CONNECT Arlington

SUSTAINABLE TRANSPORTATION PLAN

WORKING D R A F T

December 2020

Final Plan

ACKNOWLEDGEMENTS TO BE ADDED

[PLEASE NOTE: THIS IS A WORKING DRAFT. ALL STRATEGIES INCLUDED ARE PRELIMINARY AND WILL CONTINUE TO EVOLVE. DISCUSSION WITH AND INPUT FROM TOWN STAFF AND DEPARTMENTS, THE STPAC (ADVISORY COMMITTEE) IS NEEDED BEFORE PRESENTING TO THE PUBLIC. AS THIS IS A WORKING DRAFT FOR DISCUSSION PURPOSES, PLEASE REFRAIN FROM COMMENTING ON GRAMMATICAL AND FORMATTING ELEMENTS – ALL WILL BE ADDRESSED IN LATER ITERATIONS – AND FOCUS ON THE STRATEGIES PRESENTED. THIS WILL HELP TO DETERMINE THOSE THAT REQUIRE TWEAKS, THOSE TO BE REMOVED, AND POTENTIAL ADDITIONS.]

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1 INTRODUCTION

Connect Arlington Sustainable Transportation Plan is a 20-year strategy to ensure that all Arlingtonians, workers, business owners and visitors are provided a safe, reliable, multimodal transportation network that meets the needs of all people of all ages and abilities.

Why does Arlington need a transportation plan?

Transportation is not just a means to an end. Yes, transportation systems link people to their jobs, goods and services, and educational opportunities essential to their daily lives; but transportation also links people to their friends and family, recreation, and to the larger community – both within and outside of Arlington borders. Transportation is also critical to the movement of goods – locally, regionally, and nationally – that all people rely on, and increasingly for delivery of household goods directly to people's doorsteps.

Transportation also has a major impact on climate and the natural environment, whether from greenhouse gas emissions from cars, trucks and buses; from stormwater impacts from large swaths of impervious surfaces including paved roadways, sidewalks, parking lots; and from heat island impacts from these same surfaces. A truly sustainable transportation plan and implementation strategy must address all of the above in a coordinated fashion to provide both the means for people to move about as they need and to address these environmental impacts on the planet.

What is a Sustainable Transportation Plan?

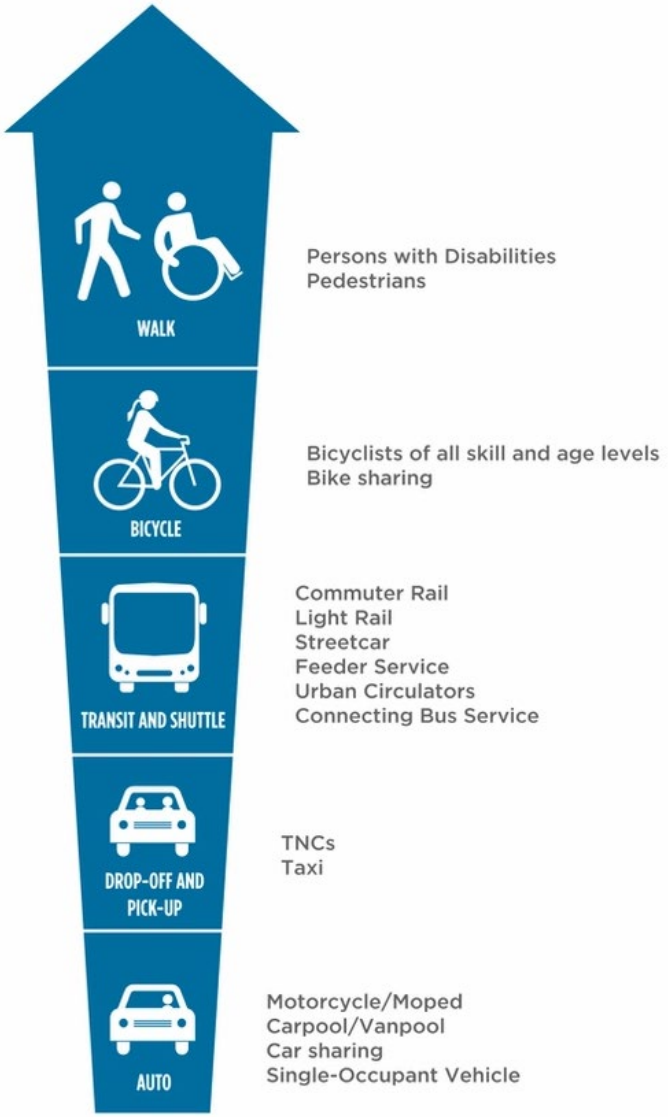
For this plan, the term sustainable transportation refers to all elements of the system. Sustainable policies will address environmental impacts, maintenance, and resiliency, and more. However, for any transportation system to be truly sustainable, it must be designed to serve all users – young and old, those with and without disabilities and mobility impairments, and all socioeconomic and ethnic groups. It is not just about providing a complete system of pedestrian, bicycle, transit, and roadways for cars, it is ensuring that transportation facilities are accessible, convenient, and comfortable for all.

As a sustainable transportation plan, the strategy must address three key elements:

1) Providing all people with transportation choice - multiple ways to accomplish a trip.
2) Reducing congestion to ensure people and goods are able to move about with minimal trip delays, which reduces productivity.
3) Minimizing negative transportation impacts on the environment, primarily through the reduction of greenhouse gas emissions (GHGs).

To do so requires a new way of thinking about how people and goods move about town and the region. The more people rely on non-polluting transportation options like walking and bicycling, lower polluting (per capita) options like transit, and incorporate “green” practices like electrification and sustainable infrastructure design, the more the Town will be able to meet the goals set forth in this document. Think of this plan as inverting the pyramid of transportation priorities. Whereas in the past, the car was the priority, followed by transit and then bicycling and walking, this plan aims to flip these leading first with active transportation and ending with vehicular options.

The goals and strategies included in this plan provide the Town of Arlington with a framework to ensure the community looks at its transportation system holistically and sustainably (as defined above). This strategy was developed over the course of a year and included input from interviews, focus groups and public forums. Based on the findings included in the **Connect Arlington Fact Book**, and feedback from the public, the below Vision and Goals guides the plan.



2 CONNECT ARLINGTON VISION AND GOALS

No plan can be achieved without a set of goals to inform decision making and set priorities. To be useful, they must be grounded in the real world, but also represent aspirations for better outcomes. Think of the goals as the roadmap for what the plan must accomplish over the next 20 years to be considered a success.

VISION STATEMENT

In 20 years, Arlington is a community that offers a transportation network that provides:

- **Safe facilities for all users**, no matter how they travel.
- **Mobility options that meet the needs for diverse populations** and people of all ages and abilities.
- **A pedestrian first, walk-friendly environment.**
- **A low-stress bicycle network** connecting people in all areas of Arlington on dedicated, comfortable facilities.
- **A transit rich environment** with more local and regional options, improved connections, reduced travel times and enhanced user comfort for all who live, work, and visit Arlington.
- **A system that reduces the climate impacts from travel in Arlington through** sustainable roadway design and incentivizing reduction in drive-alone trips.
- **Infrastructure and policies to support the local economy** including efficient movement of goods and services.

By ensuring the plan addresses and meets these goals, the sustainability of Arlington's transportation network will be achieved through providing residents and workers with transportation choice and less reliance vehicular travel.

3 CONNECT ARLINGTON STRATEGIES

Strategies to achieve the vision and goals of the Connect Arlington Sustainable Transportation Plan aim to achieve multiple goals through policies, programs, and infrastructure improvements. While some are presented as mode-specific (e.g. pedestrian, bicycle or transit), when considered as pieces of the entire network, the intent is for them to work in tandem with one another to ensure the overall system is connected between modes. The goal is a plan that results in a transportation system of choice, with multiple options of travel to meet the needs of all users.

A. SAFE FACILITIES FOR ALL USERS NO MATTER HOW THEY TRAVEL

Pedestrian travel in many ways is the most important element of any transportation network. Every trip in one way or another includes a pedestrian component. Whereas some trips are accomplished entirely on foot (or with a personal mobility device), others include a walk on either end of a bicycle, transit or auto trip. Pedestrian trips by their nature do not pollute, they are affordable to all, and should be available to all people no matter their ethnicity, age or capability.

The vast majority of Arlington is highly connected for pedestrian travel from a network perspective. Most publicly owned roadways have sidewalks, major intersections have crosswalks and signals have walk cycles, and more. However, just because pedestrian facilities are there doesn't mean the entire system is highly walkable and accessible by all. As noted in the Connect Arlington Fact Book, there are some gaps in the sidewalk network, some sidewalks require maintenance, and some require ADA (Americans with Disabilities Act) upgrades. Further, ensuring that people not only feel, but are safe, while getting around is paramount. As noted in the Fact Book, there are on average over 550 crashes per year in Arlington involving vehicles, pedestrians, and bicyclists. And while the Town has worked hard to prevent crashes through roadway infrastructure safety initiatives, lowering the Town speed limit to 25mph, and others, it must and it is committed to doing more to eliminate all severe injuries and fatalities on its streets.

