

2023 Master Plan Township of Long Hill New Jersey



MASTER PLAN
LONG HILL TOWNSHIP,
MORRIS COUNTY, NEW JERSEY

Prepared by:

The Long Hill Township Planning Board
915 Valley Road,
Gillette, NJ 07933

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Acknowledgements

Long Hill Township Planning Board

Scott Lavender, Mayor

Brendan Rae, Committeeman

Dennis Sandow, Chairman

Don Richardson, Vice Chairman

Theresa Dill

David Hands

Thomas Jones

Tom Malinousky

J. Alan Pfeil

Long Hill Township Committee

Scott Lavender, Mayor

Guy Piserchia, Deputy Mayor

Brendan Rae

Victor Verlezza

Matthew Dorsi

Planning Board Professionals

Board Attorney: Steven K. Warner, Esq. of Savo, Schalk, Corsini, Warner, Gillespie, O'Grodnick & Fisher

Board Planner: Elizabeth Leheny, PP, AICP of Phillips, Preiss, Grygiel, Leheny & Hughes, LLC

Board Engineer: Joe Vuich, PE, PP, CME of Van Cleef Engineering

Board Secretary/ Planning & Zoning Coordinator: Debra Coonce

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1 Introduction

1.1 Community Profile

The Township of Long Hill is a low-density, predominantly residential, suburban community located in southern Morris County, New Jersey. Per the 2020 Decennial Census, Long Hill's population is approximately 8,629 people within an 11.8 square mile area.

Long Hill largely consists of many areas of natural beauty and preserved land including the Millington Gorge along the Passaic River. Several of the town's parks touch the Passaic River, a waterway that defines its western and southern borders. The 7,800-acre Great Swamp National Wildlife Refuge comprises much of the township's northern land area and is among the most defining features of Long Hill. In fact, Federal and State lands, Township Open Space, and steep slope properties account for about 55% of the Township land that is unavailable for future development.

Long Hill is a somewhat isolated community. The Township's environmental features form significant natural and political boundaries with adjacent municipalities in Morris, Union and Somerset Counties. To the west and south, 12.7 miles of the Passaic River form a natural and political boundary with adjacent municipalities in Union and Somerset Counties. To the north, the Great Swamp National Wildlife Refuge is a natural barrier between Long Hill and most other municipalities in Morris County. To the northeast, Long Hill connects (via one highway through residential neighborhoods) to only one other town in Morris County. Interstates 78 and 287 are the closest major roadways, however, access to them is located outside the boundaries of the Township. Despite its relative isolation, three New Jersey Transit railroad stations service the town in the villages of Gillette, Stirling, and Millington.

The Township is characterized by the diversity of its component parts. Although one cohesive township, it is comprised of four communities—the villages of Gillette, Stirling, and Millington, and the hamlet of Meyersville—each with its own distinct history, character, and development pattern. The main commercial thoroughfare, Valley Road, offers primarily auto-dependent commercial uses including a limited number of retail stores and restaurants, some of which are national chains. The disparate areas of the community are connected by tree-canopied roads which reinforce the low-density nature of the community and contribute to the Township's bucolic character.

Long Hill Township is greater than the sum of its parts and is a uniquely pleasant community. With its own distinctive charms and character, many consider it a great place to raise a family. Township residents take pride in their community, many volunteering on the various boards and committees to keep it vibrant and active. This Master Plan promotes responsible change for a sustainable future ensuring the Township of Long Hill remains an attractive and desirable place to live for generations to come.

1.1 A Brief History of Land Use Eras in Long Hill

Long Hill's history has five distinct eras, as regards Land Use. The Township is still visually shaped by the survival of the early settlement pattern and road alignments making up its historic neighborhoods and streetscapes.

1. **Colonial/Agricultural:** As a part of Morris Township, areas near Meyersville and other level upland areas were sparsely settled in pre-Colonial times for subsistence farming. Small mills were built below Millington Gorge before the Civil War, along with the first rudimentary schoolhouses.
2. **Railroad/Early Industrial:** The chartering of the Passaic Valley and Peapack Railroad in 1865 led to Passaic Township being carved from Morris Township in 1866 and the railroad (opened from Summit to Bernardsville in 1872) led to the establishment of small factories and immigrant housing, mostly in Stirling. This growth continued through World War I. Post Offices were established at three railroad stations. Basic "village center" shopping districts were established near the railroad stations and along arterial roads. These village districts included "shopkeeper apartments" over storefronts, and a few boarding houses. The availability of rail transportation also resulted in the construction of both large and small "vacation" houses in a variety of remote locations. Electric and telephone service reached Passaic Township in the early 1900's.
3. **Inter-war:** Between the World Wars, manufacturing scaled up in Millington and Stirling. The cores of all the present schoolhouses were constructed and new residential neighborhoods were built close to the schools. A small wastewater infrastructure was created to support the densely populated Stirling neighborhoods. The northern 60% of Passaic Township separated off as Harding Township in 1922. A Zoning Map was first adopted in 1938.
4. **Suburbanization:** From World War II through 1970, large areas of the town were developed suburban-style, to support the proliferation of privately owned automobiles. The wastewater system expanded to support the new neighborhoods, and a new central business district began to develop along Valley Road – ultimately displacing most of the neighborhood shopping. A major airport was proposed across the northern edge of the Township. This plan was blocked by local opposition, and the northern reaches of the Township were acquired by the US Fish and Wildlife Service and became the Great Swamp National Wildlife Refuge.

5. **Modern Era:** From 1970 to the present, a large shopping mall was constructed, and the housing units in Long Hill grew by 50%, in two new forms of housing:

- Town houses and garden-type apartments with carefully managed densities; and
- Large lot, large home subdivisions on most of the available large tracts of private vacant lots and farmland.

This growth both contributed to an overburdened wastewater treatment plant and a subsequent sewer ban in 2000 which significantly slowed development.

These five eras of Long Hill's history resulted in housing stock generally characterized by well-defined neighborhoods, that are fully-occupied, mostly well-maintained, and co-exist well. Conversely, the Township has many industrial and commercial structures over 50 years old which are poorly utilized and have not been successfully repurposed.

1.2 Overarching Goals of the Master Plan

The individual goals for each element are provided in the next chapter. However, there are two overarching goals of this Master Plan:

1. To consider and further describe each of the Challenges and Opportunities listed in the following section.
2. To propose plans for solutions to address these Challenges and Opportunities.

1.3 Challenges and Opportunities

These fundamental issues create the focus for this Master Plan for Long Hill Township.

1. More than 55 percent of the Township's land area is public parkland and open space owned by the United States, New Jersey, Morris County, and the Township.
2. The remaining land is over 95 percent built up, mostly with residential uses.
 - Most current residential uses are stable and productive, and with virtually no lots available for residential development.
 - Commercial occupancies (retail, office, dining) are gradually declining, and most industrial uses are obsolete. Over 80 percent of these structures are more than 50 years old and there is a high vacancy rate, which dampens the incentive for new construction or redevelopment.
 - The most attractive uses for these redevelopable properties may be higher density housing, as the Township strives to meet its Affordable Housing obligations.
 - A major opportunity for this Master Plan is to support and encourage the repurposing or replacement of these obsolete structures and uses with whatever uses are economically attractive to developers and benefits residents.
3. The floodplain of the Passaic River extends into two principal commercial districts and some residential areas. Unchecked flooding occurs periodically, and further dilutes the incentive for new construction or redevelopment in these areas.

4. All except three of the major (and several smaller) manufacturing/industrial businesses which existed at the time of the most recent Master Plan (i.e., 1997) are now either closed, demolished or repurposed as warehouse or other service uses.
5. The overextended wastewater system has severe Inflow and Infiltration (I&I) problems, which have overloaded the treatment plant and led to a Voluntary Sewer Ban on new connections since 2000. For over 20 years, this has restricted new construction in the Township, except in those cases where on-premise septic systems can be installed. Relief is anticipated, but at best, that relief will support the needs of replacement, higher density uses on redeveloped commercial land.
6. Affordable Housing requirements (and the absence of large sub-dividable vacant tracts) have shifted the focus of residential construction from single family housing to moderate-density multifamily rental housing. Projects in various stages of discussion or approval are being deferred pending wastewater system improvement and lifting of the Sewer Ban.
7. The COVID pandemic of 2020 has dramatically reduced the ridership (to New York City and Newark) on the NJ Transit Gladstone branch. Any long-term impacts on pre-pandemic plans for “transit village” type housing adjacent to the three railroad stations are still to be determined. A market may evolve for small “work-near-home” office spaces, but no trend is visible yet.
8. A relatively small number of medical/dental/therapy/exercise/pharmacy uses exist in Long Hill, and most are on a small scale.
9. The remaining tracts of private vacant land are restricted by local wetlands and steep slopes, by increasing strict state regulations that address stormwater, floodplain and pervious surfaces, and by local zoning and construction restrictions in place to implement these regulations.
10. Some long-term situations have become nuisances in the administration of the Zoning ordinance. This Master Plan is the most convenient method to identify and correct them. The highlights are listed below.
 - About 40% of the developed residential lots (or their dwellings) do not meet the bulk requirements for their zone district and are either grandfathered or require zoning variances. Where these lots are clustered in contiguous neighborhoods, rezone as appropriate to improve the percentage of conforming lots.
 - Some zone boundaries need to be moved to encompass lots which were mis-mapped after the 1997 Master Plan, or recently granted variances which make them comparable to those in adjacent zones.
 - A large number of lots are split between a residential or commercial zone and the “C” Conservation zone. This was done as a crude attempt (following the 1997 Master Plan) to restrict development in floodplain or wetland areas. The current State and Township regulations as outlined in the Stormwater Element are adequate to restrict that development, and this early, crude attempt to restrict based on the bulk standards of the “C” zone is now both obsolete and a nuisance to the Zoning Map and to applicants. Wherever possible, the split lots are re-zoned.

- Some, but not all, lots for public purposes were placed in a newly-defined “P Public” zone created in 2003. This zone needs to be rationalized by adding and removing properties based on current use.

11. A significant number of outdoor storage areas exist for material and construction vehicles. Most are non-conforming uses in both business and residential zones.

1.4 What is a Master Plan?

The 2023 Long Hill Township Master Plan is, by its nature, an aspirational document that outlines the vision of its future and provides a roadmap to realize that vision. At its core, the Master Plan forms the policy foundation for the Township’s development regulations and other planning decisions, incorporating a comprehensive planning and regulatory framework to guide future development and investment within the community for the next 10 years. This Plan was written with implementation in mind to help Long Hill realize its goals and encourage long-term investment in the Township.

Similar to Long Hill Township itself, a Master Plan is made up of many different parts, or elements that coalesce into a larger entity, including discussions around transportation, land use, housing, open space and conservation. The vision outlined in the Plan will identify required important policy decisions affecting land development, ranging from individual residential renovations to the proper location of business districts and areas that should be preserved for open space. Additionally, it serves as a high-level guide for the Township’s Planning and Zoning Boards in their review of applications that come before them. This Plan was written with implementation in mind to help Long Hill realize its goals and remove barriers to investment into the Township.

Simply stated, a Master Plan outlines a vision for a community and the steps that are needed to attain that vision. It is also an important tool for prioritizing investments, solving existing problems and for attracting more resources into the community.

The MLUL requires every municipality to update its Master Plan once every 10 years. Long Hill Township last adopted a full Master Plan in 1997, which included a Land Use Plan element. The Township’s 1997 Master Plan was reexamined in 2003 and 2013. Standalone Elements adopted separately include:

- Meyersville Hamlet (May 2009)
- Downtown Valley Commercial District (B-D) Element (February 2017)
- Housing Element and Fair Share Plan (April 2018)
- Conservation Element (December 2013)
- Open Space Element (December 2013)
- Community Facilities Element (December 2017)
- Utility Service Element (December 2017)

This Master Plan builds upon these previous planning initiatives and seeks to refine and enhance the Township’s land use policies to tackle existing community priorities while proactively preparing for emerging trends and changes in the market. With the exception of the Housing Element, the above listed elements are superseded by this document.

1.5 Planning Process

This Master Plan was prepared through an open and public process, taking place over several years, that was designed to reach and obtain significant input from a wide spectrum of voices from every sector of Long Hill's community. Each part of the outreach process was facilitated by the members of the Master Plan Committee, who worked with Township Planning professionals to ensure that it remained accessible and relatable to the Township's residents. The recommendations within are based on the ideas, challenges, aspirations, and insights shared with professionals by members of the community.

This process included a mix of in-person engagement (including public sessions held in the Fall of 2017 that focused upon Stirling and Millington), online-based surveys, meetings with key stakeholder groups and regular Master Plan Committee meetings. Hundreds of residents participated in this outreach process, (the summary of survey results are included in Appendix B). Throughout the course of these years, the Township experienced changing conditions, and adopted specific elements such as the Housing Element and Fair Share Plan to satisfy the Township's legal obligations. All these changes, along with the results from community engagement, were carefully reviewed and organized by the members of the Master Plan Committee.

Beyond the adoption of this Master Plan, updates to the Elements should be sought on a regular basis as determined by Township Committees, Boards and Commissions or any legal obligations that may be imposed. Therefore, it is the intent of the Planning Board to address such changes periodically to keep this Master Plan current and relevant between Re-examination and Revision.

1.6 Elements of the Master Plan

Consistent with the requirements of the MLUL, this Master Plan is comprised of several plan elements, as follows:

Chapter 2: Community Vision and Goals and Objectives.

Chapter 3: Long Hill Today which provides information on demographic, legislative, policy, and other changes since the 2013 Master Plan Reexamination report which informed the goals, objectives, and recommendations of the succeeding elements.

Chapter 4: Land Use Element which provides recommendations related to future land development, suggested amendments to existing ordinances, and a natural hazard vulnerability analysis and related strategies.

Chapter 5: Open Space, Parks, and Recreation Element which focuses on strategies to enhance recreational opportunities within the Township.

Chapter 6: Circulation Element which addresses improvements to existing traffic systems.

Chapter 7: Historic Preservation Element which sets forth recommendations for preserving and promoting historic properties.

Chapter 8: Conservation Element which focuses on strategies to protect natural resources within the Township.

Chapter 9: Green Building and Sustainability Element which focuses on ways that the Township can become more environmentally sustainable.

Chapter 10: Utility Element which analyzes the current public utility system.

Chapter 11: Relationship to Other Master Plans which places our planning efforts in context with neighboring communities, Morris County, and the State of New Jersey.

Appendix A: Demographics

Appendix B: Community Survey Summary

1.7 Status of the Housing Element

It should be noted that the MLUL requires that a municipal Master Plan to include a Housing Element as the foundation for the municipal zoning ordinance. Long Hill's **Housing Element and Fair Share Plan** was adopted in 2018 pursuant to the Court approved Settlement Agreement with Fair Share Housing Center. In accordance with the NJ Fair Housing Act, the Housing Element and Fair Share Plan provided an existing inventory and future projection of the municipality's housing stock, analyzed the municipality's demographic and employment characteristics, determined the Township's fair share need for and capacity to accommodate affordable housing, and provided recommendations to meet the fair share need.

Please note that revising the Housing Element and Fair Share Plan as part of this Master Plan effort would involve reopening the Settlement Agreement and going through the court process again which would provide the possibility for additional intervenors and/or objectors. As such, the Planning Board deferred revising the Housing Element and Fair Share Plan until such time as the current Settlement Agreement expires, i.e., in 2025. The population and housing data required in a Housing Element is provided in Appendix A. A status report of the projects discussed in the Settlement Agreement is provided in subsequent chapters. That said, the 2018 Housing Element and Fair Share Plan and any subsequent amendments shall be considered an integral part of this Master Plan.

2 Vision, Goals and Objectives

2.1 Vision Statement

Long Hill is comprised of historic villages, bucolic neighborhoods, high-quality homes, significant natural landscapes, and diverse recreational opportunities. The vision for this Master Plan is to promote the responsible growth of Long Hill in a way that honors the past, protects existing neighborhoods, preserves the Township’s environmental assets, and bolsters and reimagines commercial areas. This vision includes:

- Enhanced sustainability and hazard resiliency with new investment in technologies and infrastructure that can mitigate the impacts from flooding, and expanded use of green building technologies and renewable energy.
- Improvements to the Valley Road commercial district to make it the true center and downtown of the Township with a mix of land uses and gathering spaces that complement each other and work within the environmental constraints of the area.
- Distinct, vibrant mixed-use village centers that will each feature an enticing, welcoming pedestrian realm with attractive architecture, public spaces, and streetscapes, and provide for a variety of shopping, dining, entertainment, and services with local characteristics.
- Diverse housing opportunities for young families and seniors wishing to age in place.
- Improved pedestrian and cyclist connections to the Passaic River, Morris County parkland, and the Great Swamp National Wildlife Refuge.
- Enhanced community facilities, both active and passive recreational amenities, historic resources, and municipal services to provide a high quality of life for residents.
- Abundant green spaces and preserved trees in the Township which will continue to contribute to the natural beauty of the Township.

In short, the vision is to continue to evolve towards a sustainable future so that Long Hill remains a place where people want to build their own futures for generations to come.

2.2 Goals and Objectives

This section outlines the goals and objectives governing each element addressed in this Master Plan. Goals are broad policy statements that speak to desired future outcomes that will help the community achieve its overall vision. Objectives break down a goal into more specific, measurable action steps toward that goal. These goals and objectives form the foundation for the recommendations for each topic area.

2.2.1 Land Use

GOAL 1 Mitigate vulnerability to natural hazards and climate-change related impacts and make the safety of residents, visitors, and property during natural disasters an essential part of the planning process.

Objective 1. Adopt an integrated hazard mitigation approach that coordinates efforts and strategies across local, county, state, and federal jurisdictions.

Objective 2. Encourage development that is consistent with the natural capacity of the land and the availability of water and infrastructure of the Township.

GOAL 2 Develop and Enhance the Economic Vitality of Commercial Areas.

Objective 1. Support the development of desirable and economically viable uses in the Villages of Gillette, Stirling, Millington, and the Meyersville hamlet.

Objective 2. Maintain and enhance the economic vitality and aesthetics of Valley Road through supportive zoning and development regulations.

GOAL 3 Encourage Land Uses That Protect the Predominantly Residential Character of The Township.

Objective 1. Ensure that future land use and development is at an appropriate scale and density compatible with, and sensitive to, established residential neighborhoods.

Objective 2. Provide a range of housing options in appropriate locations to satisfy diverse housing needs in the Township.

Objective 3. Continue to address the Township's obligation to provide its regional fair share of low- and moderate-income housing.

Objective 4. Ensure that the Township's land use ordinances are consistent and current with on-the-ground conditions to minimize the costs to residents of minor single-family home renovations.

2.2.2 Open Space, Parks, and Recreation

GOAL 1 Preserve, Protect and Enhance Open Space in the Township.

Objective 1. Evaluate and maximize opportunities for future open space acquisitions by the Township.

Objective 2. Preserve and enhance waterfront areas along the Passaic River as a desirable physical and visual amenity for residents and complete the Riverwalk trail along the river.

Objective 3. 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.

GOAL 2 Enhance Recreational Facilities for the Enjoyment of Township Residents of All Ages.

Objective 1. Make improvements to existing open space and recreational facilities.

Objective 2. Diversify recreational opportunities to satisfy unmet needs.

2.2.3 Circulation

GOAL 1 Address Existing Vehicular Traffic Circulation Issues.

Objective 1. Improve vehicular safety at key areas of concern.

Objective 2. Enhance emergency access and ease of vehicular circulation.

GOAL 2 Make the Township More Pedestrian and Bicycle-Friendly.

Objective 1. Enhance and encourage improvements that will facilitate safe and accessible multi-modal travel by providing linkages between neighborhoods, train stations, schools, commercial areas, and open space and recreation areas.

2.2.4 Historic Preservation

GOAL 1 Promote the History of the Township and Preserve its Remaining Historic Resources.

Objective 1. Maintain an inventory of historic resources in the Township.

Objective 2. Promote historic preservation through local initiatives.

2.2.5 Utilities

GOAL 1 Ensure That the Provision of Existing and Future Utility Service Throughout the Township Improves the Quality of Life For the Community While Also Avoiding Negative Environmental And Economic Impacts.

Objective 1. Ensure the proper management of the various utility systems within the Township.

2.2.6 Conservation

GOAL 1 Conserve, Protect and Enhance the Natural Resources of the Township and Make Environmental Issues a Central Part of the Planning Process in Long Hill.

Objective 1. Protect Critical Natural Resources and Sensitive Environmental Areas.

Objective 2. Decrease non-point source pollution to the greatest extent feasible.

GOAL 2 Preserve the Scenic Value of the Township's Natural Resources, Including Its Open Space Areas And Treed Corridors.

Objective 1. Encourage greater tree preservation and planting efforts.

Objective 2. Promote enjoyment of and education about the environment in order to encourage environmental stewardship among residents, including children, and visitors.

GOAL 3 Incorporate Best Management Practices and Green Infrastructure Methods Into Wider Township Stormwater Management Practices.

Objective 1. Reduce flood damage.

Objective 2. Reduce sedimentation in stormwater runoff.

Objective 3. Improve groundwater recharge.

2.2.7 Green Building and Sustainability Plan

GOAL 1 Make Long Hill a More Sustainable Community.

Objective 1. Make the Township government buildings, facilities, properties, and practices a model of sustainability for Long Hill residents.

Objective 2. Promote groundwater recharge using best management practices for stormwater management and flood control.

Objective 3. Expand waste reduction and recycling efforts.

Objective 4. Encourage increased ownership of electric vehicles by expanding the number of EV charging stations in the Township.

Objective 5. Encourage sustainable landscaping practices for residents and businesses.

Objective 6. Encourage and promote sustainable design and construction in the Township. This generally relates to high performance and energy-efficient design and construction methods relating to site conditions, water quality, energy use, material selection and indoor environment.

Objective 7. Encourage the use of renewable energy sources.

3 Long Hill Today

In formulating the goals, objectives, and recommendations for this Master Plan, the Planning Board considered a variety of factors, including:

- Long Hill’s current population and labor characteristics, housing stock, and non-residential construction patterns.
- Recent land use related legislation and policies enacted at the State and local level since the last Master Plan reexamination report in 2013.
- Emerging trends and policies impacting land use, as well as recommended updates for best practices.

The below sections provide a general overview of these factors.

3.1 Population, Housing, Construction, and Labor Characteristics

As detailed more fully in Appendix A, there are several salient points involving housing and population:

- 1 **The population has declined slightly over the last two decades.** The population of Long Hill was estimated to be 8,777 people in 2000, which was an increase of over 12 percent from the 1990 population of 7,826 people. However, the population was estimated to be 8,702 in 2010 and 8,629 in 2020, which is a decline of approximately 1.6 percent from 2000 levels.
- 2 **The population is getting older.** The median age in 2020 was 44 years old compared to 34 years old in 1980. The percentage of residents aged 65 and over has grown from 8.3 percent of the population in 1980 to almost 18 percent of the population in 2020.
- 3 **The number of school-aged children has declined.** The number of children enrolled in the Long Hill Township School district has dropped in the last 15 years from 1,026 students in the 2008-2009 school year to 830 students in the 2021-2022 school year. The Township’s birth rate has steadily declined since the early 1990s.
- 4 **Most housing units are single-family, detached, owner-occupied homes.** There are an estimated 2,986 housing units in Long Hill, 2,903 of which are owner-occupied housing units, i.e., approximately 97 percent. Of the 2,903 housing units, 2,468 are single-family detached homes, i.e., 85 percent. However, the number of multifamily units is expected to increase significantly in the coming years if the Mount Laurel projects are constructed.
- 5 **There has been modest non-residential construction in the last decade.** Since 2013, certificates of occupancy have been issued for approximately 40,000 square feet of non-residential construction compared to the 260,000 square feet between 2003-2013.
- 6 **The developed areas of Long Hill have population densities similar to the County and State.** When the entirety of the Township is considered, Long Hill has an average housing density of 0.40 housing units per acre, which is significantly lower than both the County (0.64 housing units per acre) and the State (0.79 housing units per acre). However, of Long Hill’s 7,808 acres of land, approximately 2,600

acres is part of The Great Swamp National Wildlife Refuge, the County owns close to 600 acres of open space and parkland, the State DEP owns over 100 acres of open space and parkland, and the Township owns approximately 600 acres of land. Thus the housing unit density of the remaining areas is actually closer to the housing unit density of the State of New Jersey.

3.2 Changes in State and Local Legislation, Actions and Policies

The following subsections provide an overview of recent land use-related legislation and policies enacted at the State and local level since the last Master Plan reexamination report in 2013.

3.2.1 Flooding and Stormwater Management

3.2.1.1 Introduction

The Township is located along the Upper Passaic River, approximately 76 miles upstream of the mouth of the Passaic River at Newark Bay. The Passaic River establishes the Township's western and southern boundaries imposing its floodplain into low-lying areas of Millington, Stirling, and Gillette through meandering reaches of natural tributaries and interconnected networks of man-made ditches. Additionally, much of the northern half of the Township is occupied by the Great Swamp National Wildlife Refuge, extensively blanketed by the floodplain of the Black Brook, a Category One (C1) Water of the State, and its swamp tributaries.

Long Hill Township has experienced significant flooding during major storms over the past decades, with considerable recovery cost to local residents, owners of commercial establishments, and government facilities. During this period, the severity and frequency of flooding has increased, in part due to years of environmental degradation of the Passaic River Basin, and in part due to changing weather patterns. Areas of the Township that have experienced significant flooding in recent years include Stirling Village and Valley Road in Stirling. Over seven inches of rain fell in Long Hill in September 2021, from Hurricane Ida which left some areas of Stirling impassable.

Since adoption of the last full Master Plan in 1996 and adoption of related ordinances governing environmental regulation and stormwater management, the Township has had a central planning goal of preserving, protecting, and enhancing its natural resources and emphasizing environmental issues as a primary part of the planning process. Specific action intended to protect the Township from catastrophic flooding is provided in the next chapter.

3.2.1.2 Flood Wall

In January 2003, the US Army Corps of Engineers and the NJ Department of Environmental Protection presented the Township with a flood damage reduction plan. The tentative plan was to build a ±5-foot-high wall/levee/berm extending approximately 4,000 feet that was intended to protect the lowest part of Valley Road. The wall would start near Lounsbury Meadow, run behind the existing houses on Valley Road, cross South Main Street, then run behind the businesses on Valley Road and ShopRite Plaza. It would end near Poplar Drive and Magnolia. The purpose of the wall was to prevent the waters of the Passaic River from backing up the creeks that flow through downtown Stirling. The strategy was to install

"closure structures" (flood gates) at three creeks: two on the western side of the Township and one on the eastern side. The gates would remain open after the rain to allow drainage of the surface water. A day or two later, water from the Great Swamp and the Upper Passaic River would pass through the Gorge and down to the Stirling area. Then, the flood gates would close, to keep the river from backing up into those creeks. Funding for the wall failed to be secured and the wall has not been built.

3.2.1.3 *Inland Flood Protection Rule*

In July 2023, the State promulgated the Inland Flood Protection Rule ("IFPR"). The IFPR updates New Jersey's existing flood hazard and stormwater regulations by replacing outdated precipitation estimates with data that accounts for recently observed and projected increases in rainfall. Previously, precipitation amounts relied upon data obtained through 1999 and did not accurately reflect current precipitation intensity conditions. According to NJDEP, extreme precipitation amounts are 1 percent to 15 percent higher today than in the decades prior to 1999. Further, NJDEP estimates that precipitation during a 100-year storm is likely to continue increasing over the rest of this century by 23 percent to 50 percent above the 1999 baseline as we approach the year 2100.

