Transportation, Mobility and Access

Formative Issues for Transportation, Mobility and Access

The Town of Easton faces many of the same transportation challenges typical to suburban communities in Massachusetts. Historically, as the Town moved away from traditional village patterns and transitioned to a "bedroom community", most connections within the community and to other areas of the region focused almost exclusively on automobile travel. This approach continued through the highest growth periods from the mid to late 20th century. It was a primary influence in shaping the way Easton looks today.

Easton as a community is starting to recognize the need to expand on that one-dimensional approach to transportation in the community. Many factors—some global, some national, some local—are exerting pressure on Easton to identify new mobility options:

- The baby Boomer population is aging. The resulting increase in the population of senior and elderly individuals is causing communities to re-examine mobility challenges for these individuals. These challenges include both ambulatory and vehicular restrictions. It is important to remove mobility hurdles and increase transportation options in order to ensure this aging population, as well as other individuals with mobility issues, maintains a vital connection to the broader community and necessary services.
- Global climate change and fossil fuel dependency, while often controversial issues, have increased awareness of the importance of public transit in suburban communities as a way to reduce carbon emissions associated with individualized vehicular use.
- Recent developments in urban design, including so-called "Complete Streets", have created innovative design strategies that help pedestrians, bicyclists and motorists share the road more safely.
- Health trends in the U.S., particularly with children have trended downward in recent years and many communities are looking for opportunities to increase physical activity in resident populations.
- The planning for the proposed South Coast Rail shows two potential rail stops in Easton. Should these plans come to fruition, Easton will need to be prepared to mitigate impacts and capitalize on economic opportunities.
- Anticipated reductions in state aid will place a strain on local budgets in Easton, requiring a resourceful approach to maintaining roads, sidewalks and other transportation features.

All of these issues and several others related to transportation, mobility and access were raised in community conversations during the Envision Easton process and a more detailed description of some of these policy drivers is provided below.

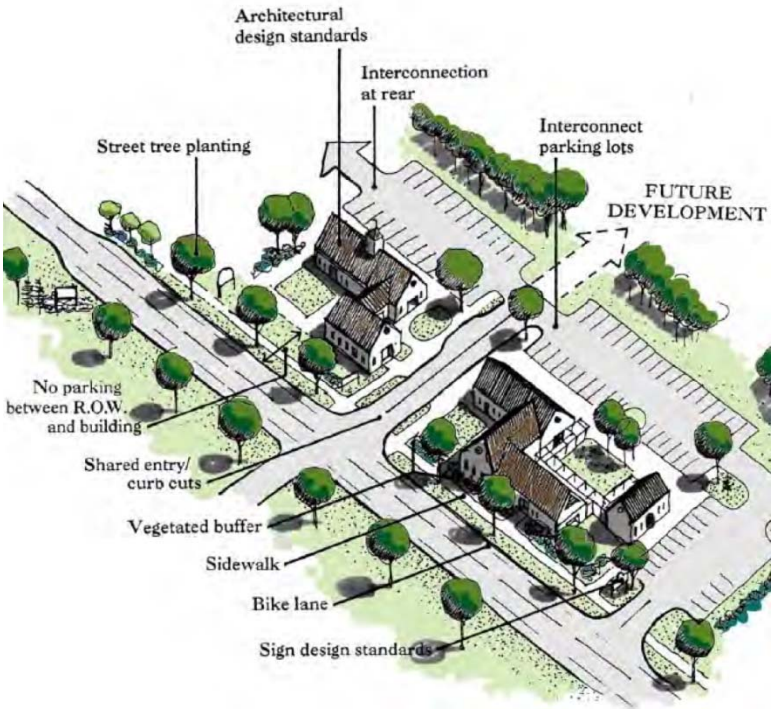
1. Roadway and intersection safety are high priorities.

Several dangerous traffic locations were identified by the regional planning commission and by members of the community during the Envision Easton process. Concerns include issues such as motorist sight distance, excessive speeds, and pedestrian crossing safety. These assertions are

borne out in local crash data and through discussions with Town officials. Several intersections are included among the Old Colony Planning Council (OCPC) list of top crash locations, and one intersection was at one time among the state's list of top 200 crash locations (Five Corners, which was recently reconstructed). Most of these intersections are already controlled by traffic signals, so ongoing safety issues are often related to roadway design or "in and out" traffic at commercial locations.

