

operators should be coordinated, and transfers between other modes of travel should be accommodated. In the case of Montclair State University, the Township should support and encourage any University led effort to provide shuttle service for students and employees to reach the Township's commercial centers.

- **Improve circulation for private cars:** the Township should ensure safe and efficient movement by improving circulation to optimize the roadway network, providing necessary infrastructure improvements, and maintaining a state of good repair. All available parking options should be clearly conveyed to motorists.
- **Increase shuttle bus service:** Shuttle bus service should be expanded to provide better connections to trains for neighborhoods that are not within walking distance of Montclair's train stations. In addition, a jitney bus service should also be provided to improve access within the Bloomfield Avenue commercial corridor. Complementary to the new circulator jitney shuttle, it is recommended that the Shuttle route be expanded to include a loop through the South End Business District. This would extend a direct connection to the Bay Street Station to one of the few business districts and neighborhoods that is not within walking distance of a train station.
- **Create enhanced bus stops:** Major bus stops, such as those in front of the YMCA on Park Street, at Lackawanna Plaza and in Upper Montclair, should be improved to make the bus system more comfortable and easier to navigate. This would increase the viability of buses as a commuting option, and allow for the concentration of services needed to make needed infrastructure investments (such as bike racks and shelter from the weather). Such a node will promote a diversity of transit services in Montclair, complementing the regionally focused NJTransit rail service with improved local bus service. These "enhanced bus stops" would not add to bus traffic, but merely would include additional amenities for bus passengers such as improved bus shelters, informational stops and signage that clearly indicate the location of bus stops, along with visible route maps and schedules. This enhanced information could also include train schedules for the Bay Street Station. Encouraging these transit connections also encourages less driving and supports a walkable and vibrant neighborhood.
- **Provide illuminated crosswalk signs at unsignalized crosswalks:** Illuminated crosswalk signs at unsignalized intersections have been proven to significantly increase pedestrian safety. One such signal was installed at the intersection of Midland Avenue and Bloomfield Avenue. The Township should expand the use of illuminated crosswalk signs at other unsignalized intersections such as Bloomfield Avenue and Seymour Street, Grove Street and Oxford Road and Valley Road and Cooper Avenue. In addition, these should be provided at unsignalized intersections near schools as part of the Township's Safe Routes to School initiative.
- **Implement a complete streets network:** Throughout Montclair, a complete streets network should be created to help balance the needs of all modes of travel. The Township adopted a Complete Streets Policy in 2009, and Essex County adopted a Complete Streets Policy in 2012, therefore the policy foundation exists for implementing complete streets on both local and County roadways in Montclair. County roads are often the busiest and most problematic for non-automotive users, as they typically accommodate high-volume, high-speed car traffic traveling within and outside of the Township. These streets are also critical to Montclair's internal connectivity, and serve as key links between neighborhoods, train stations, and commercial centers. The development of a complete streets network in Montclair should be applied carefully – one size does not fit all facilities. While consideration of all

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modes is appropriate for all transportation investments, the result need not be that every facility accommodates all modes equally.

The following are recommended for use as tools for the Township to develop a full complete street network and ensure they are properly implemented;

• **Street Design Guide:** The Township received a NJ Department of Transportation Grant in 2017 which led to the preparation of the "SAFE Complete Streets Implementation Plan". The Plan, which shall hereafter be referred to as the "Design Guide", provides a variety of design options for different street typologies found in the Township. It is the intent of the Master Plan that this Design Guide function as reference material to be used by the Township when assessing options for street improvements. All of the options for each street typology described in the Design Guide may not be practical for application in the Township due to various existing conditions encountered as the streets have developed throughout the town and consequently, the options the Design Guide presents have to be evaluated on a case-by-case basis. Proposals for street improvements that incorporate bicycle and pedestrian enhancements must be weighed against existing conditions, including but not limited to safety, convenience, and parking considerations. In addition, the Design Guide does not adequately address the policy issues of other street users including electric bikes and joggers, which also must be considered.

Create a Bicycle Master Plan: A Bicycle Master Plan should be developed to identify a comprehensive network of interconnected bicycle routes that traverse the township. This should identify both north-south and east-west township-wide movement and include a map depicting the entire network, major destinations, and connections to other bicycle networks. Grade issues within the Town, especially relating to east-west movement, should be considered when developing routes. The plan should also identify each class of bicycle facilities to be used within the Township (e.g. off-street bicycle path, dedicated on-street bicycle lane, designated shared-use street, etc.), provide design guidelines, and specify what type of bicycle facility treatment should be used on each route within the township. As indicated above, the Design Guide can be used as a reference document to help determine an appropriate street treatment where accommodating bicycles is potentially possible. In 2004, a bicycle study was prepared for the Township which resulted in recommendations for bicycle routes and facility treatments throughout Montclair. In this study, potential bicycle routes were identified based on the bicycle compatibility of roadways, and schematic roadway cross-sections were created for roads where on-street bicycle facilities (such as striped bike lanes on Bloomfield Avenue and Valley Road) were recommended. In 2007, a draft Proposed Montclair Bicycle Network map was developed by the Township. This map identified a bicycle route network for the Township that designated routes and classified them by facility types ranging from off-street facilities to shared lanes; however, this proposed network was never adopted and is currently under review. The network of routes shown in Map 2.1 was developed by the Township as a modification to the 2007 map and represents current thinking on where bicycle routes may be appropriate, but does not specify the type of bicycle facility for implementation. Facility design and the addition of bicycle routes on other key roadways will need to be carefully studied to determine what the most appropriate and safest facility type may be, if any, as well as whether it is possible to install bicycle lanes on roads with more traffic intensity, like Bloomfield Avenue.

A final bicycle master plan should be developed based on, but not necessarily limited to this aforementioned network; however, the compatibility of such candidate roadways and applicability of specific treatments along each route must be evaluated further in order to develop a final plan. Additionally, specific design treatments that could improve bicycle comfort and/or safety at intersections and along such roadways must be considered where applicable. These may include:

- Bike boxes

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- Intersection crossing markings
- Protected cycle tracks (bollards, floating parking lane)
- Buffered bike lanes
- Painted bike lanes
- Bike signals

Such master plan should also include a plan for implementation and funding.

Bicycle facility design resources such as the American Association of State Highway Transportation Officials (AASHTO) Guide for the Development for Bicycle Facilities, the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide Manual, and the FHWA's Manual on Uniform Traffic Control Devices (MUTC) can be used to determine the applicability of various bicycle design treatments. All design and implementation of the adopted bicycle master plan must be done in coordination with the County, the New Jersey Department of Transportation and with the original authors of the 2004 plan, as necessary.