The Inland Flood Protection Rule establishes design elevations that are reflective of New Jersey's changing climate and more frequent and intense rainfall, replacing standards based on outdated data and past conditions. The updated standards will impose additional design constraints on new and substantially reconstructed developments in inland riverine areas that are subject to flooding, but they do not prohibit development in these flood hazard areas. Additionally, the rules do not apply to existing developments or developments that were wholly located outside of the prior flood hazard areas and which have already received local approval under the Municipal Land Use Law.

Under the primary components of the rule:

- The Flood Hazard Area expands significantly, now encumbering more land than before during the 100-year storm. So much so that the increased intensity and volume of rainfall during the new 100-year flood is approximate to the prior 500-year flood frequency, meaning the depth and extent of predicted flooding has increased.
- This correlates to the new 100-year design flood elevation being two (2) feet higher than currently indicated on NJDEP State flood maps and three (3) feet higher than indicated on FEMA maps.
- Unchanged is the requirement that habitable first floors be designed a minimum one (1) foot above the 100-year design flood elevation. However, since the flood elevation increased as much as three (3) feet on FEMA maps, the habitable first floor elevation has also increased as much as three (3) feet respectively.
- Applications for NJDEP permits under the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13) and all Major Developments are required to demonstrate compliance with the Stormwater Management Rules (N.J.A.C. 7:8) and must utilize County-specific New Jersey precipitation data for both current and future year 2100 projections when calculating peak flow runoff rates. In Morris County, this correlates to 106% (current) and 146% (year 2100) adjustment factors from prior 1999 precipitation data.

3.2.2 Voluntary Sewer Ban

The wastewater treatment plant is located at the southern end of Warren Avenue, to the south of the Long Hill Community Center and Department of Public Works. The 1996 Master Plan noted that, at the time of the plan's preparation, the Township's sewerage treatment plant had adequate sewer capacity to serve the approved but yet unbuilt projects as well as the remaining homes that were still on septic systems. However, beyond these anticipated connections, little capacity existed for new development. The plan concluded that "a major policy decision, therefore, must be made on the subject of septic system elimination, and a possible new moratorium on hook-ups to the new sewerage system."

On September 13, 2000, the Township Committee adopted Resolution 00-321 imposing a voluntary sewer ban throughout the Township until the sewer system capacity could be increased to prevent infiltration into the system during rain events that would cause the system's current licensed capacity to be exceeded. Any new development was subject to the limited capacity for sewer. This had implications on housing development as multifamily housing could not be constructed until additional sewer capacity was added to the system. The lack of sewer capacity enabled the Township to defer a portion of its affordable housing obligations until such time as increased sewer capacity becomes available. Additionally, approved multifamily projects, including those intended to address the Township's affordable housing obligation, could not be constructed until capacity was expanded.

In 2020, New Jersey American Water ("NJAW") purchased Long Hill Township's wastewater system. NJAW already provided water to the Township. Under the terms of the sale, NJAWC is obligated to make improvements by October 2025 so that the sewer ban can be lifted.

3.2.3 Settlement Agreement with Fair Share Housing Center

The Township of Long Hill filed a petition for declaratory judgment on July 6, 2015, seeking a declaration of compliance with the Mount Laurel doctrine and Fair Housing Act of 1985, N.J.S.A. 52:27D-301 et seq. in accordance with *In re N.J.A.C. 5:96 and 5:97, 221 N.J. 1, 30* (2015), and also petitioned the court for temporary immunity from builder's remedy lawsuits. The Township reached a settlement agreement (the "Settlement Agreement") on September 14, 2017, with Fair Share Housing Center ("FSHC"), a Supreme Court-designated interested party in the matter in accordance with *In re N.J.A.C. 5:96 and 5:97*, supra. Per the Settlement Agreement, the Township had a Third Round (i.e., 1999-2025) affordable housing obligation of 220 units. However, any new development is subject to the sewer ban and, as a result, inclusionary development cannot be built until additional sewer capacity is added to the system. As part of the Settlement Agreement, the Township received an adjustment of 163 units of its Third Round obligation until such time as the Township's sewer capacity issues are resolved and the sewer ban is lifted. In return for the adjustment, the Township agreed to reserve and set aside new sewer capacity, when it becomes available, for low and moderate-income housing on a priority basis. Municipal officials agreed to endorse all applications to the Department of Environmental Protection (DEP) or its agent to provide additional sewer capacity.

On April 10, 2018, the Township adopted a Housing Element and Fair Share Plan (“HEFSP”), which is incorporated by reference into this Master Plan. The HEFSP details that the Township was able to use several existing projects to address 98 units of its 220 overall obligation and agreed to provide overlay zones on several sites. The Township Committee subsequently rezoned these sites and the Planning Board granted site plan approval for inclusionary developments on these sites. The zoning for these sites is discussed further in Chapter 4.

Since 2020, the Planning Board has granted site plan approval to two inclusionary sites intended to address the Township’s affordable housing obligation including the “Tifa site” and the “Gillette Office” site.

- The **Tifa site** at 50 Division Avenue in Millington was used as an asbestos products manufacturing facility from circa 1927 until 1973, and was later occupied by a pesticide manufacturer. Asbestos was disposed of on a portion of the site which was subsequently classified as a Superfund site by the United States Department of Environmental Protection. Due to capping and remediation efforts, the site is currently delisted as a Superfund site. The underlying zoning for the lots is LI-2 Limited Industrial Zone. In 2018, by Ordinance No. 413-18, the Township placed the MU-O Overlay Zone on the site to allow for a realistic opportunity for the construction of very low-, low- and moderate-income housing. Permitted uses include up to 10,000 square feet of commercial uses consisting of retail, personal services, restaurants, and offices facing Division Avenue and the NJ Transit station, and inclusionary multifamily residential developments at a density of 12 units per acre. The minimum lot size is 11 acres in size, the maximum building height is 2.5 stories/35 feet. The floor area ratio is 0.50. In a resolution memorialized in 2021, the Planning Board granted Preliminary and Final Major Site Plan approval to Prism Millington, LLC to demolish the extant buildings onsite and develop fourteen 10-unit multifamily residences, an 1,800 square foot community building with adjacent swimming pool, a 4,992 square foot retail building, and site improvements including off-street parking areas and landscaping. Of the 140 residential units, 15 percent or 21 units will be reserved as affordable housing units.
- The **Gillette Office** site at 617-621 Valley Road in Gillette was rezoned by the Township Committee in 2020 (by Ordinance No. 460-20) from the O Office zone to the “R-MF 4 - Multi Family Residential Zone 4” to allow a realistic opportunity for the construction of very-low-, low- and moderate-income housing. Permitted uses include inclusionary multifamily residential developments at a density of 12 units per acre. The minimum lot size is 5 acres, the maximum building height is 3 stories/50 feet for pitched roof buildings, and 3 stories/45 feet for non-pitched roof buildings. The floor area ratio is 0.50 and the required parking ratio is 1.5 space per unit. In 2022, the Planning Board granted Preliminary and Final Major Site Plan approval to Elite Properties at Long Hill, LLC to construct a multi-family residential property and related improvements to be known as “Gillette Crossings.” The residential building will consist of 62 units, nine of which are proposed to be reserved for affordable housing.

Despite approvals, these buildings cannot be built until the sewer ban is lifted. The next round of affordable housing compliance is scheduled to begin in July 2025.

3.2.4 State Requirements Regarding Electric Vehicles

In 2021, Governor Murphy signed a law which amended the Municipal Land Use Law (“MLUL”) by establishing numerical standards and zoning standards for installation of electric vehicle charging stations (“EVCS”) and “Make-Ready” parking spaces at multi-family and non-residential development projects. “Make-Ready” means prewiring of electrical infrastructure at a parking space or a set of parking spaces to facilitate easy and cost-efficient future installation of electric vehicle supply or service equipment. Pursuant to the law, the commissioner of the Department of Community Affairs (DCA) published a model land use ordinance for EVSE and Make-Ready parking spaces which became effective in every New Jersey municipality including Long Hill.

3.2.5 Legalization of Cannabis Distribution

In February 2021 Governor Murphy signed into law the New Jersey Cannabis Regulatory, Enforcement Assistance, and Marketplace Modernization Act, N.J.S.A. 24:6I31 et seq. (i.e., “CREAMM Act”) which legalized and regulated cannabis use and possession for adults 21 years and older and decriminalized marijuana and hashish possession. Municipalities had until August 2021 to take action to either prohibit or limit (a) the number of cannabis establishments, distributors, or delivery services; (b) the location, manner, and times of operation; and (c) establish civil penalties for violation and ordinances. On April 28, 2021, the Long Hill Township Committee adopted Ordinance 472-21 which prohibited all classes of cannabis establishments or cannabis distributors or cannabis delivery services but not the delivery of cannabis items and related supplies by a delivery service.

3.2.6 Emerging trends and Policies Impacting Land Use and Best Practices

The internet and smartphones have revolutionized the way people work, shop, order food, bank, and manage healthcare. The 2020 onset of the COVID-19 pandemic did not cause these cultural shifts but did accelerate their adoption and implementation, and they are not likely to reverse even though the pandemic has receded. Some of the implications on planning are described below.

- **Retail space needs:** Society has turned increasingly to the choice, efficiency, and convenience offered via e-commerce. Many retailers no longer have a demand for square footage, particularly depth of retail space, that they formerly did because inventory is not necessarily kept onsite but is delivered from a warehouse to the store for the customer to pick-up, or is simply shipped directly to the customer’s home.
- **Increase in retail vacancies.** The vacant storefronts which exist throughout Long Hill’s commercial areas are the most visible consequence of the shift of consumers to e-commerce. Vacant storefronts, particularly multiple vacant storefronts, detract from a commercial area’s vibrancy, adversely impact the Township’s tax ratable base, are not aesthetically pleasing, and can feel unsafe for pedestrians.

- **Parking space needs:** Retailers and restaurants have adapted to consumer preferences related to safety and convenience. Many retailers and restaurants offer curbside pick-up and/or indoor pick-up areas to customers who order by phone, a website, or smartphone app. This has implications for land use in terms of surface parking layout as some businesses have designated surface parking spaces for short-term parking. These spaces are typically located in close proximity to the front door of the establishment and turn over quickly.
- **Increased demand for drive-thru windows:** In years past, municipalities often prohibited drive-thru's for a variety of reasons, including to discourage fast-food restaurants and to limit noise from outdoor ordering systems. Today, many national restaurants (even those not classified as fast-food restaurants) require drive-thru lanes that allow the establishment to do a higher volume of business more efficiently and allow customer transaction to occur without the customer leaving their vehicle. Additionally, the outdoor ordering systems have been augmented, or even replaced, by ordering on a digital pad at the order kiosk or pre-ordering on a smartphone app. Long Hill does not currently permit drive-thru windows for restaurants, although some exist in Town, but permit drive-thru windows for pharmacies and banks in certain zones.
- **Decline in Need for Small-Branch Banking.** Customers can now do much of their banking online and pay for many items without exchanging cash resulting in limited visits to a brick-and-mortar bank. As a result, many banks have closed local, small branches and have consolidated services into larger regional locations. As a result, bank buildings are vacant throughout the region, including in Long Hill where half of the local banks have closed in the past few years. Many of these bank properties are in prominent locations with good roadway access and drive-thru windows that may be attractive for reuse by other land uses.
- **Decline in Traditional Office Market.** In recent decades, the New Jersey suburban office market has been in decline, in part because of oversaturation of the market, and in part due to the relocation and/or consolidation of large corporations. This trend, coupled with the fact that the pandemic resulted in many office workers working remotely for at least part of the work week, has resulted in a weak market for office space. In the wake of the pandemic, many companies are "downsizing" their office spaces as they no longer need to accommodate their full work force five days a week. Throughout New Jersey, older office space is being converted or redeveloped to other uses, including residential and warehouses. The 1997 Master Plan created two new office zones to encourage office development in Long Hill. However, neither of these zones worked out as intended. The last few new "office uses" in Long Hill have been located in repurposed old residences stranded within the traditional commercial zones, rather than in new office-type structures.
- **Decline in Transit Ridership.** The increased number of people working from home for at least part of the work week has impacted transit ridership. Long Hill is currently home to three NJ Transit rail stops in Gillette, Stirling, and Millington. NJ Transit has not indicated any proposed changes

to these existing stations, but this Master Plan should take into account changes in ridership and any anticipated impacts on land use and zoning in the vicinity of these stations.

- **Increased Demand for Warehousing Space.** The rise in e-commerce and increased consumer expectations for same-day delivery services has resulted in unprecedented demand in New Jersey from online retailers and e-commerce driven businesses desperate for warehousing and “last mile” distribution. Long Hill’s relative remoteness from major highway routes makes it unlikely that large-scale fulfillment centers will locate here, however, this Master Plan acknowledges this significant trend in land use.

4 Land Use Plan Element

4.1 Introduction

The Municipal Land Use Law (“MLUL”) requires that every municipal Master Plan include a Land Use Plan Element. The Land Use Plan Element indicates the location, extent, and intensity of the existing and proposed development in the municipality and is intended to guide future development in the Township over the next 10-year period. The Land Use Plan serves as the basis for the Township’s land use ordinance including any proposed revisions or amendments to the ordinance. It also provides an overview of preferred land use types and locations consistent with Long Hill’s overarching planning goals.

Since 2021, the MLUL has required that the Land Use Plan Element include a climate change-related hazard vulnerability assessment which analyzes current and future threats to, and vulnerabilities of, the municipality associated with climate change-related natural hazards such as increased temperatures, drought, flooding, hurricanes, and sea-level rise. The assessment is designed to identify areas subject to potential impacts, and the development of policies and strategies for preparedness for and mitigation of potential impacts.

The sections below focus on the land uses and zones in the Township including a description of existing conditions, an assessment of the existing conditions, and implementable action items. The final section is devoted to a hazard vulnerability assessment. As required by the MLUL, the recommendations in this Land Use Element are grounded in the principles of smart growth and environmental sustainability, wherever practicable.

4.2 Existing Land Use and Zoning Maps

The below subsections include a description of each existing land use/zone along with an assessment of these existing conditions, as well as implementable action items. Please see **Figure 4-1 Existing Land Use Map** and **Figure 4-2 Existing Zoning Map**.

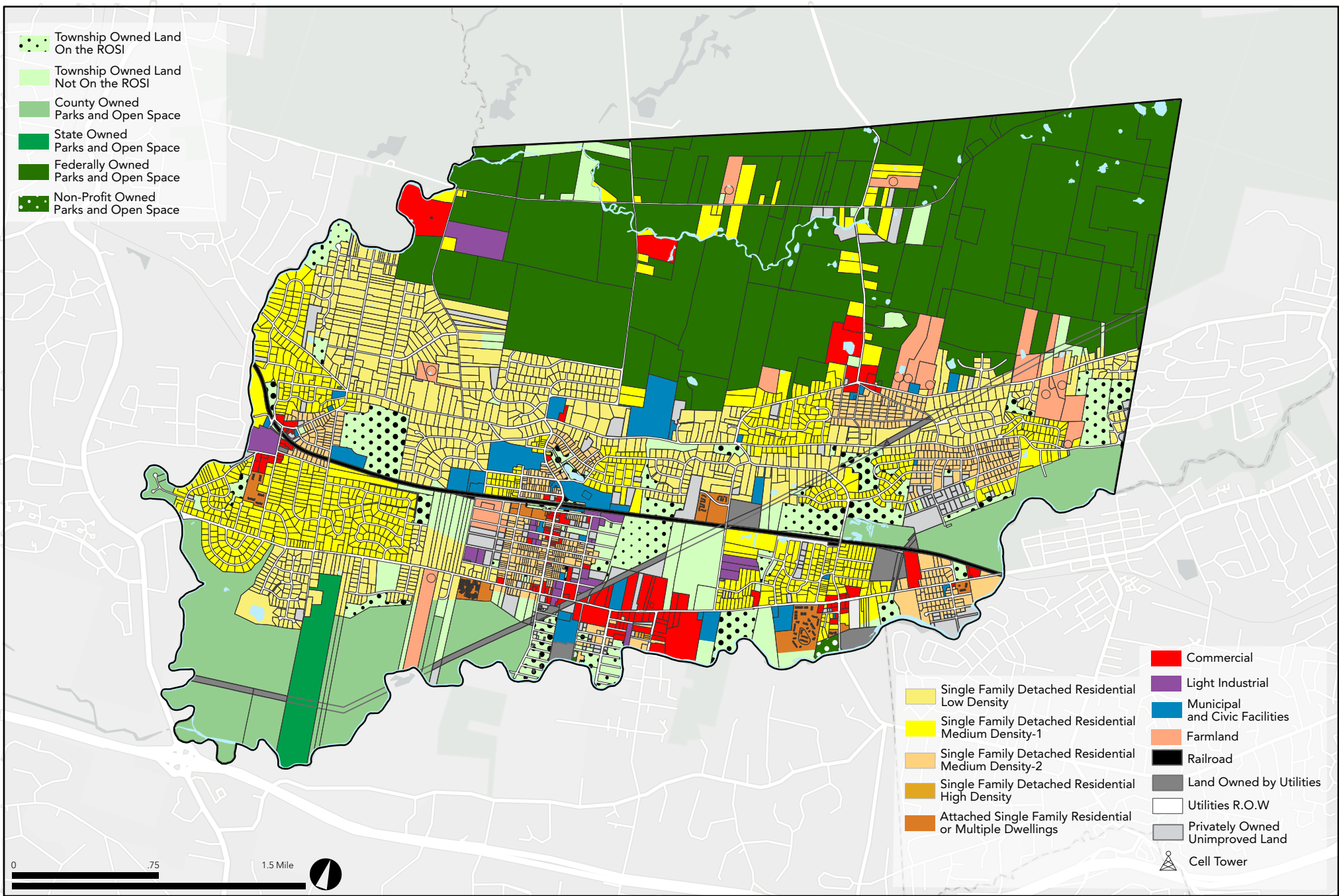


Figure 4-1: Existing Land Use

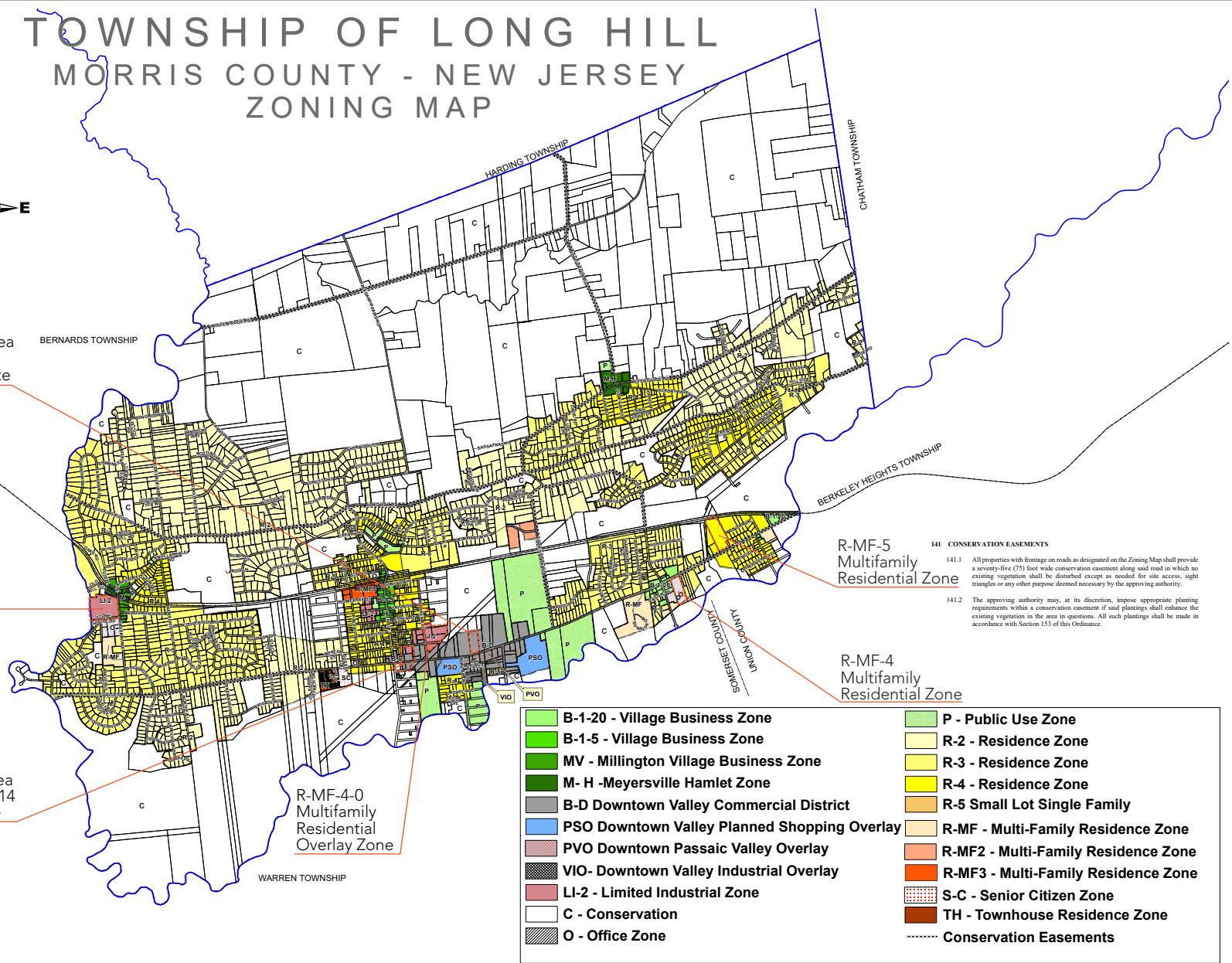
TOWNSHIP OF LONG HILL MORRIS COUNTY - NEW JERSEY ZONING MAP



RAHO
Redevelopment Area
Block 11401
Former Carwash Site

MU-0
Mixed Use
Overlay Zone

Redevelopment Area
Blocks 10401 & 11514
Thermoplastics Site



141 CONSERVATION EASEMENTS

141.1 All properties with frontage on roads as designated on the Zoning Map shall provide a seventy-five (75) foot wide conservation easement along said road in which no existing vegetation shall be disturbed except as needed for site access, right triangles or any other purpose deemed necessary by the approving authority.

141.2 The approving authority may, at its discretion, impose appropriate planting requirements within a conservation easement if said plantings shall enhance the existing vegetation in the area in question. All such plantings shall be made in accordance with Section 153 of this Ordinance.

- B-1-20 - Village Business Zone
- B-1-5 - Village Business Zone
- MV - Millington Village Business Zone
- M- H - Meyersville Hamlet Zone
- B-D Downtown Valley Commercial District
- PSO Downtown Valley Planned Shopping Overlay
- PVO Downtown Passaic Valley Overlay
- VIO- Downtown Valley Industrial Overlay
- LI-2 - Limited Industrial Zone
- C - Conservation
- O - Office Zone
- P - Public Use Zone
- R-2 - Residence Zone
- R-3 - Residence Zone
- R-4 - Residence Zone
- R-5 Small Lot Single Family
- R-MF - Multi-Family Residence Zone
- R-MF2 - Multi-Family Residence Zone
- R-MF3 - Multi-Family Residence Zone
- S-C - Senior Citizen Zone
- TH - Townhouse Residence Zone
- Conservation Easements



1	NOVEMBER, 2010	DECEMBER 12, 2010	REZONE LOT 23, BLOCK 1181 FROM R-4 TO B-D
2	OCTOBER, 2014	NOVEMBER 30, 2014	CHANGES TO SUPPORT DOWNTOWN VALLEY ORDINANCE REVISIONS
3	MAY 2015	MAY 24, 2015	REPLACE PRIOR MANUAL ZONING MAP
NO.	DRAWING DATE	ADOPTED DATE	REVISION



Figure 4.2: Existing Zoning

4.3 Recommendation Common to All Land Use Districts

4.3.1 Confront Flooding by Protecting the Township's Natural Assets

As described in Chapter 3, Long Hill Township has experienced significant flooding during major storms over the last two decades, with considerable cost to residents, owners of commercial establishments, and government facilities. As such, the Township has made confronting flooding a priority and primary component of its planning initiatives beginning with the creation of the 1997 Master Plan, and carried through the decades with zoning reform and adoption of related ordinances governing environmental regulation and stormwater management. Specifically, these efforts include reducing and detaining runoff from new development while increasing the environmental protection of the Great Swamp and Passaic River watershed.

However, while tangible local benefits have been realized through these initiatives, the Township continues to be burdened by increased regional impacts of climate change exemplified by continued escalation in the severity and frequency of flooding. Notably, the State has recognized this change in its recent promulgation of the Inland Flood Protection Rule (IFPR), which affirms extreme precipitation amounts are 1 to 15 percent higher today than in 1999. Further, New Jersey Department of Environmental Protection (NJDEP) estimates that precipitation during the 100-year storm event is likely to continue increasing over the remainder of this century by 23 to 50 percent above the 1999 baseline as we approach the year 2100. To this end, the Township acknowledges the necessity to escalate their planning initiatives through a multi-pronged approach of congruent local and regional efforts.

Locally, the Township continues to promote the recommendations of the 2013 Reexamination Report intended to protect the Township from catastrophic flooding. These recommendations include:

1. Prohibiting any new construction in the floodplain except for that which has the potential to reduce flood damage.
2. Investigating and actively seeking all available Federal, State and County funding to buy flood impacted properties.
3. Removing structures from abandoned properties in the floodplain.
4. Continuing river de-snagging and maintenance with local, County and State resources.

The Township must continue active pursuit of these initiatives. Additionally, the Township must constantly evolve its approach to stormwater management including the following:

1. Adopt an amended Flood Damage Prevention Ordinance ("FDPO") consistent with NJDEP's model ordinance. The FDPO applies to development in the "special flood hazard area" which is the FEMA 100-year floodplain. Without a FDPO in place, the Township cannot participate in the National Flood Insurance Program (NFIP) and residents are not eligible to obtain flood insurance.
2. Update the Township Floodplain Map to reflect promulgated Inland Flood Protection Rules and develop a GIS inventory of all properties encumbered by the floodplain. Provide certified mail

notice to all property owners within the floodplain so that they are aware of any risk and/or mitigation strategies. Develop educational program to inform residents of public health and safety risks associated with flooding as well as where it occurs in Township.

3. Develop Flood Risk Assessment and Mitigation Study to identify areas of greatest risk and benefit from both local and regional mitigation projects.
4. Routinely review and re-adopt the Township's Stormwater Control Ordinance (SCO) to ensure NJDEP BMP Manual Appendix D model ordinance revisions are locally adopted for immediate Major Development compliance with all future amendments to N.J.A.C. 7:8.
5. Develop Asset Management Study for existing municipal storm sewer capacity, including municipal infrastructure capital improvement plan to reduce anticipated flood impacts and support future planned development.
6. Continue to implement strategies identified in the Morris County All Municipalities Hazard Mitigation Plan by seeking grant opportunities to implement the identified strategies.
7. Investigate the value of increasing maximum permitted building height in floodplain areas proportionate to the 3-foot increase in the FEMA 100-year base flood elevation in order to maintain appropriately scaled development density and incorporate flood resiliency to each project.
8. Support New Jersey Pollutant Discharge Elimination System (NJPDES) MS4 Tier A Permit planning effort compliance with routine review and revision of the Municipal Stormwater Management Plan (MSWMP) as part of all Master Plan updates and/or Reexaminations
9. Develop a Stormwater Mitigation Plan in accordance with N.J.A.C. 7:8-4.2(c)11 that identifies what measures are necessary, potential mitigation projects, and/or criteria to evaluate mitigation projects that can be used to offset the deficit created by granting a variance in accordance with N.J.A.C. 7:8-4.6.
10. Routinely review and adoption of NJDEP's New Jersey Model Code Coordinated Ordinances to ensure continued compliance with the National Flood Insurance Program (NFIP) requirements.

