Street, Main Street, and Summer Street.⁵ The installation included:

Main Street

- » Parklet (i.e., a miniature park using an existing on-street parking space)
- » Buffered bicycle lane between Nason Street and Summer Street
- » Reconfiguration of intersection at Summer Street, reducing three lanes to two, adding shared lane marking on right turn lane, bicycle lane for through and left turn movements, and a bicycle box

Nason Street

- » Bicycle lane, including dashed transitional lane at the intersection with Main Street

Summer Street

- » Curb extension at crosswalk in front of the Fine Arts Theater

⁵ Both because of time constraints and because of the upcoming parking analysis, interventions on the parking lot were omitted from the temporary installation.

Materials for the Installation

The following materials helped with the creation of the temporary interventions:

<i>Material</i>	<i>Purpose</i>
Pavement marking tape	Bicycle lanes
Spray chalk and stencils	Bicycle lane markings; shared lane markings; buffered bicycle lane hash marks
Temporary green paint	Transitional bike lane; bicycle box
Miscellaneous materials	Parklet, made from: moveable jersey barriers, artificial turf, plastic Adirondack chairs, sandwich board sign, table, artificial plantings, and street chalk

Downtown Temporary Street Improvement Project: Installation

Downtown Maynard temporary street improvement project plan



Downtown Temporary Street Improvement Project: Installation

Main Street Parklet

Existing



Temporary parklet



“This [parklet] was fun. My husband and I sat down after dinner at Halfway.”

Downtown Temporary Street Improvement Project: Installation

Main Street Buffered Bicycle Lane

Existing



Temporary buffered bicycle lane



Downtown Temporary Street Improvement Project: Installation

Main Street at Summer Street Intersection

Existing



Temporary intersection reconfiguration



“The center lane configuration was a little confusing at first, but I think once drivers got used to it, it would work well.”



Downtown Temporary Street Improvement Project: Installation

Nason Street Bicycle Lane

Existing



Temporary bicycle lane



“This gives bicyclists validation and recognition as rightful road users. Thank you and let’s move forward in expanding and making it all permanent.”



Feedback

The Town welcomed feedback and comments from the community on the various interventions through email and an online survey. More than 450 people provided feedback, with a range of comments. Although many responded on the survey that they liked the various interventions (e.g., bike lanes, parklet), many others, in fact a majority, did not. A review of the associated comments provides a more nuanced understanding of the various concerns.

Comments fell into several categories:

- » Highly supportive of the project
- » Generally supportive but with specific suggestions or concerns
- » Generally unsupportive because of perceived safety concerns
- » Unsupportive for other reasons

The primary safety concern related to “dooring,” i.e., when bicyclists ride in the space in which they are in danger of getting hit by an opening car door. This is a valid concern, and is one of the top causes of bicyclist injury. The concern was greatest for the bicycle lane on Nason Street, where the street is relatively narrow. There are, however, ways to mitigate the chance of injury:

1. The pilot project did not alter the widths of existing on-street parking spaces, which are wider than standard. Narrowing the parking to an appropriate width will allow for wider

bicycle lanes, which greatly decreases the chance of “dooring.” According to accepted standards, parking should be 7-8’, bike lanes 4-5’ (5’ when adjacent to parking), and travel lanes 10-12’ (12’ reserved for high speed roadways). The Recommendations section illustrates how the existing roadway space on Nason Street can meet these standards by reallocating existing roadway space.

2. Education for both drivers and cyclists can dramatically improve safety. It is the motorists’ responsibility to check before opening the door; however, because bicyclists are not extremely common on Maynard’s streets, they may not routinely remember to look. Signage on the Town’s streets as well as mailings can help educate motorists on their responsibilities. Similarly, bicyclists can be educated that they should ride as far away from the “door zone” as possible, i.e., towards the outside edge of the bicycle lane.

