

# CIRCULATION ELEMENT

## THE CIRCULATION PLAN ELEMENT

### EXECUTIVE SUMMARY

The New Jersey Municipal Land Use Law (MLUL) requires the Planning Board to prepare a Master Plan that, in addition to required Elements, may contain a variety of other elements, including a circulation plan element. The circulation plan element is covered under N.J.S.A. 40:55D-28b: (4).

The road network in the Long Hill Township is made up entirely of municipal and county roads. The Township contains no state, federal or interstate highways. The major roadways within the Township are part of the Morris County system. This updated circulation plan element serves as a follow-up to the 1996 Circulation Plan Element and subsequent re-examinations, which noted that the basic circulation pattern of the Township was well established, but that some modifications and improvements to roadways and sidewalks may be needed to upgrade the local circulation network.

The Circulation Plan Element has been revised to reflect the latest traffic count statistics provided by Morris County and builds on the recommendations in prior Circulation Plan Elements.

As the result of the 2018 Long Hill Settlement with the Fair Share Housing Center, the Master Plan Housing Element was updated in 2018. Once the housing development changes incorporated in the 2018 Housing Element, including changes being considered since 2018 and the 2020 Land Use Element are completed, the Circulation Plan may require revisions based on new traffic studies performed by Morris County and any future concerns expressed by residents.

### INTRODUCTION

Most people find in Long Hill Township's rural influenced surroundings a setting in which they feel comfortable and at home. Residents support maintaining the semi rural residential environment and historic character of the Township. The objectives of the prior Circulation Element have been to retain the various streetscapes as they are in support of retaining the rural feel.

Long Hill Township is well served by a variety of transportation facilities, including passenger rail and bus service, and access to the Interstate Routes 78 and 287, and State Highway 24. These transportation service highways all provide excellent access to the major business and activity centers of Northern New Jersey and New York City. For decades, streets in New Jersey and across the nation were designed to move vehicles. The needs of bicyclists, pedestrians, and transit riders were often an afterthought. Long Hill Township is no exception to this trend. Recent trends are leading to more people working from home, which should drive municipalities to increase their focus on pedestrian and biking needs instead of solely on the needs of motor vehicles.

### PLANNING PROCESS

The purpose of this plan element of the Master Plan is to address planning issues relating to roads and sidewalks in the Township. This current plan element serves as a follow-up to the 1996 Plan, which noted that the basic circulation pattern of the Township was well established, but that some modifications and improvements were needed to upgrade the local circulation network. The 1996 Plan utilized traffic statistics compiled by Morris County on the municipal and county

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roadways within the Township to make a series of recommendations for improvements.

The 2020 update of the Circulation Plan includes a review of the 2017 New Jersey Complete Streets Design Guide and the review of the 2018 Morris County Circulation Element. The latest Morris County traffic statistics were used to update the Action Plan.

## BACKGROUND

### Prior Circulation Plans

At the time of the 1994 circulation plan background study, the assumption was that the Township lacked large tracts of land available for future development (for residential or commercial use).

The 1996 Circulation Plan assumed that future increases in traffic volumes would be influenced more by external traffic than by locally generated traffic. This meant that such volume increases would be limited to major through roadways such as Valley Road and Long Hill Road, and major collector roadways such as Main/Central Avenues, Morristown Road, Mountain Avenue, Basking Ridge Road, and Meyersville Road.

The 1996 plan proposed that no widening or other major improvements be made to Valley Road, except within the central shopping core (Main Avenue to Morristown Road), and only to the extent necessary to address existing traffic safety problems. The plan also suggested that improvements to Long Hill Road and the aforementioned collector roads be strictly limited to those essential to traffic safety. The changes recommended in the 1996 plan reducing the speed limit to 35 mph on Valley Road in the central shopping core, and widening the road to include a center turning lane from Main Street to Mountain Avenue, have been completed. Other

Valley Road improvements that have been completed include turning lanes at the corner of Main Avenue and at the corner of Mountain Avenue, as well as adding another traffic signal at Morristown Road.