The following strategies aim to address the above concerns to create a pedestrian network that is well-maintained, accessible, and safe for all.

A1. Adopt a Vision Zero policy.

The Town of Arlington should adopt a Vision Zero policy to ensure streets are designed in a manner that prioritizes safety for all users, with a goal of eliminating traffic deaths and injuries through a holistic approach to reducing roadway conflicts. In doing so, Arlington would join a growing list of communities, including abutting Cambridge and Somerville, committed to this approach to transportation planning.

Key to Vision Zero is prioritizing the safety of those most vulnerable to serious injury or fatality – pedestrians and bicyclists. Vision Zero policies must first provide policy and design initiatives that ensure those walking or riding are able to move about with minimal conflict between themselves and larger, more dangerous cars, buses and trucks. Reducing crossing distances for pedestrians, providing protected or buffered bicycle lanes, removing slip lanes, and providing pedestrian lead times at signals all help to reduce conflicts between users. However, it is just as important that roadways are designed and used in a manner that drivers are provided safe and clear instruction about how to use the roadway and avoid conflicts – i.e. crashes – with each other, but most importantly pedestrians and bicyclists, that roadways are designed to reduce vehicle speeds and more. Many of the strategies included in this plan address these concerns.

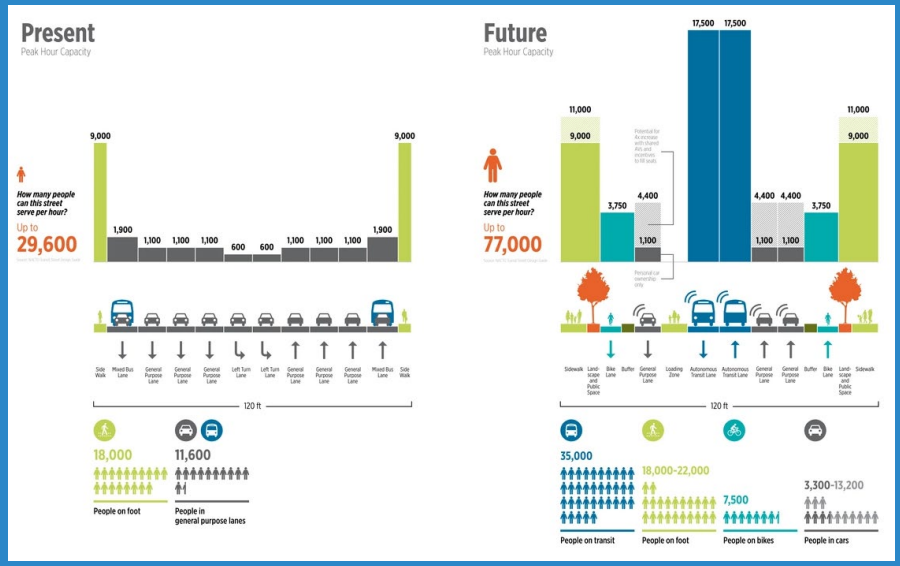
Vision Zero was introduced by the Swedish Parliament in 1997 to seek to eliminate traffic fatalities and serious injuries by the year 2020. Now there is a network of 20 American cities and even more around the world working toward Vision Zero goals. Among the Vision Zero core principles are that traffic deaths and injuries are preventable, safety is the primary consideration in transportation decision-making, and traffic safety solutions must be addressed holistically.

A2. Ensure all roadway design projects adhere to the Town's adopted Complete Streets policy.

Complete Streets policies are intended to ensure that all roadway projects are designed for all users – not just cars. Roadways that do so further the goals of Vision Zero However, in some cases, designs for roadways with limited width often minimize, reduce, or eliminate many of the pedestrian, bicycle and transit improvements intended to be included in the design to expedite vehicular movement and throughput.

The Town of Arlington has adopted a Complete Streets policy. And although the Town has demonstrated strong adherence to its policy, ensuring that all modes are given equal weight and standing throughout the design process over time (and leadership changes), must continue to reduce conflicts for the many users of its streets. Transparency is critical to the success of these projects. While it is ultimately the responsibility of Town departments – Public Works, Police, Fire, Planning – to ensure projects meet the Complete Streets design standards, the design process should also include review by Town Boards and Commissions, advocacy groups and include a public process from the start to identify key mode priorities for different projects, particularly larger projects where there is insufficient right-of-way (ROW) to equally serve all users.

Complete Streets also move more people, more efficiently and safely.



A.2.1 Continue to implement projects included in the Town's Complete Streets Prioritization Plan.

The Town's State-adopted Complete Streets Prioritization Plan includes a list of priority projects eligible to receive grant implementation (i.e. construction) funding from the State. The Town successfully received funding for its first project in 2017 which added sidewalks to Gray Street near Ottoson Middle School.

The Town should continue to apply for funding for project priorities and leverage Town funding to be more competitive in receiving grants. Note: Funding through the State program is allocated annually, but only available to communities without an active project already funded and/or under construction. Once a project that received funding is complete, the municipality may apply for their next project. Arlington should be prepared to apply for funding whenever eligible. Eligible projects must be fully designed and include estimated construction costs. As such, allocating funding for design services should be included in Town budgets to line up potential projects.

While grants are not guaranteed through the program, having project designs and costs can be used for other grant opportunities or to request Town funding.

[INSERT IMAGE OF GRAY STREET PROJECT]

B.2 Update the Town's Complete Streets Prioritization Plan to align with Connect Arlington priorities.

As a 20-year framework, and given changes to transportation patterns, preferences, behaviors and option, priority projects are likely to shift over time. Ensuring the Prioritization Plan is updated regularly will better position the Town to apply for funding on projects most important or likely to receive funding given State funding priorities over time. [We're reviewing to see where there are overlaps and where there aren't.]

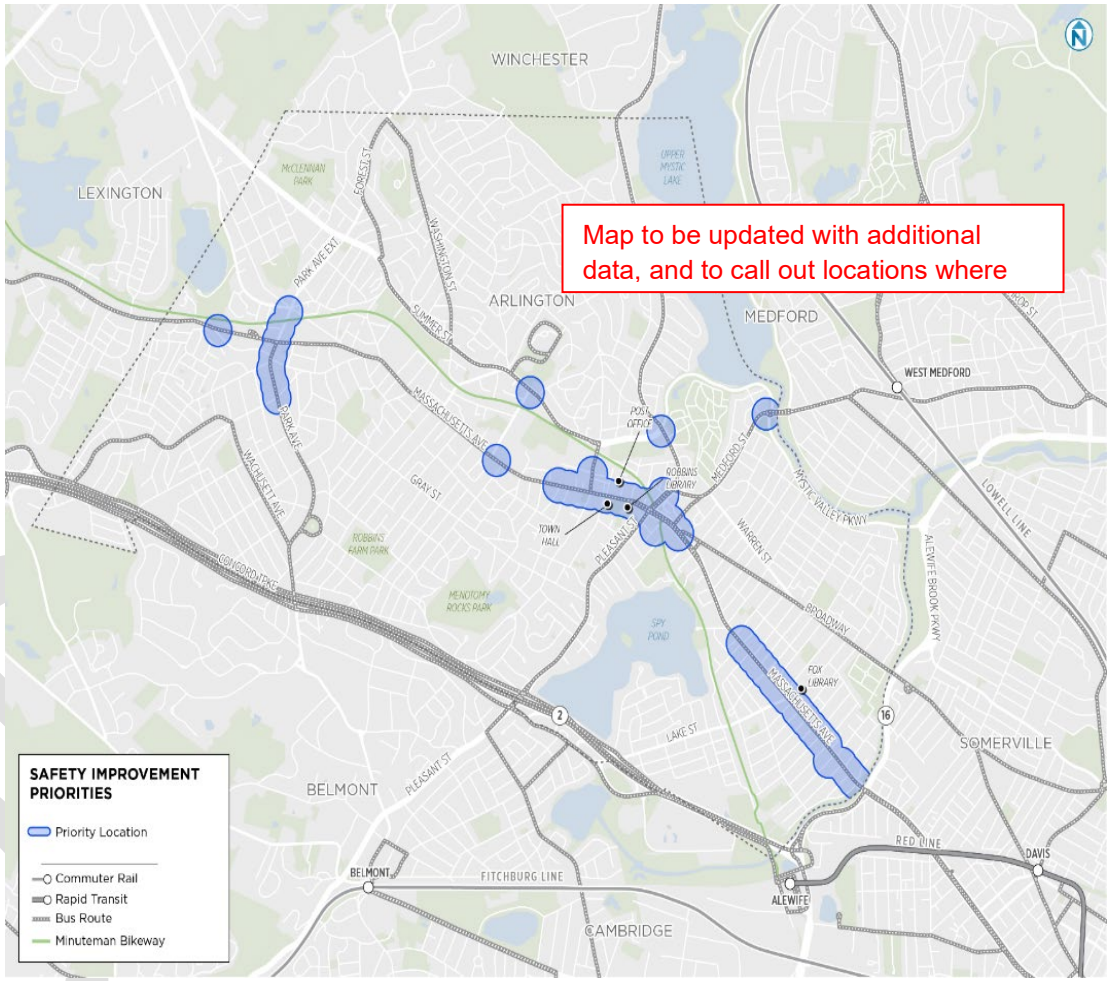
A3. Prioritize investments that improve safety at intersections and along road segments with the greatest user conflicts.