Additionally, the Township aims to escalate its local planning initiatives by identifying regional coordination efforts to promote floodplain management improvements within its HUC-11 watershed, HUC-14 sub-watershed, and regional Watershed Management Area (WMA) that are consistent with both Federal and State regulations. These specific recommendations include:

1. Lead the formation of a regional Upper Passaic River Watershed coalition of towns and counties, both upstream and downstream along the Passaic River, to address regional flood mitigation projects and water quality issues within Watershed Management Area 6 (WMA 6) Upper and Mid Passaic, Whippany, and Rockaway.
2. Support NJPDES MS4 Tier A Permit planning effort compliance through development of a Watershed Improvement Plan (WIP).

4.3.2 Maintain the existing low density of Long Hill Township

The Master Plan recommends maintaining the density, currently averaging 727 people per square mile throughout the Township, except in those areas where an appropriate increase would be consistent with the other goals of this Plan.

4.3.3 Review, Rationalize, and Update Zoning Districts and Regulations

Changes in uses and development patterns within zones have taken place within Long Hill Township over the decades. As a result, a number of zoning districts within the Township contain a mix of different, and at times incongruous uses. Changing planning priorities have created the need to redefine the various zoning districts within Long Hill Township and adjust bulk requirements to properly reflect the prevailing bulk standards within these zoning districts.

The intent of this Land Use Element is to create more rational zoning that will increase the percentage of conforming lots within their respective zones to more closely align with the Purposes of Zoning in Municipal Land Use Law, N.J.S. 44:55D-2. These changes will significantly reduce the necessity for owners to get variance approval to develop their properties. Specific zone recommendations are provided in the subsequent sections. The Township Committee should ensure that funding is available so that these zoning recommendations can become a reality.

Overall recommendations for every zone in the Township include:

1. **Adjust zone boundaries and bulk requirements** to conform to the existing character of neighborhoods.
2. **Define new zoning districts** that more closely align existing uses with desired future uses, notably the intent to foster walkable mixed use residential and commercial neighborhoods.
3. **Redraw zone lines to remove split lot conditions.** A number of lots throughout the township are split between two zones most commonly in the “R” and “C” zones. In some instances, this is because wetland and flood plain portions of lots in the “R” zones were zoned “C” to prevent their future sub-division and/or development as well as indicate potential lots that might become part of a township-wide trail system. With wetland protection and flood-plain avoidance ordinances passed since the 1997 Master Plan, these portions of the split-zoned lots are well-protected, and much of the split-zoning is no longer necessary. Split lots should be incorporated into the most conforming adjacent zone, based on lot size.
4. **Establish measurable and reasonable conditional use standards for all conditional uses.** Each conditional use in the Zoning Ordinance should have measurable standards. Conditional use standards must have enough certainty and definiteness to allow an applicant to know the limit and extent of the conditions; vague criteria should not be permitted. Currently, some conditional use standards in the Long Hill Ordinance are vague and subject to interpretation. This language and other similar language in the ordinance should be replaced with measurable standards.

5. **Examine all land use standards and make any necessary “housekeeping” amendments.** The ordinance should be reviewed and any standards that are conflicting, unenforceable, unlawful, unclear, or repetitive should be removed.
6. **Review ZBA Annual Reports and make any modifications to improve/clarify various ordinance provisions.** The annual reports of the Zoning Board of Adjustment (“ZBA”) provide examples of issues that repeatedly come before the Board and make recommendations for zoning amendments which may reduce the number of property owners having to appear before the ZBA.
7. **Improve the efficiency and transparency of the Land Use code and application process** by providing both in online and hard copy formats informational materials, clear checklists, templates, and timelines to be used by both Township staff, Board Professionals, and applicants.

4.3.4 Adopt EV Ordinance and Encourage EV Spaces at Public Venues

The MLUL requires that the Land Use Element consider potential locations for the installation of electric vehicle (“EV”) charging stations. The Township should consider implementing the following:

1. Amend the zoning ordinance to reflect State mandates requiring EV charging stations in new multi-family residential and non-residential projects.
2. Encourage the installation of EV stations on privately owned lots with expansive parking lots such as the parcels in the PSO Planned Shopping Overlay Zone.

4.4 Residential Districts

4.4.1 Single-Family Detached Residential (“R-2”, “R-3”, “R-4”, and “R-5”) Districts

4.4.1.1 *Description*

This land use and corresponding zoning encompasses virtually all of the existing detached single family residential areas of the township with the exception of residential uses permitted in the “C” Zone. The single-family detached residential land use includes four different sub-categories.

- **The Low-Density Single-Family Residential (Zoned R-2 Residence)** category is located in a large, meandering area that generally parallels Long Hill Road and a second smaller area along Valley Road in the western section of the Township. The purpose of this land use category is to recognize the relatively large lot single family residential development located throughout these areas. The minimum lot size in the R-2 is 45,000 square feet and the minimum lot width is 150 feet. The maximum height is 2.5 stories and 35 feet.
- **The Medium Density Single-Family Residential (Zoned R-3 Residence)** category is in scattered areas located throughout the Township. The purpose of the category is to recognize the medium density single-family residential development that now exists within these areas. The minimum lot size in the R-3 is 30,000 square feet and the minimum lot width is 150 feet. The maximum height is 2.5 stories and 35 feet.
- **The Medium Density-2 Single-Family Residential (Zoned R-4 Residence)** category is located in scattered areas of the Township. The purpose of this land use category is to recognize the

relatively small lot single family residential development located throughout these areas. The minimum lot size in the R-4 is 20,000 square feet and the minimum lot width is 100 feet. The maximum height is 2.5 stories and 35 feet.

- **The Small Lot Single-Family Residential (Zoned R-5 Residence)** category is located along Metzler Place to the west of Plainfield Road in Stirling and was created in 2016. The minimum lot size is 10,000 square feet and the minimum lot width is 100 feet. The maximum height is 2.5 stories and 35 feet.

4.4.1.2 Assessment

Annual reports of the Long Hill Township Zoning Board of Adjustment (“ZBA”) have routinely noted the large number of single-family homeowners that have come before the Board seeking variance relief for relatively minor home improvements because the zoning requirements in the single-family zones do not match the on-the-ground conditions. Due to the lots being undersized, many lots under ZBA review were also deficient in lot width. The ZBA report notes that these existing non-conformities often led to homeowners requiring variances for setbacks, building coverage, and other bulk standards. This issue is not confined to just one area or just one zone. The ZBA surmised that the zoning standards may have been put in place in an effort to encourage lot consolidation (of smaller residential lots) and redevelopment of more modest single-family homes into grander homes. However, neither the lot consolidation nor property redevelopment as anticipated in the zoning has occurred. Recent ZBA annual reports suggest that homeowners are investing in their properties as none of the applications were for teardowns.

4.4.1.3 Recommended Actions

The following are recommended actions for the single-family residential zones:

1. Examine existing non-conforming lots in single-family residence zones and consider zoning changes to bring them into compliance.
2. Where large concentrations of undersized lots exist, rezone the entire neighborhood to the next smaller residential zone. **See Figures 4-3 to 4-5** below for approximate areas for potential rezoning.
3. Re-designate the Residential zones to make identification easier and to more accurately describe the lot sizes within each zone.
 - a. R-2 to “R-45” (45,000 square feet as the minimum lot size).
 - b. R-3 to “R-30” (30,000 square feet as the minimum lot size).
 - c. R-4 to “R-20” (20,000 square feet as the minimum lot size).
 - d. R-5 to “R-10” (10,000 square feet as the minimum lot size).

FIGURE 4-3: RESIDENTIAL AREAS POTENTIALLY TO BE REZONED TO R-5 (TO BE R-10)

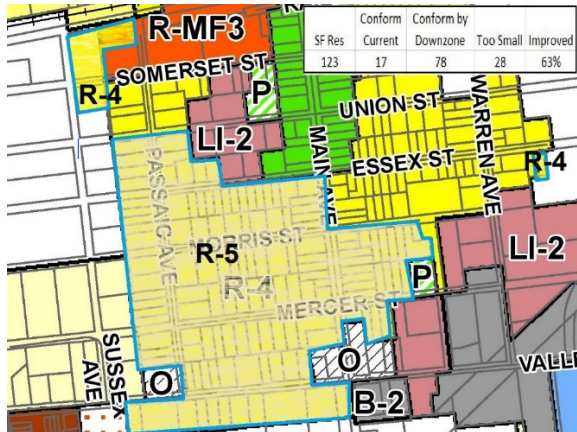
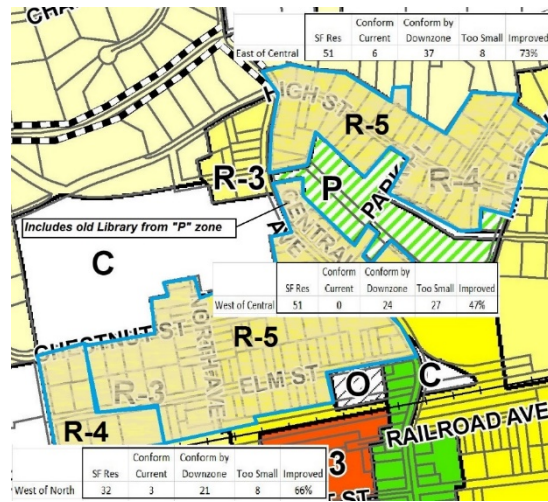
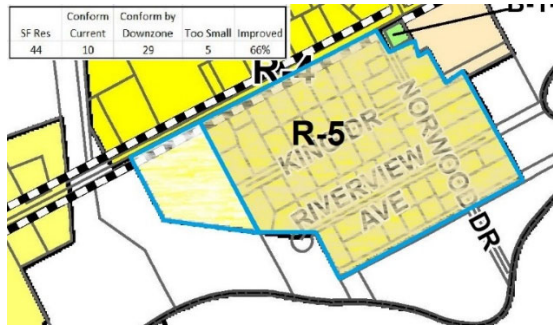
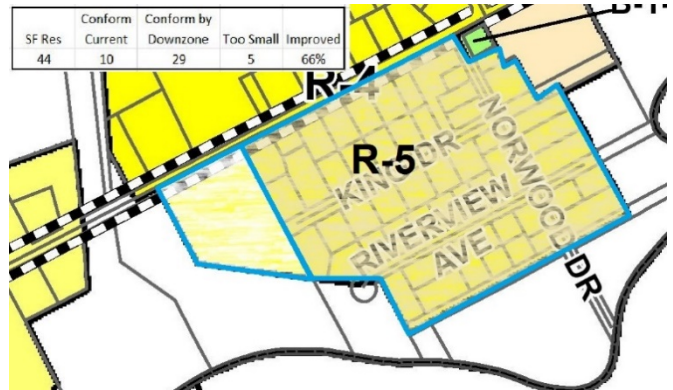
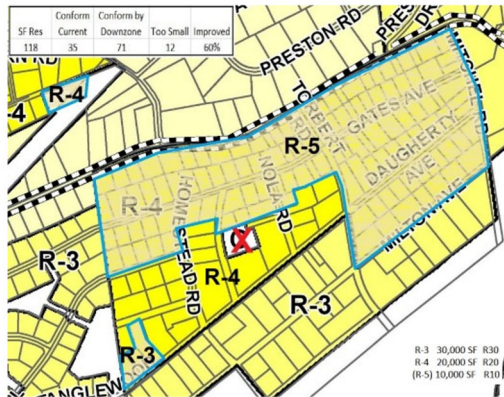


FIGURE 4-4: RESIDENTIAL AREAS POTENTIALLY TO BE REZONED TO R-3 (TO BE R-30)

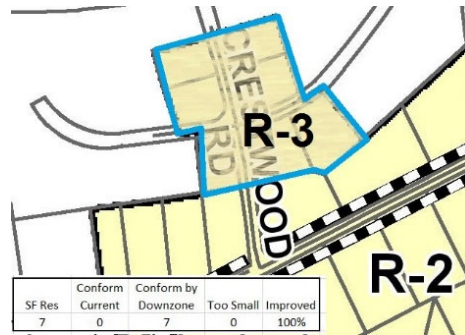
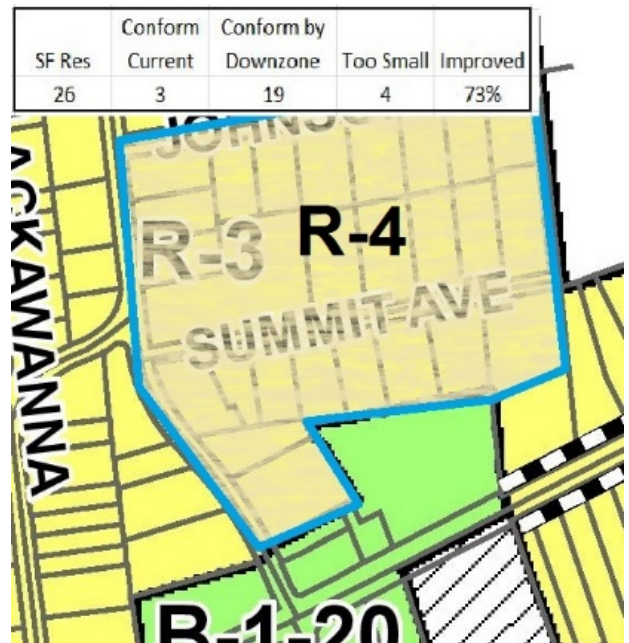
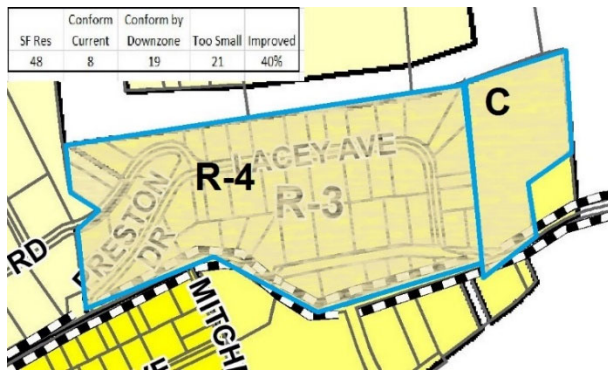


FIGURE 4-5: RESIDENTIAL AREAS POTENTIALLY TO BE REZONED TO R-4 (TO BE R-20)



4.4.2 Legacy Multifamily Residential (“TH and MF”) Districts

4.4.2.1 Description

The multifamily residential category of the land use plan includes the townhouse and multifamily residential developments in the Township, some of which were implemented to provide affordable housing in accordance with the municipality’s Mt. Laurel fair share obligation. The land use/zone descriptions below are divided into two broad categories: those created prior to the 2017 Settlement Agreement with Fair Share Housing Center (and referred to as “Legacy Multifamily Residential districts”) and those created since 2017 to implement the Settlement Agreement.

Zoning designations that characterize the Legacy Multifamily Residential include:

- **R-MF Multifamily Residence Zone:** This zone permits townhouses. It includes the Meadowview 2-3-bedroom townhouse complex on Cooper Lane to the west of Division Avenue; as well as Sunrise townhome community located on the south side of Valley Road, west of Mountain Avenue; and Centennial Village a 16-unit townhome development south of Valley Road in Gillette near the border with Berkeley Heights. The Riverview Village located on the west side of Mountain Avenue in Gillette; two 2-story apartment buildings on the east side of Mountain Avenue in Gillette with a street address of 581-591 Mountain Avenue is an apartment building within this zone and is the one development that is not a townhouse development.
- **R-MF2 Multifamily Residence Zone:** This zone permits townhouses and apartments. Developments in this zone include the affordable Chestnut Run townhomes on Delaware Avenue in Gillette.
- **R-MF3 Multifamily Residence Zone:** This zone permits apartment buildings. It includes Stirling Manor in Stirling and apartment units located along Somerset Street to the west of Stirling Manor with a street address of 240 Passaic Avenue-384 Somerset Street.
- **TH Townhouse Zone:** This zone permits townhouse units only. Developments in this zone include The Knoll Millington, a 3-bedroom townhouse development located on the south side of Valley Road west of Sussex Avenue in Millington.
- **SC Senior Citizen Housing Zone:** This “Senior Citizen” zone permits senior citizen housing (100% of which shall be “affordable”). This includes the 52-unit Lounsberry Meadow affordable apartment complex for seniors and disabled residents. It is located on the south side of Valley Road immediately to the east of The Knoll Millington.

These R-MF2, TH, and SC zones include only one development each, and each was specifically created to facilitate the approval of that one development.

4.4.2.2 Assessment

The multifamily and townhouse Legacy Multifamily Residential areas could be consolidated into two land use categories: a multifamily apartment zone and a townhouse zone. This would consolidate and simplify the existing zones.

4.4.2.3 Recommended Actions

The following are recommended actions for the Legacy Multifamily Residential zones:

1. Move single-family houses currently located in multi-family zones to adjacent “R” zone to the adjacent village zone. **See Figure 4-6** for potential lots to be rezoned.
2. Move Multi-family use in existing “R-4” zone to new “MF, Multifamily” zone. **See Figure 4-6** for potential lots to be rezoned.
3. Simplify the zoning categories for Legacy Multi-family Residence zones to make them more accurately describe the different multi-family residential neighborhoods by consolidating the R-MF, R-MF-2, R-MF-3 Multifamily zones and TH, Townhouse zone into two zones: the “TH, Townhouse zone” and the “MF, Multi-Family Zone.” **See Figures 4-7a and b** for potential lots to be rezoned.
4. Adjust bulk standards for the “TH” Zone to encompass the current R-MF and R-MF2 Zones’ standards, as they relate to lot area, density, building coverage, and number of stories.

FIGURE 4-6: SINGLE-FAMILY HOMES IN MULTIFAMILY ZONES AND MULTIFAMILY BUILDINGS IN SINGLE FAMILY ZONES

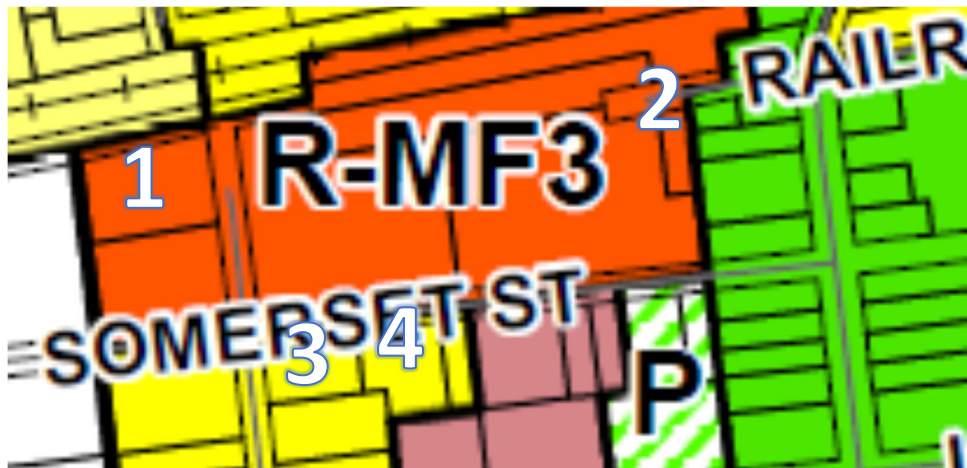
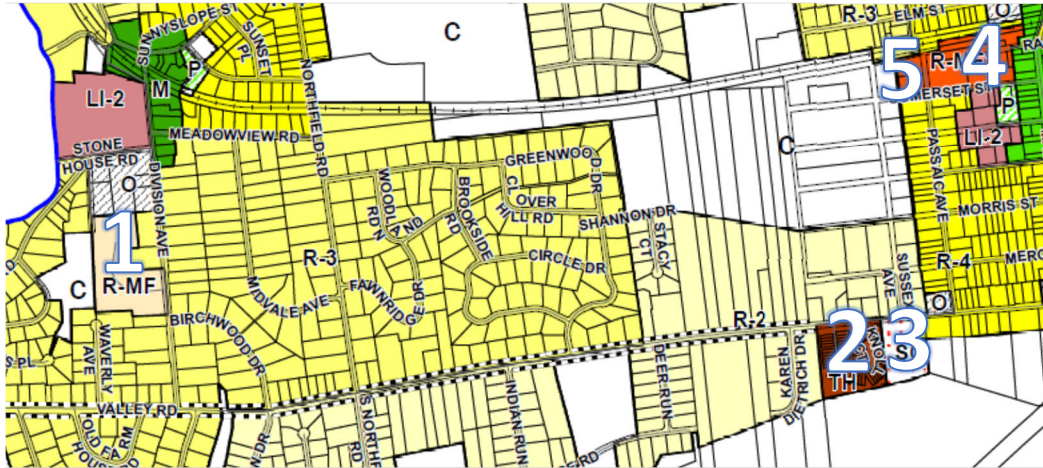
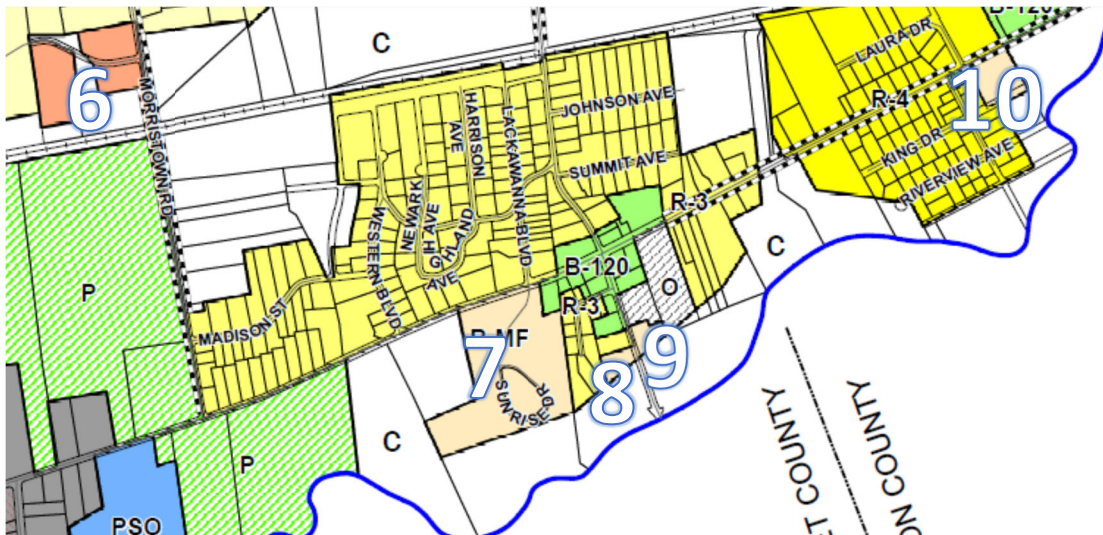


FIGURE 4-7A: LEGACY MULTI-FAMILY ZONES IN MILLINGTON AND STIRLING



Legend: 1= Meadowview (R-MF); 2= The Knoll Millington (TH); 3= Lonsberry Meadow (SC); 4=Stirling Manor (R-MF3); and 5=240 Passaic Avenue-384 Somerset Street (R-MF-3)

FIGURE 4-7B: LEGACY MULTI-FAMILY ZONES IN GILLETTE



Legend: 6= Chestnut Run (R-MF2); 7= Sunrise (R-MF); 8= Riverview Village (R-MF); 9= 581-591 Mountain Avenue (R-MF); and 10= Centennial Village (R-MF)

4.4.3 Post-2017 Multifamily Residential (“R-MF-4”, “MU-O”, “RAHO”, “R-MF-5,” and “R-MF-4-O”) Districts

4.4.3.1 Description

Post-2017 Multifamily Residential zoning designations include multifamily residential zones created to implement the 2017 Settlement Agreement. The descriptions of these zones replace similar descriptions in the Housing Element and Fair Share Plan adopted in 2018. See **Figure 4-2** for locations of the following:

- **R-MF-4 Multifamily Residential Zone.** This zone applies to one lot in the Township, i.e., Block 10801, Lot 3 (617-621 Valley Road in Gillette) located on the south side of Valley Road to the east of Mountain Avenue. This site is referred to as “Gillette Office” in the Settlement Agreement with FSHC. In 2020 by Ordinance No. 460-20, the Township Committee rezoned the site from the O Office zone to the “R-MF 4 - Multi Family Residential Zone 4.” The purpose of the R-MF-4 Zone District is to permit multi-family apartment housing with an affordable housing set aside of 15 percent for rental units and 20 percent for ownership units. Permitted uses include inclusionary multifamily residential developments at a density of 12 units per acre. The minimum lot size is 5 acres in size, the maximum building height is 3 stories/50 feet for pitched roof buildings, and 3 stories/45 feet for non-pitched roof buildings. The floor area ratio is 0.50 and the required parking ratio is 1.5 space per unit. In 2022, the Planning Board granted approval to construct a 62-unit multi-family residential project to be known as Gillette Crossings.
- **MU-O Mixed-Use Overlay Zone.** This overlay zone applies to two tax lots in the Township, i.e., Block 10100, Lot 7.01 and Block 12301, Lot 1 (50 Division Avenue in Millington) located at the corner lot on the north side of Stonehouse Road and the west side of Division Avenue extending north to the NJ Transit railroad right-of-way. This site is referred to in the Settlement Agreement as the “TIFA site,” which was formerly used for the manufacturing and processing of asbestos containing materials. The underlying zoning for the lots is LI-2 Limited Industrial Zone. In 2018, by Ordinance No. 413-18, the Township placed the MU-O Overlay Zone on the site to allow for a realistic opportunity for the construction of very low-, low- and moderate-income housing. Permitted uses include up to 10,000 square feet of commercial uses consisting of retail, personal services, restaurants, and offices facing Division Avenue and the NJ Transit station, and inclusionary multifamily residential developments at a density of 12 units per acre. The minimum lot size is 11 acres in size, the maximum building height is 2.5 stories/35 feet. The floor area ratio is 0.50. Pursuant to the MU-O zoning, in 2021, the Planning Board granted approval to demolish the extant buildings onsite and develop fourteen 10-unit multifamily residences (a total of 140 units, 21 of which will be affordable), community building, and a 4,992 square foot retail building.
- **RAHO Redevelopment Affordable Housing Overlay Zone.** This overlay zone applies to seven tax lots in the Township, i.e., Block 10401, Lots 1-4, and Block 11514, Lots 6, 31-32, in Stirling located on Valley Road east of Main Avenue. This site is referred to in the Settlement

Agreement with FSHC as the “Valley Road Redevelopment Area” as it is a designated “area in need of redevelopment” pursuant to New Jersey’s Local Housing and Redevelopment Law. The purpose of the RAHO Zone is to permit multi-family apartment housing with an affordable housing set aside of 15 percent for rental units and 20 percent for ownership units.. Permitted uses include multifamily residential developments at a density of 15 units per acre. The RAHO Redevelopment Zone was adopted; however, the New Jersey Department of Environmental Protection (“NJDEP”) would not issue residential development permits due to the location in the Flood Hazard Area. As a result, the R-MF-5 Zone was adopted to replace the affordable units proposed in this redevelopment area.