### 2018 Morris County Circulation Element

The 2018 Morris County Circulation Element contains updated traffic statistics and accident data for Long Hill Township. Review of the traffic statistics in the updated Table 1 shows limited changes in the traffic volume data on the county roads which are the main thoroughfares through Long Hill. While the average weekday volumes have fluctuated year to year during the 2008 to 2018 period, there are no general increase trends on the Township roadways. Valley Road continues to be the highest 24-hour traffic count roadway in the Township. Accident data in the 2018 Circulation Element did not highlight any of the County Roads in Long Hill as high-risk roads for motor vehicle accidents. However, the report did identify Valley Road as having 12 bicycle/pedestrian crashes during the 2009 to 2013 period, which was the fifth highest crash total in Morris County.

### 2017 New Jersey Complete Streets Design Guide

The 2017 New Jersey Complete Streets Design Guide states "Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street". The design of a Complete Street provides the same level of detail and attention that has been afforded to the movement of automobiles and heavy vehicles. This means

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that sidewalks, bicycle lanes and other elements be both comprehensive and interconnected with roadways. Complete Streets mean designing a street based on its unique context, including surrounding land use patterns, who uses the street and user need. The guide provides direction on how to implement street design principles that fit the local context and support more livable, sustainable, and resilient communities. The Design Guide also suggests that municipalities utilize a checklist similar to the NJDOT Complete Streets Checklist as part of their project approval process.

## Sidewalks

The sidewalks proposed in the 1996 Plan were based on the policy of developing new sidewalks in areas of high pedestrian traffic, including both sides of the main streets in the Gillette, Millington, Stirling and Valley Road business districts, and along major roads leading to train and bus stations, schools and other major generators of pedestrian activity, particularly those attracting children. In Meyersville several limited sidewalk improvements were also proposed. Not all of these sidewalks have been completed.

Map 5 includes all existing and approved public, paved (concrete or macadam) sidewalks in the Township, as well as all proposed additional sidewalk locations.

## Delaware Avenue Connection

A roadway connection providing the 200 foot link between two existing sections of Delaware Avenue is planned. This linkage has been anticipated since at least 1972, and, in fact, the roadways in the Stirling at Long Hill and Sunrise West developments were designed to permit this future connection.

## Speed Limits

The Township Police Department has the responsibility to re-examine and adjust all local road speed limits based on appropriate traffic standards and in conformance with the Manual on Uniform Traffic Control Devices (MUTCD). Any adjustment in speed limit should be made only if it can be accomplished within traffic safety guidelines and without requiring any road improvement.

## Street Vacations

Long Hill Township has a variety of "paper" streets (i.e., street rights-of-way that have never been improved and exist only on municipal tax maps). These public rights-of-way are owned by the municipality and many may never be improved due to physical or environmental constraints. Others may abut private lands whose access is provided by an existing improved street and the paper street is no longer needed. In each case, it is often advantageous for the municipality to "vacate," by ordinance, that portion of the paper street no longer required. Upon vacation, a portion of a vacated right-of-way abutting private property is merged with that property, to the benefit of municipal tax rolls.

## RESOURCE ASSESSMENT

The regional highway system for the Long Hill Township area includes Interstate Routes 78 and 287, and State Highway 24. The existing regional highway access will have an indirect circulation impact on the Township by increasing development pressure in Long Hill and nearby communities with available developable land area. As communities continue to develop they will generate additional local traffic in Long Hill Township, primarily on the two major east-west roadways of Valley Road and Long Hill Road.

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The road network in the Long Hill Township is made up entirely of municipal and county roads. The Township contains no state, federal or interstate highways. The major roadways belong to the Morris County system. These roads have the following County classifications:

Road Description	County #	Classification
Valley Road	Rt. 512	Minor Arterial Street
Plainfield Road	Rt. 606	Minor Arterial Street
Basking Ridge Road	Rt. 657	Minor Arterial Street
Mountain Avenue	Rt. 531	Minor Arterial Street (North to Valley)
Mountain Avenue	Rt. 638	Major Collector Street (North from Valley)
Meyersville Road	Rt. 638	Major Collector Street
Division Avenue	Rt. 605	Major Collector Street
Long Hill Road	Rt. 657	Minor Arterial
New Vernon Road	Rt. 604	Major Collector Street

The County Road functional classifications were taken from the 2018 Master Plan Circulation Element report for county roads. These classifications are based on the Federal Highway Administration guidelines and include such factors as volumes, numbers of lanes, type of area (urban or rural) served, etc.