The cause of many roadway crashes is human error – poor judgement, distraction – or weather conditions. However, locations where multiple crashes occur, especially those with similar crash characteristics, often point to roadway design concerns or conditions that may contribute to crashes, and where initiatives to enhance safety should be a priorityFigure X summarizes areas in Arlington where safety enhancements should be prioritized or tracked. The map is based on crash assessment findings – high crash locations and clusters - as described in the project Fact Book. [MAP IS STILL UNDER DEVELOPMENT TO INCLUDE SAFETY CONCERNS FROM WIKIMAP AND OTHER PUBLIC FEEDBACK]. Initial priorities should focus on locations where improvements have not been made in recent years (red). For locations where large projects are underway or are under study (e.g. Appleton and Mass Ave, DCR Parkways Study), projects should be reviewed to ensure they prioritize safety and never just to increase vehicular throughput. And for those that have been completed in the last few years (e.g. Mass Ave in East Arlington and Arlington Center) crashes and public concerns should be tracked to determine if additional safety initiatives may be needed.

Strategies to reduce crashes involving pedestrians and bicyclists include:

A3.1. Minimize pedestrian crossing distances and increase visibility at intersections where crashes involving pedestrians are highest.

The less time a pedestrian is in a roadway, the less likely they are to be struck by a vehicle. To improve pedestrian safety, the Town should prioritize projects that improve visibility and time in the roadway. This could include enhanced lighting, reduced crossing distances across roadways through road diets, continued investment in bump outs, adding pedestrian refuges where possible and more.




Lighting advances that focus light at crosswalks and that "spotlight" the pedestrian increase visibility and reduce crashes.
(Sources: Left Image: Right Image:** https://www.howardindustries.com/products/ped-crossing-signs**)

A3.2. Enhance lighting at intersections and other crossings to focus on pedestrians.

Lighting at intersections in Arlington is provided by overhead streetlights that generally illuminate the entire roadway, not specific locations where pedestrians are most vulnerable - crosswalks. Designing and installing pedestrian-oriented lighting at intersections can provide greater pedestrian visibility to oncoming vehicles in darker hours.

The town should prioritize lighting enhancements through a combination of brighter overhead lights at crosswalks, flashing light systems (e.g. RRFBs) at mid-block crossing locations; pedestrian actuated light path systems including in-road flashing lighting, focused pedestrian crossing lighting, and more.

A.4. Study potential to reconfigure Mass Ave in Arlington Center to enhance safety by reducing user conflicts through a road diet.

As highlighted in the **Fact Book**, Mass Ave through Arlington Center is a State-designated pedestrian and bicycle crash cluster. And while many initiatives have been undertaken and completed to improve safety, more could be done, and has been studied, including a

preferred alternative to enhance traffic and safety conditions. However, with this plan's emphasis on enhancing pedestrian, bicycle and transit connectivity over that of cars, it is recommended that the project be explored further.

The previously identified strategy appears to prioritize vehicle throughput over bicycle and pedestrian comfort and does not enhance the transit experience. The opportunity to proactively reimagine how Arlington Center functions from the perspective of all modes, and to design it move more people – not just cars – more efficiently and safely could address multiple strategies included in this plan.

For example, a potential design solution to enhance pedestrian safety, provide safer bicycle facilities and slow vehicle speeds would be exploring a 4-to-3 lane road diet, with one travel lane in each direction and a center turning lane, a similar configuration as found west of Bartlett Avenue. The road diet would reduce crossing distances for pedestrians, provide room for separated, parking protected bike lanes, and potentially bus priority lanes (during peak travel times), and slow vehicle speeds.

[SHOW CONCEPT HERE UPON APPROVAL]

A.5. Develop educational programs that promote safe travel behavior by ALL users.

Safe travel is every user's responsibility - drivers, bicyclists, pedestrians, and personal mobility users (e.g. electric scooters, skateboards, etc.). Developing educational materials including signage, online materials, presentations, pamphlets, and more can encourage safe behavior by providing greater knowledge about user protocols and rules that make getting around safer for all. Potential initiatives could include:

- **School Bicycle Safety Programs** that teach children how to safely ride bicycles in Arlington including traffic rules (e.g. stop at red lights), how to use a one-direction bike lane, and more.
- **Share the Path** – The Minuteman Bikeway is a heavily used multiuse path. Developing a comprehensive safety program through enhanced signage, pavement markings and other user information would help to inform those not versed in how to successfully share the path.

A.6. Ensure streetscape plantings do not limit visibility.

Dense and tall plantings, shrubs, and trees can limit visibility along roadways, particularly at street corners, driveways, and roadway medians and at bump outs, where they limit visibility of all users. Policies to ensure plantings do not impact safety could include:

A.6.1 Develop educational materials and distribute to property owners about responsible plantings on private property that improve visibility and safety. Examples include use of groundcover instead of shrubs, planting or moving shrubs further into the property, trimming hedges below 2 feet and more.

A.6.2 On public property - bump outs, medians, sidewalk (corners) – only allow plantings 2.5 feet high or lower. Within 20 feet of a corner, median intersection, pedestrian, or bike crossing, avoid tall shrubs and grasses that block views, tall planters, street trees, etc. Planting locations and types should be considered in all roadway infrastructure projects, particularly those addressing high pedestrian areas. Additionally, individuals or groups responsible for streetscape plantings – e.g. garden clubs, merchant groups, and others – often require education about roadway safety and plantings.

A.7 Continue to implement initiatives that enhance safety to and from schools and community facilities including Safe Routes to Schools projects and programs and Arlington's ADA Transition Plan infrastructure improvements.

(Please see strategies included in Section B: Mobility Options for All)

B. MOBILITY OPTIONS FOR ALL

MOBILITY SOLUTIONS FOR ALL AGES, CAPABILITIES, AND INCOMES.

B.1. Continue to allocate funding to implement transportation improvement projects identified in the Town's recently updated Americans with Disabilities Act (ADA) Transition Plan.

Ensuring transportation facilities are accessible to all must be prioritized for Arlington to be a connected community for all. Numerous initiatives are identified in the ADA Transition Plan including sidewalk and access improvements (ramps, ADA parking, van parking) at schools, public buildings, recreation facilities and more. The Town currently allocates funding for these improvements; however, it is unclear how much money is dedicated to these projects, or which projects have been prioritized. Including all ADA improvement projects in the recommended Local Transportation Improvement Project (LTIP, see Strategy X.X for more information), would provide transparency into the process and decision-making and provide a mechanism for input into priorities from users and advocacy groups.

B.1.1 Require all sidewalks to be constructed with materials that are accessible to all.

While many like the aesthetic appeal of brick sidewalks, they are not an optimal option for those with mobility impairments. Brick sidewalks typically provide rougher surfaces which inhibit travel for those with mobility impairments. To ensure sidewalks are accessible, all sidewalks in commercial areas, town facilities and along major pedestrian connections should be constructed using concrete. Decorative brick or other rough finishes may be allowed in some circumstances as long as they do not impede the users path.

B.2. Continue to develop and implement Safe Routes to School projects.

There are several thousand children attending Arlington's schools. Encouraging them to walk or bike and not drive is not only good for their health, but it also reduces traffic congestion and greenhouse gas emissions. Safe Routes to School (SRS) are programs and infrastructure projects that aim to provide safe transportation networks for children to walk and bike from their homes to their schools. Funding for the program can come from both the State and the town. State funding has been limited in recent years, and the program is set for a rehaul. Regardless, Arlington should prioritize investments that enhance connectivity to and from schools throughout town. It should also consider school connectivity in all major projects whether its directly connected with the project or not. For example, any roadway project that potentially impacts a child's walk or bike to school must address their safety.

B.3. Explore opportunities to improve access to and increase capacity, safety, and on the Minuteman Bikeway.

The Minuteman Bikeway is the central active transportation spine through Arlington, providing a picturesque, separated multi-use path for bicyclists and pedestrians connecting to Lexington and Bedford to the north and Cambridge to the south. The facility serves as both a recreational amenity for bicyclists, runners and walkers, and a convenient commuting route for residents and workers, connecting to Cambridge and the Red Line at Alewife in Cambridge and to the Somerville Community Path and Davis Square. It is popularity and heavy use has also resulted in conflicts among different users – bicyclists and pedestrians – and vehicles at roadway crossings. Given these conditions, the Town should explore opportunities to expand capacity, separate users where possible, and enhance connections to neighborhoods and commercial areas.