From a land use perspective, commercial development directly affects traffic volumes and can contribute to safety issues. Vehicle conflicts occur where vehicles are turning and entering. This is especially true in areas where multiple curb cuts are present. The figure below illustrates the principles of "access management" that are used to help mitigate these congested and sometimes dangerous conditions. Areas in Easton like Five Corners or commercial clusters along Washington Street are examples of areas that can benefit greatly from this type of careful design.

Illustration of Access Management Approach for Commercial Development



Source: MassDOT Project Development and Design Guide (2006)

Access Management refers to the coordination between roadway design and adjacent land development to ensure safe and efficient traffic operations on major arterials and intersections while providing adequate access to abutting land uses. Common techniques include:

- Driveway closure, consolidation, or relocation
- Restricted-movement designs for driveways
- Raised medians that prevent cross-roadway movements and focus turns to key intersections
- Adding auxiliary turn lanes
- Using roundabouts and mini-roundabouts to provide desired access

Source: Institute of Transportation Engineers (ITE)

2. Traffic circulation needs to be improved in a manner that unifies Easton.

Easton's preferred location within the region, with easy access to regional highways, generally does not translate into significant congestion issues throughout town, with some exceptions. Delays occur where the capacity of a given roadway or intersection is strained or exceeded. OCPC considers Route 106 and Route 123 within Easton to be congested corridors. Several intersections along Main Street and along Route 138 experience poor levels of service, especially

during evening peak periods. Commuting patterns and future development will continue to create pressures on the Town's roads and intersections.

One ongoing area of concern is related to traffic that will be generated by the Ames Shovel Works development, and additional redevelopment on and around Main Street. Traffic studies completed as part of the project confirm acceptable levels of service on the surrounding road network once the development is complete and fully occupied. However, this project is representative of local concerns about traffic impacts for other potential development and is discussed further in the parking management section.

There is a perceived disconnect between different sections of Easton, in particular North and South Easton. This represents an opportunity to enhance the existing transportation system by creating new connections for other road users, such as pedestrians and bicyclists. More generally, the community expressed demand for both pedestrian and bicycle facilities in neighborhoods, business districts, and in between, which would help to create a more multimodal transportation system. Off-street connections for bicycles and pedestrians, such as multi-use paths are currently lacking between older and recent developments.

At the neighborhood level, a variety of design measures could be considered that would enhance the pedestrian experience and create better connections between areas of interest. Appropriate traffic calming measures, like raised crosswalks, curb extensions, and pedestrian crossing islands can enhance the pedestrian network while improving safety for motor vehicles.

Examples of Interim and Permanent Pedestrian Crossing Treatments

(clockwise from top left: interim median crossing island with paint and bollards; interim curb extension with paint and planters; permanent curb extension on side street; permanent median island with landscaping)

3. Parking management will become critical.

In suburban communities like Easton, one area of "low hanging fruit" related to the improvement of circulation is parking management. Parking is a valuable resource everywhere. This is particularly noticeable in places like North Easton Village where future development will create further demand on this constrained supply of spaces. While limiting future development or increasing the parking supply may help alleviate this pressure, a coordinated parking management strategy would achieve more lasting success for making the most of parking resources. All parking spaces are not equal in terms of demand and value, and a well-developed parking management program recognizes the different needs of business owners and employees, customers, and residents. Short-term parkers need access to parking close to their destination, while long-term parking can be somewhat farther removed. Time limits and costs should be coordinated accordingly to encourage turnover of parking spaces that are in highest demand.

Where appropriate, as is the case in North Easton Village, shared parking and a "park once" approach to make most efficient use of parking spaces should be a goal. On-site parking lots for new development in the village might be discouraged, and instead provided off-site in conveniently located public and/or private lots. Additional locations for these lots should be identified as part of the public process. Excellent pedestrian facilities and wayfinding are essential for connecting these lots with the businesses they serve.

Recent and planned development in the downtown area will continue to put pressure on existing parking resources. While this is the result of positive growth for the community, the parking challenge will need to be addressed. If and when the South Coast Rail project brings a commuter station to North Easton Village, parking demand will increase significantly, adding to the need for a full parking management plan for the area. As each project increases the vibrancy and foot traffic of the downtown area, the associated increase in the number of people who will want to park downtown will increase as well. Ensuring parking is available, convenient and managed will be important to the district's success in the future.