New Jersey Transit has scheduled rail service, with stations at Millington, Stirling and Gillette providing convenient access for Long Hill Township and nearby residents. The Gladstone branch of New Jersey Transit's Morris and Essex Rail Line provides frequent daily service with connections to Newark, Hoboken and New York City. According to Morris County 2014 statistics, average weekday boardings at each station are 154 at Millington, 101 at Stirling and 139 at Gillette. The Township has a total of 235 parking spaces at these three train stations. Lakeland Bus Company provides express and local bus service along Valley Road, with bus stops in Millington and Gillette, to New York's Port Authority Bus Terminal.

## GOALS AND POLICIES

Based on the findings of the past Master Plan background studies and public input, review of the updated Morris County traffic data and in part due to little development change (Housing/Population/development) to date the circulation goals are as follows:

- Facilitate safe movement by all forms of transport (pedestrian, bicycle and motor vehicle) throughout the Township, with particular emphasis on improving accessibility for pedestrians and bicycles to the three Train Stations.
- Ensure that road improvements along County and Township roadways are limited to those that address existing traffic safety problems and are undertaken in ways that strongly support the overall goals of this Master Plan and preserve and enhance the tree-lined roads that help create the desired rural character of the Township.

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- Ensure that all roadways to all residences are accessible by emergency vehicles, either by design or by parking regulation and enforcement.
- Ensure that the design of any new roads and the upgrading of existing roads are undertaken in a manner that is sensitive to the environment, existing streetscapes and rural character of the Township, applying the guidelines in the 2017 New Jersey Complete Streets Design Guide wherever possible.
- Encourage the development of new sidewalks in areas of relatively high pedestrian traffic and encourage the use of creative sidewalk design wherever appropriate to preserve and protect the Township's treed corridors and rural streetscapes.
- To develop a trail system throughout the Township that will provide circulatory links to the Township's residential, business, recreational and open space areas and enhance local appreciation of, and recreation in, the Township's many natural resources.
- These circulation plan goals represent a continued emphasis on functional improvements, while balancing functional requirements with a sensitivity to the environment and the existing streetscape. This emphasis builds upon the past public discussion meetings on the plan and with the knowledge that continued input from County traffic engineers may be required.

## **ACTION PLAN**

The circulation plan for Long Hill Township is depicted graphically on Map 5. The plan shows the future location of the Delaware Avenue connection as well as proposed locations for additional sidewalks and bike paths. The plan also shows the location of all existing rights-of-way in the Township.

## **RECOMMENDATIONS**

The following recommendations are proposed in the updated circulation plan:

1. Develop an integrated sidewalk, trail, bike path and roadway plan that creates safe access for all modes of transport, from residential areas to parks, recreation areas, shopping areas and train stations in the Township.
2. Create Federal and State grant applications that advance the goals, objectives, and strategies of the Circulation Element. Grant opportunities and programs available include, but are not limited to: Safe Routes to School, NJDOT Bikeways and Safe Streets to Transit, NJDEP Recreational Trails, Walkable Community Workshops, Complete Streets Technical Assistance Program, NJTPA's Street Smart Safety Program, and NJTPA's Local Safety Program and Emerging Centers Program. Utilize resources such as NJDOT and Morris County to provide technical assistance, participate in stakeholder groups, provide agency coordination, and support grant applications, program participation, and municipal projects that advance the municipal efforts to improve transportation.
3. Use the New Jersey Complete Streets Guide to develop a Complete Streets Checklist to ensure all projects comply with the Guide. Sidewalk design should be sensitive to the streetscape, take into account all users (pedestrians, bicyclists and motor vehicles), avoid tree and

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vegetation removal by using nonlinear design, and where appropriate use suitable non-concrete materials.