B.3.1. Prioritize opportunities to separate bicyclists from pedestrians to both expand capacity and enhance comfort and safety.

The Town will soon engage a consultant to study options to expand capacity along the Minuteman Bikeway. Based on ridership counts reviewed and public feedback received, the southernmost segment through East Arlington would benefit most from separation. The increased capacity combined with facilities designed for different speeds would also add comfort and improve safety for different modes.

B.3.2. Install lighting to increase visibility and safety during dark hours.

Developing a lighting plan to illuminate the bikeway would attract more use, particularly in darker months when many commuters return home after sunset. Lighting would improve user safety by reducing potential crashes between users and impediments in the pathway visible from a distance, and the perception of safety in more remote areas some distance from connections.

Systems that direct light onto the path are recommended to minimize light impacts on residential abutters.

Minneapolis: Separated paths provide softer surface for pedestrians and runners, and asphalt path for bicyclists.

B.3.3. Improve and/or add additional neighborhood connections.

Ensure that all neighborhood connections, where they exist or can be added with minimal effort, are designed to accommodate all users safely. Connector paths should be no less than 8 feet wide to provide space for both bicyclists and pedestrians, which travel at different speeds.

B.3.4. Develop a comprehensive wayfinding and user safety program for the bikeway.

Signage to educate new and returning users how the pathway should be used, or which pathway to use (if separate facilities are constructed) would help to reduce user conflicts. Wayfinding signage could also be used to encourage recreational users to stop in Arlington's commercial centers to stop and support local businesses.

B.4. Increase car-share availability and membership in Arlington.

Not everyone wants or can afford to own a car. Providing more-car share vehicles throughout Arlington would provide the option to use a vehicle when needed by many. There are many options to increase car share availability, including:

- Provide car-share service providers (e.g. Zipcar) with dedicated on- and off-street parking spaces free of charge.
- Develop a Community Car Share program of Town-owned vehicles managed by a third-party entity.
- Include car share as part of parking requirements in new multi-family, or larger commercial developments.
- Provide car share memberships to all Town employees for Town related travel.

B.5. Promote (and provide free or subsidized) bicycle share memberships.

Bike share (Blue Bikes) provides an alternative transportation choice to many who cannot afford or do not wish to own a personal bike. Blue Bikes offers an Income-Eligible program to those with an EBT Card, reducing the monthly membership to $5 or annually to $50. This may still be out of reach for some. Providing additional local subsidies – e.g. free memberships to qualifying people – would make bike share available to all.

B.6. Develop policies and guidelines (design and user guidelines) that promote the safe use of emerging mobility devices and services including e-bikes, scooters, skateboards and other micro mobility options.

Micro-mobility includes existing mobility options like bike share, as well as an expanding list of options from e-bikes and scooters (shared and private), electric skateboards, and more to come. Developing guidelines and/or regulations for where and how different devices should travel is recommended so that all roadway users are aware of what is and isn't allowed to travel on a facility. For example, should e-scooters be allowed on a multi-use path, in a bike lane, or in a vehicle travel lane? What about higher speed e-bikes?

Design guidelines should also be established to inform future roadway and trail design projects. For example, multi-use paths should be wider if they are intended to allow e-bikes and other e-assist device which travel at higher speeds. Pedestrians should be separated from these users wherever possible to avoid conflicts and potential crashes.

B.6. Expand transit options to Arlington residents and workers through local shared transportation programs and services.

Currently, 11 MBTA bus routes run through Arlington; however, all are designed to funnel passengers to rail connections, most notably the Alewife Red Line station. For many, bus routes do not provide efficient connectivity to and from neighborhoods, or are too far for many to walk to, particularly those with mobility challenges exacerbated by challenging topography. Arlington could provide supplementary local services to bridge the gap.

B.6.1 Continue to partner with TNCs to provide door-to-door connectivity, including subsidized rides to qualifying residents, to those who do not drive.

TNCs (Transportation Network Companies) like Uber and Lyft provide door-to-door services through mobile applications at a premium cost not affordable or accessible to all users, including those without a smartphone or knowledge of how to use the applications. The Town should continue to partner with TNCs [CONFIRM COA IS ALREADY DOING THIS] so that rides could be arranged in advance and by phone through Council on Aging transportation services or another entity.

B.6.2 Explore opportunity to launch local transit service through contracting with a third-party micro-transit service.

See Strategy E.4. for details.

B.6.3 Explore opportunities to partner with abutting communities to fund fixed route services that enhance local connectivity.

See Strategy E.4. for details.

C. A PEDESTRIAN FIRST, WALK-FRIENDLY ENVIRONMENT

The most important element of any transportation network is the pedestrian realm. It is the only mode of travel that is a part of every trip, whether it is all on foot or at the beginning or end of a car, transit, bicycle of other mode. It is also the most equitable trip type in that the pedestrian realm can be used by all at no charge. As such, ensuring that all of Arlington is connected by well maintained pedestrian infrastructure is parament.

C.1. Create and implement a sidewalk improvement program.

Arlington currently allocates $500,000 annually to sidewalk improvements to enhance the pedestrian environment, but more can be done. There are many public streets in residential areas that do not have sidewalks, existing sidewalks in poor condition or not ADA-accessible, and more. As shown in the Fact Book, existing sidewalks vary in quality and condition. The Town should use the existing sidewalk conditions inventory and develop a multi-year funding and implementation program to fill in pedestrian network gaps and ensure all sidewalks in Arlington are in good condition, free of tripping hazards, and fully ADA compliant. [CONFIRM WITH PUBLIC WORKS IF THEY HAVE A MULTI-YEAR PROGRAM. IF SO ADJUST.]

A transparent program will provide all with a better understanding of what is planned, why it is planned, which projects are currently funded, and when future projects are anticipated. Because sidewalks have varying levels of foot traffic depending on their location and purpose, the plan should balance improvements (and funding) to address needs in high traffic pedestrian areas (e.g. commercial areas), pedestrian routes to schools (e.g. Safe Routes to Schools), recreation and transit, and with lower pedestrian traffic neighborhood side streets. A program would also provide opportunities for public input into the process

C.2. Continue to ensure all pedestrian facilities are fully accessible, ADA-compliant and maintained.

Crosswalks indicate to pedestrians and drivers alike where roadway crossings should occur - a critical component of roadway safety. Ensuring crosswalks are visible and well defined and accessible encourages more to walk. Throughout Arlington, there are many crosswalks that are faded, that have non-compliant ramps or in some cases no ramps at all and are located at intersections that lack accessible pedestrian signals.

C.2.1. As part of the sidewalk improvement plan, develop a plan to install, upgrade and maintain ADA-compliant ramps and tactile warning strips to become fully ADA-compliant.

Crosswalks in high pedestrian traffic areas should be prioritized.

C.2.1. Require accessible pedestrian signals for all new traffic signal installations, and proactively upgrade existing signals to increase safety for those with visual and hearing impairments.

Accessible pedestrian signals include devices that communicate information about “Walk” and “Don’t Walk” times at signalized intersections and crosswalks in visual and audible ways.

C.3. Remove slip lanes to square intersections where feasible to improve pedestrian safety.

Slip lanes are designed to expedite vehicular travel to the detriment of pedestrian safety. They encourage cars to travel at higher speeds and require multiple crossing for pedestrians. Removing slip lanes slows cars by requiring a sharp right turn and reduces the number of crossing for pedestrians. Locations to study include:

- Mystic Street and Chestnut Street
- Medford Street and Chestnut Street

C.3. Expand and maintain the existing street tree canopy to improve pedestrian safety and comfort.

Street trees are not only an aesthetic complement to our roadways. Street trees have been shown to decrease vehicle speeds by more clearly defining right of way (ROW) reserved for vehicles by reducing the perceived roadway width. Slower vehicle travel creates a safer, more comfortable pedestrian network. Street trees also provide cooling shade for pedestrians on sidewalks, reduce heat island impacts during warmer months, and absorb CO2.