4. There is a desire for additional healthy and non-motorized transportation options.

Walking and biking are part of a complete, multimodal transportation system. Excellent pedestrian and bicycle facilities help support these modes as alternatives to single-occupancy vehicles. Participants in the Envision Easton process expressed a strong desire for making quality walking and biking facilities available for recreation. These facilities would also link neighborhoods to each other and to major attractions, like Borderland State Park. Easton residents showed a strong understanding of the connection between walking, biking and health benefits.[14]

Easton has many streets that offer no other safe options for travel beyond automobiles. This is a significant obstacle to healthy and non-motorized transportation alternatives. "Complete Streets" are designed to enable safe access for users of all ages and abilities including pedestrians, motorists, bicyclists, and transit riders. Applying principles of complete street

[14] "Walking and Bicycling – Your Way to Health." *The Benefits of Physical Activity.* Harvard School of Public Health.

design to existing roadways may be challenging in Easton as many of these right of way areas were established decades ago without any thought for multi-modal travel. However, the Town should remain vigilant in identifying opportunities where simple applications such as asphalt striping can create safer environments for motorists, cyclists and pedestrians. The bicycle and pedestrian working group has already been formed and has begun identifying priorities and potential connections.

Example of a Shared Bike Lane/Right Turn Lane

Source: National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide.

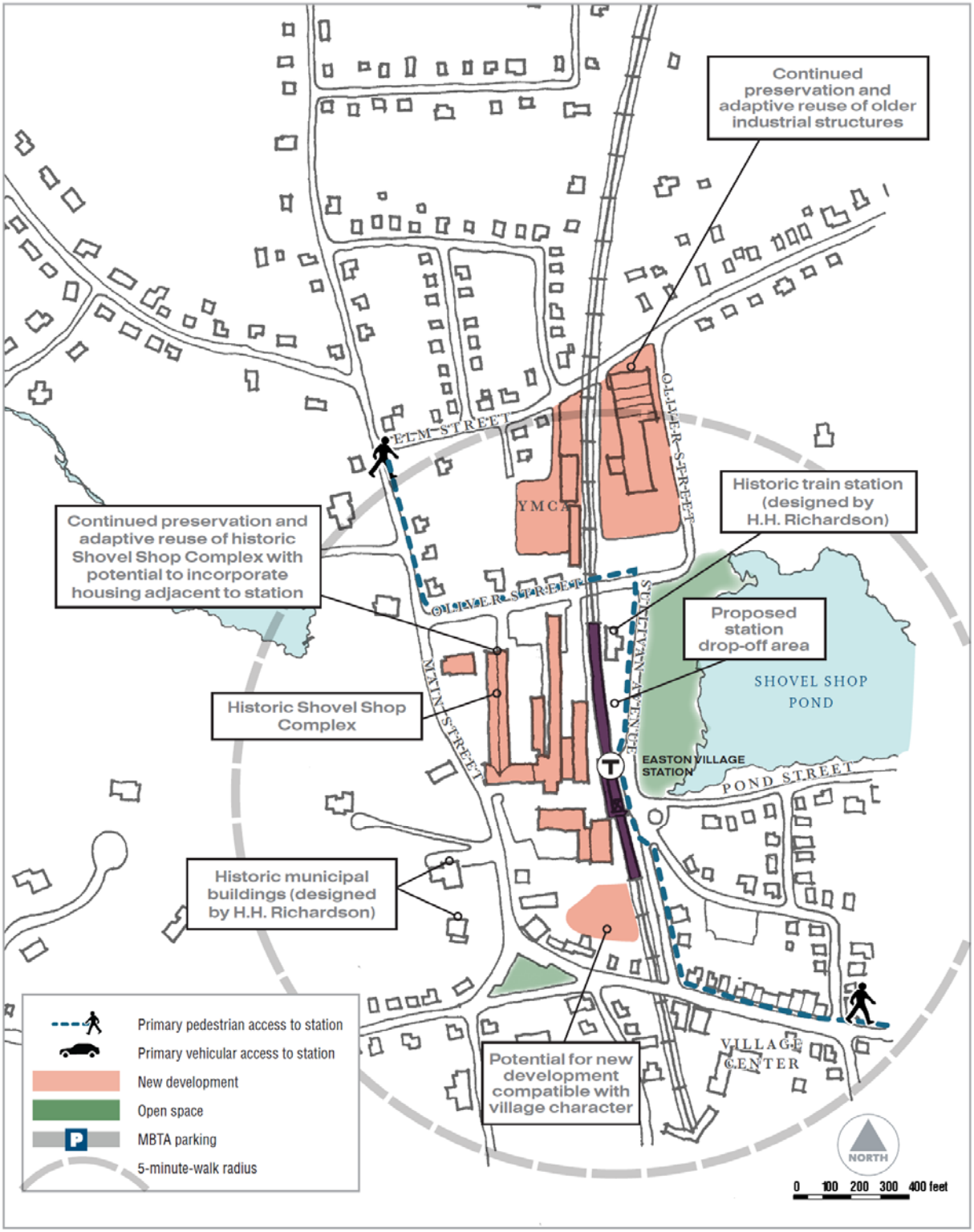
Looking Ahead: Planning for South Coast Rail