- **R-MF-5 Multifamily Residential Zone 5 Zone.** This zone applies to one lot in the Township, i.e., Block 11001, Lot 22 (488-490 Valley Road in Gillette) located on the north side of Valley Road to the east of Mountain Avenue. In 2020, it was rezoned from the R-4 Residence zone. The purpose of the R-MF-5 Zone District is to permit multi-family apartment housing with an affordable housing set aside of 15 percent for rental units and 20 percent for ownership units. Permitted uses include inclusionary multifamily residential developments of up to 100 dwelling units. This zone is intended to replace the affordable units originally expected to be situated in the Valley Road Redevelopment Area (i.e., the RAHO zone described above) that have since been determined not to be feasible due to environmental constraints.
- **R-MF-4-O Multifamily Residential Overlay Zone.** This overlay zone applies to five tax lots in the Township, i.e., Block 11501, Lots 1 and 4, and Block 11502, Lots 1, 2, and 14, in Stirling located on the east side of Warren Avenue north of Valley Road between the PSEG right-of-way and Morris Street. This site is referred to as “Warren Avenue” in the Settlement Agreement with Fair Share Housing Center. The underlying zoning is LI-2 Limited Industrial Zone. The purpose of the R-MF-4-0 Multifamily Residential Overlay Zone is to permit multi-family apartment housing with an affordable housing set aside of 15 percent for rental units and 20 percent for ownership units. Permitted uses include multifamily residential developments at a density of 12 units per acre. The minimum lot size in the overlay zone is 7 acres which will require the acquisition and consolidation of all the separate lots in this overlay zone, as well as bisecting paper streets.

4.4.3.2 Assessment

The individual sites subject to the multifamily zones created since the 2017 Settlement Agreement should remain in place as separate zones. The zoning regulations are tailored to each specific site in terms of bulk requirements and maximum density. It would not make sense to consolidate these zones or alter them in any way that is not consistent with the Township’s court settlement with Fair Share Housing Center.

4.4.3.3 Recommended Action

The following are recommended actions for the multi-family residential zones created after the Township’s 2017 Settlement Agreement with Fair Share Housing Center:

1. Continue to address the Township's obligation to provide its regional fair share of low- and moderate-income housing.

4.5 Commercial and Industrial Districts

4.5.1 Recommendations Common to Commercial and Industrial Districts

The following are general recommendations for commercial and industrial districts in the Township.

1. **Utilize the Local Redevelopment and Housing Law ("LRHL") to improve aesthetics.** Many of the commercial corridors in Long Hill display an incongruous and heterogenous mix of architectural styles; periods of construction; building conditions and uses that inhibit an aesthetically cohesive commercial district.

Creation of a desirable visual environment is one of the purposes of zoning as listed in the municipal land use law (N.J.S.A. 40:55D-2i), i.e., "the promotion of a desirable visual environment through creative development techniques and good civic design and arrangements." In 2018, Long Hill Township adopted building design guidelines applicable to commercial site plan applications.

Another approach to promote desirable aesthetics is through the Local Redevelopment and Housing Law (i.e., N.J.S.A. 40A:21-1 et seq.). The Township Committee can utilize the LRHL to declare Long Hill's commercial districts "Areas in Need of Rehabilitation" to improve aesthetics. Less onerous than an "Area in Need of Redevelopment" designation, the general purpose for designating an area as an Area in Need of Rehabilitation is to encourage renovation/reconstruction of existing structures and new development. Once designated a rehabilitation area, tools to encourage rehabilitation can be put into place, including a rehabilitation plan that includes design standards, and potentially a tax abatement program on improvements. This tool may be one method to encourage reconstruction, renovation, cohesive design, and improved aesthetics in the Township's commercial corridors.

Specific recommendations for areas to be designated are provided in the sections below devoted to each commercial area.

2. **Update the Sign Ordinance.** The current sign ordinance does not reflect modern promotional and branding practices. Many businesses have very specific signage requirements due to company branding, and many areas of the current sign ordinances require clearer definitions of sign types, locations, and lighting to help reviewing Boards interpret and apply the ordinance. The Township should update the signage ordinance.
3. **Make walkable neighborhoods a priority within the Township's villages, including but not limited to these criteria:**
 - A center: Walkable neighborhoods have a center, whether it's a main street or a public space.

- People: Enough people for businesses to flourish.
- Public transportation: Access to public transit to serve the needs of local residents and visitors.
- Parks and public space: Adequate public places for people to gather and play.
- Pedestrian design: Buildings are close to the street, parking lots are relegated to the back.
- Neighborhood-related businesses: Uses that meet the shopping, social, and dining needs of local residents while also attracting out-of-town consumers and patrons.

Encourage development of these walkable villages in ways that meet accepted walkability standards via sidewalk access: a ¼ mile radius includes fundamental lifestyle necessities; ½ mile radius (10-minute walk) includes access to active and passive recreation.

Encourage commercial uses specifically related to life-style preferences of both older residents who want to retire in place and younger residents seeking walkable neighborhood housing.

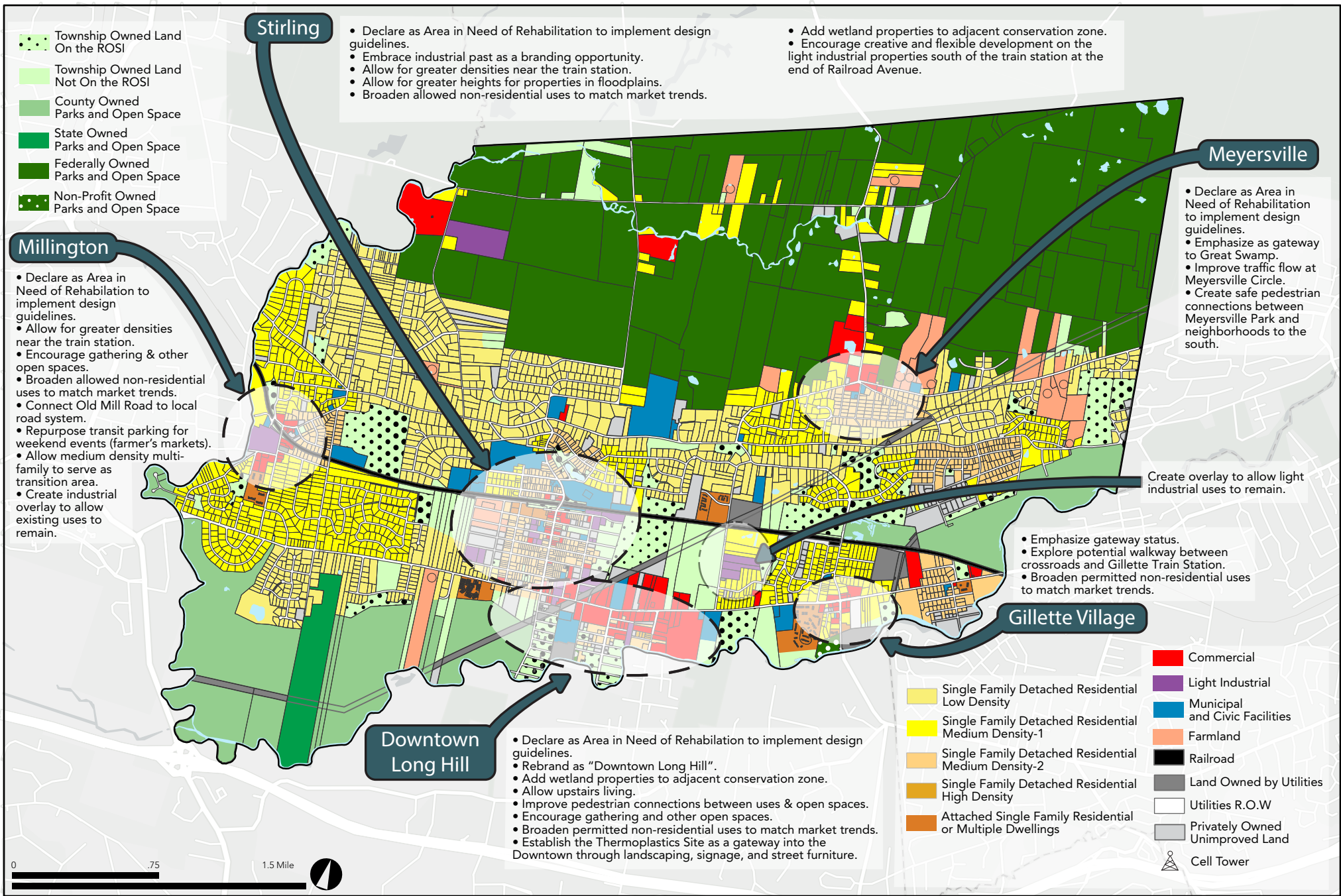


Figure 4-8: Future Land Use for Commercial Centers

4.5.2 Downtown Valley Commercial (“B-D”) Districts

4.5.2.1 Description

The Downtown Valley Road Commercial District encompasses the area in and around Valley Road roughly between Main Avenue and Valley Mall. Currently, primary business activity is situated along Valley Road and consists of two shopping centers and individual developments including retail, office, service, dining and residential uses. The *Valley Road Business District Element of the Master Plan* was adopted in 2017. The current zoning in this area is largely a result of these plans which recommended the consolidation and simplification of certain zones, in addition to zoning regulations which matched the “on-the-ground” conditions. For example, pursuant to the plan, shared parking is permitted in the B-D zone to reduce the number of driveways and curb-cuts, limit impervious coverage, and prohibit off-street parking and loading areas in any front yard. Additionally, the Township adopted design guidelines regarding both building and site design. All of the buildings in the Downtown Valley Commercial Districts are permitted to be a maximum of 2 stories or 35 feet. The land uses and zoning designations in the Downtown Valley Road Commercial District include the following:

- **The B-D Business Downtown Zone:** This zone permits retail trade and service uses; business and professional offices; medical and dental offices and clinics; financial institutions; restaurants; banquet facilities; child-care centers and nursery schools; small hotels, inns, and bed & breakfast establishments; funeral homes; health clubs and fitness centers; recreational uses including those utilizing the Passaic River; non-profit membership organizations and fraternal organizations; movie theaters of up to six screens; taverns with live music; arts Centers including live entertainment venues and/or instruction in any of the arts; art galleries and studios; and other similar uses. The zone prohibits any single-family residential uses or residential uses on the ground floor of any mixed-use building. The minimum lot size is 20,000 square feet.
- **The PSO Planned Shopping Overlay Zone:** This overlay applies to the Shop Rite Mall and Valley Mall. The underlying zoning of these malls is the B-D. Primary, accessory and conditional uses are identical to the B-D zone. Among the stated purposes of the overlay is the encouragement of upgrading and beautification of properties in this overlay for the purpose of creating a visually cohesive business district, including improved building design, landscaping, signage, screening, and other site improvements. The minimum lot size is 160,000 square feet.
- **The VIO Downtown Valley Commercial Zone District Valley Industrial Overlay Zone:** This overlay applies to lots currently in the B-D zone but formerly in the B-2 Business Zone located south of Bay Street east of Poplar Drive. Among the stated purposes of this overlay is the encouragement and the upgrading and beautification of existing light industrial land uses and to ensure that such land uses do not negatively impact surrounding development. Very few uses are allowed in this Overlay, which is limited to those uses already existing and other allowed uses within the B-D zone. Existing businesses are now permitted to continue but no additional uses are allowed.
- **The PVO Passaic Valley Overlay Zone:** This overlay applies to lots on the south side of Valley Road and north of Bay Street east of Poplar Drive and west of Plainfield Road. The underlying zoning is the

B-D zone. Primary, accessory and conditional uses are identical to the B-D zone. Among the stated purposes of the overlay is to promote a more walkable Downtown Valley Commercial zone district by allowing a larger lot coverage percentage than is allowed elsewhere in the zone. Some of the properties are improved with former residential properties reused for commercial purposes. Some existing properties have existing lot coverage that is substantially higher than what is currently allowed in the zone. This overlay allows those properties to continue in their current configuration. The minimum lot size of 20,000 square feet. Two properties have three principal buildings.

4.5.2.2 Assessment

The business district along Valley Road is the center of business activity in Long Hill and the Township's de facto "downtown." It is also one of the Township's most heavily traveled commercial corridors and thus highly visible to motorists. The area has been studied many times and its challenges outlined:

- **Varied Mix of Architecture and Site Design.** The architectural style and visual look and feel of the area reflects decades of un-planned development, resulting in an unattractive, unharmonious, but utilitarian, mix of newer buildings co-existing with older structures. Many of the buildings and sites are long existing. The opportunity to improve the architecture and site design and circulation occurs mainly when parcels are being redeveloped.
- **Poor Pedestrian Circulation.** There is poor pedestrian circulation within and between parcels and very few residential neighborhoods are within walking distance, re-enforcing that this is primarily an auto-dependent development. As a result, shoppers have little incentive to walk, particularly if they need a car to get to the various sites.
- **Location Along a Major County Roadway.** Valley Road was widened over the years creating the anomaly of a multilane highway section placed in the midst of what is still a two-lane, tree-canopied street throughout the rest of the Township. Valley Road is a County roadway and so any preferred changes or upgrades within the County right-of-way must get County approval.
- **Portions of the Corridor are Flood Prone.** Properties on both sides of the Valley Road area between roughly Passaic Avenue in the west and Poplar Drive in the east are in the 100-year flood zone including the Shop Rite shopping center. Both sides of Valley Road between Poplar Drive in the west and the municipal building in the east are in the 500-year flood zone, including Valley Mall and Walgreens. Portions of these sites are also characterized by wetlands and are prone to flooding. These environmental constraints limit the extent of horizontal expansion which can occur on these sites without infringing on wetlands or subjecting properties to increased risk of flooding.
- **Vacant Storefronts.** Retail has struggled to compete with the convenience and wide selection of goods available through e-commerce, resulting in vacant storefronts including Valley Mall. In the past decade few new retail establishments have succeeded and retail is gradually being replaced by service businesses.

The goal of this Master Plan is to encourage development of this vital corridor and center of commerce in a comprehensive way to encourage a sustainable, aesthetically pleasing, successful and vibrant downtown area as the economic center of the community. Downtown could be a place where people will come to stroll, shop, work, attend cultural and entertainment events, enjoy food and drink, and conduct civic and other business activities. Valley Road should be a vibrant, community focal point with its own distinct character indicating that it is much more than a through road.

4.5.2.3 *Recommended Action*

The following are recommended actions specific to the Downtown Valley Commercial District to make it the true center and downtown of Long Hill (also see **Figure 4-8**):

1. **Rebrand Valley Road Business District** – “Downtown Long Hill.” This would involve installation of flags and other uniform signage to increase the visibility of prominent destinations and emphasize the district.
2. **Design for Flood Resiliency.** The heart of Long Hill’s downtown is prone to flooding. Any new construction in the downtown should be designed for flood resiliency using the most effective technology available and practicable. Part of this strategy should include an acknowledgement that flooding will be a feature of the downtown area in the foreseeable future and there should be efforts to work with, rather than combat, flood potential. This can include a combination of landscaping solutions and the retrofit of vulnerable buildings. It could also include intentionally not rebuilding on some parcels, even on Valley Road, which could better serve as part of a larger floodwater storage system.
3. **Create a Downtown Gateway at the former Thermoplastics Site.** The former Thermoplastics site is located on either side of Valley Road and is a prominent site for motorists entering Long Hill from the west. The Township declared the site an Area in Need of Redevelopment pursuant to the Local Redevelopment and Housing Law. As such, the Township can prepare a redevelopment plan for the site with mandatory design guidelines. Guidelines to be considered include:
 - Making flood resiliency a guiding principle and feature of the site. This can include a combination of landscaping and built structures, or even areas of unimproved land.
 - A landscaped setback from the street should be required.
 - Any ground mounted signage should be heavily landscaped.
 - Long, continuous pull-in parking areas should be prohibited.
 - Sidewalks should be provided along Valley Road, plus seating and pedestrian-scale lighting in front landscaped areas.
 - Building design should reflect the design standards in Section LU-152 in the land use ordinance.

4. **Declare the B-D Zone an Area in Need of Rehabilitation.** The linear, highway configuration of the Downtown area, the two malls, the stand-alone nature of many established businesses such as the two malls, and the area's many environmental constraints, all make it unlikely that the Downtown area will, as a whole, evolve over time into a self-contained "walkable" commercial center. The vision for Valley Road is more likely to be achieved through careful, appropriate lot consolidation and redevelopment, where possible, to create smaller clusters of properties that meet this vision's intent. These could include industrial sites and adjacent small buildings and older commercial uses on the north side of Valley Road. In addition, where existing buildings no longer meet the designed setbacks for this area, consideration might be given to using that empty space in ways that advance the vision for this area, such as for outdoor dining. Any Rehabilitation Plan for Valley Road should include design guidelines that reenforce the vision for the area:
 - Requiring utilization of stormwater control and management and other appropriate flood mitigation practices.
 - Creating and adopting design standards that promote visually complementary architectural styles.
 - Requiring that building entrances face roadways or wide pedestrian pathways.
 - Encouraging establishment of outdoor areas for dining, local art, music and other events.
 - Requiring lighting fixtures that reduce light pollution but allow for building uplighting and other lighting techniques that discourage the area from looking dead at night.
 - Requiring the provision of pedestrian-friendly amenities such as benches, sitting areas, tables, etc.
 - Properties fronting Valley Road should be encouraged to provide easements through their lots to adjacent side streets, for improving access to adjoining parcels.
 - Requiring recycling containers, bicycle parking racks, biodegradable dog waste bags and receptacles, for new projects where appropriate.
 - Encouraging uniform signage in terms of height, materials, and lighting sources.
 - Encouraging that new development and redevelopment within the "B-D" Zone maximizes tree and vegetative planting in order to promote softening and greening the area.
5. **Allow Mixed Use.** Mixed land uses bring more people to a neighborhood at a variety of times of day, which can support businesses, improve safety, and enhance the vitality of an area. Allowing residential uses in commercial uses helps bring a critical mass of people who provide foot traffic to help boost the commercial uses.
6. **Implement Streetscape Improvements.** The incongruous mix of architectural styles for existing buildings within this area makes it difficult to create a more visually attractive, architecturally coherent downtown. The immediate goal for visually improving Downtown, therefore, should be

to actively encourage planting of street trees and other landscaping enhancements to make this section of Valley Road appear more visually harmonious with the rest of Long Hill Township.

7. **Establish a Downtown epicenter between Poplar and Plainfield.** This area should be developed into a desirable place to visit and encourage visitors to park-and-walk by.
8. **Consider Increasing Maximum Permitted Heights on Environmentally Constrained Sites.** The maximum permitted height is 2 stories/35 feet along the corridor. Parcels environmentally constrained by flood hazard areas and/or wetlands are limited in their ability to expand. In order to allow establishments to expand upwards and outside of flood zones and wetland areas, and provide for additional parking on the ground floors, property owners on these environmentally constrained sites could be permitted greater heights. Greater heights can be tied to greater setbacks in order to avoid a “canyon like” feel to Valley Road.
9. **Dissolve the PVO and RAHO overlay zones.** Dissolve these overlay zones into the B-D zone use and bulk standards.
10. **Improve pedestrian connections.** Improve pedestrian connections, where practicable, between businesses and public use space (e.g., library, Town Hall, Kantor Memorial Park, etc.) Encourage the construction of sidewalks or walking paths to connect surrounding residential zones to the Downtown area.

4.5.3 Millington Village District

4.5.3.1 Description

Millington was among the first areas in Long Hill Township to be settled in the early 1700s, with the “center” of town located along the Passaic River across from the mills that gave the village its name. By the time the West Line Railroad was opened for service in 1871 and a station built in Millington, a small village had grown up along Main Street running from the railroad station to what is now Stone House Road.

Today, the Millington Village area is located in the vicinity of the Millington Train Station. Division Avenue forms the north-south spine of the village from roughly Stone House Road in the south to buildings fronting on Long Hill Road in the north. Land uses in the Village are largely non-residential uses including Millington Train Station (a registered National Historic Site), a microbrewery, and Millington Post Office in the Coriel Building, and the Millington Bank building, now partially occupied by Kearny Bank. Located south of the railroad tracks are a more heterogenous group of buildings both in terms of land use and architecture. The majority of the lots in the district are relatively small and in the range of 0.2 to 0.4 acres. The post office and bank lots are the largest lots, each approximately 1.4 acres in size. Buildings are generally set close to the roadway with minimal space for parking between buildings and the street. Off-street parking is provided primarily to the side and rear of the buildings. Topography also dictates building placement as portions of the lots fronting Long Hill Road are characterized by steep slopes that back on a portion of Commerce Street which runs between Division Avenue and the Crescent and is an unimproved paper street.

The existing Millington Village Zone (“M”) was created to differentiate the commercial center of Millington from the other villages in the Township in terms of lot sizes, etc. The M zone is defined as those properties fronting on Long Hill Road between Oaks Road and The Crescent, and on Division Avenue between Long Hill Road and 200 feet south of Meadowview Road (east side only). Permitted uses in the M zone are the same as for the B-1-5 and B-1-20 Village Business zones and include retail trade uses; retail service uses; business, medical, and professional offices; restaurants; financial institutions; upper story apartments; and childcare centers. Permitted accessory uses include signs; parking facilities; and live entertainment at restaurants and existing bars. Permitted conditional uses include outdoor dining at restaurants; public and institutional uses; public utilities; and drive-up windows for pharmacy uses. Minimum lot size is 10,000 square feet; and maximum height is 2 stories/35 feet.

4.5.3.2 Assessment

The vision for Millington Village is to maintain and enhance the overall residential quality of life of present-day Millington. The characteristics that define Millington as a whole include its quiet, tree-lined residential neighborhoods, its deep historical roots, including historic homes, buildings and roadways, and its natural resources. At the same time, this Master Plan looks to restore the central commercial area of Millington Village as a vibrant walkable village center where residents and visitors can come to stroll, shop, work, attend cultural and entertainment events, enjoy food and drink, and conduct civic and other business activities. It seeks to capitalize on the underutilized asset of the train station. The zoning for Millington is intended to promote opportunities for mixed residential/commercial uses, restaurants, pocket parks, and outdoor cafes which will attract people to the Village.

Challenges towards meeting that vision include steep topography on some lots making expansion difficult, in particular, development on the south side of Long Hill Road in Millington Village which is characterized by steep slopes. Additionally, a streetscape of incongruous and heterogenous mix of architectural styles, and different periods of construction and uses, all inhibit an aesthetically cohesive commercial district.

However, Millington Village has many assets. For example, it lies entirely outside of any flood zones and is not characterized by wetlands. The Village also has three significant public buildings, the post office, the train station, and the Millington Fire House. Each of these uses generates pedestrian and vehicular activity to the area which is crucial to making retail and commercial uses viable. Additionally, the train station parking lot presents opportunities for use as a public gathering spot during off-peak times.

What was formerly one of the largest challenges to Millington may now be the area’s greatest opportunity. The ±12-acre TIFA site at 50 Division Avenue abuts Millington Village and has the potential to significantly impact the future of the area. The parcel is roughly twice the size of any other lot in Millington Village. From 1927 to 1973, it was a place where asbestos containing materials were both manufactured and disposed of, and it was later occupied by a pesticide manufacturer; these uses resulted in contamination that earned the classification as a Superfund site by the United States Department of Environmental Protection. However, due to capping and remediation efforts, the site is currently delisted as a Superfund site. At present, the TIFA buildings form a large, windowless wall along the Division Avenue and Stone House Road frontages cutting off the site physically and visually from the adjacent Millington Village area.

Pursuant to the Township's Settlement Agreement with Fair Share Housing Center, the Planning Board granted approval to demolish the extant buildings onsite and develop 140 multifamily housing units and 4,992 square feet of retail. When the site is redeveloped, it will introduce new residents to the village and may provide the "feet-on-the-street" necessary to make small restaurants and retail uses viable. However, until the sewer ban is lifted, this development cannot be built, and the underlying LI-2 Limited Industrial zoning remains in place.

Across Stone House Road from the TIFA site is a ±7-acre site locally known as the "Barrett Roofing" site improved with buildings and areas used for parking and storage. The site is in the O Office zone. The Office zone implemented in 1997 never resulted in redevelopment of this site for office use, and as such, this area remains light industrial, which it has been since the 1890's.

4.5.3.3 *Recommended Action*

The following are recommended actions specific to the Millington Village District (also see **Figure 4-8**):

1. Rename the existing "M" Zone to Millington Village Zone "MV."
2. Consider rezoning the "O Office Zone" in Millington, which contains six lots, including two rental residences and the Barrett Roofing site, to permit medium density multi-family housing. Once the TIFA site is redeveloped, medium density multi-family housing on this site could serve as a transition area between the higher-density apartment development approved on the TIFA site and the low-density Meadowview townhouse development to the south on Cooper Lane. If the "O" zone is removed, an overlay zone permitting the current light industrial uses should be placed on the site.
3. Consider an Area in Need of Rehabilitation designation for the areas of the Village most characterized by steep slopes. Any Rehabilitation Plan should include slope adaptive design guidelines. Slope adaptive development is a form of development that is designed to complement, accommodate, and protect existing sloped lands.
4. The Township should consider purchasing from NJ Transit the property which connects Old Mill Road to Division Avenue and make that lot part of the public roadway system. The Township owns the train station parking lot, however, the parking lot is accessed via a parcel that is owned by NJ Transit. Old Mill Road lies between the parking area and the Passaic River. The railroad tracks cut Old Mill Road off from any connection with a public roadway. Residents on Old Mill Road must travel across an unmapped driveway on NJDOT property to reach a public road, Division Avenue.
5. Consider using the Township owned parking area at the train station for weekend events like a farmers' market.
6. Approach NJT to modify the highway-barrier signs from the NJT rail crossing barrier at the top of Old Mill Road and install landscaping to screen the barrier and make it more visually attractive in keeping with the overall architectural design improvements in Millington Village.

4.5.4 Stirling Village District

4.5.4.1 Description

The Stirling Village District comprises the commercial center of Stirling. It includes buildings along Main Avenue between Essex Street in the south and Elm Street in the north. Stirling was created in the late 19th-century as a planned industrial village: streets were laid out in a grid pattern, and houses were constructed for workers in the nearby metal button factory and later silk mill. Today, the Stirling commercial district is a walkable mixed-use village with train transportation at its hub.

There are local and regional retail and restaurant destinations along Main Avenue, as well as professional offices. Many of the businesses have upstairs apartments and some buildings are single-family homes. In 2022, the Zoning Board approved an application at 324-326 Main Avenue to construct a 3-story building with 8 apartments and professional office space on the ground floor.

The architecture in Stirling Village consists mainly of buildings with pitched roofs, 2 to 2^{1/2} stories in height. Additionally, the entry doors for many of the residences are set slightly elevated from the ground level due to flood hazard. Most lot sizes are 50-100 feet in width and 180-200 feet in depth. On-site parking is typically to the side or rear of the buildings.

The zoning for the district is the B-1-5 Village Business zone which permits all of the same uses as in the M Millington Village Zone and the B-1-20 Village Business zone. Minimum lot size is 5,000 square feet; and maximum height is 2 stories/35 feet.

4.5.4.2 Assessment

The vision for Stirling Village is to create a thriving, attractive mixed-use area that capitalizes on its compact, walkable built form, proximity to nearby residential areas, and location adjacent to a New Jersey Transit railroad station.

One of Stirling's greatest assets is its train station. This permits residents to travel to New York City, Newark, or Hoboken by rail. The compact nature of Main Avenue and the surrounding streets make the village very walkable and pedestrian friendly. In recent years, the Township made streetscape improvements to Main Avenue including improved sidewalks and wheelchair ramps, installation of flowerpots, decorative lampposts, street benches, and installing lamppost banners honoring veterans. Furthermore, the annual Stirling Street Fair takes place on Main Avenue between Mercer and Somerset Streets.

That said, the historical layout of lots presents challenges for businesses that are limited by narrow buildings with little space to accommodate a driveway for off-street parking. The required 10-foot buffer from residential uses or zones further constrains expansion. In order to support local business development in Stirling, parking regulations were modified in 2011 to require less on-site parking. Furthermore, there are structures in the B-1-5 zone that are entirely residential which is not permitted in the zone.