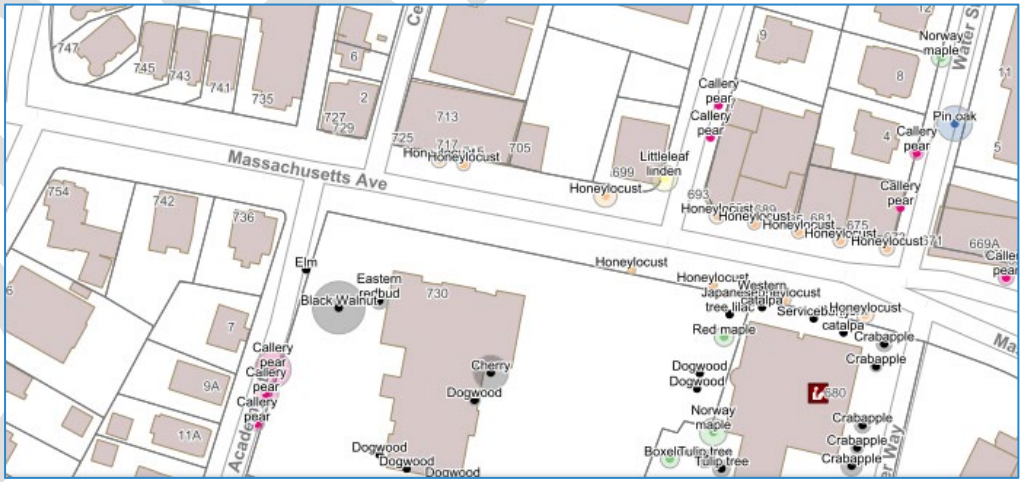


Figure 1: Arlington Street Tree Inventory

C.3.1. Develop a street tree planting program and implement over time.

Using the Town's street tree inventory, developing a multiyear plan would provide not only comfort and safety enhancements, but a strategy for implementation and/or allocating funding from the Town.

C.4. Define policies and strategies to address sidewalk damage caused by tree roots to ensure sidewalks are accessible to all users, and free of tripping hazards.

Street tree roots cause many sidewalks to crack, buckle, and spall, resulting in tripping hazards and in some cases impeding access (particularly those with mobility impairments). Given the importance of street trees for many reasons – aesthetics, sustainability, pedestrian comfort – multiple interventions should be used to more effectively repair or prevent sidewalk damage from tree roots.

Potential solutions include "shaving" protruding sidewalk edges to smooth transitions by reducing tripping hazards, selecting street tree species with deeper root systems, constructing sidewalk extensions into the "parking lane" to provide an accessible path, requiring larger ADA-compliant tree grates, and potential root removal (approved by the tree warden).

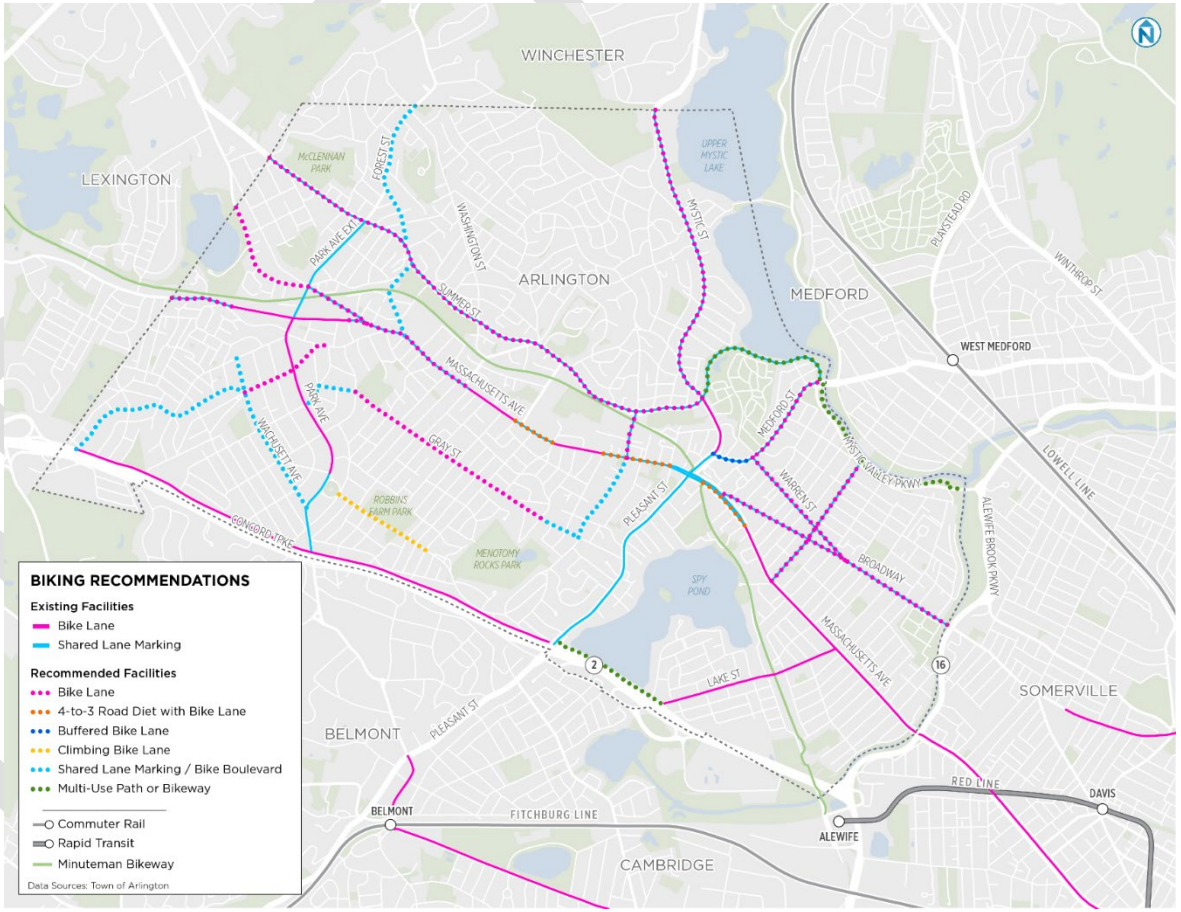
D. A LOW-STRESS BICYCLE ENVIRONMENT

CONNECTING PEOPLE IN ALL AREAS OF ARLINGTON ON DEDICATED, COMFORTABLE FACILITIES

A key strategy in reducing the need to drive, particularly for short- and medium- range trips, is to provide an interconnected network of dedicated bicycle facilities and amenities that make bicycling a safe, comfortable and practical option – a preferred choice - for more residents and workers. More bike trips also support other sustainability goals – they emit no greenhouse gasses and provide health benefits to users.

Arlington is fortunate to have a major off-road bicycling north-south spine - the Minuteman Bikeway - and a growing secondary on-road route along much of Mass Ave, especially in East Arlington. What the town currently lacks are safe, comfortable facilities feeding neighborhoods, schools and recreational open spaces to and from these key routes. As such, a key goal of this plan is to connect more people to these facilities by expanding the network, prioritizing projects that connect to the spine, radiating out over time to create a connected network without gaps.

While a comprehensive Bike Master Plan should be considered to develop a truly comprehensive strategy, this plan recommends the below initiatives to achieving a low-stress bicycling network.



D.1. Prioritize new bicycle facilities along corridors currently designated as Arlington's "lane-sharing network".

As described in the Connect Arlington Fact Book, the below roadways are designated as the Town's "lane-sharing network," corridors that connect neighborhoods to commercial centers, schools, and regional transportation networks. However, although designated as key bicycling corridors, these roadways do not currently have bike lanes or shared markings ("sharrows") indicating their intent. They include:

- **Foster Street/Rawson Road** between Mass Ave and Mystic Valley Parkway
- **Medford Street** between Mystic Street and Mystic Valley Parkway
- **Mill Street** between Summer Street and Mass Ave
- **Mystic Street** between Mystic Valley parkway and the Winchester town line.
- **Summer Street** between Mystic Street and the Lexington town line.
- **Pleasant Street** between Mass Ave and Route 2
- **Park Avenue Extension** between Mass Ave and Summer Street
- **Park Avenue** between Park Circle and Concord Turnpike
- **Massachusetts Avenue** including all areas not currently served by a bicycle lane
- **Broadway** from Arlington Center to Alewife Brook Parkway
- **Warren Street** between Medford Street and Broadway

(Note: Until recently, Lake Street was included as part of the lane-sharing network; however, bicycle lanes were striped in Fall 2020. Between the Minuteman Bikeway crossing east to Route 2. This change occurred after the plan's existing conditions analysis was completed.)

D.1.1. As an interim improvement, add sharrows to all "lane-sharing network" corridors.

As noted, few sections of the lane-sharing network include any pavement markings or road signage indicating shared use. Adding sharrows along these corridors, along with roadway signage indicating shared use, is a relatively low-cost solution to indicate their purpose.

While sharrows are intended as an interim step for most of these corridors, given limited roadway dimensions of Park Avenue Extension and Pleasant Street, shared lane markings will likely be the final design treatment. For these routes, the Town should consider installing green-backed sharrows as they are more visible to drivers and bicyclists, an important consideration on roadways with heavier volumes.

D.1.2. Complete the bicycle lane network along all of Mass Ave.

Approximately half of Mass Ave has dedicated bike lanes, the largest contiguous portion of which was completed through the roadway's redesign in East Arlington. Northwest of Arlington Center features a combination of bike lanes connected by shared lane markings. Areas with sharrows should be converted to bike lanes. Given the roadway dimensions, this will likely require removal of parking on at least one side of the road. The Town should engage with abutters to design a project that meets the needs of both bicyclists and abutting property owners.