The South Coast Rail project is among the largest transportation projects underway in Massachusetts. The project's stated goal is to "more fully meet the existing and future demand for public transportation between Fall River/New Bedford and Boston and to enhance regional mobility, while supporting smart growth planning and development strategies in affected communities."[1] The proposed project alignment connects Boston South Station to Fall River and New Bedford with new rail service, including two proposed stations in Easton. Funding for this project is still pending, but continues to be included among the priority projects for the Commonwealth.

One of the proposed stations, Easton Village, would be located in North Easton Village, east of Main Street and adjacent to the Shovel Shop Complex (see figure next page). A passenger drop-off area is proposed on Sullivan Avenue. Very little dedicated parking is proposed. The second station is proposed on the northern edge of Easton near the Stoughton town line and existing Roche Brothers store and shopping center. A new MBTA parking lot is proposed with access from west of the shopping center.

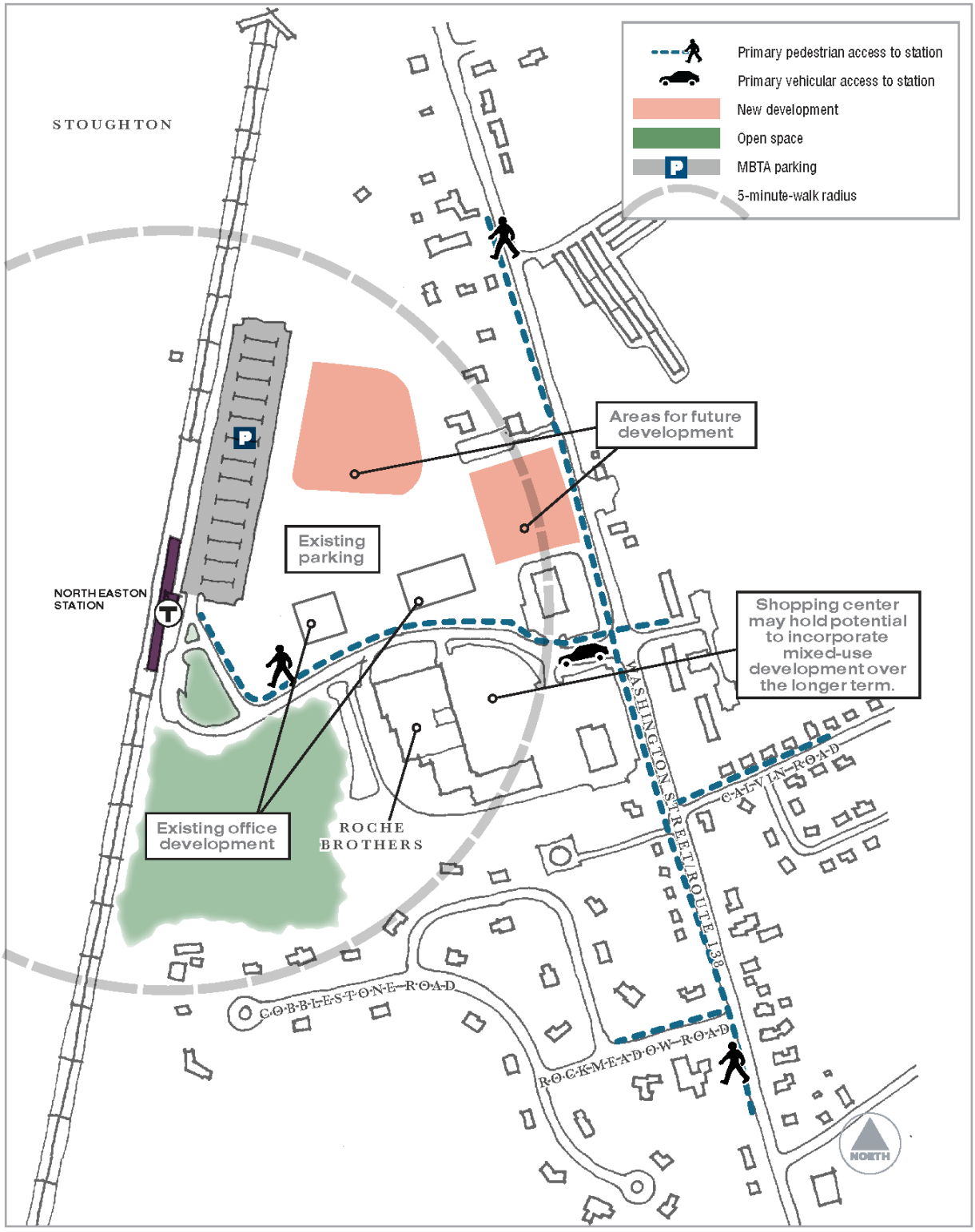
Both stations represent substantial opportunities and challenges for Easton. Chief among concerns expressed by the community are those related to the density of surrounding development, traffic and parking impacts directly associated with the stations, and traffic and safety impacts at railroad crossings. Seen through the lens of the other formative issues for the Town, these issues can be addressed holistically along with capacity improvements, multimodal enhancements, and management programs.