Currently, Main Avenue is the primary commercial spine of the village. There are parcels on the west side of Main Avenue, roughly between Somerset and Essex Streets that are generally older light industrial uses. In order to add a second dimension of commercial uses to Stirling Village, these lots should be rezoned to be included in the Stirling Village zone to encourage the gradual replacement of the industrial properties to uses similar to those found on Main Avenue.

Additionally, on the side streets west of Main Avenue, south from Railroad Ave, crossing Somerset Street to Union Street, there are parcels including single-family houses, businesses and housing units in boarding houses or mixed-use commercial structures. These are all in the B-1-5 zone. This area could be, in the future, a prime area for mixed use transit village development contributing to the commercial street front of the Stirling shopping district.

Finally, the area at the eastern end of Railroad Avenue and Union Street have a high, currently untapped, potential for a range of different development options that could support the growth of the Stirling Village Zone into a more attractive and thriving mixed-use community. It currently contains four privately-owned lots, improved with an industrial building on one lot with the remaining lots used for material and vehicle storage and temporary industrial uses. The lots are located in the “C” Conservation Zone, where their current uses are entirely prohibited. The “C” Zone designation is not appropriate for this area because of the difficulty in adapting these lots for conforming uses. Access to this area is via a narrow residential street, so permitted uses should be low-traffic generating.

However, the greatest challenge facing Stirling is its location in a flood zone. The area between the railroad and Union Street is in the 100-year flood zone. The area between Essex Street and Union Street is in the 500-year flood zone. Main Avenue in Stirling was one of the areas hit worst by Hurricane Ida in September 2021. Many roads in Stirling were impassable, isolating residents and flooding businesses which were forced to close for repairs. For Stirling to have a vibrant mixed-use corridor, it will need a critical mass of residents to frequent the local businesses and restaurants. The question is how to encourage investment and development in an area prone to flooding during severe storm events in a manner that promotes public health, safety, and welfare.

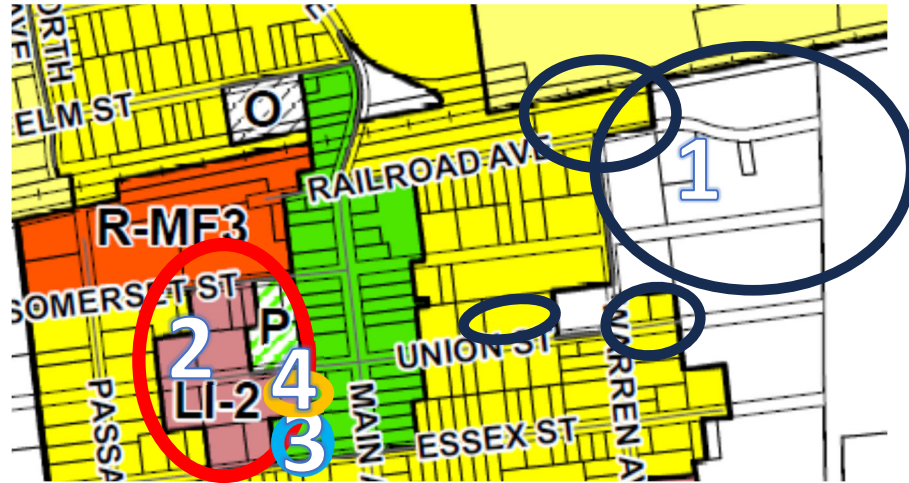
4.5.4.3 Recommended Action

The following are recommended actions specific to the Stirling Village District (also see **Figure 4-8**):

1. Rename the existing B-1-5 Zone to the Stirling Village Zone “SV” zone.
2. Encourage and implement all engineering solutions to manage the risk of flooding.
3. Reexamine the maximum permitted height in the zone as one way to combat flood damage is to elevate buildings. The maximum height in the zone is currently 2 stories or 35 feet. The maximum number of stories and height should be adjusted to permit building owners within the 100-year floodplain to elevate buildings to avoid flood damage.
4. Complete the application with NJ-SHPO to place the already certified Stirling Workers’ Historic District on the State and National Registers of Historic Places.

5. Embrace the village’s historic industrial past as a branding opportunity to attract visitors and investment. The branding could be in the form of plaques, information boards, banners, etc.
6. Declare the Village an Area in Need of Rehabilitation pursuant to the Local Redevelopment and Housing Law. Any Rehabilitation Plan for Stirling should include design guidelines such as:
 - a. Require that new development, building renovations and other site improvements provide a pedestrian-scaled, traditional architectural appearance following the requirements of the Section LU-152 Building Design.
 - b. Require that new or replacement structures in the “SV” Zone reflect, where possible, the bulk, massing, setback and height of the historic streetscape on Main Avenue.
7. Remove one residential lot on Union Street from the current LI-2 to the adjacent SV Zone, where its residential use will be more conforming (see **Figure 4-9**).
8. Change the lots at the eastern end of Railroad Avenue and Union Street, currently in the “C” and “R-4” zones to the “B-G” General Business Zone (see **Figure 4-9**).
9. Properties currently in the LI-2 Zone north of Essex Street should be put in the SV zone and a light industrial overlay zone should be placed on the currently zoned LI-2 properties. Moving these parcels into a “SIO” overlay zone within the SV Zone will add a second, deeper dimension to the current linear array of businesses along Main Avenue (see **Figure 4-9**).
10. Include in the “SV” zone and the SIO overlay zone the lot zoned “B-1-5” but currently used for light industrial use (see **Figure 4-9**).
11. Make any other minor comparable adjustments to implement the intent of this section.

FIGURE 4-9: POTENTIAL NON-RESIDENTIAL ZONE CHANGES IN STIRLING



Legend:

- 1= Change the lots at the eastern end of Railroad Avenue and Union Street, currently in the “C” and “R-4” zones to the “B-G” General Business Zone.
- 2= Properties currently in the LI-2 Zone north of Essex Street should be put in the SV zone and a light industrial overlay zone should be placed on the currently zoned LI-2 properties.
- 3= Include in the “SV” zone and the SIO overlay zone the lot zoned “B-1-5” but currently used for light industrial use
- 4= Remove one residential lot on Union Street from the current LI-2 to the adjacent SV Zone, where its residential use will be more conforming,

4.5.5 Meyersville Hamlet District

4.5.5.1 Description

Meyersville Hamlet is the oldest settled area of the township. It is distinct from the other areas of Long Hill Township and is more of a crossroads than an actual hamlet. The designated Meyersville Hamlet Zone consists of 8 properties that surround the Meyersville Circle (intersection of Meyersville, Gillette, Hickory Tavern, and New Vernon Roads), yet Meyersville encompasses an entire community that surrounds the core hamlet. The people of Meyersville have a long history of protecting their small corner of Long Hill Township as a quiet, peaceful, unrushed place removed from the bustling modern world. Meyersville serves as one of the gateways to the community and also represents one of the entry points to the Great Swamp, a major recreational asset. Land uses in the vicinity of the Circle include restaurants, small scale retail, and a Presbyterian church. The Meyersville area has Meyersville Park, located off New Vernon Road to the north of the Circle, which has a baseball field, playground, and sports courts. Adjacent to the park and outside of the hamlet is the former Copper Springs Tennis Club and a private indoor recreation field.

The existing zoning for the district is the M-H Meyersville Hamlet district. Permitted uses are retail trade; retail service; business, medical and professional offices; restaurants; financial institutions; upper floor apartments; child care centers; live/work residential units for artists, artisans, professionals and Internet entrepreneurs; and other similar uses. Explicitly prohibited uses include: drive-in and/or drive-up window use; auto parts stores; and any service or repair of any device powered by gasoline, diesel fuel, kerosene, propane or any other fuel. The minimum lot size is 20,000 square feet and the maximum height is 2 stories or 35 feet.

4.5.5.2 Assessment

The vision for Meyersville Hamlet is to encourage small-scale non-residential development that can take advantage of its location as a gateway to the Great Swamp. The hamlet area is primarily outside of any flood zones. Traffic circulation at the Meyersville circle is difficult for pedestrians and motorists to negotiate. The area is widely used by recreational cyclists.

4.5.5.3 Recommended Action

The following are recommended actions specific to the M-H District to make it a more attractive destination (also see **Figure 4-8**):

1. Emphasize the Great Swamp National Wildlife refuge as a destination by making Meyersville the gateway to the Great Swamp National Wildlife.
2. Broaden the permitted non-residential uses to include bed and breakfasts, inns, and small hotels which could cater to visitors to the Great Swamp.
3. When sidewalk improvements are necessary for safety reasons, use alternative sidewalk materials wherever possible to minimize the visual impact of the sidewalks on the semi-rural character of the area. Encourage pedestrian walkways where practicable to connect public areas. Safety of pedestrians, bicyclists and motorists is a critical concern in this area.

4. Maintain existing street tree plantings and replace when necessary throughout the hamlet. Provide new tree plantings, where appropriate in a manner consistent with the character of the hamlet.
5. Work with Morris County to improve traffic flow and safety at the Meyersville Circle. Improved signage may be appropriate, as might a reconfiguration of the circle's geometry.
6. Create safe pedestrian connections between Meyersville Park and the residential neighborhoods to the south of the Circle.
7. Declare the hamlet an Area in Need of Rehabilitation pursuant to the Local Redevelopment and Housing Law. Any Rehabilitation Plan for Meyersville should include design guidelines such as:
 - a. maintaining low coverage and height bulk requirements; and
 - b. requiring significant landscaped buffers along property lines.
8. The M-H zone boundary lines should be redrawn to correct some on-the-ground conditions that are not consistent with current zoning. For example, several lots in the M-H zone are currently used for single-family residences which is not a permitted use in the M-H zone. These lots should be rezoned to the neighboring R-4 Residence zone.
9. Any split zoned lots in the M-H zone should be evaluated as to whether one zone is more appropriate than the other in an overall effort to reduce, and if possible, eliminate split zoned lots in the Township and to simplify lot coverage calculations in support of redevelopment.

4.5.6 Gillette Village Business District

4.5.6.1 *Description*

Gillette Village is located in the vicinity of the intersection of Mountain Avenue and Valley Road. This is the most intensely traveled intersection in the Township. Prior to the 1870's, this area was primarily agricultural. With the extension of the railroad, rail shipping of mined materials and clay became prominent. Agriculture continued to decline and was replaced with a commuter suburb. The land uses in the district are varied and include a gasoline station, which is not a permitted use in Long Hill, as well as small scale commercial and office uses, and a strip retail center that includes a post office.

The implementing zoning for the Gillette Village is the B-1-20 Village Business Zone which permits the same uses as the zoning governing Millington and Stirling. The minimum lot size is 20,000 square feet, the maximum height is 2 stories/35 feet, and the maximum floor area ratio is 0.40. Maximum store size is 3,000 square feet.

4.5.6.2 *Assessment*

Gillette Village, though primarily a commercial crossroads, is a highly visible gateway into Long Hill, particularly from Route 78. However, there is no signage, banners, landscaping, or street furniture to indicate it as an important location in the Township. Gillette Village is not well integrated with the rest of

Gillette. Access to and around the area is not pedestrian friendly. Limited community and open spaces within the business area do not encourage stop-and-stay activities. The approved 62-units of residential development at 617-621 Valley Road will bring new residents to the area that could provide additional support for local businesses.

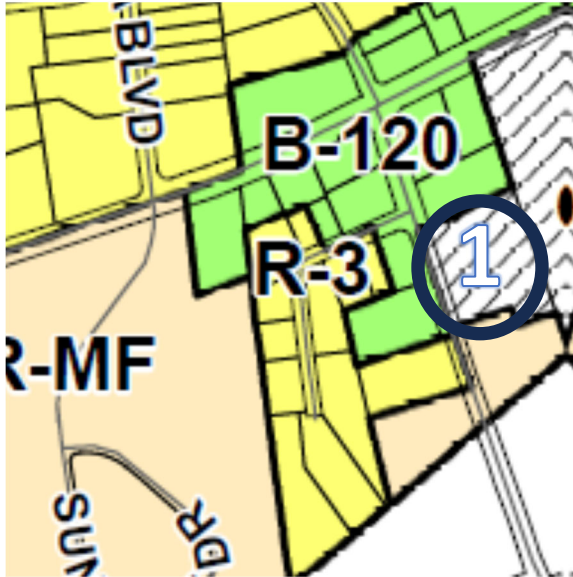
There is a NJ Transit Gillette station on Mountain Avenue. However, the station is approximately 0.3 miles from the village. Mountain Avenue between the Village and the train station is a 2-lane road without sidewalks and improved with single-family detached homes. Steps should be taken to create a “downtown” focal point for the Gillette community, similar to Stirling and Millington, and encourage a walkway connection from the intersection to the train station.

4.5.6.3 Recommended Action

The following are recommended actions specific to the Gillette Village District (also see **Figure 4-8**):

1. Create a new “GV Gillette Village Zone” to replace the existing B-1-20 Zone.
2. Create a distinct village in the vicinity of the crossroads of Mountain and Valley to align with Stirling and Millington villages.
3. Enhance the crossroads status as a gateway into the Township through signage, street furniture, and lighting.
4. Allow as permitted uses in the GV all uses permitted in the B-1-20.
5. Bulk standards in the GV should be the same bulk standards as in the B-1-20.
6. Continue to explore opportunities for the construction of a walkway from the Valley Road/ Mountain Avenue intersection to the Gillette train station.
7. Add the lot on Mountain Avenue south of Valley Road currently in the O Office zone to the R-4(to be R-20) Residence Zone consistent with its use. **See Figure 4-10.**

FIGURE 4-10: RECOMMENDED ZONE CHANGE IN GILLETTE



Legend: 1= Add the lot on Mountain Avenue south of Valley Road currently in the O Office zone to the R-4 Residence Zone consistent with its use

4.5.7 Light Industrial District

4.5.7.1 Description

The LI-2 Limited Industrial District was created in the 1997 Master Plan to identify properties such as the TIFA site in Millington, the Thermoplastics buildings on Valley Road, and other small scattered industrial buildings that were established before the comprehensive zoning and planning of Long Hill. It currently exists on certain properties in Millington and Stirling.

The implementing zoning in the district is the LI-2 Limited Industrial. Minimum lot size is 2 acres. Permitted uses in the LI-2 include the manufacturing, packing, processing, treatment or design of food, personal care, textile, pharmaceutical, apparel, furniture, paper, instruments, transportation equipment and similar products, supplies and services; the manufacturing, packing, processing, treatment or design of products, tools, plastics and industrial and commercial machinery, equipment and parts. The manufacturing, packing, processing, servicing and design of computer and related parts and instruments, office equipment, electrical appliances, domestic appliances and related products, supplies and services; research laboratories; recording studios; printing, publishing, silk screening and similar processing and services; wholesale trade; warehousing; business, medical and professional offices; child care centers; and any other use, in the opinion of the approving authority, substantially similar to those identified in this subsection. Permitted accessory uses include signs; parking facilities; and outdoor vehicle storages. Permitted conditional uses include public and institutional uses; and public utilities.

4.5.7.2 Assessment

Development in the LI-2 district represents some of the least visually attractive buildings in the Township. The vision for the LI-2 district is to encourage that these aging industrial areas remain productive under the currently permitted uses in the zone and, if that is not practicable, replacing industrial uses in zones which better fit in with the character of the Township and their surrounding neighborhoods. For example, a mixed-use affordable housing overlay applies to the TIFA site (i.e., MU-O Mixed-Use Overlay Zone) and the Planning Board granted site plan approval for multi-family development with a small commercial component. However, until sewer capacity for that development can be obtained, the underlying zoning remains in place to facilitate the ongoing use of the site for light industrial type uses. Another example is the Thermoplastics Redevelopment Zone.

The veterinary hospital on Warren Avenue which adjoins residential uses would be more suitable if it were remapped for the B-G zone where it could serve as a transition between the non-residential uses to the south and the single-family uses to the north.

Similarly, the former Recorder Newspaper building on Mercer Street, long a publishing business, is now used as a fitness facility which is not a permitted use in the zone. The lot is contiguous with other lots in the B-D zone and may be more appropriate for the B-D zone, as would the two adjoining vacant lots on the west side of Warren Avenue.

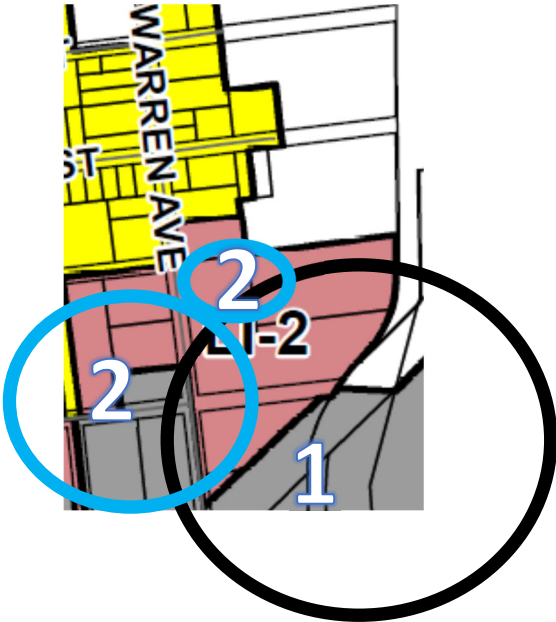
Alternatively, permitted uses in the zone could be broadened to capture more uses that would locate in light industrial buildings. For example, commercial recreation establishments and craft breweries may be appropriate businesses in the zone.

4.5.7.3 *Recommended Action*

The following are recommended actions for the industrial zone:

- 1 The LI-2, Limited Industrial, zone district now covers all land in the Industrial category. Furthermore, the “2” in LI-2 refers to the zone’s minimum lot size requirement of 2 acre which the majority of the lots in the zone do not meet. As such, the zone should be renamed to LI Light Industrial.
- 2 Expand the permitted uses in the LI zone to include commercial recreation, craft breweries, and other commercial uses that might be appropriate for the extant buildings in the zone.
- 3 Create an overlay zone to permit specific uses and bulk standards for a light industrial overlay zone west of Main Avenue on Somerset, Union and Essex Streets in the westward expansion of the “SV” Zone (see **Figure 4-9**).
- 4 Remove one residential lot on Union Street from the current LI-2 to the adjacent SV Zone, where its residential use will be more conforming (see **Figure 4-9**).
- 5 Retain the properties currently zoned LI-2, to be zoned LI, that front on Mercer and Morris Streets and Warren Avenue. Adjust the bulk requirements to fit these remnant properties (see **Figure 4-11**).
- 6 Rezone the veterinary hospital on Warren to the B-D Business Downtown District, as well as the former Recorder Newspaper building on Mercer Street and the two adjoining vacant lots on the west side of Warren Avenue (see **Figure 4-11**).
- 7 Rezone the wastewater treatment plan, now privately owned, from “P” Public Use to LI (Block 10411, Lot 6.02) to reflect its use and current ownership.

FIGURE 4-11: RECOMMENDED ZONE CHANGE IN LIGHT INDUSTRIAL ZONES



Legend:

- 1= Retain the properties currently zoned LI-2, to be zoned LI, that front on Mercer and Morris Streets and Warren Avenue.
- 2= Rezone the veterinary hospital on Warren to the B-D Business Downtown District, as well as the former Recorder Newspaper building on Mercer Street and the two adjoining vacant lots on the west side of Warren Avenue

4.5.8 Office (“O”) District

4.5.8.1 Description

The Office (O) Zone was created in the 1997 Master Plan to “encourage generally non-retail commercial development [in] designated areas of the Valley Road corridor...the Barrett Roofing Company site in Millington...and two parcels near the southeast corner of the Valley Road/Mountain Avenue intersection.” Currently the O zone exists in scattered locations throughout the Township, including:

- Millington Office: The 6 lots locally known as the “Barrett Roofing” site located south of Stonehouse Road, to the west of Division Avenue, to the east of Waverly Avenue, and to the north of the Meadowview townhouse complex on Cooper Lane.
- Stirling Office 1: The lot containing the Colonial Professional Park at 1390 Valley Road located on the north side of Valley Road to the west of Passaic Avenue. It is improved with an office building and surface parking area. Its north and east lot lines abut the R-4 zone which also exists to the south across Valley Road from the lot.
- Stirling Office 2: The 2 lots improved with The Uncommon Thread school (commonly known as the Elm Street School) located on the south side of Elm Street to the west of Central Avenue abutting the SV Stirling Village Zone.
- Gillette Office: The lot is currently improved with a single-family residence located to the east side of Mountain Avenue adjacent to the R-MF-4 Multifamily Residential Zone. This lot is a remnant of a larger office zone, a portion of which was rezoned to R-MF-4 to address the Township’s affordable housing obligations.

4.5.8.2 Assessment

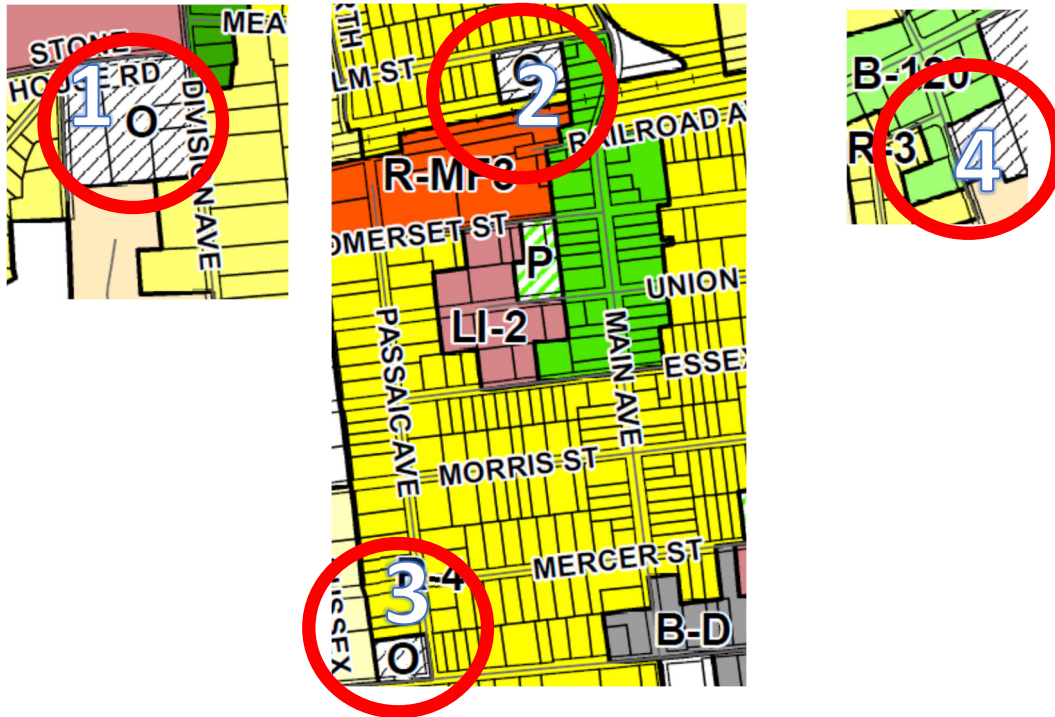
In the last few decades, the growth of office real estate has expanded to the extent that there is now an excess of unoccupied office space within the state, limiting the economic attractiveness of these uses within small, separate, isolated zones. The largest of the areas designated in 1997 as an “Office Zone” on Valley Road, the former Kurz property, is now township-owned land dedicated to recreation. In the “B-D” Downtown Business District Element adopted in 2015, offices became a permitted use anywhere within that zone. That designation is continued in this Land Use Element.

4.5.8.3 Recommended Action

1. Millington Office: Consider rezoning the “O Office Zone” in Millington to permit medium density multi-family housing. Once the TIFA site is redeveloped, medium density multi-family housing on this site could serve as a transition area between the higher-density apartment development approved on the TIFA site and the low-density Meadowview townhouse development to the south on Cooper Lane. An overlay zone permitting the current light industrial uses should be placed on the site. (see **Figure 4-12**).
2. Stirling Office 1: Rezone to the B-G General Business Zone (see **Figure 4-12**).
3. Stirling Office 2: Rezone to the B-G General Business Zone (see **Figure 4-12**).

4. Gillette Office: Rezone to the R-3 (to be R-30) Residence Zone consistent with the other single-family residentially zoned parcels in the vicinity of the Gillette crossroads (see **Figure 4-12**).
5. Remove the O Office zone from the Township land use ordinance.

FIGURE 4-12: RECOMMENDED ZONE CHANGES IN OFFICE ZONES



- Legend:**
- 1= Consider rezoning to permit medium density multi-family housing. An overlay zone permitting the current light industrial uses should be placed on the site.
 - 2= Rezone to the B-G General Business Zone.
 - 3= Rezone to the B-G General Business Zone.
 - 4= Rezone to the R-3 (to be R-30) Residence Zone.

4.5.9 General Business (“B-G”) District

4.5.9.1 Description

A new zone called the General Business zone (B-G) should be created. This new zone designation applies to a scattering of small, commercial properties primarily along Valley Road. These properties are remnants of the B-1-20 Zone (after Millington Village and Meyersville Hamlet Zone was removed and proposed Gillette Village Zone).

4.5.9.2 Assessment

This zone is intended to broaden and simplify the range of uses permitted in the scattered legacy commercial zones orphaned by other zone changes previously described. It also includes industrial/commercial lots removed from “C” and “R-4” Zones in order to encourage more appropriate and conforming re-development. Additionally, the properties at the eastern end of Railroad Avenue and Union Street have a high, currently untapped potential for a range of different development options that could support the growth of the Stirling Village Zone into a more attractive and thriving mixed-use community. Neither the “C” Zone nor the “R-4” designations are appropriate for this area because of the difficulty in adapting these lots for conforming uses for these zones. These lots should be re-zoned as “B-G” General Business, where commercial and mixed-use residential-over-commercial development is permitted.

4.5.9.3 Recommended Action

The following are recommended actions specific to the General Business Districts:

1. Create “B-G” General Business Zone which allows the same permitted uses and bulk standards as the former Office and B-1-20 Zones.
2. Rezone the properties at the eastern end of Railroad Avenue and Union Street, currently either vacant or used for light industrial uses, from the “C” and “R-4” zones to the B-G. Permitted uses in this part of the B-G should be restricted to low-traffic commercial uses.
3. Move the former Township library (91 Central Avenue) from P to B-G.
4. Move the remaining properties in the B-1-20 zone, and the orphan properties from the O zone to the B-G.

4.5.9.4 Recommendations for Permitted Uses in Commercial and Industrial Zones

The following are general recommendations for land uses in the commercial and industrial districts in the Township.

1. **Update and Modernize Non-Residential Permitted Uses.** Each of the Township’s commercial areas has vacant storefronts due, in part, to competition from e-commerce. Some retailers are successfully combatting this challenge through “experiential retail” which offers customers an in-person experience that would not be possible online. Relatedly, some new types of land uses have proliferated in recent years including, but certainly not limited to, urgent care centers, craft

breweries, commercial recreation areas, and assisted living facilities. The Township should continue to monitor new types of land uses which would be appropriate for Long Hill. Appropriate land uses include those that are financially sustainable and will bring economic vitality to Long Hill's commercial areas. Appropriate locations should be determined on each zone's existing context. The zoning regulations should be updated for each commercial district to permit modern uses that reflect current market trends.