D.1.2. Prioritize new bicycle lane projects that connect to existing bicycle facilities in high conflict areas as to create a safe, contiguous bicycle lane network.

An important consideration when planning for and achieving a town-wide bicycling network, is developing facilities that feed into and provide direct connectivity to existing facilities to form contiguous, continuous dedicated facilities that will appeal to riders of all comfort levels.

Initial bike lane priorities should focus on segments of the lane sharing network that connect to or are a short distance from the Minuteman Bikeway, Mass Ave and other existing facilities.

For example, one potential project could include adding bicycle lanes to short segments like Mill Street between Mass Ave and Summer Street; combined with the segment of Summer Street between Mill Street and Mystic Street. This would provide a contiguous bicycle network between the Minuteman Bikeway to Mass Ave bike facilities (See D.1.1.) and connect to existing on-road bike lanes on Mystic street.

BEST PRACTICES AT WORK: LAKE STREET BIKE LANES

Arlington is already taking steps to create a connected bicycling network. The Town recently added dedicated bike lanes on Lake Street between the Minuteman Bikeway crossing to Route 2. The project shows the importance of connecting new facilities to the existing network. These dedicated lanes not only provide increased safety and comfort for those using them, but they were also designed to feed bicyclists from low stress neighborhood streets to Lake Street to connect to the Minuteman Bikeway.

D. 1.3. Prioritize corridors that provide safe facilities to schools and other community facilities.

In addition to completing bike facilities along Mass Ave, which better connects all of Arlington to the high school, prioritizing bicycle lanes on corridors that enhance connectivity to Arlington schools would make bicycle trips safer. Providing safer routes could encourage more parents not to drive their children to school, reducing peak hour congestion and decreasing their carbon footprint. Priority corridors to add lanes could include: Foster Street/Rawson Road.

[QUESTION: Why isn't Bates Road/River Street on this list. The road appears wide enough to provide bike lanes on both sides – if no parking is allowed, is within a block of two schools, connects to West Medford directly, and appears could connect directly to the Minuteman Bikeway. It's also a two-way street – wouldn't requite contraflow, etc. Safe Routes to school program could address preferred biking routes.]

D.1.3. Add bike lanes to corridors that connect Arlington residents and workers more efficiently to regional transit.

Getting more residents and workers to commute by means other than the car is a key strategy to reducing overall congestion and impacts on the environment from cars. Adding dedicated bicycle lanes along corridors that more efficiently and safely connect residents and workers to transit stations should be a priority. This includes corridors like Medford Street to better connect to the West Medford commuter rail station (as would Bates Road/River Street – see above); and Broadway which will connect to the future Green Line station in Ball Square (Somerville).

D.1.3.1. Work with neighboring cities and towns to build bike facilities that connect to those in Arlington to enhance regional bicycle connectivity.

Bicycle travel will be safer and more efficient if they connect across municipal borders. The Town of Arlington should work with neighboring towns to develop and build bike lanes on roadways that meet with bicycle lanes in Arlington to create a greater regional network. Corridors that lead to transit connections, commercial centers and more should be prioritized. Potential examples include working with the Town of Medford to provide bicycle facilities on High Street between Arlington and West Medford (commuter rail); Belmont along Lake Street and/or Pleasant Street to connect to Belmont Center; and Somerville along Broadway.

D.1.4. Design and stripe bike lanes along the remaining "lane sharing network".

Each of the corridors presents design challenges due to limited ROW – they are too narrow to accommodate all of the competing users – driving lanes, parking lanes, bicycle lanes, sidewalks, etc. The Town should study each of the corridors and develop a short- to medium-term implementation plan to provide safe, dedicated bicycle facilities on each – buffered or

separated lanes, wherever possible. Based on the Project Team's assessment, the primary trade-off to providing bike lanes on these routes will be the removal of on-street parking along some segments. (The Town should engage with abutters from the outset to understand the impacts that may result from removal of on-street parking.)

To ensure progress is being made, the Town could prioritize implementation along corridors that require minimal removal of on-street parking, while ongoing outreach and design strategies are developed for corridors that require more trade-offs. This could include initial corridors like Mystic Street from Alewife Brook Parkway to the Winchester line; and Summer Street from Mill Street, which look to be possible with minimal removal of on-street parking.

D.2. Establish dedicated or preferred bike routes ("bike boulevards") on roadways that connect to neighborhoods and schools.

Roadways not currently included in the Town's lane sharing network, should be considered for additional bicycle lanes or as established preferred shared bicycle routes. Routes that enhance connectivity town wide for bicyclists, as well as those that improve access to schools and other public amenities should be prioritized. This could include bike lanes on Gray Street, portions of Wollaston Ave (east of West and Tanager St), as well as shared roads - "bike boulevards" – on low-traffic streets that provide safer bicycle travel parallel to high traffic roadways, and/or that lead to schools.

D.2 Add or upgrade bicycle parking along commercial corridors and at public facilities.

Providing more and the quality bicycle parking (in conjunction with more bicycle lanes) will encourage many to take a bicycle over a when they know their bicycles can be locked up safely. New or upgraded bicycle parking should be installed at the following locations:

- Major Commercial Areas (Arlington Center, East Arlington, Arlington Heights)
- Small Commercial Clusters (Broadway at Rawson, Tufts and Oxford streets; Summer Street at Mystic Avenue and Mill Street)
- MBTA bus stops
- Public facilities including parks, public buildings and more.

U-ring bike racks are a preferred rack style as they provide better locking options for bikes. In some locations – where room exists, bike cages or individual bike lockers – should also be considered.

D.3 Study potential to redesign major intersections and rotaries/roundabouts to provide dedicated bicycle lanes that improve rider safety and comfort.

Major intersections, particularly those with awkward geometries (e.g. no right angles), as well as rotaries and roundabouts are challenging and dangerous to travel through for all but the most experienced bicyclists.

Redesigning and reconstructing these facilities to prioritize bicycle and pedestrian safety would encourage more bicycling by providing comfort to more riders.

D.2.1. Identify and redesign high conflict intersections to improve bike safety.

As the Town's bicycle network expands, ensuring bicyclists can travel safely through challenging intersections is essential. Potential intersections to redesign for bicycles could include Mystic Street and Chestnut Street, Mystic Street and Mystic Valley Parkway, Massachusetts Ave and Park Ave, Broadway and Warren Street and more.

D.2.2. Explore options for redesigning the Park Circle and Medford Street/Mystic Valley Parkway rotaries to incorporate dedicated facilities that allow for safer bicycle (and pedestrian) movement and slow vehicle travel.

Rotaries are here are many resources available, including the ***MassDOT Separate Bike Land Planning and Design Guide,*** offering best practice design strategies to provide separated bicycle lanes through rotaries/roundabouts.

(Funding sources for implementing these projects could include Complete Streets funding (requires project to be included in approved Complete Streets Prioritization Plan), MassWorks grants (if tied to economic development), non-profits and foundations, Town funding and more.)

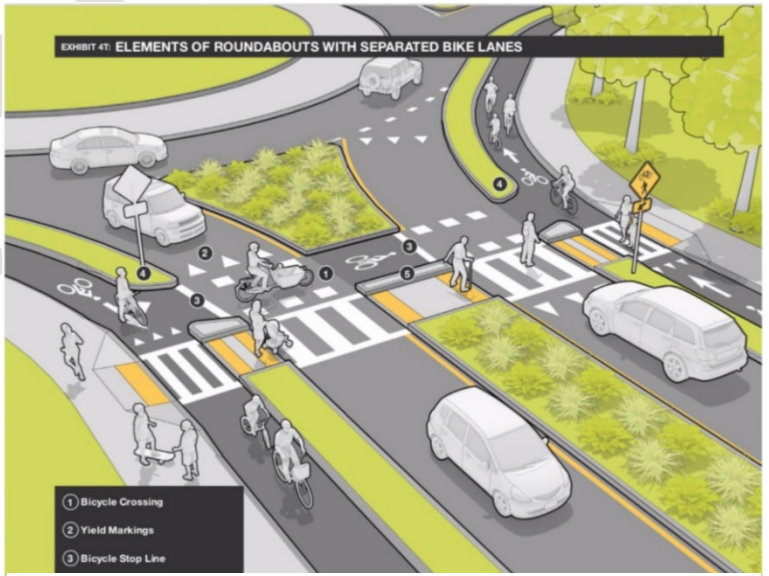


Figure 2: Roundabout Design with Separated Bike Lanes (MassDOT)

E. TRANSIT RICH ENVIRONMENT

RELIABLE, FASTER AND COMFORTABLE TRANSIT TO ENCOURAGE RIDERSHIP

Arlington residents were clear about their desire for improved transit service throughout the planning process, even during the COVID-19 pandemic where physical distancing requirements resulted in decreases in transit use throughout the region. They recognized that transit could move more people, more effectively and efficiently over long distances than, or in combination with, other modes.