"Easton Village" Station Concept Plan



Source: South Coast Rail Economic Development and Land Use Corridor Plan. Executive Office of Transportation & Executive Office of Housing and Economic Development (2009).

"North Easton" Station Concept Plan



Source: South Coast Rail Economic Development and Land Use Corridor Plan. Executive Office of Transportation & Executive Office of Housing and Economic Development (2009).

5. Roadway maintenance and funding for transportation improvements are essential.

The Town has an ongoing pavement management program, which was approved and initiated in 2012. In 2012, there was a $20 million backlog in needed repairs. Annual funding at the time was $500,000 per year, against an annual cost of $850,000 needed just to maintain the existing road surface rating.

The pavement management program's three-year plan prioritizes repairs based on road surface, traffic volume, construction method, and budget. Current funding levels have increased over the 2012 figures and include $1 million per year in Chapter 90 (state) funding and $500,000 in local road funding per year. As of spring 2014 (after the first year of implementation), the current repair backlog is $16 million of needed repair and maintenance. The pavement management program reduces the backlog of maintenance but also highlights the importance of consistent funding levels to make needed repairs.

An important note on the existing pavement management program is that it only addresses roadway pavement. Sidewalks, curbing, and geometric changes to roadways are not currently included. Maintenance costs for potential improvements of this nature should be considered in coordination with the program. A similar program for sidewalks might also be explored, or integrated with the current program.

The regional Transportation Improvement Program (TIP), which is developed by the Old Colony Planning Council (OCPC) with MassDOT and regional transit authorities, is a four-year plan that lists transportation projects proposed for implementation in the next four fiscal years. The TIP describes project scope and outlines the projected costs and funding sources. Easton has a delegate that represents the community to the OCPC in the TIP development process. Inclusion of local transportation projects on the TIP is a crucial step for construction. Easton has successfully advocated for its projects, and coordination among the Department of Public Works, Department of Planning and Community Development, and OCPC should continue.

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Goals, Objectives and Actions for Transportation, Mobility and Access

		Lead Agency	Time Horizon (1-2 years; 2-5 years; 5-10 years)
Goal TMA-1:	**A *safe* transportation system for all users.**		
Objective 1.1	Improve dangerous intersections and roadways.		
Action 1:	Review, update, and prioritize the previously composed list of Massachusetts Department of Transportation (MassDOT) high-accident locations. Identify MassDOT improvement projects that address high-accident and congested locations, and actively pursue funding.	Board of Selectmen, DPW, traffic Safety Committee	Ongoing
Action 2:	Conduct studies/safety audits to identity and prioritize potential improvements for locations not part of planned projects through MassDOT.	Board of Selectmen, DPW	1-2 years; then ongoing
Action 3:	Ensure participation in design of at-grade crossings proposed for SouthCoast Rail reconstruction.	Public Safety, DPW	TBD
Action 4:	Identify potential locations for and implement appropriate targeted traffic calming measures.	Public Safety, DPW	Ongoing
Objective 1.2	Ensure that all users and motorists know how to use the road and how to interact with other users.		
Action 1:	Review best practices for multimodal education campaigns.	Bike and Pedestrian Working group, Public Safety	5-10 years
Action 2:	Create and implement a comprehensive education program that targets users of all ages and modes.	Bike and Pedestrian Working group, Public Safety	5-10 years
Action 3:	Implement a school education program on transportation rules and etiquette.	Bike and Pedestrian Working Group, Public Safety	5-10 years
Objective 1.3	Improve pedestrian visibility.		
Action 1:	Identify locations for improved lighting and include these locations in future projects.	Public Safety; Planning and Community Development	2-5 years; then ongoing
Action 2:	Review pedestrian sign inventory. Identify locations where signage may be warranted such as crosswalks as well as locations where	Bicycle and Pedestrian Working Group, DPW	5-10 years