Some respondents were concerned about the resulting travel lane width after including bicycle lanes. As noted above, standard lanes are 10-12’ wide, whereas both Nason Street and Main Street are excessively wide under existing conditions. Narrowing the lanes to an appropriate, standard width will have the dual benefit of allowing space for bicycle lanes and calming the speeds in these downtown segments, thus improving the pedestrian environment.

Numerous respondents stated that having bicycle lanes on a roadway by their nature are dangerous and that bicycles do not belong on a street. Bicyclists, however, have a legal right to use the road and many already do. Numerous studies show that bicycle

lanes improve their safety. Furthermore, increasing the number of bicyclists in an area makes motorists more aware, creating a “safety in numbers” effect.

Several respondents were disappointed in how the execution of the various installations, not realizing these were intended as temporary interventions. This suggests a need to further disseminate information on pilot projects to the community prior to installation.

Many respondents were emphatically concerned about the reconfigured intersection on Main Street at Summer Street, especially the center bicycle lane. Modifications to the design can improve the safety of this configuration, including making the transitional lane less abrupt and/or considering alternative designs. Perhaps surprisingly, a majority of comments seemed to support or were neutral regarding the reconfiguration of three lanes to two.

Numerous comments suggested alternative locations in need of pedestrian and/or bicycle infrastructure. Although that was beyond the scope of this specific project, MAPC recommends the Town examine areas throughout the community for opportunities to improve the safety and comfort of pedestrians and bicyclists, especially for areas that are connecting to schools. *This will be accomplished as part of the Prioritization Plan requirement for the MassDOT Complete Street Program.*

“This effort and the rail trail effort are outstanding. Once the rail trail is complete I believe bike traffic will increase, and I would suggest posting signs making drivers aware of potential cyclists to increase safety and awareness.”

Examples of signs reminding motorists to check for bikes before opening the door



Recommendations

Curb Extensions

Downtown Maynard currently has midblock curb extensions on Main Street at the crosswalk by the public parking lot.

The locations of the curb extensions during the pilot could all be constructed using permanent materials:

- » Southwest corner of Nason Street at Summer Street
- » Westbound side of Summer Street in front of the Fine Arts Theatre
- » Southwest corner of Main Street at Summer Street (the extent is dependent on whether lanes are reduced from three to two at this intersection)

In front of the Fine Arts Theatre, installing a curb extension would have the benefit of preventing vehicles from driving through the on-street parking spaces when there are no cars parked, an issue several people noted. Several members of the community also suggested removing the parking space at the crosswalk, which would further improve visibility.

“In the past I had trouble getting my father around downtown in a wheelchair in the winter ... I hope the curb extensions will make it more accessible for our aging population.”