E.1 Increase bus frequency on highest ridership bus routes to reduce crowding and provide greater comfort.

The Town should advocate for and proactively work with the MBTA to increase bus frequency, particularly along high ridership routes, to both provide greater convenience to riders through shorter headways (i.e. wait times between buses), and to reduce overcrowding to provide greater comfort. Additionally, providing more commuters with the ability to sit can increase productivity during longer commutes by allowing them to work while they commute.

E.2 Study potential for and implement more bus priority lanes to reduce transit trip times.

The bus priority lane project in East Arlington has successfully decreased bus trip times and has done so by expediting bus travel for only a few blocks. Expanding bus priority lanes along high ridership routes where congestion significantly decreases transit travel time should be prioritized, including:

- **Mass Ave/East Arlington:** Extend bus priority lane to Lake Street in East Arlington to further reduce am peak bus travel times.
- **Mass Ave/Arlington Center and Arlington Heights:** Study potential for additional bus priority lanes along all of Mass Ave, with and identify segments with greatest potential. Priority areas would include Arlington Center and Arlington Heights.
- **Broadway:** Study potential for bus priority lanes to expedite trips between Arlington and Somerville/Davis Square.

E.3 Enhance the bus stop experience to provide greater rider comfort and increase convenience.

A transit experience that is comfortable, convenient, and predictable contributes to repeat and regular use. This extends beyond the bus ride and to the bus stop. While Arlington does not have the authority to change MBTA routes or schedules, it can invest and improve station areas to provide a more comfortable and convenient transit experience.

E.3.1 Provide sufficient seating at or proximate to MBTA bus stops.

Many bus stops in Arlington include MBTA bus shelters with some, but not enough seating. Arlington should provide additional public benches proximate to bus stops to provide more seating, particularly for those unable to stand for long periods of time between buses. Bench design consistent with or complimentary to bus shelters would visually connect Town provided amenities to the bus stop.

E.3.2 Provide bike parking at or proximate to all bus stops. Locations with highest boardings and alightings should be prioritized.

Providing bike racks at bus stops encourages more to bike to transit knowing that a location is provided to park and lock their bike securely. At a minimum, U-ring bike racks should be included at all bus stops. If sidewalk space is not adequate, using roadway space for bike corals, ideally separating the bus stop from parking) should be used.

E.3.3 Co-locate bike share stations at major bus stops.

As the Blue Bike bike-share program grows over time, co-locating hubs at major bus stops (e.g. Arlington Heights, Arlington Center, East Arlington), particularly stops with convenient access to the Minuteman Bikeway, will provide more of a seamless transition from transit to active transportation connections.

E.3.4 Invest in technology infrastructure to improve information and connectivity/communication.

Over time, the Town should invest in, partner with third parties (e.g. digital advertising vendors), and partner with the MBT to install technology able to communicate bus route, schedule and real-time arrival information, travel alerts and weather impacts, local announcements and more. Systems that provide free wifi, device charging (for phones, tablets and more) and other amenities would further enhance the transit experience.

E.3.5 Design and implement micro-mobility hubs at bus stops along Mass Ave.

To increase transit use and convenience, bus stops along Mass Ave should be adapted to become neighborhood-serving mobility hubs. Mobility hubs collocate multi-modal services and amenities, often at transit stops, to provide convenience, flexibility, and mode choice. This could include bicycle parking, bike share hubs, on-street reserved car-share parking, TNC pick-up and drop-off zones, information hubs, seating and more.

As shown above, many bus stops in Arlington to not include bike parking, limiting opportunities for those who may bike to transit looking for more secure parking amenities.

[SHOULD WE SHOW THIS AS A MICRO-MOBIILITY HUB RETROFIT WITH BIKE PARKING, RIDE HAILING, MORE SEATING, INFO, ETC.]

E.4. Expand local transit options for Arlington residents and workers.

The Town of Arlington has limited ability to change MBTA bus service. However, it can provide additional local transit options to enhance connectivity within Arlington and to and from neighboring towns and cities.

B.6.2 Explore opportunity to launch local transit service through contracting with a third-party micro-transit service.

Micro-transit services are launching in communities across the country. These third-party contract transit services typically offer on-demand rides and often door-to-door service in smaller ADA-accessible vehicles (e.g. vans) within a defined geography. Rides can be requested either through a mobile app or by phone through a dispatcher. Micro-transit services can be limited to specific populations (e.g. seniors or low-income) or used by all. Communities like Newton, MA have switched to micro-transit for their COA services, whereas other communities like Salem, MA are exploring options to serve all residents, particularly those not within an easy walk of existing MBTA bus transit.

The Town should conduct a study to define the best micro-transit options to meet its needs and issue an RFI to better understand the level of service and costs to operate such a system.

B.6.3 Explore opportunities to partner with abutting communities to fund fixed route services that enhance local connectivity.

Operating a fixed route transit service can incur significant costs, and in many cases, the ridership does not justify the investment of Town funding. However, opportunities to partner with neighboring communities to provide additional transit service should be explored whenever possible to provide enhanced local connectivity to goods and services within and across town lines. For example, Lexington's locally-operated service – LexExpress – provides service to and from Alewife. Additional funding from Arlington could be leveraged to add stops in Town, increasing options for Arlington residents.

F. REDUCED CLIMATE IMPACTS FROM TRAVEL IN ARLINGTON

MANAGING TRAVEL DEMAND TO REDUCE DRIVE-ALONE TRIPS, AND INVESTING IN SUSTAINABLE INFRASTRUCTURE

G.1. Manage travel demand to reduce single-occupancy vehicle trips and emissions.

Transportation Demand Management include policies and strategies that enhance livability and convenience, primarily by promoting mode shift from single-occupancy vehicle trips to alternatives like walking, biking, carpooling and transit use. TDM comes in many forms including commuter programs, tax incentives, parking management, land use planning and more.

G.1.2 Continue to develop and promote Transportation Demand Management (TDM) strategies that reduce employee car trips.

In addition to transportation demand management strategies included in zoning (e.g. required bicycle parking), the Town should encourage or require employers to provide incentives that reduce employee car trips to and from work. TDM programs include "free ride home" options, discounted transit passes, bikeshare memberships, carpool incentives, remote work allowances, and for larger development projects, incentives or requirements to reduce parking, incorporate bike and pedestrian infrastructure and amenities, and more. The Town could lead by example by developing its own program to encourage Town employees to leave their car at home.

G.1.3. Continue to encourage and incentivize mixed-use, higher density development near transit and jobs.

People who live or work in or adjacent to mixed-use environments, and especially those served by transit, often drive less because it's more convenient to walk or bike to eat, shop, or hop on a bus or train. In so doing, they reduce their carbon footprint by reducing or eliminating single-occupancy vehicle trips. Arlington allows for mixed-use higher density zoning in its commercial districts and should continue to explore more programs and incentives that integrate land use considerations with transportation needs.

G.1.3.2. Consider establishing a Chapter 40R Smart Growth Zoning Overlay District to allow for dense residential and mixed-use development.

Smart Growth Overlay Districts (40R) encourage municipalities to establish higher-density residential and mixed-use zoning districts near transit stations and services and other existing development concentrations like existing town centers and villages and include a higher percentage of affordable housing. Districts must be approved by the State, and once approved,

communities are eligible for Chapter 40R payments for each unit created and may qualify for Chapter 40S reimbursements for costs associated with school children residing in 40R developments.

Establishing a 40R Smart Grown Zone along portions of Mass Ave and other select areas would benefit Arlington beyond providing more affordable housing. It would concentrate higher densities along major transit routes to encourage car-light lifestyles, provide units to qualifying low-income households in locations near transit and goods and services; and provide more customers to local businesses without the need to add additional public parking.

G.1.3.1. Consider zoning amendments that reduce the need to drive through parking maximums (not minimums), increased bike parking requirements and other mechanisms.

Parking maximums limit the total parking allowed within a development to reduce driving and encourage residents and workers to use other modes of travel. Parking maximums typically work only in mixed-use areas proximate to essential goods and services – e.g. grocery stores - and frequent transit service. In Arlington, this would include all of Mass Ave.

Additional zoning strategies, like increased bicycle parking requirements to at least one per unit, car-sharing space provisions and more should also be considered. Car-share in particular would offer residents a car option when needed.

In addition to encouraging non-auto trips, zoning requirements that reduce parking lower total development or redevelopment costs leading to more affordable housing options; and reduce household expenses associated with owning a car (e.g. monthly payments, parking costs, gasoline and insurance).

G.1.2. Create a Transportation Information page on the Town website.

Create a dedicated page – a “One Stop Shop” – to provide information about and links to transportation resources and services for those who live a car-free or car-light lifestyle. The page should include information about car-share options and locations, bike share locations, transit routes, schedules, and real-time information (local and MBTA), and more.

G.2. Implement mobility recommendations included in the Towns Net Zero plan to reduce greenhouse gas emissions stemming from the transportation network and its users.