	signage may be overused and install new signs or remove existing signs as appropriate.		
Goal TMA-2:	**A *connected* transportation system, within Easton and to the region.**		
Objective 2.1	Establish connections between major destinations and neighborhoods within Easton.		
Action 1:	Conduct a comprehensive inventory of Town-wide pedestrian and bicycle network and address gaps in connectivity.	Bicycle and Pedestrian Working Group	2-5 years
Action 2:	Develop and implement a signage and wayfinding master plan.	Public Safety, Recreation Commission, School Department, Conservation Commission, Chamber of Commerce, DPW, Public Spaces Committee	2-5 years
Action 3:	Pursue Safe Routes to School program funding.	School Department	Ongoing
Action 4:	Pursue grants to fund trail connections.	Planning and Community Development	Ongoing
Action 5:	Promote connections between residential neighborhoods and local businesses, where appropriate.	Planning and Community Development, Bicycle and Pedestrian Working Group	Ongoing
Action 6:	Initiate a working group to identify potential trails.	Planning and Community Development	1-2 years
Objective 2.2	Accommodate the transportation needs of residents across all age groups and abilities and including non-drivers.		
Action 1:	Identify destinations that do not adequately accommodate non-drivers, and provide access.	Planning and Community Development, Public Safety	Ongoing
Action 2:	Attract taxi service and dial-a-ride shuttle service for the broader	Planning and	2-5 years

	community.	Community Development, Council on Aging	
Action 3:	Identify specific measures to improve transportation services to persons with disabilities and identify funding sources.	Commission on Disabilities, Council on Aging	Ongoing
Goal TMA-3.	**A *well-maintained* transportation system.**		
Objective 3.1	Use a diverse array of funding sources to maintain existing infrastructure.		
Action 1:	Coordinate with state and regional planning agencies and MassDOT to investigate and pursue funding.	DPW	Ongoing
Action 2:	Ensure high priority projects are well positioned (shovel ready) to apply for grants as they become available.	Town Administrator	Ongoing
Objective 3.2	Provide timely pavement management.		
Action 1:	Continue pavement management program.	DPW	Ongoing
Action 2:	Obtain funding to "catch up" on current pavement needs.	DPW, Board of Selectmen, Town Administrator	2-5 years
Objective 3.3	Ensure adequate maintenance for all infrastructure improvements.		
Action 1:	Coordinate between Town departments and outside agencies, including state and regional planning agencies and MassDOT, to evaluate project lifecycle costs.	Town Administrator, Town Engineer	Ongoing
Action 2:	Conduct a benefit/cost analysis of infrastructure improvements and consider costs of maintenance alongside capital costs for projects.	Town Administrator, Town Engineer	Ongoing
Action 3:	Assess the Town's ability to maintain infrastructure and modify resources accordingly.	DPW	Ongoing
Goal TMA-4.	**An *efficient* transportation system.**		
Objective 4.1	Improve congested roadways and intersections.		
Action 1:	Explore traffic signal coordination opportunities.	Public Safety	Ongoing
Action 2:	Monitor and maintain pavement markings, signs, and traffic control devices.	Public Safety, DPW	Ongoing
Action 3:	Assess the causes of congestion and take appropriate actions to mitigate.	Public Safety, DPW	Ongoing
Objective 4.2	Consider the connection between transportation needs and land use for future development to manage traffic and parking demand.		
Action 1:	Continue to integrate traffic impact studies and peer reviews of the	Planning Board	1-2 years to codify requirements;