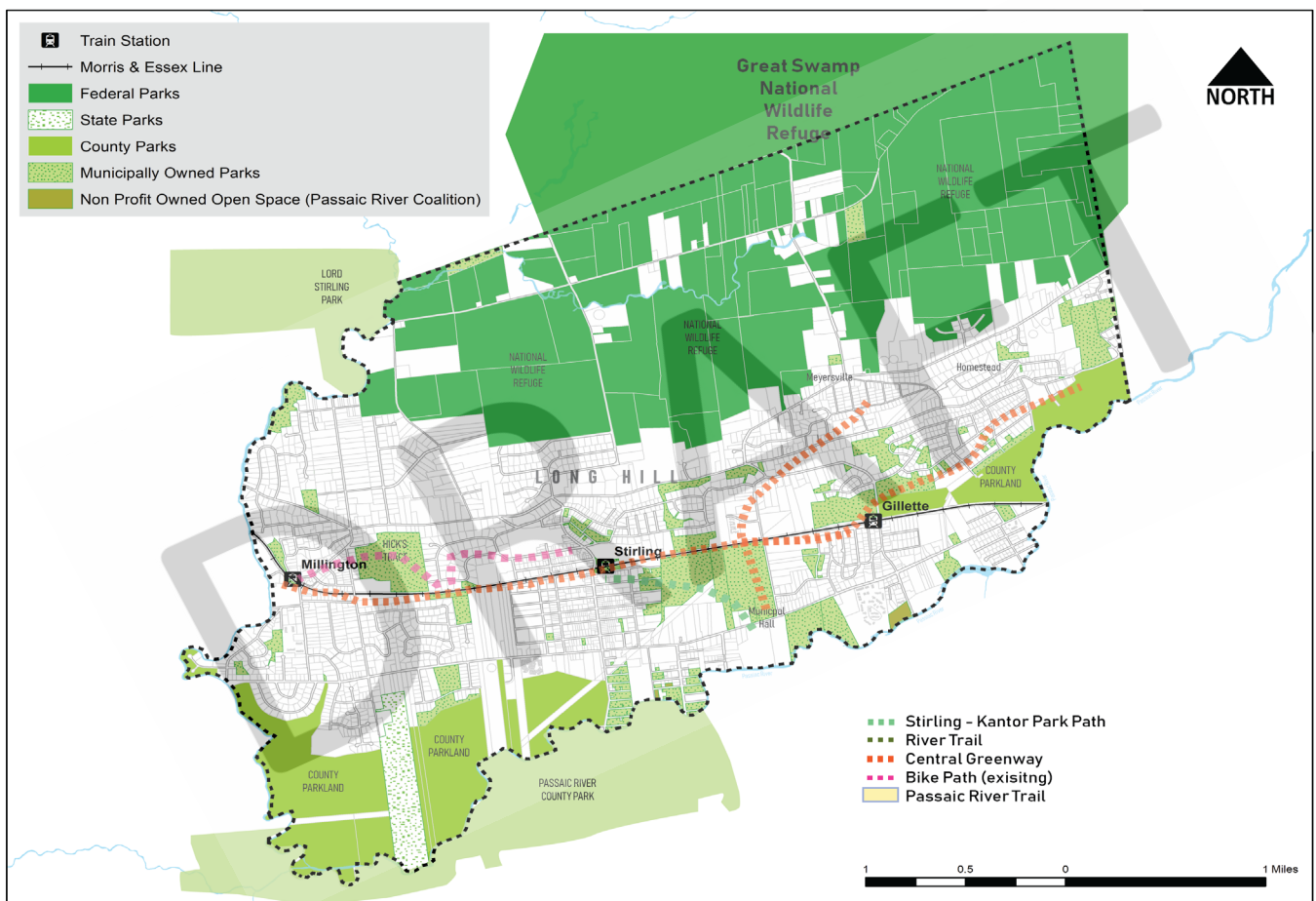
4. The proposed trail system, referred to in the plan goals, is incorporated into the Open Space, Parks and Recreation Plan Element. The trail system is anticipated to include two greenways to link sections of the Township to each other along with additional walking and biking paths that will allow easier access to parks and recreational areas and the NJ Transit train stations within the Township.
5. Valley Road will remain the Township's primary business development and access corridor. Future development and redevelopment along this corridor should consider the reduction in traffic conflict points to the greatest extent possible. Any roadway changes made should consider improved bicycle access to address bicycle safety and reduce the potential for bicycle and motor vehicle crashes.
6. Every effort should be made to encourage the use of mass transit facilities; these efforts might include improved access and parking and related user incentives.
7. The updated circulation plan element includes a review and appropriate revisions to Map 5, including all existing and proposed sidewalks, the addition of bicycle paths and open space trails and easements to connect adjacent neighborhoods. Because the sidewalk plan cannot anticipate the site design details of future development projects, the Planning and Zoning Boards should require developers to incorporate relevant design aspects from the 2017 New Jersey Complete Streets Guide into the development site design wherever possible, using the Township Complete Streets Checklist. Both Boards should be permitted considerable flexibility in implementing the sidewalk improvements called for in this plan element.
8. Future Township and County road improvements (left turn lanes, roadway widening, etc.) should be implemented as a means of addressing existing traffic safety problems. The plan updates the classifications of County roadways that will provide road improvement standards that can be utilized in the review of new development in the Township.
9. The Township should continue the practice of auditing traffic signage and replace any missing, damaged and weathered signage on local or county roadways. The Township Police Department should also continue the review of roadway speed limits based on appropriate traffic standards and in conformance with the Manual on Uniform Traffic Control Devices. Audits should also include line of sight reviews to ensure that trees, shrubs and other vegetation are not problematic. A street light/visibility audit should be conducted annually.
10. Road, bridge and related improvements, local and County, should be sensitive to streetscape appearance concerns by retaining or fostering street tree canopies; by using natural drainage systems; by using Complete Streets design standards. It is the intent of this plan to make the aesthetic elements of any road improvement as important as the traffic safety issues relating to the proposed improvement. The Township should maintain a dialogue with the County regarding the Township desire to retain the existing rural road character of all County roadways.