2. **Permit Uses Currently Prohibited.** Section LU 123.3 of the Land Use ordinance lists prohibited uses in the Township. The section should be removed because Section LU 123.1 states that "all uses not specifically permitted by this Ordinance are expressly prohibited." Additionally, some of the uses listed in Section LU 123.3 should be considered to be allowed, and listed as permitted uses in specified non-residential zones, particularly in locations where they currently exist and are appropriate for the zone. For example:
 - a. **Automobile gas stations** with supplemental design standards should be permitted in zones where existing gas stations are located.
 - b. **Automobile repair** with supplemental design standards should be permitted in zones where existing gas stations are located.
 - c. **Restaurants with drive-thru windows** with supplemental design regulations should be permitted in the B-D zone.
 - d. **Drive-up windows for restaurants, retailers, banks, and pharmacies** with supplemental regulations in the B-D zone and PSO and PVO overlay zones.
3. **Revise Standards for Apartments in Village Zones.** The village commercial districts (i.e., the MV, SV, GV, and M-H zones) all permit upstairs apartments. The current regulations restrict apartment unit sizes to a minimum of 500 square feet and a maximum of 1,000 square feet and a gross density that shall not exceed five units per acre. In recent years the Zoning Board approved two projects in the Village zones which had densities and unit sizes that exceeded the maximum permitted. Residents in commercial areas provide a critical mass of people and "feet-on-the-street" that will help sustain restaurants, retail, and other commercial uses. In order to encourage more residents in the commercial areas, the standards for upstairs apartments in the village zones should be revised to increase the maximum permitted density and the maximum permitted square footage of units. Additionally, residential use should be permitted on the ground floor if it can be screened from street view by a retail, commercial use, or other use that will enliven the streetscape.
4. **Continue to Monitor and Evaluate Whether to Permit Cannabis Businesses.** As more data becomes available, the Township will have to reevaluate whether or not to permit any of the permitted classes of business within the Township.

4.6 Public Use and Open Space Districts

4.6.1 Conservation (“C”) District

4.6.1.1 Description

The Conservation district is the largest land use category in the Township. Its heritage is farmland and related very large lot residential. Today, it is primarily intended to identify the substantial public undeveloped parkland holdings in Long Hill Township. These include the lands within the Great Swamp National Wildlife Refuge, as well as lands owned by Morris County and the State of New Jersey. It also contains large, privately-held land parcels, including residential lots of 3 acres or more, that often contain environmental constraints such as wetlands. This category also identifies rural residential land uses in the Township.

The implementing zoning for this land use is the **C Conservation** zone. Single-family residential dwellings are a permitted use in the zone, in addition to farms, equine, and agricultural uses. The minimum lot size is three acres. The central objective of the Conservation Zone is to conserve and enhance the rural and natural character of these areas, as well as to take all appropriate environmental protection measures necessary to preserve the many natural resources throughout these areas.

4.6.1.2 Assessment

The central objective of the Conservation Zone is to conserve and enhance the rural and natural character of the areas within it, as well as to take all appropriate environmental protection measures necessary to preserve the many natural resources throughout these areas. The vision for this district is to endorse effective, enforceable, detailed legislation to preserve the Great Swamp’s water quality and quantity, diversity of plant and animal life, and opportunities for recreation. It should be noted that some of the agricultural tracts may be subject to “Right-to-Farm” laws and the State Farmland Preservation program, both of which restrict development.

However, in some instances, the Conservation Zone has become a catch-all zone to address a range of uses not immediately related to the overall purposes of this zone, notably public-serving uses such as schools and the Senior Center, government-owned parking lots, developed municipal recreation and parkland. In addition, isolated, undersized, residential lots within the “C” Zone but abutting an R zone more properly belong in the adjacent R Zone to make them more consistent with the character of other neighboring properties. The remainder of the undersized residential lots are scattered and will continue as non-conforming lots within the “C” Zone.

The 1997 Master Plan converted light industrial uses on the east side of Morristown Road between the NJ Transit railroad and Madison Avenue to the “C” zone resulting undersized lots with non-conforming uses.

4.6.1.3 Recommended Action

The following are recommended actions for the “C” zone include:

- 1 Move to the “C” Zone all qualified farmland because qualified farms are, by definition, commercial operations, and these are prohibited in residential zones (see **Table 4-1**).
- 2 Move undersized developed residential lots in the “C” Zone to adjacent Residential zones where appropriate residential zones are contiguous (see **Table 4-2**).
- 3 Rezone isolated undersized undevelopable municipal-owned vacant land in the “C” Zone to adjacent residential zones (see **Table 4-3**).
- 4 Add undevelopable wetlands in downtown Stirling to the contiguous “C” Zone (see **Table 4-4**).
- 5 Establish a Morristown Road Industrial Overlay zone on the east side of Morristown Road between Madison Street and the railroad tracks to allow continuation of current light industrial and commercial uses. The new overlay zone should permit 1) industrial uses existing as of 2023 2) new light industrial and workshops 3) residential and/or mixed-use development. Appropriate conditions and bulk standards should be determined for this overlay zone in order to preserve the conservation intention of the underlying zoning (see **Table 4-5**).
- 6 Move the current storage yard and industrial buildings at the end of Railroad Avenue from the “C” Zone to the “B-G” General Business Zone and encourage developers and Boards to be creative and flexible in designing and approving (see **Table 4-6**).
- 7 Add isolated residential lots to contiguous “C” or larger-lot “R” zone to rationalize neighborhood boundary and split-zone lots.
- 8 Move oversized residential lots to contiguous “C” zone to rationalize zone boundaries and remove split zoning from those lots.
- 9 Make any other minor comparable adjustments to implement the intent of this section.

Table 4-1: Recommended Zone Change for Qualified Farmland to C Zone

Block	Lot	Address	Current Zone	Proposed Zone
10301	9	1529 Valley	R-2[C]	C
10301	9_QFARM	159 Valley	R-2[C]	C
12806	6	64 Carlton	R-2	C
12806	6_QFARM	64 Carlton	R-2	C
12806	6.02_QFARM	66 Carlton	R-2	C
13607	41_QFARM	Meyersville	R-2[C]	C
13607	42	134 Long Hill	R-3	C
13607	42_QFARM	134 Long Hill	R-3	C
13701	31_QFARM	223 Meyersville	R-2[C]	C
13701	31.01_QFARM	223 Meyersville	R-2	C
14801	1_QFARM	226 Meyersville	R-2[C]	C
14801	2_QFARM	Meyersville	R-2[C]	C
14901	10.01_QFARM	Meyersville	R-2[C]	C
14901	11_QFARM	Meyersville	R-2[C]	C

Table 4-2: Recommended Zone Change for Undersized Residential Lots in C Zone to R Zones

Block	Lot	Address	Current Zone	Proposed Zone
13607	39.05	100 Jodi Lane	C	R-45
11608	1	399 Somerset Street	C	R-20
13908	15	45 Longview Terrace	C	R-20

Table 4-3: Recommended Zone Change for Undevelopable Municipal Lots in C Zone to R Zones

Block	Lot	Address	Current Zone	Proposed Zone
13507	9	Trent Place	C	R-20
13703	6	Hillside Drive	C	R-20
12004	12	Valley Road	C	R-30
12203	32	Peninsula Road	C	R-30
13501	7	Long Hill Road	C	R-30
12901	60	Chestnut Street	C	R-45

Table 4-4: Recommended Zone Change for Undevelopable Wetlands in Stirling to C Zone

Block	Lot	Address	Current Zone	Proposed Zone
11510	4	Somerset Street	R-4	C
11510	6	Somerset Street	R-4	C
11510	7	Somerset Street	R-4	C

Table 4-5: Recommended Conservation Development Overlay For Parcels on Morristown Road

Block	Lot	Address	Current Zone	Proposed Zone
11203	1	197 Morristown Road	C	C[LIO]
11203	2	215 Morristown Road	C	C[LIO]
11203	4	223 Morristown Road	C	C[LIO]
11203	5	239 Morristown Road	C	C[LIO]
11203	7	255 Morristown Road	C	C[LIO]
11203	9	275 Morristown Road	C	C[LIO]
11203	11	279 Morristown Road	C	C[LIO]

Table 4-6: Recommended Zone Change For C Zone Parcels on Railroad Avenue To B-G

Block	Lot	Address	Current Zone	Proposed Zone
11506	1	Railroad Avenue	C	B-G
11506	7	Railroad Avenue	C	B-G
11506	24	219 Railroad Avenue	C	B-G
11507	1	Railroad Avenue	C	B-G

4.6.2 Public Use (“P”) District

4.6.2.1 Description

The Public Use category of land use is intended to encompass local government-owned buildings and land, as well as properties owned by public service organizations.

Permitted uses in the P zone include public uses and facilities; parks and open space; child care centers; and any other use, in the opinion of the approving authority, substantially similar to those identified in this subsection. The minimum lot size is 15,000 square feet and the minimum lot width is 100 feet. The maximum height is 2.5 stories/35 feet.

4.6.2.2 Assessment

The **P Public Zone** was created in 2002. Prior to that, most of the municipal government buildings and parks had been located in the “C” Zone. For most of the lots involved, this was inappropriate from both a use and bulk point of view. However, there are a number of parcels in the Township used for public use and facilities that are not zoned accordingly.

4.6.2.3 Recommended Actions

The following are recommended actions for the P zone include:

1. Add to the “P” Zone parcels currently used for public uses and facilities but not zoned accordingly, including but not limited to (See **Table 4-7**):
 - a. Board of Education school properties;
 - b. The Senior Center;
 - c. The former American Legion building currently leased to the Elks;
 - d. NJ Transit railroad properties;
 - e. Municipally owned parking lots at Millington and Stirling Stations.
2. Rezone lots currently in the “P” Zone improved with private commercial and non-public uses to an appropriate zone including the wastewater treatment plant (Block 10411, Lot 6.02) recommended to be rezoned LI and the former Township library (91 Central Avenue) recommended to be rezoned from P to B-G.
3. Create a new “MP Municipal Parkland” Zones intended to encompass Township-owned land improved for active and passive recreation, as well as open space facilities, and develop appropriate permitted and conditional uses, and bulk standards for the zone. (See next section)

Table 4-7: Recommended Zone Change for Public Properties Not in the “P” Zone

Block	Lot	Address	Current Zone	Proposed Zone
10100	1-7 & 7.02-23	Various (NJ Transit Properties)	Various	P
10701	3	759 Valley Road (Gillette School and Senior Center)	C	P
11507	4.01	Railroad Avenue (Township-Owned Parking at Stirling Station)	R-4	P
11510	17	234 Union Street (Former American Legion now leased to the Elks)	C	P
12301	3	River Road (Township-Owned Parking at Millington Station)	C	P
12305	1	Long Hill Road (Township owned parking lot adjacent to Millington Fire House)	C	P
12901	4.01	91 Northfield Road (Millington School)	C	P
13002	1	90 Central Avenue (Central School)	C	P

4.6.3 Municipal Park (“MP”) District

4.6.3.1 Description and Assessment

The new “MP” Zone is intended to encompass Township owned active and passive recreation facilities and parkland maintained by the Township. The primary difference between the “C” and “MP” zones is that lands within the “MP” Zone used for active and passive recreation are maintained by the Township and those in the “C” Zone are owned by others. For this reason, parkland owned by Morris County, the State of New Jersey, and the USFWS remain in the “C” Zone.

In the 1997 Master Plan, the “C” Zone included some municipal parks. In this plan, all municipal parkland are designated “MP”. The specific decisions for conversion of any parcel from passive to active uses or improvements to previously unimproved open space is left to the Township Committee. Guidelines for these decisions are included in the Recreation Element of this Master Plan.

4.6.3.2 Recommended Actions

The following recommended actions for the MP zone include:

1. Develop permitted uses and bulk standards, as warranted, for the new zone.
2. Add government Open Space acquisitions intended for public use that will be maintained by the township to the “MP” Zone.
3. Add the Little League ball fields (developed parkland) to the “MP” Zone
4. Add all publicly owned lots at Stirling Lake and the Turtle Rock Park (developed parkland) to the “MP” Zone.
5. Move Stirling Lake, Kantor Park, and Meyersville Field from "P" to "MP" Zone.

6. Move Eloise Phifer Park to "MP" from "C".

4.7 Designated Redevelopment Areas

4.7.1.1 Description

The Planning Board recommended to the Township Committee that the areas listed below should be declared redevelopment areas pursuant to the New Jersey Local Housing and Redevelopment Law ("LRHL") at N.J.S.A. 40A:12A-1 et seq.):

- **Valley Road Redevelopment Area ("Thermoplastics"):** In 2016; the Township Committee declared a 5.5-acres site consisting of Block 10401, Lots 1-4 on the south side of Valley Road and Block 11514, Lots 6, 31, and 32 on the north side of Valley Road in Stirling, a Condemnation Area in Need of Redevelopment. Block 10401, Lot 4 and Block 11514, Lot 6 were formerly occupied by ThermoPlastic Processes Inc. and commonly referred to as the "ThermoPlastic" site. Both parcels were contaminated and subject to environmental remediation efforts overseen by the New Jersey Department of Environmental Protection ("NJDEP"). The Township Committee subsequently re-zoned the site to the **RAHO Redevelopment Affordable Housing Overlay Zone** to allow for inclusionary development. However, NJDEP would not issue residential development permits due to the area's location in the Flood Hazard Area.
- **1106-1122 Valley Road ("Former Car Wash"):** In 2021, the Township Committee declared Block 11401, Lot 7, a 5.6-acres site located on the north side of Valley Road with a street address of 1106-1122 Valley Road a Non-Condemnation Area in Need of Redevelopment. The site was improved with a vacant car wash building and a single-story commercial/office building with an attached garage/warehouse. The Township Committee subsequently adopted the **1106-1122 Valley Road Redevelopment Plan** which supersedes the underlying B-D zoning. The plan permits all of the uses in the B-D zone, as well as assisted living facilities and senior living communities.

It should also be noted that the Planning Board conducted a Non-Condemnation Area in Need of Redevelopment study and voted to not recommend its designation to the governing body:

- **Valley Road Redevelopment Study:** In 2019, the Township Committee authorized the Planning Board to conduct an investigative study to determine whether properties located in the eastern portion of the Township in Gillette qualified as an "area in need of redevelopment" pursuant to the LRHL. The properties included four lots on two tax blocks: Block 11001, Lot 22 on the north side of Valley Road east of Mountain Avenue; and Block 1107, Lots 12, 16, and 17. Lot 12 is on the north side of Valley Road at the northeast corner of the intersection of Valley Road and Lackawanna Boulevard; Lot 16 is to the east of Lot 12 on the north side of Valley Road; and Lot 17 abuts Lot 16 to the north and faces the west side of Mountain Avenue. After public hearings on the investigative study, the Planning Board voted to not recommend that the Study Area be designated as a non-condemnation area in need of redevelopment. The Township Committee initially affirmed that recommendation but later reversed that decision by declaring Block 11001,

Lot 22 an area in need of redevelopment in order to permit off-site development of the residential component initially planned for the "Thermoplastics" site.

4.7.1.2 *Recommended Action*

The following are recommended actions regarding redevelopment areas as defined under the Local Redevelopment and Housing Law:

1. Continue to utilize the LRHL in strategic locations where development could help infuse new uses and new users into an area of the Township. In order to encourage redevelopment that benefits the public welfare while minimizing adverse impacts, the following planning principles are recommended to guide any future Redevelopment Plans:
 - Make flood remediation a central focus of any redevelopment plan.
 - Incorporate attractive site and architectural designs that enhance the visual realm while complementing the aesthetic character of surrounding neighborhoods.
 - If residential use is proposed, it should complement the predominantly single-family residential neighborhood character of Long Hill. Single-family housing should be encouraged. At the same time, subject to suitability with a site and the neighboring context, there may be opportunities to provide a variety of housing types to expand housing options for residents, including age-restricted housing, townhomes and stacked flats, and smaller lot single-family residential units.
 - Contribute to the ratable base of the Township and ensure that development does not negatively affect the Township's or Board of Education's budgetary finances.
 - Limit scales of development and residential density to the extent allowed by the capacity of the environment, public infrastructure, utilities, and services, including but not limited to the roadway network, water and sewer availability, emergency services, public safety, and schools.
 - Deliver community benefits, such as public gathering spaces, recreational fields and amenities, and new community facilities.
 - Provide substantial open space, minimize disturbance to critical environmental features, and utilize sustainable design and construction practices.

4.8 Hazard Vulnerability Assessment

4.8.1 Introduction

A climate change-related hazard vulnerability assessment is required in the Land Use Element of New Jersey Master Plans in order to identify vulnerabilities to natural hazards as a result of climate change, both now and in the future, and to plan for mitigation actions. This assessment was developed based on data and research from the Morris County Multi-Jurisdictional Multi-Hazard Mitigation Plan Update (“HMP”) of 2020 and the NJADAPT tools and Municipal Snapshot developed by Rutgers University’s New Jersey Climate Resource Center.

4.8.2 Flooding

4.8.2.1 Introduction

As described above, flooding is a major climate-related concern in Long Hill. The Township mainly experiences two types of flooding:

1. Riverine (inland) flood events occur when intense rain events cause rivers and streams to overtop their banks.
2. Flash (pluvial) floods occur when intense rainfall causes a flood event that is not directly associated with a body of water. For example, flash flood events include floods in roadways from impaired stormwater management systems.

4.8.2.2 Passaic River

Long Hill is susceptible to riverine (inland) flooding, specifically from the Passaic River which is a major source of flood concern throughout the region. The Passaic River begins near the Borough of Mendham (Morris County) where small streams come together to form a brook. From there the River continues through open farmland and eventually winding through seven counties, 45 municipalities, and into the Newark Bay. At its source, the River is approximately 600 feet above sea level and flows along for approximately 90 miles, 12.5 miles of which border Long Hill.

In Long Hill, the River enters the Township from Harding Township in the north into the Great Swamp Wildlife Refuge where it is met by the Black Brook. The Passaic then meanders along Millington’s western border with Basking Ridge. This segment includes the Millington Gorge, which is the cut through Long Hill (the “3rd Watchung Mountain”) which allows the river to escape the Great Swamp and reach a broader channel to Newark Bay. At its southern extreme, the channel turns in an easterly direction in the southern part of the Township along Long Hill’s border with Warren in the Passaic River County Park. The River then runs in a northeasterly direction forming the Township’s border with Berkeley Heights. It leaves Long Hill’s border just south of the Passaic River County Reservation on Long Hill Road. Along with the tributaries in the Great Swamp, tributaries to the River are located throughout the Township south of Long Hill Road.

Long Hill has experienced severe flooding as a consequence of heavy rains. The storm water system is functional until the River backs up the system. Snags/log jams may also contribute to minor flooding. The

low-lying swamps adjacent to the Passaic River, its tributaries, and a system of manmade and natural defiles connecting with the Passaic River increase flood potential in the Stirling area of the Township. The severity of a flood depends not only on the amount of water that accumulates in a period of time, but also on the land's ability to manage this water. The size of rivers and streams in an area and infiltration rates are significant factors. Extensive development can also impact flooding potential as it leaves fewer natural surfaces available to absorb rainwater, forcing water directly into streams, rivers, and existing drainage systems, swelling them more than when more natural surface buffered the runoff rate.

According to the New Jersey Department of Environmental Protection there are four principal subdrainage areas within the Township, three that discharge directly to the Passaic River and one that discharges to the Black Brook in the Great Swamp National Wildlife Refuge. The Long Hill ridge running roughly parallel to Long Hill Road functions as the dividing line between the watershed that discharges directly to the Great Swamp and the watershed that discharges directly to the Passaic River. The majority of the waterways in the Great Swamp are classified as Category One water by the New Jersey Department of Environmental Protection. This Category One antidegradation designation provides additional protection to waterbodies that helps prevent water quality degradation and discourages development where it would impair or destroy natural resources and water quality.

4.8.2.3 Floodplains

A floodplain is defined as the land adjoining the channel of a river, stream, ocean, lake, or other watercourse or water body that becomes inundated with water during a flood. The boundaries of the floodplains are altered as a result of changes in land use, the amount of impervious surface, placement of obstructing structures in floodways, changes in precipitation and runoff patterns, improvements in technology for measuring topographic features, and utilization of different hydrologic modeling techniques. The FEMA Flood Zone Areas are classified as follows:

- A 100-year floodplain is an area that would be inundated by the 100-year flood, in other words, an area that has a one percent or greater chance of experiencing a flood in any single year. This is shown as the Special Flood Hazard Area on federal flood maps. Thus, the 100-year flood, also known as the base flood, could occur more than once in a relatively short period of time.
- The 500-year floodplain is an area that would be inundated by a 500-year flood, in other words, an area that has a 0.2-percent chance of experiencing a flood in any single year.

The NJDEP is mandated to delineate and regulate flood hazard areas pursuant to N.J.S.A. 58:16A-50 et seq., the Flood Hazard Area Control Act. This Act authorizes the DEP to adopt land use regulations for development within the flood hazard areas, to control stream encroachments and to integrate the flood control activities of the municipal, county, State and Federal governments.

4.8.3 Critical Facilities and Built Infrastructure

It is important to determine the critical facilities and built infrastructure that may be at risk of flooding, and who may be impacted should damage occur. Critical services during and after a flood event may not be available if critical facilities are directly damaged or transportation routes to access these critical

facilities are impacted. Roads that are blocked or damaged can isolate residents and can prevent access throughout the planning area to many service providers needing to get to vulnerable populations or to make repairs.

Rutgers University's New Jersey Climate Resource Center identifies the following critical assets in Long Hill:

- Schools including The Gillette Elementary School (759 Gillette Road, Gillette); Central Middle School (90 Central Avenue, Stirling), and Millington Elementary School (91 Northfield Road, Millington).
- Fire stations including: Millington Fire Department (1891 Long Hill Road, Millington); and Stirling Fire Department (321 Somerset Street, Stirling).
- Long Hill Township Police Department (264 Mercer Street, Stirling).
- Childcare facilities including: Lil Peoples Playhouse, Inc. (1288 Valley Road, Stirling); Small Society Academy (20 Bay Street, Stirling); the Goddard School (57 Plainfield Road, Stirling); Long Hill Montessori School (158 Central Avenue, Stirling); and AlphaBEST at Gillette School (759 Valley Road, Gillette).
- Emergency shelter locations in the American Red Cross/FEMA National Shelter System including Millington Elementary School (91 Northfield Road, Millington); Central Middle School (90 Central Avenue, Stirling); Long Hill Montessori School (158 Stirling Avenue, Stirling); Saint Vincent De Paul Roman Catholic Church (250 Bebout Avenue); Gillette Elementary School (759 Valley Road, Gillette); and Long Hill Township Library (917 Valley Road, Gillette).

Other critical assets identified in the Morris County Multi-Jurisdictional Multi-Hazard Mitigation Plan Update ("HMP") include the following:

- Township of Long Hill Municipal Building (915 Valley Road, Gillette).
- Long Hill Community Center (1229 Valley Road, Stirling).
- Long Hill First Aid Squad, Inc. (949 Valley Road, Gillette).
- Long Hill DPW (1223 Valley Road, Stirling).

4.8.4 Current and Future Vulnerabilities

According to the HMP, Township of Long Hill is highly vulnerable to the following natural hazards:

- **Severe Weather & Severe Winter Weather:** The Township is susceptible to many severe weather events, such as high winds, tornadoes, thunderstorms, hail, heavy snow, and blizzards, which pose risks to public health, safety, as well as property damage. With respect to winter storms, higher temperatures anticipated in the future may decrease the number of winter weather events but increase their intensity.
- **Flood:** According to the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) data, flood hazard areas (at-risk of 100-year or 500-year floods) within the Township are concentrated in areas in the Great Swamp and adjacent to the Passaic River, including much

of Stirling between the Passaic River in the south, the railroad tracks in the north, Passaic Avenue in the west, and the Township Senior Center.

- **Hazardous Substances:** Hazardous substances are materials that are considered severely harmful to human health and the environment, as defined by the United States Environmental Protection Agency (USEPA) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (Superfund Law). Many are commonly used substances which are harmless in their normal uses but are quite dangerous if released. If released or misused, hazardous substances can cause death, serious injury, long-lasting health effects, and damage to structures and other properties, as well as the environment. Many products containing hazardous substances are used and stored in homes and these products are shipped nearly daily on nearby transportation corridors.
- **Disease Outbreak:** New Jersey's geographic and demographic characteristics make it particularly vulnerable to importation and spread of infectious diseases as it is a densely populated state. Additionally, diseases such as West Nile Virus are particularly prone to areas where there is an abundance of water bodies which provide a breeding ground for infected mosquitos. Long Hill contains the Great Swamp and the Passaic River and its tributaries, all of which could be breeding grounds for infected mosquitos. The Morris County Mosquito Commission routinely sprays in areas of Long Hill. The large expanses of open space in Long Hill also make it a likely location for tick-borne diseases.

In addition, the Township finds that it has medium vulnerability to following natural hazards:

- **Drought:** The County is serviced by water supplies that primarily get water from groundwater sources as well as some surface water sources. A prolonged drought could impact the landscape, agricultural uses, and open space.
- **Earthquake:** Earthquakes are most likely to occur in the northern parts of New Jersey, which includes Morris County, where significant faults are concentrated. However, the degree of impact is dependent on many factors including the age and type of construction people live in, the soil types their homes are located on, and the intensity of the earthquake. The County found that Long Hill was highly vulnerable to earthquakes while the Township determined that its hazard level was medium.
- **Extreme Temperature:** Extreme cold and heat events pose particular risks to the elderly, infants and young children, and individuals who are disabled or have chronic medical conditions. A heat wave can cause heat cramps, heat exhaustion, and heat/sun strokes, while extreme cold can lead to frost bite and hypothermia. In addition to these health threats, extreme temperatures also carry risks of structural fire, power outages and damages to house wiring and/or generators, and freezing/bursting pipes, that can damage buildings and lead to injury. With climate change, the State is likely to see an increase in average annual temperatures, which may increase the frequency of extreme heat events and exacerbate threats to the public health and property.

- **Wildfire:** Wildland fires can be caused by lightning, human carelessness, and arson. Most frequently, wildland fires in the State of New Jersey are caused by humans. Given the amount of unimproved land in Long Hill there is a moderate chance of wildfires in any given year.
- **Infestation:** The HMP focuses on the potential for the following types of infestations: insects (e.g., gypsy moth, mosquitoes, spotted lanternfly, emerald ash borer), white tailed deer, rodents and invasive plants. The entire population of Morris County is vulnerable to infestation both to the health of the population and to the environment. For instance, the West Nile Virus, which is transmitted by mosquito bit, creates a high risk of serious illness among the elderly population and people with suppressed immune systems. The Emerald Ash Borer may cause a catastrophic loss of ash trees throughout the County, which could result in stream bank instability, erosion, and increased sedimentation, impacting ground stabilization and possibly cause foundation issues for nearby structures. Additionally, with an increased number of dead trees, there is an increased risk of trees falling on roadways, power lines, and buildings. Some invasive plants have been shown to destabilize soil due to high densities and shallow root systems, negatively impacting nearby buildings and septic systems. Other invasive plant species have been known to clog culverts and streams, increasing flooding risk. Water treatment plants could be impacted by infestation and invasive species. Water that becomes polluted due to increased sedimentation and erosion will require additional treatment. If the system becomes clogged with these pollutants, the ability of water treatment plants to operate may become impaired. Additionally, soil that becomes unstable due to decaying vegetation can impact critical facilities that are built on or around these soils.

The Township concluded that it is at relatively low risk of other major natural hazards, summarized as follows:

- **Dam Failure:** There are no dams in the Township so the Township's vulnerability to dam failure is low.
- **Geological Hazards:** Geological hazards include landslides and sinkholes. The HMP determined that Long Hill was at a low risk for geological hazards.
- **Harmful Algal Bloom:** According to the HMP, based on the historical occurrences for harmful algal bloom, it is estimated that Morris County will continue to experience direct and indirect impacts of harmful algal blooms on occasion. However, Long Hill is considered to be a low risk for harmful algal blooms at this time.