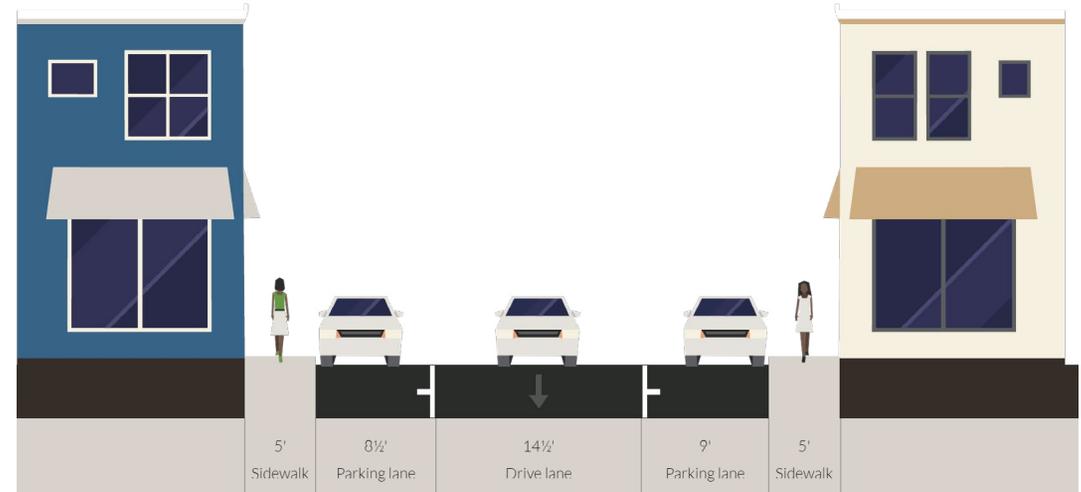
Nason Street

By narrowing the existing on-street parking lanes, Nason Street can accommodate a bicycle lane along with the vehicular and parking lanes. The following diagram provides a way to allocate the existing curb-to-curb space to include a bike lane.

Some respondents suggested as an alternative to a bike lane, painting shared lane markings (sharrows). While this could be an appropriate alternative treatment, bicycle lanes will provide better comfort and safety, especially for novice users. As noted in the Feedback section, there were concerns about dooring, but the combination of increased education and widened bicycle lanes should mitigate that issue.

At Nason Street and Main Street, several community members expressed an interest in redesigning the intersection by eliminating the island and creating a "T" intersection with left and right turns. Although more costly and requiring a higher degree of design, this would slow vehicles turning onto Main Street from Nason Street.

Nason Street: Existing



Nason Street: Proposed



Recommendations

Main Street

Because of time and resource constraints, the temporary project installed a buffered bicycle lane on Main Street. Given the existing roadway width (which was previously a two-way road), however, a separated bicycle lane would be preferable. The separated bicycle lane could be constructed by moving on-street parking over a sufficient distance, while still allowing adequate room for both vehicles and bicycles. Striping a buffered bicycle lane would be an acceptable but less preferred alternative.

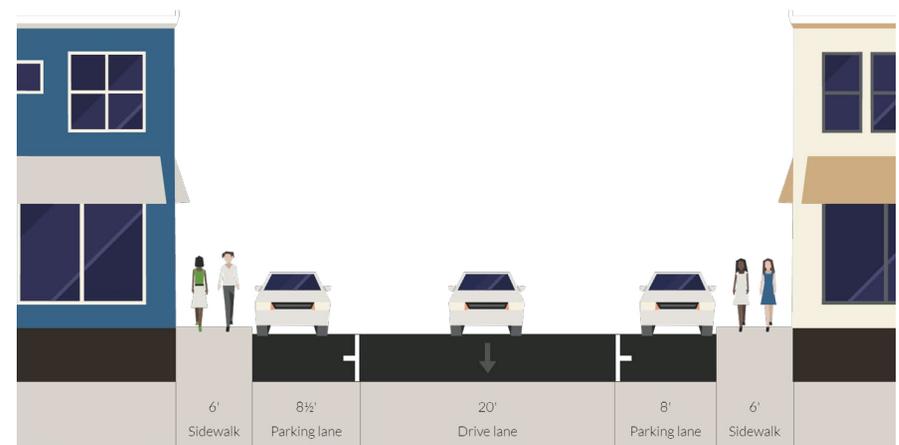
One commenter suggested placing the bicycle lane on the left side of Main Street; however, this would require bicyclists making a left hand turn onto Summer Street to ride across left turning vehicles, creating a potentially dangerous situation.

At the intersection of Main Street at Summer Street, the temporary pilot tested several interventions. One was reducing the number of lanes from three to two by merging the left turn and through lanes. This allowed additional space for a bicycle lane and curb extension. Although formal traffic counts were not taken during this intervention period, observations during peak travel periods showed little negative impact on motorists (e.g., traffic queues did not become excessively long). Furthermore, the majority of community comments regarding the lane reduction indicated that they were not adversely affected. The Town may wish to consider studying traffic volumes and flows more closely, and then make a decision about whether to permanently reduce the lanes from three to two.