The Town of Arlington’s Net Zero plan includes numerous strategies to reduce emissions stemming from the transportation network and its users. The framework includes many of the recommendations considered during the Connect Arlington planning process – including the need to increase electric automobile charging stations, transitioning to an all-electric municipal fleet of vehicles and more. Several of the Net Zero mobility recommendations are already included as part of other strategies – e.g. promoting car share and zoning changes. In addition, the Town should work to implement the following recommendations included in the Net Zero plan:

- Create and implement a plan to expand public electric vehicle charging at libraries, business districts, public parking and other facilities, both on- and off-street.
- Adopt a zero-emission municipal fleet and charging infrastructure plan and policy that commits to complete transition to zero emission vehicle purchases by no later than 2030.
- Advocate for improved utility rate designs to facilitate smart electric vehicle charging and accelerate EV adoption.

H. INFRASTRUCTURE AND POLICIES TO SUPPORT THE LOCAL ECONOMY AND RESIDENT QUALITY OF LIFE

CURBSIDE, ACCESS, AND PARKING STRATEGIES THAT SUPPORT LOCAL BUSINESSES.

Local businesses rely on all modes of transportation to connect customers to their businesses, workers to their jobs, and to deliver goods and services sold at or sent from their location.

H.1. Consider changes to parking regulations and policies that more effectively manage public on- and off-street parking throughout Arlington.

Public on- and off-street parking doesn't simply provide locations for residents, customers and employees to park; it influences travel patterns and mode choice, and when managed and designed inefficiently, can lead to increased congestion from circling cars searching for parking, to double parking and more. The Town should continue to study public parking and identify strategies to more effectively manage and operate existing facilities and revise regulations and policies to maximize their use.

H.1.3. Allocate funding to study parking along all of Mass Ave with an emphasis on Capitol Square/East Arlington and Arlington Heights.

Conducting parking studies for the remaining areas of Mass Ave – and updating inventory and utilization gathered as part of the Arlington Center Parking Study – would provide a complete picture of parking along Arlington's central roadway spine. Information from the study would provide information necessary to adjust and better manage parking along the whole corridor in ways that encourage turnover, and to identify locations where parking could potentially be removed to support other modes (e.g. bus priority or bicycling).

H.1. Rethink the curb and design it to support competing users and needs more effectively.

The curb, often called the "parking lane", has traditionally been reserved for on-street parking, the result of decades of transportation planning focused on accessing business districts by car, including in Arlington. Changing travel preferences combined with new and growing transportation options (e.g. Uber, Lyft, bike share, car share, e-scooters) and increased delivery services (e.g. the "Amazon Effect", food delivery), require more nuanced approaches for use of valuable curbside real estate.

H.1.1 Identify locations for dedicated curbside zones for pick-up and drop-off activity.

More and more people (of all ages) access commercial centers, particularly those with concentrations of eating and drinking establishments and cultural attractions, by ride hailing services like Uber and Lyft. When there is no location for TNC vehicles to pull over to pick-up and drop-off passengers, vehicles stop in the roadway, putting riders at risk, and/or creating unnecessary congestion.

Establishing pick-up and drop-off zones proximate to multiple attractions expedites the process by concentrating activity, removes TNC vehicles from travel lanes to improve safety and reduce congestion, and reduces the need for adding parking capacity where spaces are limited. Ride hailing also enhances roadway safety by removing potential driving under the influence situations.

H.1.2 Designate additional locations to accommodate increased service and delivery needs.

Providing additional locations for delivery vehicles convenient to multiple businesses and residences reduces the need for delivery vehicles including those large and small to double park, which causes congestion. Given the collection of businesses in Arlington, hybrid service/pick-up and drop off zones may be an option given most commercial deliveries occur during the day, whereas ride-hailing increases for social purposed during evening hours.

H.1.3. Repurpose on-street parking where possible to prioritize other modes including bus and bicycle travel.

In areas with sufficient off-street parking to meet residential and/or business demand, repurposing the “parking lane” for transit priority, bicycle lanes, or a combinations of the two, would help to move more people, more efficiently along bus and bicycle routes by decreasing transit times and encourage more to bike. This would include quality of life for those traveling to, from and through Arlington, potentially increase the customer base in commercial areas, and reduce congestion for those trips still made by car.

I. RESPONSIVE AND TRANSPARENT TRANSPORTATION DECISION-MAKING

To provide a transportation network for all users and abilities, it is imperative that decision-making at all levels is clearly communicated and transparent. When and why specific programs and projects are prioritized and funded in any given year is essential given the competing needs for dollars available.

H.1. Effectively communicate transportation project updates, construction impacts and other service issues proactively.

People rely on the transportation network to get them to and from where they need to go within a particular amount of time based on experience. While not all elements can be controlled – e.g. delays from accidents – delays caused by construction, equipment failure, special events, can be planned around. Providing as much information about planned or known impacts in advance to residents, workers and visitors makes for a better, less stressful, and safer experience.

Formal channels of and plans for communicating transportation impacts, should be established and followed. This could include advance signage, text announcements, social media postings, email listings, robocalls, and more.

H.2. Develop and regularly update a Local Transportation Improvement Program (LTIP).

There are dozens of transportation initiatives underway, in planning, or under consideration at any given time in Arlington. Multiple departments are tasked with these initiatives, through funding allocated as part of the Town Budget and Town Meeting process, through grants received (by different departments), and through the State for larger projects. Given the numerous entities responsible for the planning, design, construction, and implementation, it can be difficult to fully understand all that is or is planned to be done. Having one tracking mechanism – the Local Transportation Improvement Program (LTIP), will provide Town departments and the public with a clear understanding of what initiatives are in the pipeline, where in the process each initiative is, when it is planned for completion, and which funding is available (or potentially available – e.g. grants). An LTIP should be formalized as follows:

H.2.1 Establish an internal LTIP "committee" to develop the initial LTIP.

The LTIP Committee would be comprised of representatives from Public Works, Police, Fire, Planning and Community Development, Council on Aging, Housing Authority, and other departments as needed. To begin, each representative would provide a list of all transportation-related projects and provide to a designated staff person to consolidate the initial program. Information should include the project name, status, estimated completion date, and funding allocated (or needed).

The Town Manager should designate the staff person responsible for initiating and maintaining the list.

H.2.2 Update the LTIP quarterly.

Given the many projects, potential project changes or funding availability, it is recommended that the LTIP be updated quarterly to ensure it is up-to-date and effective. It is recommended that the internal committee representatives to meet quarterly to review the list and provide updates on projects.

CALL OUT: Salem, MA LTIP

The City of Salem, MA tracks all transportation projects in one comprehensive list – the Salem LTIP. The LTIP was established in 2018 through the Traffic and Parking Commission and overseen by the City's Traffic and Parking Division (Transportation Department). The LTIP includes all pedestrian, bicycle, roadway, traffic calming, and parking projects and initiatives. The LTIP is updated quarterly with input from the Traffic and Parking Department, Department of Public Services (Public Works), Engineering, and Planning and Community Development, and other departments.

The LTIP is reviewed by the Traffic and Parking Commission regularly with representatives from various departments present to provide updates on large projects and initiatives. The LTIP is used in the annual budget process to set priorities.

G.1.2. Provide the LTIP on the Town of Arlington website.

Given the many departments in charge of transportation projects, it is recommended that all transportation projects be listed at one location on the Town's website. This will provide the public a convenient location to learn about various initiatives, and how, where and when they are able to provide input. All initiatives should include a staff point of contact.

G.2. Test before you invest.

Transportation infrastructure projects are costly to plan, design and construct; and often take years to complete from start to finish. In many cases, the project intent – to enhance safety, provide facilities for other modes, etc. – is successful; however in some cases it does not improve conditions adequately, and in others the result does not justify the cost. For projects addressing critical safety issues, traditional practices also take far too much time to address the issue.

Communities are increasingly turning to "tactical" projects to address safety and other transportation concerns. Tactical roadway initiatives include projects that are implemented using low-cost, temporary materials, to address a traffic or safety issue, or to test out alternative street layout to provide facilities for other modes not currently provided (e.g. bike lanes).

G.2.1. Implement tactical projects rapidly to address safety concerns.

In locations where safety is a concern, particularly at locations where a crash involving a pedestrian or bicyclist has occurred, changes to enhance safety should be implemented as rapidly as possible. Temporary and tactical projects such as increased signage, speed bumps, road diets using flex-posts, and more can be implemented quickly to slow traffic, increase visibility and more to reduce conflicts.

G.2.2. Develop and implement a Neighborhood Traffic Calming Program to address safety concerns.

Residents and other stakeholders often know where safety is a major concern but may not be discernable from crash or other traffic related data. This includes neighborhood streets where speeding is excessive, extra wide intersection crossings that present crash concerns, and more. The Town should develop a program where resident groups may request a project to calm traffic and allocate funding to address these neighborhood traffic and safety concerns using tactical materials to “test” before making a more costly permanent investment. .