4.8.5 Build-Out Analysis

A build-out analysis was conducted to evaluate the remaining development potential of lands in the Township if they were built to the maximum level allowed according to the current zoning standards. The analysis considered all parcels, both vacant and developed, but excluded those under public/institutional ownership and those located within environmentally sensitive areas. The parcels were classified according to 2 categories: 1) vacant properties, on which no improvements or active uses exist; 2) underdeveloped

properties, which include sites that are already improved, but have been designated as redevelopment areas, or are not currently developed according to the maximum density or mix of uses allowed by zoning.

Between 2000 and 2021, owners of 119 housing units received certificates of occupancy, and owners of 111 housing units received demolition permits. In those 22 years, an average of over 5 homes was added each year and approximately 5 homes were demolished each year. This limited amount of net development is due, in part, to the sewer ban. Another reason for the low numbers is that much of the Township is protected open space in the Great Swamp Refuge Area and along the Passaic River. The majority of vacant parcels are designated within residential zoning districts and would allow the development of single-family homes. There are the designated redevelopment areas along Valley Road and the affordable housing sites which will generate new housing units. However, at this time, the sewer ban limits how much development can occur. Most of the development expected to occur, outside of the approved redevelopment areas and affordable housing sites, will be infill development.

4.8.6 Impacts to Elements of the Master Plan

Natural hazards and climate-change related exacerbation of those hazards will affect all components of the Master Plan. As discussed in many sections of the Land Use Element, future build-out may be susceptible to flooding and other natural disasters. As such, development must be conscious of vulnerabilities to natural hazards, and utilize materials and design that provide adequate protection. Natural hazards can disrupt business activity, cause financial loss, and pose a threat to economic vitality of a community. Natural hazards will also place stress on the circulation network, public utilities, and community facilities, which are critical to ensuring the community's lifelines and safe evacuation. Historic structures are likely to be more vulnerable to physical damage, and natural hazards pose a challenge for historic preservation. Accordingly, development regulations and capital investments must reflect hazard mitigation considerations to ensure that the Township's built environment is resilient against natural hazards. At the same time, the threat of natural hazards highlights even more the importance of conserving natural resources and open spaces to make the Township more sustainable and alleviate climate-change related impacts in the long-term.

4.8.7 Recommended Action for Hazard Vulnerability

The recommendations regarding the Hazard Vulnerability Assessment related to flooding are provided throughout this Master Plan. Specific recommendations regarding preparing for natural hazards include the following:

1. **Improve critical facilities and infrastructure to prepare for natural hazards.** The Township should work with relevant departments, such as the Police Department, Fire Department, and the Department of Public Works, to address facility needs and ensure that there are appropriate apparatus to meet emergency response demands in the future and to ensure that critical facilities are floodproofed.
2. **Conduct a Critical Facilities Asset Management Study.** The Township should conduct a Critical Facilities Asset Management Study to identify modern code compliance retrofits and flooding

resiliency improvements, such as adding and or elevating back-up generators. Compliance with these measures should be addressed at municipal facilities and educational information about them should be provided to property owners.

5 Open Space, Parks & Recreation Plan Element

5.1 Introduction

Long Hill Township affirms that the protection of and investment in its open space resources as well as its recreational amenities and programming are of paramount importance to the health and well-being of all its residents. The Township's history of passionate advocacy has expressed itself throughout the years through the generous contributions of its residents and vigilant efforts to preserve open spaces and natural assets. Throughout the years, the Township has also enjoyed access to expansive resources maintained by the US Fish and Wildlife Service, the State of New Jersey and Morris County whose parks and preserved natural areas have extensive footprints within Long Hill Township, requiring a unique degree of intergovernmental cooperation to maintain and improve. This Open Space and Recreation Element is meant to serve as a practical guide for these aims. It provides an assessment of existing conditions in the Township and offers a wide-ranging set of recommendations for the preservation of valued natural and recreational resources, their enhanced utility and resident access to them.

This Element is prepared in a format that is consistent with the New Jersey Department of Environmental Protection (NJDEP) Green Acres program requirements to ensure that it may be utilized for applications for County, State and other funding sources for open space acquisitions and improvements. It is organized in two sections, Open Space, and Parks and Recreation. The open space section examines the full spectrum of open spaces that help define the Township's semi-rural character, recommendations to protect the health of the Township's ecosystem and how to increase public appreciation for these natural spaces in a safe and responsible manner. The parks and recreation section provides a detailed overview of the Township's active and passive recreational resources and an action plan to prioritize Township investment in areas where there is unmet demand or where resident access can be improved. Taken together with the other Elements of the plan, they offer a wholistic picture of issues that are inherent to the overall quality of life within the Township.

5.2 Open Space

5.2.1 Overview

Approximately 55 percent of the Township consists of open space areas, most of which is public parkland. This abundance of open space is a key resource of the Township and favorably distinguishes the Township from other, more-developed suburban communities in the region. **See Figure 5-1 Parks and Open Space** shows the locations of parks and open space in the Township.

The Township's open space areas are fundamental to the Township's semi-rural and scenic character, the preservation of which is a key objective of this Master Plan. These open space areas also provide recreational opportunities including walking and hiking, kayaking and canoeing, birdwatching, fishing and hunting. In addition, these open space areas provide important environmental benefits, including groundwater protection, flood control, soil stabilization, pollution reduction and wildlife habitat.

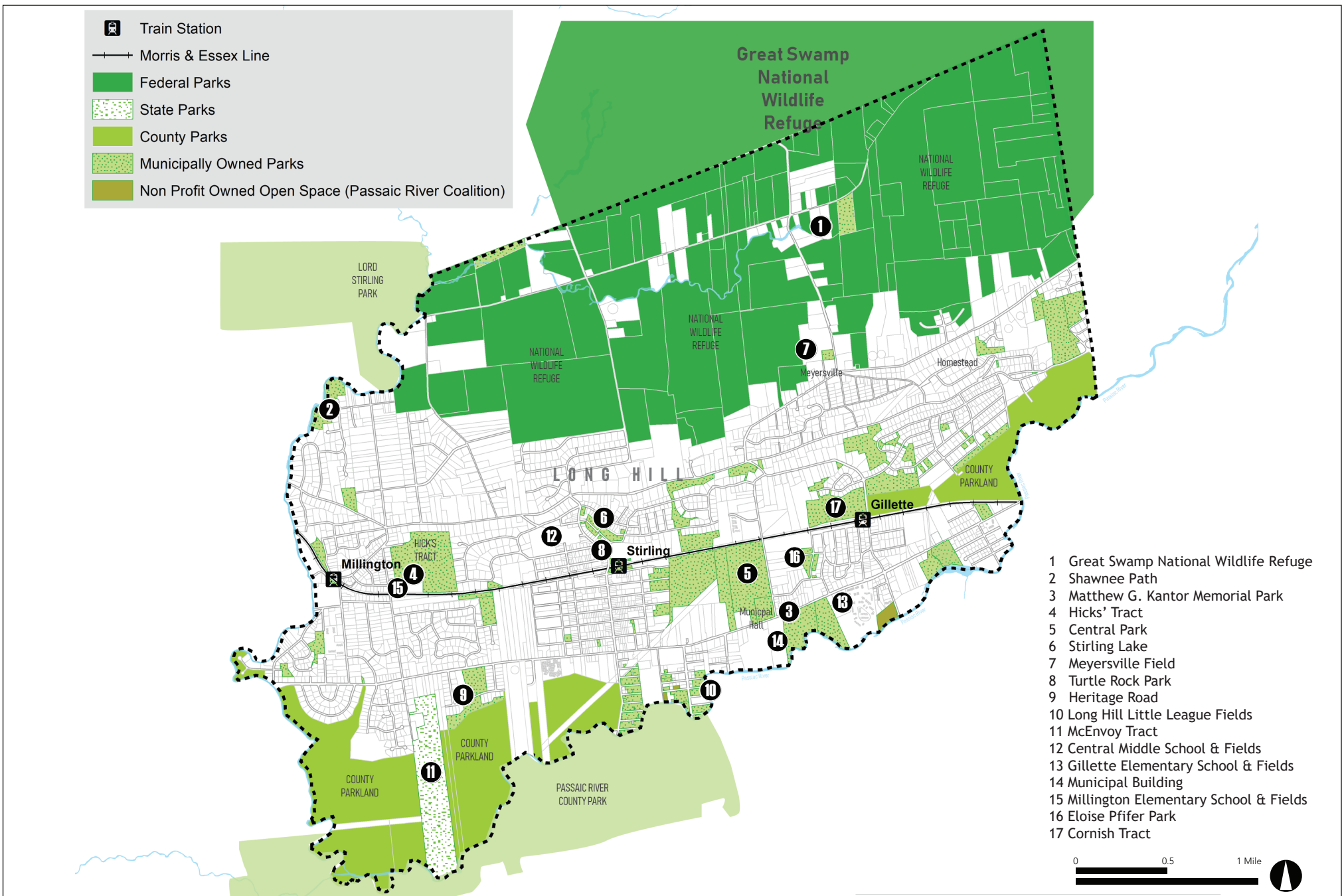


Figure 5-1: Parks & Open Space

The Township has made open space preservation a priority in order to maintain and fully realize these benefits. The Township's commitment to open space preservation is demonstrated by the Township Open Space Trust Fund, the Township Master Plan and this Open Space and Recreation Element.

The following section of the Element is an integral component of Long Hill Township's Master Plan and is consistent with, and supportive of, the Land Use Element and other Elements of the Master Plan. It is intended to support future applications by the Township for New Jersey Green Acres program funding in the Planning Incentive funding category as well as other governmental and private funding sources. Finally, the goals and action plan contained herein are meant to serve as a practical guide for the Township as it makes decisions on how to improve residents' access to these natural assets through the strategic acquisition of new spaces or improvements to those within their existing inventory.

5.2.2 Planning Process

There have been extensive planning and public engagement efforts to ensure that open space planning is truly reflective of Township resident's priorities and desires. These efforts were coordinated between the Master Plan Committee and the Open Space Advisory Committee. These committees consist of resident volunteers that advise the Township Committee and the Planning Board. Under their direction, residents were engaged in two rounds of outreach, with surveys and public meetings that sought to capture public sentiment. The first of these surveys, conducted in the spring of 2016, revealed that residents held the preservation and enhancement of their open spaces as a high priority. 93% of respondents indicated that the green "look and feel" of open spaces was important to them. Respondents raised several issues, including the value of safe access to the Passaic River, and improving connectivity of the Township's open spaces to its various residential neighborhoods. The results of the survey and the preparation of this element's first draft were undertaken and discussed at the November 2018 Planning Board meeting. In the following years, this content was revised by these committees and in May 2020, another round of public engagement was conducted by the planning firm, Topology. The assessment put forth more specific concepts for various sections of the Township, and found the public to be in favor of the inclusion of open spaces in civic and commercial centers as well as a desire to improve pedestrian access to such destinations. Taken together with prior outreach, the results endorsed the set of recommendations contained herein.

5.2.3 Review of Prior Policy

This Master Plan re-endorses the goals expressed in the 2013 Open Space Element which include:

- The expansion of preserved open spaces in environmentally sensitive areas;
- The expansion of a network of greenways that can offer more connectivity to the Township's open spaces; and
- Accessibility improvements to the Passaic River.

This plan builds upon these goals, and reflects changes in conditions such the acquisition of the Central Park property which offers new opportunities for both active and passive recreation. While this plan maintains the 2013 Open Space Element's emphasis on utilizing contiguous parcels to improve access to

existing open spaces, this plan also discusses the value of transforming various Township-owned properties such as the Cornish Tract, Heritage Road, and Shawnee Path tracts to green spaces that can cater to their local neighborhoods. Finally, while concurring with the prior goal of increasing access to the Passaic River, this plan is firmly grounded in the practical maintenance and safety concerns that will accompany such access and encourages steps to proactively address them.

5.2.4 Needs Analysis

Long Hill Township occupies an important space ecologically as it is bound on two of its borders by the Passaic River. This requires a special degree of attention to how the preservation of open spaces can be used as a tool to protect against developments with higher degrees of impervious coverage and thus a greater likelihood of run-off pollution, flooding and other disruptions. Additionally, the extensive presence of the Passaic River presents opportunities for more recreational access, while presenting the challenge of keeping visitors safe.

While the Township contains many open spaces, they are not all easily accessible. Areas without pedestrian infrastructure such as paths or sidewalks are of particular concern. Overall access may in some cases be inhibited by a lack of clearly defined park entrances, or the presence of physical barriers such as the NJ Transit rail line which bisects the Township.

Finally, realizing the full potential of Long Hill's open spaces requires consistent communication and coordination with officials from the U.S. Fish & Wildlife Service, State, and County governments. Policy decisions made on any of the lands within the Township by any of these entities could have immediate repercussions on Township residents and their open space goals.

5.2.5 Resource Assessment

The following inventory is a selected list of significant open space properties in the Township that are publicly-owned or owned by private conservation groups. This inventory does not list all of the publicly-owned open space properties in the Township, but rather focuses on properties that are more significant in terms of size, recreational potential and located in a proposed greenway area.

- **Federally-Owned Open Space (Great Swamp National Wildlife Refuge).** The Township's largest area of open space consists of more than 2,400 acres that lie within the Great Swamp National Wildlife Refuge. The Great Swamp National Wildlife Refuge is a defining feature of the Township and contributes significantly to the Township's semi-rural character. The Great Swamp National Wildlife Refuge encompasses a large portion of the Township's northeastern quadrant and extends into neighboring Harding and Chatham Townships. It is anticipated that the land area of the Great Swamp National Wildlife Refuge will marginally increase in the future through incremental acquisitions of adjacent properties.

The U.S. Fish & Wildlife Service, which manages the Great Swamp National Wildlife Refuge, maintains the western half of the Refuge (to the west of New Vernon Road) as a wildlife management area with public access restricted to designated areas, and maintains the eastern half of the Refuge (to the east of New Vernon Road) as a wilderness area, with hiking permitted

throughout, including on maintained hiking trails. The land within the Great Swamp National Wildlife Refuge consists of a mixture of wetlands, wooded areas and open fields.

The Great Swamp National Wildlife Refuge enjoys substantial local community support, including through local organizations such as the Great Swamp Watershed Association and the Friends of the Great Swamp.

- **State-Owned Open Space (McEvoy State Game Preserve).** The State of New Jersey owns the McEvoy State Game Preserve, which is an approximately 95-acre open space area containing woodlands and environmentally-sensitive natural features such as wetlands and floodway/floodplains. The McEvoy State Game Preserve is located in the southwest quadrant of the Township between Valley Road and the Passaic River, and is bounded on the east and west by lands within the Passaic River County Park. The McEvoy State Game Preserve, when combined with the neighboring Passaic River County Park lands, provides a large, unbroken open space area bordering the Passaic River providing flood control benefits and having potential for passive recreation uses.
- **Morris County-Owned Open Space (Passaic River County Park).** Morris County owns the undeveloped Passaic River County Park, which includes approximately 706 acres within the Township. These lands can be grouped into two parts, one located along the Passaic River in the southwestern quadrant of the Township (on either side of the McEvoy Game Preserve), and the other located along the Passaic River in the east end of the Township and continuing into Chatham Township. These lands provide flood control benefits and have potential for passive recreation uses.
- **Township-Owned Open Space (Various Properties).** As of November 2018, the Township and the Long Hill Township Board of Education own approximately 523 acres of open space land. The following lists a selection of significant Township-owned open space properties (acreages are approximate):
 - **Matthew G. Kantor Memorial Park** – 23 acres of park and open space adjacent to the Municipal Complex on Valley Road, including athletic fields and courts, playground and picnic areas and trails.
 - **Hicks' Tract** – 59 acres of wooded open space located between Millington and Stirling. The southwest corner of Hicks' Tract abuts Millington School property. Hicks' Tract includes a paved walking/bike path between Knollendale Road and Largo Lane, as well as unpaved hiking trails.
 - **Central Park** – 71 acres of undeveloped open space land located across from the Township municipal complex on Valley Road. The Central Park land was acquired by the Township and is under consideration for active and/or passive recreational development.

- **Stirling Lake** – 7 acre park, including swimming lake with beach, fishing pond and a playground/picnic area.
- **Meyersville Field** – 2.1 acres, including athletic field and playground area. In November 2023, construction began to pave the parking lot; remove the existing basketball and tennis courts for expanded parking; and install a pickleball court.
- **Turtle Rock Park** – 1.2 acre pocket park at the Stirling train station.
- **Cornish Tract/ Cottage Place** – approximately 45 acres of undeveloped open space located in 2 parcels to the east and west of Mountain Avenue, north of the NJ Transit tracks. These parcels abut Passaic County Park lands to the south and east and may serve as a link in the proposed Central Greenway described below.
- **Stirling Open Space** – 44.6 acres of undeveloped open space, bordered on the east by Central Park and on the west by smaller Township-owned parcels and paper streets that provide access to neighborhoods in Stirling. This land is a key link for a proposed future walking/bike path between Stirling and the Municipal Complex, via Central Park.
- **Shawnee Path** – 14.2 acres of undeveloped open space in the northwestern section of Millington, between Shawnee Path cul-de-sac and the Passaic River. This land has potential as a river access point.
- **Heritage Road** – 20.1 acres of undeveloped open space spread over two parcels to the north and south of Heritage Road in Millington.
- **Long Hill Ridge** – 44.5 acres of undeveloped open space along the Long Hill ridge at the eastern end of the Township, spread over 3 parcels between the Jodi Lane neighborhood and Long Hill Road.
- **Fenview/ Deer Path** – 5 acres of undeveloped open space in the eastern end of the Township, between the Fenview Road/Deer Path neighborhood and the Preston Drive/Magna Drive neighborhood.
- **Long Hill Baseball/Softball Fields** – 15.2 acres, 10.4 of which contain 3 ball fields, parking areas, a concession stand and storage buildings, a small playground/picnic area with the remaining 4.8 acres preserved as undeveloped wet woodlands located at the end of Poplar Drive in Stirling.
- **Eloise Phifer Park** – 4.68 acres, unimproved open space located south of the NJ Transit railroad tracks in Gillette between Morristown Road and Western Boulevard.
- **Passaic River Coalition Open Space.** The Passaic River Coalition is a private conservation group that owns approximately 7 acres spread across three parcels near the Passaic River in Gillette and Stirling.

5.2.6 Recommended Action for Open Space

1. Create a Township policy for open space acquisition:
 - a Primary consideration for future open space acquisitions should be given to rights of way and parcels that are contiguous to existing parkland, with a particular focus on the development of trail networks and to establish the following Township “greenways.”
 - b Passaic River Greenway – The proposed Passaic River Greenway is envisioned as a green corridor of preserved open space land and public rights of way spanning the length of the Township along the Passaic River. The Passaic River Greenway would fit within a larger regional complex of open space parkland along the Passaic River via connections to parkland in Chatham Township to the east, Bernards Township to the west and Berkeley Heights and Warren Township to the south. Several large tracts that would serve as the backbone of the Passaic River Greenway are already preserved open space, including the Passaic River County Park lands on the eastern and western ends of the Township, Kantor Park, Passaic River Coalition lands and the McEvoy State Game Preserve. In addition to the active recreation facilities currently located at Kantor Park, the Passaic River Greenway would provide trails and other facilities for passive recreation (including hiking, wildlife observation and bird watching), as well as river access.
 - c Central Greenway – The Central Greenway is proposed to run north from the Municipal Complex through Central Park property on Valley Road, and then turning east parallel to the NJ transit tracks, and then northeast roughly along the path of the JCP&L utility corridor, merging with the Passaic River Greenway in the Passaic River County Park lands along the Long Hill and Berkeley Heights municipal boundary. A second leg of the Central Greenway is proposed to run northeast from the Central Park property along the PSE&G utility corridor towards the Great Swamp.
 - d Consideration for future open space acquisitions should also be given to (1) environmentally-constrained parcels, including those with environmentally-sensitive/critical natural features (including areas with wetlands, floodway/floodplain, steep slopes and woodlands), (2) where needed to maintain and protect water quality and groundwater recharge areas, (3) to prevent and minimize damage from flooding and soil erosion in areas of flood plains and steep slopes, and (4) where needed to preserve the Township’s semi-rural character by maintaining scenic landscapes, natural areas and wooded corridors and ridgelines.
2. Procure land and access easements to connect existing open space parcels as needed to complete contiguous Passaic River and Central Greenways, using County, State, and other outside funding sources wherever possible.

3. Develop the “Central Park” property on Valley Road for active and/or passive recreational purposes.
4. Encourage use of existing scattered Township-owned open space tracts for surrounding neighborhood passive recreation purposes. Candidates for such neighborhood uses include the Heritage Road, Shawnee Path, Eloise Phifer Park, and Cornish Tract/Cottage Place properties.
5. Coordinate open space planning with adjacent municipalities, Morris, Somerset, and Union Counties, the State of New Jersey, the U.S. Fish and Wildlife Service and non-profit organizations, using available funding programs wherever possible.
6. Review the inventory of open lands on a regular basis and recommend properties for possible acquisition based upon available funding.
7. Take advantage of funding sources for open space acquisition to reduce the costs to the Township.
8. Encourage the incorporation of publicly accessible open space and recreation areas in new developments and redevelopments.
9. Extend the Passaic River Trail to span the Township from east to west along the Passaic River utilizing open space properties as part of the Passaic River Greenway. **See Figure 5-2 Existing and Proposed Bike and Path System.**
10. Create one or more Passaic River kayak/canoe launch areas in the Township (in addition to the Fisherman’s Parking Lot in Bernards Township off White Bridge Road).
11. Coordinate with appropriate government entities to continue river de-snagging efforts to improve Passaic River accessibility for kayaking/canoeing.
12. Improve Passaic River access for non-motorized watercraft, fishing and other recreational purposes. The over 12 scenic and mostly undeveloped miles of the Passaic River that border the Township are an underutilized recreational resource.
13. Build bird hides, or other such structures, along the Passaic River for nature observation.
14. Develop pedestrian walkway/bike path connection between Stirling and the Township Municipal Complex/Kantor Park via Township-owned open space properties (i.e., the Central Park property and the Stirling Open Space property to the east of Central Park). This path would link to the Township’s existing signed bike route which connects Stirling to Millington Train Station via Hicks’ Tract.
15. Improve walkability in the Township through the use of pedestrian connections between or within neighborhoods via “paper streets” where possible (including, for example, paper street connections near the Gillette train station and a passive park at the intersection of Cottage Place and Mountain Ave.) with benches and exercising stations.

16. Pursue opportunities for providing trail linkages with neighboring municipalities.
17. Explore the development of a rail-with-trail system of easements along the New Jersey Transit rail line to link with other parts of the Long Hill Township trail system as well as providing a unique opportunity for connecting non-motorized transportation with public transportation, such as when a trail leads to a train station.

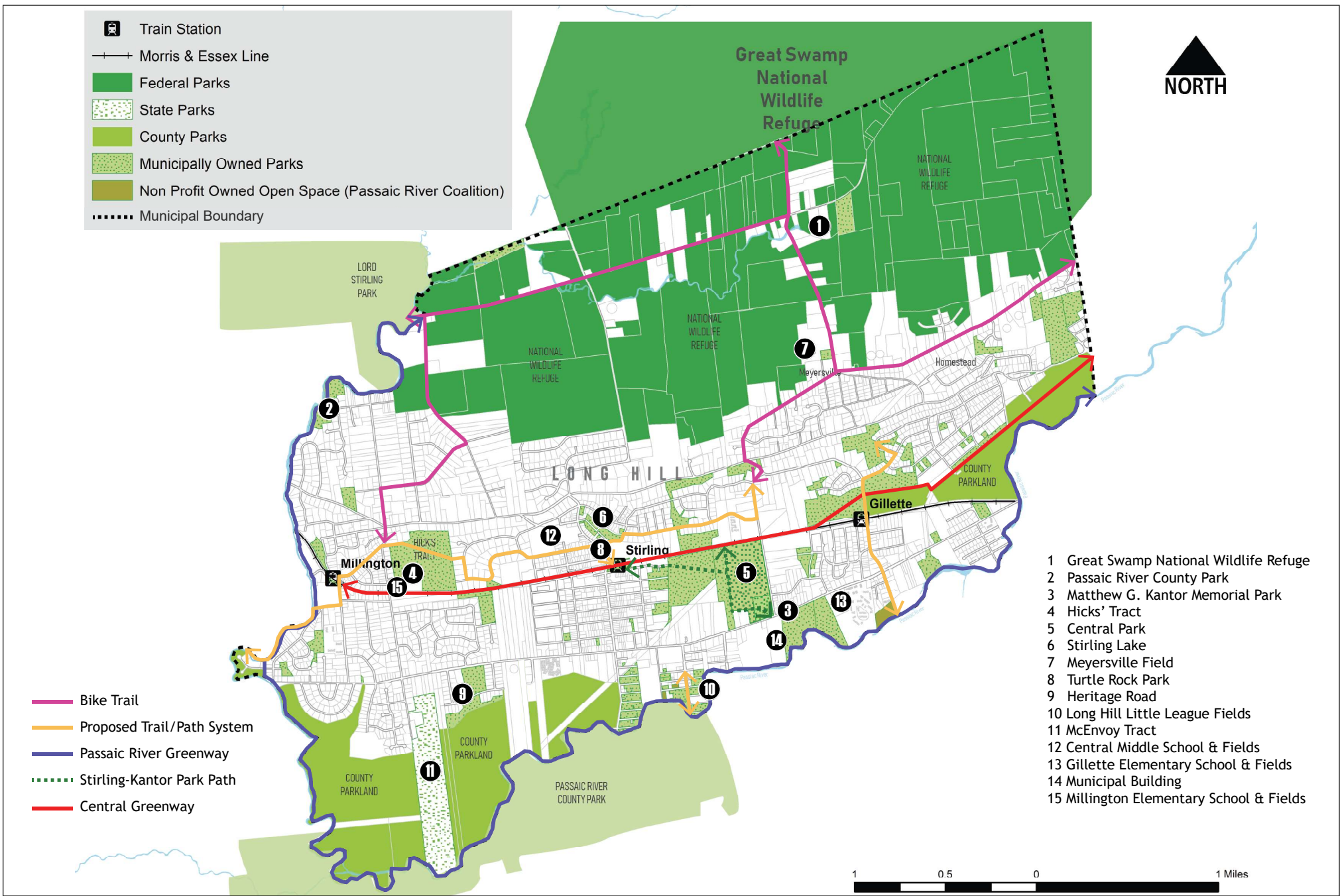


Figure 5-2: Existing/Proposed Bike & Path System

5.3 Parks and Recreation

5.3.1 Overview

Recreational activities are an important consideration in Long Hill Township where there is strong community involvement from local sports leagues, community groups, and resident volunteers.

The National Recreation and Parks Association (NRPA) recommends that a park system be comprised of a range of 6.25 acres to 10.5 acres of developed open space per 1,000 residents. According to this equation, Long Hill Township should have between 54.37 and 91.35 acres of developed open space. Long Hill Township does meet this recommendation with 103 acres currently developed for active and passive recreation (which are not mutually exclusive), located as follows:

- Hicks' Tract – 59 acres
- Matthew G. Kantor Memorial Park – 23 acres
- Long Hill Baseball and Softball Stirling Complex – 10 acres
- Stirling Lake Park – 7 acres
- Meyersville Field/ Complex – 2 acres
- Turtlerock Park – 1.3 acres

Recreational planning is a continuous process that adapts to new social values and changing life-style patterns while meeting the recreational needs of all residents. For example, the Township's recent decision to remove the basketball and tennis courts at Meyersville Field in order to construct a pickleball court.