The intersection also included a bicycle lane crossing over from the right-hand side into the center of the intersection. Numerous respondents felt this could create a dangerous situation. Because many bicyclists will be turning left, it is important that they can safely position themselves to avoid conflicts with right-turning vehicles. A separated bicycle lane transitioning to a “through bike lane” would provide a safer environment than the piloted treatment of a transitional lane (see diagram on following page). With a through bike lane, vehicles and cyclists would have more predictable travel movements. The temporary pilot employed a buffered bicycle lane with a merge at the intersection. This, combined with brightly painted green paint, would be an acceptable but not preferred alternative.

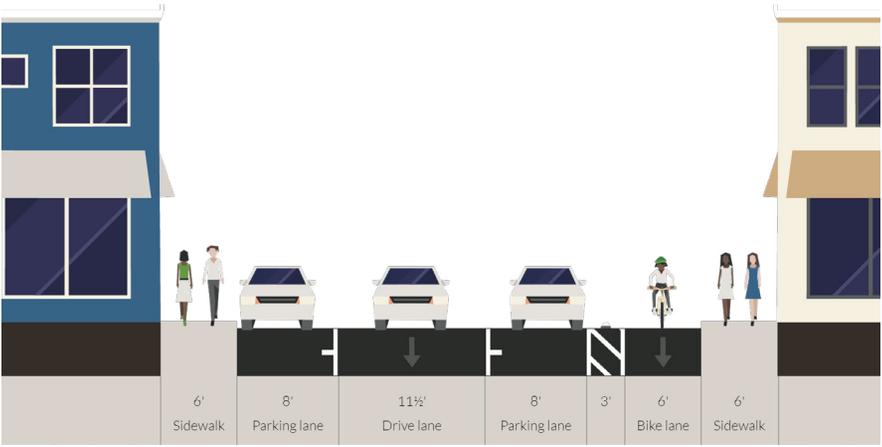
With bicycle lanes on Main Street, installing the bicycle box will further improve safety for cyclists. Finally, the two lane configuration will allow permanent installation of curb extensions, reducing crossing distances for pedestrians.

Main Street: Existing

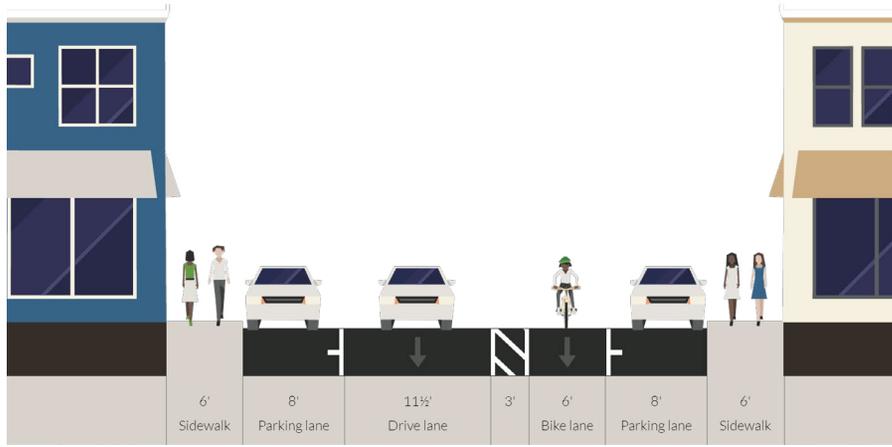


Recommendations

Main Street: Separated bicycle lane alternative



Main Street: Buffered bicycle lane alternative



“Through bicycle lane” transition from separated bicycle lane (source: NACTO)



Buffered bicycle lane with merge (source: NACTO)



Recommendations

Parklet

The location at the first on-street parking space on Main Street provided a safe location for a temporary parklet due to the adjacent curb extension. The Town can consider constructing a permanent parklet in this location or another that it deems more suitable (e.g., by the entrance to the public parking lot further down Main Street). Additional considerations include:

- » Size – depending on the results of an upcoming parking study, the Town may choose to reclaim two adjoining spaces for the parklet.
- » Duration – the Town can consider whether to create a seasonal parklet or one solely for special events.
- » Active versus passive recreation – although typically containing seating, some communities are now experimenting with additional types of parklet amenities for various activities.