traffic studies for planned developments.		then ongoing
Action 2: Assess parking regulations and adopt policies that encourage shared parking where appropriate.	Planning/Zoning Board	2-5 years
Objective 4.3 Manage parking resources to accommodate the needs of residents, commuters, and businesses.		
Action 1: Ensure that zoning requires adequate parking for new projects (i.e., not too much, not too little).	Planning Board	Ongoing
Action 2: Conduct parking use and turnover studies within business districts to create a parking management program. Ensure availability of parking for business customers while protecting neighborhood parking.	Planning and Community Development	5-10 years
Goal TMA-5. A *multimodal* transportation system.		
Objective 5.1 Adopt a Complete Streets policy that, where appropriate, provides for a variety of transportation choices that meet the needs of all.		
Action 1: Prepare draft Complete Streets policy for review and adoption.	Planning and Community Development, Public Safety	2-5 years
Action 2: Integrate Complete Streets when feasible and consistent with community goals.	DPW, Planning and Community Development, Traffic Safety Committee	Ongoing
Action 3: Monitor performance of all transportation projects to evaluate multimodal benefits and impacts, and to ensure projects meet stated goals.	DPW	Ongoing
Objective 5.2 Increase accommodations for non-motorized modes.		
Action 1: Inventory sidewalk and curb ramps and plan for improvements.	Commission on Disabilities, DPW, Bike and Pedestrian Working Group	1-2 years
Action 2: Increase bike amenities such as bike racks, lanes and markings, where appropriate.	Planning and Community Development, DPW, Bike and Pedestrian Working Group	Ongoing
Objective 5.3 Expand public transit service, including local and regional bus		

	transit, in a manner that is consistent with community goals.		
Action 1:	Coordinate with MassDOT, state and regional planning agencies, and adjacent Town plans to establish and enhance connections between key destinations.	Planning and Community Development	Ongoing
Action 2:	Solicit support from legislators as needed to prioritize and implement regional connectivity projects	Board of Selectmen, Town Administrator	Ongoing
Action 3:	Identify gaps in connectivity between modes and implement improvements to improve overall connectivity.	Planning and Community Development	2-5 years
Action 4:	Identify major commuter routes and desired connections through windshield observations and license plate surveys.	Planning and Community Development	5-10 years
Action 5:	Coordinate with area transit systems to expand service in Easton to increase connections between key origins and destinations.	Planning and Community Development	1-2 years
Action 6:	Explore the need for and establish park and ride locations.	Planning and Community Development	1-2 years
Action 7:	Expand connections to commuter rail stations (Stoughton, Sharon, Mansfield, etc.).	Planning and Community Development	2-5 years
Action 8:	Explore ways to reduce parent-dependent vehicle trips for underage population (e.g., after-school employment connections).	Planning and Community Development, School Department	5-10 years
Action 9:	Explore ways to expand accessibility and availability for older residents.	Council on Aging	Ongoing
Objective 5.4	Plan transportation systems that accommodate future commuter rail in a manner that is consistent with other community goals.		
Action 1:	Promote denser mixed-use development around planned rail stations.	Planning and Community Development, Planning/Zoning Board	5-10 years
Action 2:	Mitigate the impacts of the South Coast Rail through actions including: • Exploring potential for parallel walk/bike path.	Town Administrator, Planning and Community	Ongoing

	• Effectively managing parking around station areas, including enforcement of no parking regulations.	Development	
Action 3:	Ensure efficient and effective multi-modal access to rail stations, such as: • Safe, attractive sidewalks and pedestrian crossings with adequate lighting and other amenities. • Adequate secure, covered bike parking in close proximity to stations. • Integrated pick-up/drop-off areas with other needs, such as bus stops.	Bicycle and Pedestrian Working Group	5-10 years
Goal TMA-6.	**An *environmentally sustainable* transportation system that promotes human health.**		
Objective 6.1	Minimize negative impacts on the environment.		
Action 1:	Improve air quality by reducing vehicle congestion.	Green Communities	Ongoing
Action 2:	Consider alternative fuel amenities (e.g., charging stations).	Green Communities	1-2 years
Action 3:	Consider transportation management strategies for larger developments.	Planning and Community Development	Ongoing
Objective 6.2	Educate the public about the benefits of active transportation modes for recreational and short trips, and encourage these activities.		
Action 1:	Review best practices for active transportation promotion from other communities.	Bike and Pedestrian Working Group, Board of Health	1-2 years
Action 2:	Develop and implement an educational campaign with key stakeholders.	Bike and Pedestrian Working Group, Board of Health	2-5 years