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11. Street vacations should be undertaken on a case-by-case basis only when such vacations are in the best interests of the Township, and the right of-way being considered would:
  - a) not be required for improvement by the any of the master plan elements;
  - b) not be required to provide future access to public or private lands;
  - c) not be developed due to severe environmental constraints; and/ or
  - d) not be required for development of or access to the trail/ path system or greenway called for by this Master Plan.e) not impact or create any new environmental issues (wetlands, steep slopes, etc.)
  
12. Once the housing development changes incorporated in the 2018 Housing Element, including changes being considered since 2018, and the 2020 Land Use Element are completed, new traffic studies should be performed by Morris County, the traffic count data from the new studies should be reviewed and the Circulation Plan revised as necessary.

The plan does not include additional road improvement projects at this time, but have been discussed. In each case the Township should assess the above stated traffic concerns with environmental issues and community preferences in determining the appropriateness of any new roadway.



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**TABLE 1**

**Long Hill Township Traffic Volumes from Morris County Traffic Count Program Summary**

Township Count Location		Average 24 Hour Weekday Volume				Peak Hour Volume AM		Peak Hour Volume PM	
Road Name	Location	2008-2009	2010-2012	2013-2015	2016-2018	Vol	Peak hour	Vol	Peak hour
Basking Ridge Rd	B/W County Line & Long Hill Rd		5,462	5,979		561	8:00	590	5:00
Division Ave	B/W Carlton Rd & Long Hill Rd		3,102	3,872		403	9:00	389	5:00
Long Hill Rd	B/W Carlton Rd & Central Ave	7,440	5,309	4,929		477	8:00	489	5:00
Long Hill Rd	B/W Central Ave & Meyersville Rd		7,469	5,949		544	8:00	567	5:00
Meyersville Rd	B/W Long Hill Rd & New Vernon Rd			4,933	5,679	601	8:00	637	5:00
Meyersville Rd	East of New Vernon Rd				5,255	583	8:00	556	5:00
Mountain Ave	B/W County Line & Valley Rd				9,836	826	8:00	837	5:00
Mountain Ave	North of Valley Rd	5,176		4,780	5,688	544	8:00	504	5:00
Plainfield Rd	South of Valley Rd	8,746	8,254	7,057		520	7:00	764	5:00
Stone House Rd	B/W County Line & Division Ave			1,730		143	8:00	171	5:00
Valley Rd	East of Laura Drive		9,789	9,815		611	9:00	880	6:00
Valley Rd	B/W Northfield Ave & Sussex Ave		10,678	11,173		766	8:00	999	5:00
Valley Rd	B/W Morristown Rd & Mountain Ave		14,232	9,790		1,043	8:00	963	5:00
Valley Rd	West of Plainfield Rd	19,759		15,378	17,656	1,185	8:00	1,645	5:00
Valley Rd	B/W River Rd & Division Ave	10,407	15,812	10,855		718	8:00	984	5:00

Notes: Traffic volumess are total in both directions.

Data has been grouped in multiple years because traffic volumes are not measured on each roadway anually by Morris County.