Summer Street

Although the pilot project did not install bicycle facilities on Summer Street, community members at the workshop expressed a desire for bicycle lanes. There is not space for bicycle lanes under the existing configuration. The Town should study whether the left turn lane onto Summer Street on the westbound approach could be eliminated. This would allow space for bicycle lanes

between Main Street and Nason Street. The Town should also explore solutions to connect from where the Assabet River Rail Trail intersects with Summer Street to the downtown.

Downtown Public Parking Lot

At the public forum numerous residents raised several interrelated issues regarding the downtown public parking lot, known as “the basin.” The primary issues were:

- » Vehicles cut through the lot at high speeds Summer Street and Main Street;
- » Spaces are striped inefficiently;
- » The lot could be more welcoming to pedestrians, especially given that several local businesses have primary entrances from the lot.

In the upcoming months MAPC will perform a downtown parking study to better understand utilization in the lot and surrounding streets. Based upon these results, MAPC will create recommendations to better manage Maynard’s public downtown parking spaces.

Supplementing those recommendations, the Town should consider measures to reduce speeds in the lot, including the use of speed humps and potentially separating the lower lot from the upper lot to eliminate cut-through traffic.

Recommendations

The Town should also consider redesigning the parking lot to be more welcoming to pedestrians. These elements could include:

- » Additional sidewalks and better crossings;
- » Permeable surfaces (to promote stormwater filtration);
- » Trees and other plantings;
- » Shade, including solar canopies;
- » Programming, such as utilizing the space for the community to watch films during off-peak times;
- » Using a portion of the lot as a public plaza or other seating area.

The following photos provide examples of pedestrian-friendly, well-designed parking lots and elements.

Parking lot with high quality materials and stormwater management elements



Parking lot becomes an outdoor theater



Solar panels form a canopy providing shade



Permeable surfaces and trees create an inviting atmosphere



Recommendations

Bike parking

Providing ample parking for bicycles is an important component of creating an environment that makes bicycling desirable. Providing bicycle parking encourages people to use their bicycles, as they are more likely to do so if they are confident that they will find convenient parking at their destination. The rack should be located in a safe and accessible place with adequate space to maneuver a bicycle in and out. There are a variety of designs for bicycle racks; however, not all racks are created equal. There are a number of features that should be considered when purchasing bicycle racks. In general, the inverted “U” rack is a strong model to use. These have two-point support and can fit a variety of bicycle types.

Examples of high quality bicycle racks



Maynard’s downtown temporary street improvement project was an innovative way to test new ideas and elevate the needs of pedestrians and bicyclists. The Town of Maynard should build upon the positive momentum created by this project towards implementation of complete streets, both within the downtown and throughout the community. The following are several next steps for the Town.

Pursue complete streets funding. The Town has recently joined more than 80 other communities in adopting a complete streets policy, the first step towards qualifying the state’s Complete Streets funding program. The Town has also applied for a technical assistance grant to complete the Prioritization Plan requirements. The Town can use its Bicycle-Pedestrian Prioritization Plan (MAPC, 2013), as well as the Temporary Street Improvement Project, as a basis to inform this planning. Once completed, the Town will have access to grants up to \$400,000 to implement complete streets elements in a variety of locations.

Incrementally implement bicycle and pedestrian infrastructure. In addition to pursuing Complete Streets funding, the Town should work towards continuously improving its streets for pedestrians and bicyclists. Planning, DPW, Police, and other relevant departments should meet regularly to discuss low-cost opportunities. As streets are repaved and restriped each year, the Town should assess ways to make the relevant roadways more walkable and bike-friendly. Improving the community’s streets in this manner will incrementally create a multimodal network and make complete streets a part of the Town’s routine. Many complete streets elements recommended for the downtown do not

require extensive construction costs, including bicycle lanes and curb extensions. See the following Implementation Case Study: Beverly section for an example of how a community is successfully achieving complete streets.

Continue to educate the community. As the Town implements infrastructure and amenities to make its roadways safer and more comfortable for everyone, it should continue to educate the public and inform them of upcoming plans. Education can take place through fliers, signage, increased enforcement, and through additional temporary pilot projects.

“Great job. We need this to modernize our downtown and promote safe integration of all modes of transport. Thanks.”

Implementation Case Study: Beverly

Like Maynard, Beverly is well-connected with sidewalks and crosswalks, especially its downtown. Less than two years ago, it also lacked any bicycle facilities. Since that time, the City has striped approximately 2.7 miles of bicycle lanes, has another two miles currently under construction, and scheduled another 2.5 miles for the upcoming year. The City also continuously examines opportunities to include enhanced pedestrian amenities on these roadways and to fill in any missing gaps in the pedestrian network. Beverly's success can be attributed to several factors that could serve as a model for Maynard.

- » **Adopt a complete streets policy...and use it.** Beverly's complete streets policy was more than a means to accessing MassDOT's Complete Streets Program funding (which had yet to be enacted); rather, the City committed to the policy's vision of incrementally creating a safer and more comfortable pedestrian and bike-friendly community for everyone. Similarly, Maynard should consider its policy a living document that is continuously referred to and updated, as needed.
- » **Meet regularly with stakeholders.** A key aspect of the City's complete streets policy is assigning responsibility for carrying out the vision. Its internal Parking + Transportation Task Force, comprised of Planning, City Engineer, Consultant, and others, meets several times per year on roadway issues. The complete streets policy added to their responsibilities by looking at the roadways with a complete streets lens. This group discusses the upcoming roadway repaving schedule, compares it with its Bicycle

and Pedestrian Prioritization Plan (MAPC, 2015) and then makes a plan to implement the recommendations to the extent possible. Maynard's Town Planner, Department of Public Works Director, DPW Consultant, and other stakeholders should also meet regularly as part of a Complete Streets Working Group.

- » **Have an internal champion.** For a community in the beginning stages of regularly implementing complete streets, an internal staff member advocating and leading change is crucial. Beverly's Planning + Community Development Director ensures that the Parking + Transportation Task Force regularly reviews the City's Bicycle + Pedestrian Plan and pushes for opportunities to make its streets more walkable and bike-friendly.
- » **Incrementally implement recommendations.** When Beverly reviews its repaving schedule, it uses that opportunity to add bicycle and pedestrian facilities on those roadways. By using its local Chapter 90 funding it is able to incrementally effect change and make complete streets a part of its routine.
- » **Work with pedestrian and bicycle community.** Beverly has a strong advocacy community of bicycle enthusiasts who regularly provide comments to the City on proposed roadway improvements. By transparently providing information to this group, the City has developed a cordial working relationship that aims to balance the needs of various user groups.

Implementation Case Study: Beverly

- » **Pursue funding opportunities.** Beverly was the first community to submit all requirements for MassDOT's Complete Streets funding. In addition, it currently has a downtown complete streets redesign project under construction, funded by a MassWorks grant. By focusing first on "low-hanging fruit" from routine restriping activities, the City has set the stage for advancing higher design projects.
- » **Have support at various levels of local government.** Along with Planning and DPW staff, the Mayor is a strong proponent of complete streets, as are most members of the City Council. In Maynard, support from the Town Administrator, Assistant Town Administrator, and Board of Selectmen can support Town staff in overcoming any barriers that may arise toward making the community's streets a better environment for everyone.

Beverly's first bicycle lane, recently installed.