The Long Hill Township Parks and Recreation Department provides a variety of active and passive activities for residents of all ages while maintaining the Township's parks and facilities to the highest safety and aesthetic standards. Maintenance and improvements to current facilities are managed through the Public Works Department.

5.3.2 Planning Process

The preliminary content of this section was initiated by the Township's Parks and Recreation Committee, a group of community volunteers appointed by the Mayor who make recommendations for programming and events, coordinate with independent recreational sports leagues that serve Township residents, and monitor the condition of recreational facilities. Such hands-on working knowledge made this group uniquely qualified to draft a thorough overview of the Township's recreational assets, and to develop an initial set of recommendations for this plan. This content was further refined by careful reviews by the Township Parks & Recreation Department, the Master Plan Steering Committee and the general public who were invited to provide feedback on content posted to the Long Hill municipal website.

5.3.3 Review of Prior Policy

5.3.3.1 Active Recreation

The 1996 Master Plan's Overall Goals, re-endorsed in subsequent Re-Examination Reports in 2003 and 2013, contained the following goal for active recreation:

“To augment existing recreational facilities with the development of additional facilities, including ballfields, soccer fields, trails and other facilities designed for the benefit of all segments of the Township population.”

Long Hill Township Parks and Recreation Department run many active recreational programs throughout the year that fully utilize the townships recreational assets, as well as the Long Hill Board of Education facilities. Space is also rented from a local church for a pre-school program. By employing many residents as seasonal employees, the Parks and Recreation Department is able to support a wide range of local activities, including Travel and Recreation Basketball (Youth & Adult), a Summer Recreation Camp and swimming at Stirling Lake.

In addition to Township orchestrated recreational activities there are a number of associations operating within Long Hill who use recreational facilities.

- Long Hill Baseball and Softball Association (LHBSA) operate:
 - 3 fields at the LHBSA Stirling Complex
 - 1 field at the Meyerville Complex
 - Fields at 3 local public schools
- Watchung Hills Soccer Association use two fields at Matthew G. Kantor Memorial Park.
- The Hills Lacrosse Club uses one field at Matthew G. Kantor Memorial Park.

This plan endorses the goal of the prior Master Plans to seek suitable locations for additional active recreational facilities where demand exists.

5.3.3.2 *Passive Recreation*

The 1997 Master Plan’s Overall Goals, re-endorsed in subsequent Reevaluation Reports in 2003 and 2013, contained the following goal for passive recreation:

“To develop a trail system throughout the Township that will provide circulatory links to the Township's residential, business, recreational, and open spaces areas and enhance local appreciation of, and recreation in, the Township's many natural resources.”

This plan continues to endorse that goal where residents are provided an opportunity to walk, relax or otherwise enjoy passive recreation in natural or man-made environments such as:

- Hicks’ Tract (Millington).
- Matthew G. Kantor Memorial Park (Gillette).
- Stirling Lake Park (Stirling).
- Turtlerock Park (Stirling).
- And other areas as identified in the Open Space Element.

5.3.4 Needs Analysis

5.3.4.1 Indoor Recreation

The LHT Recreation Department has identified opportunities to run additional indoor programs for the community, but with limited access to indoor recreation space, they are unable to do so. The LHT Recreation Department has tried to run programs utilizing the Community Room in the Library but have found scheduling issues to be difficult.

Additional recreation programs could be considered with access to indoor recreation space. The LHT Recreation Department are fortunate that they are able to use the public-school gyms for basketball programs and volleyball clinics during the school year and also utilize the facilities in the summer to run a summer camp (grades K -8). However, the Long Hill Recreation Department still faces constraints with programming given available space and program demand. The LHT Recreation Department still rents space at a local church to house the successful pre-K summer camp program.

Long Hill has a private, non-profit Community Center built by 330 volunteers in 1970. The center provides space for community and private functions, including indoor space for recreational use. It runs year round community volley ball programs, aerobics programs, and indoor soccer programs as well as a year round tennis program. During the winter months space is rented to the Little League for indoor practice.

5.3.4.2 Swimming Pool

Although Long Hill has Stirling Lake for aquatic recreation and swimming, there are still other residents who request a swimming pool. Having a pool as an alternative to Stirling Lake for swimming in Long Hill could be considered in the future.

However, the priority of a Swimming Pool will depend upon the economics of building and the ongoing annual operating cost in a location that can support such a complex. In addition, with surrounding towns with swimming pools and private recreation clubs, the need may be met elsewhere.

5.3.4.3 Multi-Age Playground

An additional multi-age playground should also be considered. With more than 25% of Township's population under the age of 18, the Township should offer opportunities for young residents to stay active. Increased emphasis on child health and childhood obesity issues are an important consideration for future playground planning. It should be noted that adult fitness apparatus was installed adjacent to Town Hall in 2023.

5.3.4.4 Local Access to Active Recreation

Active Recreational facilities are located in Stirling and Meyersville. Residents of Millington and Gillette have limited active recreation opportunities within walking distance.

5.3.4.5 Local Access to Passive Recreation

Long Hill Township builds on a strong foundation of passive recreational infrastructure, particularly when the federal and county open spaces are taken into consideration. Despite these assets, adding to these

opportunities is a priority to residents. A survey taken for this Master Plan effort revealed approximately 81% level of support for additional passive recreational amenities such as walking or biking trails.

5.3.4.6 Dog Park

Long Hill Township currently does not have a dog park and by default, many residents walk their dogs in the Hicks' Tract and Matthew G. Kantor Memorial Park. The Parks and Recreation Department has received numerous requests from dog owners for a separate dog park where they can let their dogs run and exercise. While dog walkers use Matthew G. Kantor Memorial Park to exercise their dogs, dogs are not permitted on the playing fields. There are issues controlling dogs where they are permitted and getting dog owners to clean up after their dogs. As of July 2013, there were 890 dogs licensed to homeowners living in Long Hill Township. In 2015, a total of 727 licenses were issued. A survey issued to registered dog owners in 2019 revealed a level of support for a specifically dedicated dog park by over half of those surveyed.

5.3.5 Resource Assessment

Long Hill Township offers a variety of different recreational programming overseen by the Parks and Recreation Department. Such programming includes yoga instruction, summer camps, youth dances and family-oriented activities such as bingo nights. In addition, the Township participates in the TryCAN collaborative to avail Long Hill residents with special needs to a variety of recreational programs and events. Along with this programming, the Township maintains recreational facilities that offer residents a diverse set of amenities.

- **Matthew G. Kantor Memorial Park** (formerly known as Riverside Park) is located next to the Municipal Complex. This is an active park which caters to a lot of different activities including tennis, basketball, and a variety of field sports. There are quite a few dog walkers that visit the park daily.

There are several walking paths within the park. The main contiguous path which encircles Matthew G. Kantor Memorial Park Field #1, measures 1,590 feet (slightly longer than ¼ mile). There are additional paved pathways around Matthew G. Kantor Memorial Park Field #2. Many walkers visit Matthew G. Kantor Memorial Park daily. A concert series is held in the park on weekends all summer.

Matthew G. Kantor Memorial Park Field #1 is a multi-purpose regulation sized artificial turf field and lined for soccer, lacrosse, and field hockey. Matthew G. Kantor Memorial Park Field #2 is also a multi-purpose grass field typically utilized and lined for soccer, girls' lacrosse, and field hockey. The fields are utilized by residents as well as local sports associations' WHSA (Soccer), Hills Lacrosse, Long Hill Girls' Lacrosse, Long Hill Field Hockey, and others.

An outside building houses rest rooms, a storage closet for sports equipment and sprinkler system controls.

- **Stirling Lake Park** is located adjacent to residential streets. The property was deeded to the Township by the local homeowners' association with the stipulation that it had to remain as recreational property. A swimming lake is staffed and operated through the Parks and Recreation Department and is open during the summer season. Seasonal membership or a daily pass is required, and the lake is staffed by certified lifeguards during regular hours. (Swimming is prohibited when not staffed by lifeguards.)

The swimming lake is spring-fed by two pumps which run constantly during the summer season ensuring a constant flow of fresh water. Water overflow runs into a tributary which leads into the Passaic River. In addition, there is a system of aerators which run continuously to maintain needed water movement and circulation. The facility is tested weekly, and samples are sent to an outside contracted lab. Results are submitted to the Parks and Recreation Department and the local Board of Health. In addition, an outside company is contracted to treat the water for algae. The lake is a non-chlorinated, spring-fed, body of water.

The Stirling Lake provides an excellent venue for swim lessons as well as outdoor events such as: Family Fun Day; the annual Parks and Recreation Department and the Recreation Advisory Committee sponsored Summer Kick-Off Concert; lake dances for middle school students, and movies on the beach.

Kayaks are available to the members along with paddleboards, and an inflatable aquatic obstacle course. A floating dock system has been installed that improved the swim lane area, provided better accessibility and safety of the facility, and included a water slide.

The fishing pond is stocked annually just before the Local PBA Fishing Derby in April. Fishing is permitted in the pond, with NJ State fishing license, when the park is open. There is also ice skating in the winter.

- **Meyersville Field/Complex** sits on land that was deeded to the Township in 1961 for the expressed purposes that the land be used exclusively for a public park and playground. There are no restroom facilities, but a port-o-john is at the location. This facility is bordered by wetlands. Because there are lights for the baseball/softball field, play is allowed on the field until 10pm nightly.

Currently, this field is used by LHBSA teams, Fall Ball teams, a women's softball league with two (2) Long Hill teams that play against teams from neighboring towns, township residents, local schools, and by local club teams.

This field gets a lot of use, and there are different opinions as to the purpose of this field stemming from disagreements over the original purpose of this field.

Baseball players want to see this field as a 50x70 field with a pitching mound (higher than what exists today), while softball players want to see this field remain as a softball only field. This field also has the added attraction because of the lights. Currently, the field can accommodate two

different measurements for two different groups – a 50x70 field for 11 years to High School age, and a 46x60 field for under 11 years players. In November 2023, construction began on this park to pave the parking lot; remove the basketball and tennis courts for expanded parking; and install a pickleball court.

- **Long Hill Baseball Softball Association Stirling Complex** is located at the end of Poplar Drive. The complex is located right next to wetlands, borders the Passaic River and is subject to periodic flooding. The complex is leased by the town to the Long Hill Township Baseball/Softball Association. Most routine maintenance for the complex is covered by the Association, and many volunteer hours are given. The complex is stretched to meet demands for field time, and the LHBSA Teams do utilize the Meyersville Field often. The complex does not have any softball only fields (Softball fields have dirt infields – unlike baseball which have grass infields).

There are lights on what is called “The American Field” while the two other fields, “National Field” (46 x 60) and “Senior Field” (60x90) do not.

- **Hicks’ Tract** is a tract of land located between Millington and Stirling. This 59+ acre piece of wooded property was purchased by the Township with an Open Space grant in 1963. Hicks’ Tract is accessible by road from Knollandale Road in Millington and from Largo Lane in Stirling. There are also walking trails that lead into the area behind Millington School. Hicks’ Tract is a wooded area with several walking/hiking trails that have been developed and maintained by the Public Works Department along with local Boy Scout troops. There are five (5) trails in the area delineated as: blue, red, orange, white, and yellow.

There is a paved pathway that allows for pedestrian, bicyclists and also provides emergency vehicle access through the property.

During Super Storm Sandy (October 2012), the park sustained significant damage with many uprooted trees. Due to concerns that the normally heavily shaded forest floor covered with pine needles would become a fire hazard, a concerted effort was made to remove fallen trees, clear trails, and re-plant new trees. Today, the work continues to restore the trails and the trail markings. Over the years, many local Boy and Girl Scouts have taken on improvement projects in the park.

- **Turtlerock Park** is a small park located next to the Stirling Train Station. This park is an area designated for passive recreation with several park benches and planted gardens.

5.3.5.1 Board of Education Playing Fields

The Long Hill Township Public Schools also have playing fields behind their facilities. The school inventory is shown in the chart below.

<u>School</u>	<u>Playground</u>	<u>Baseball/Softball</u>	<u>Soccer</u>	<u>Outdoor Basketball</u>
Gillette School	Yes	One baseball/one softball	No	No
Millington School	Yes	One softball	Yes	One hoop
Central School	No	One 60x90 baseball	Practice only	Yes

None of the three school buildings have a running track. The Middle School (Central School) sponsors both a fall Cross Country Team and a spring Track & Field Team. The school teams come to Matthew G. Kantor Memorial Park to run on a paved path, and they run Cross Country meets across the fields and on the perimeter of Matthew G. Kantor Memorial Park. Once a year, the local schools attend a Track Meet at the local High School (Watchung Hills Regional HS) to compete with sister sending district schools.

Additional local school sports teams also utilize the town facilities. The Central Middle School soccer teams occasionally uses Matthew G. Kantor Memorial Park for soccer tournament games.

The Board of Education manages the school athletic facilities/fields, and permits are needed to reserve time. The lack of access to restrooms at the facilities makes use of these fields limited.

The Parks and Recreation Department pays a fee each year to the Board of Education to cover additional janitorial expenses incurred to run programs in the schools. Both Millington and Central Schools are used to run the following programs: Basketball (Oct- May), Volleyball clinics, and Summer Recreation Camp (6 weeks).

5.3.5.2 Long Hill Township Sports Programs

The Long Hill Township youth sports programs are popular outlets for residents under the age of 18 (particularly, residents ages 5-14). The Long Hill Parks and Recreation Department organizes sports programs for youth and adult basketball, as well as girl’s lacrosse and field hockey. In addition to the sports programs, the Parks and Recreation Department also organizes clinics throughout the year in lacrosse, field hockey, and volleyball.

5.3.5.3 Affiliated Sports Programs

The Parks and Recreation Department also works with several local sports clubs such as the Warren Hills Soccer Association and Hills Lacrosse. Through partnership agreements with these organizations, which are organized along regional sending district lines (Long Hill, Warren, Watchung, Green Brook), Long Hill Township lends its fields to these programs at no charge. Oratory Prep also uses the turf field for practice under a lease agreement.

The Long Hill Township Baseball Softball Association (LHBSA) operates from the Baseball and Softball Fields located at the end of the Poplar Drive in Stirling. The Township owns this property and leases it to the association. In addition, the LHBSA also books additional time at Meyersville Field. Residents and non-residents can rent the fields/facilities for events such as birthday parties.

5.3.6 Recommended Action for Parks and Recreation

1. Continually update existing playgrounds as improved safety equipment is developed and needs change.
2. Develop outreach materials to encourage public awareness of open space resources and passive recreation opportunities within the Township. This could include the development of publicly available GIS mapping of open space properties with layers including historic and ecologic information.
3. Encourage volunteer stewardship and community activism by developing an adopt-a-park or adopt-an-open space program.
4. Diversify recreational opportunities to satisfy unmet needs.
5. Consider the addition of a multi-purpose lighted turf field (soccer, lacrosse, football) field with 400m track in a location where neighboring uses would not be burdened by excessive light spillover and there is a minimal risk of flood damage.
6. Consider the creation of a total of 4 lighted tennis courts in close proximity to each other to support USTA sanctioned competitions where a suitable location can be identified that does not burden neighboring uses with excessive light spillover.
7. Add and/or fully utilize any existing Indoor Recreation Space to support programs that cover a wide range of activities that are suitable for residents for all ages.
8. Explore opportunities, as they arise, to use environmentally constrained lands in and around the Downtown Valley Business Zone for possible recreation uses and leisure activities and pedestrian and bike access in partnership with landowners.
9. Build an open air Amphitheatre for Performing Arts, such as theatre and music, near the large scale Township facilities such as the Municipal Complex, Central Park and Community Center.
10. Create a Community Garden/Greenhouse to be operated and funded by a local group of residents that could be built upon open space that is either private or public land. The facility may produce fruit, vegetables, and/or ornamental flowers.
11. Develop open space accessibility and recreational opportunities.
12. Develop a network of trails, pedestrian walkways and bike paths, within existing open space areas. These trails should be paved and should encourage residents to actively exercise through walking in a looped circuit with stretching and exercising stations. For example, the pathways around the playing fields at Matthew G. Kantor Memorial Park.

Chapter 6-Circulation Plan Element

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6 Circulation Plan Element

6.1 Introduction

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 Highways 22 and 206. 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.

The purpose of this element of the Master Plan is to address planning issues relating to roads, sidewalks and pedestrian walkways in the Township. This element serves as a follow-up to the 1996 Circulation and Sidewalk Plan Element, 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 Circulation and Sidewalk Plan Element utilized traffic statistics compiled by Morris County on the municipal and county roadways within the Township to make a series of recommendations for improvements.

This Element 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.

6.1 Prior Circulation Plans

6.1.1.1 1996 Master Plan

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 1997 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 1997 Circulation 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 1997 Circulation Plan to reduce the speed limit to 35 mph on Valley Road in the central shopping core, and widen 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.

6.1.1.2 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 6-1** 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.

TABLE 6-1: 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 Valley 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 volumes are total in both directions. Data has been grouped in multiple years because traffic volumes are not measured on each roadway annually by Morris County.

6.1.1.3 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 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.

6.2 Existing Circulation Systems in the Township

6.2.1 Description

Local Roadway Network

The road network in the Long Hill Township is made up entirely of municipal and county roads (see **Figure 6-1** and **Table 6-2**). The Township contains no state, federal or interstate highways. The major roadways belong to the Morris County system. 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. These roads have the following County classifications:

TABLE 6-2: ROADWAY 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
Long Hill 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
New Vernon Road	Rt. 604	Major Collector Street



Figure 6-1: Roadway Network

Regional Roadway Network

The regional highway system for the Long Hill Township area includes Interstate Routes 78 and 287, and State Highways 22 and 206. 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.

Railway

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.

Bus

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. The bus pickup points in Millington and Gillette are currently ad-hoc and are ripe for improvement.

Sidewalks

The sidewalks proposed in the 1996 Sidewalk 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. Very few of these sidewalks have been completed, and only in connection with limited new construction.

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.

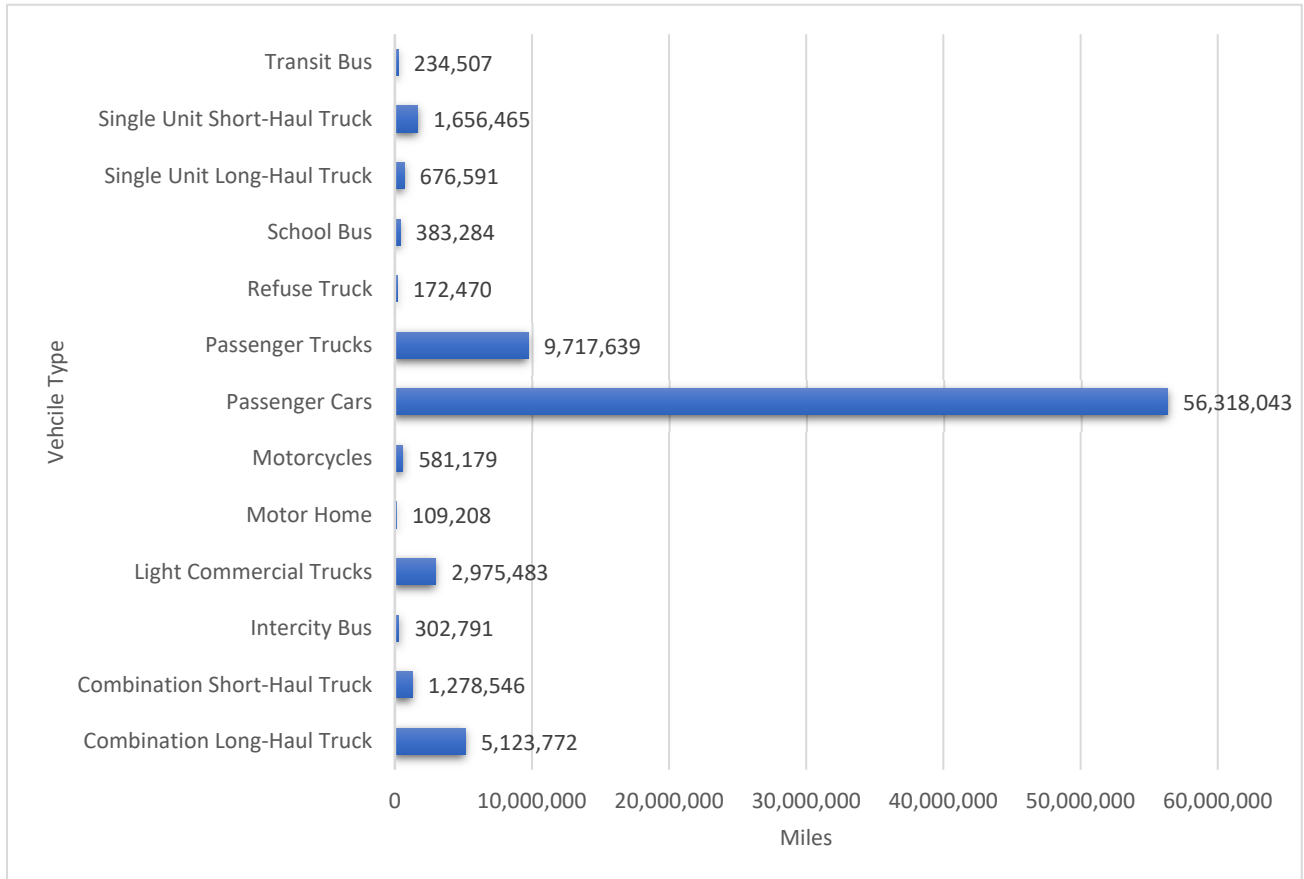
Street Vacations

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). Some of these public rights-of-way 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 may be merged with that property.

Most of the vehicles on Township roads are passenger vehicles (see **Table 6-3** below) followed by passenger trucks.

TABLE 6-3: 2020 VEHICLE MILES TRAVELED BY VEHICLE TYPE



Note: SUVs, vans, and minivans are considered commercial/ passenger light trucks.

Source: Sustainable Jersey. Vehicle Miles Traveled (VMT) Data. Original Source: 2019 North Jersey Transportation Planning Authority On-road VMT Data.

6.3 Recommended Action for Circulation

Work with the Township Police to:

1. Identify intersections with the highest number of traffic related incidents whether they be vehicular, pedestrian, or cyclist oriented and address with the Township or County as appropriate.
2. Continue the practice of auditing traffic signage and allocate funds annually to replace any missing, damaged and weathered signage on local roadways and contact the County regarding signage on its roadways.
3. Continue the review of roadway speed limits based on appropriate traffic standards and in conformance with the Manual on Uniform Traffic Control Devices.
4. Audit lines of sight at roadway intersections in the Township to ensure that trees, shrubs and other vegetation are not problematic.

5. Vacate Township owned paper streets by ordinance.
6. The Township should consider purchasing from NJ Transit the property which connects Old Mill Road to Division Avenue and make that lot part of the public roadway system.
7. Evaluate potential street connections which would improve movement of emergency vehicles and/or residents during extreme weather events.
8. Adopt a Complete & Green Streets Policy. Complete Streets refers to transportation corridors designed and operated with the safety, mobility, and accessibility needs of users of all ages, abilities, and modes of transportation in mind. The New Jersey Department of Transportation in 2019 established a new model Complete & Green Streets Policy for NJ municipalities that additionally incorporates an emphasis on green streets and green infrastructure.
9. Implement the 1997 Sidewalk Plan in any areas not yet addressed. The sidewalks proposed in the 1997 Sidewalk 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.
10. Identify existing gaps and inadequacies in the walking and bicycling infrastructure network and identify areas where pedestrian and bicycle facilities are desired by the community.
 - a. Make improvements to existing bike routes on local roadways including filling in gaps in the edge line, providing signage where the bike route exists, and ensuring that roadways are maintained in good condition.
 - b. Work with County and The Great Swamp National Wildlife Refuge Area to add cycling signs along county roads and Swamp roads.
 - c. Improve sidewalks around Gillette Station.
 - d. Construct sidewalks along Stone House Road in the vicinity of Millington Station.
11. Work with Morris County to explore opportunities to improve or provide additional sidewalks along Valley Road and other County roads.
12. Take advantage of Safe Routes to School and Safe Routes to Transit grants are administered by the NJ Department of Transportation. These grants are awarded to municipal projects for improving non-motorized access to schools and transit stations.
13. Fill gaps in the existing Township trails network and expand walking paths in key locations including using easements Township paper streets to provide for safe pedestrian passage.
14. Conduct outreach with residents to identify new areas where pedestrian/bicycle facilities are desired and to provide walking/biking safety education.
15. Encourage the consolidation of driveway openings in any development and/or redevelopment projects along Valley Road. Multiple curb cuts break up sidewalk connections and are not conducive to pedestrian-friendly environment. The Township should encourage the consolidation of existing driveway aprons and discourage the provision of new driveway openings beyond what may be required for safe and efficient circulation.]

16. Coordinate with NJ Transit to ensure that there are adequate bicycle racks at train stations and advocate for other bicycle-friendly facilities such as air pumps.
17. Identify Township roadways and work with the County to identify County roadways appropriate for a “road-diet”. A “road diet” reduces the width of vehicular travel lanes allowing for more room for bicycle pathways and wider sidewalks. Sometimes a “road diet” does not require any repaving or curbing. You can create a Flex Zone delineated by yellow pavement markings
18. Identify Township roadway intersections and work with the County to identify County roadway intersections where curb extensions could be implemented. Curb extensions make the area that a pedestrian has to traverse narrower and thereby safer.
19. Identify Township roadway intersections and work with the County to identify County roadway intersections where high-visibility crosswalks can be implemented. High-visibility crosswalks can include wide crosswalks with retro-reflect, thermoplastic stripes can be implemented for pedestrian safety.
20. Identify Township roadways and work with the County to identify County roadways where green infrastructure can be implemented. Green infrastructure is an approach to water management that uses natural processes to capture, store, and filter stormwater. The Township can incrementally improve its stormwater management capabilities by incorporating these methods into future street improvement projects. Additionally, green infrastructure can enhance aesthetics and greenery in Long Hill. Green infrastructure includes bioswales, permeable pavement, and stormwater trees.
21. Identify Township roadways appropriate for bicycle connections and use protected bike lanes, green-back sharrows and/or edge lines to provide extra visibility.
22. Work with the County to ensure that along Valley Road and other County Roadways have pedestrian amenities. Pedestrian amenities include street trees or green infrastructure features including benches, bike racks, public trash cans, transit stops and shelters, public art, etc. The location of these items is between the sidewalk and the motorist travelway.
23. Identify Township roadways and work with the County to identify County roadways where Intersection Daylighting can be implemented. Intersection daylighting provides a clear zone at intersection approaches by prohibiting parking for a certain distance before the intersection. This may be done via on-street pavement markings and bollards or by using engineered bioswales to improve aesthetics and drainage. This improves visibility of the crosswalks and street and increases pedestrian safety.
24. Implement pedestrian flags/signage and cross-walk signs at existing and future crosswalks on major roadways.
25. Work with the County to undertake a Township-wide traffic study once the housing developments developed pursuant to the Township’s Settlement Agreement with Fair Share Housing Center and any zoning changes undertaken pursuant to the Land Use Element of this Master Plan are complete and make any recommended circulation improvements as necessary.
26. Develop proper bus stops with light structures to support the Lakeland bus routes to New York.

7 Historic Preservation Plan Element

7.1 Introduction

Per the Municipal Land Use Law (N.J.A.C. 40:55D-2(j)), one of the purposes of zoning is to “promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land.” To that end, the MLUL states that a municipal master plan may include an historic preservation plan element (N.J.A.C. 40:55D-28 (b)(10): (a) indicating the location and significance of historic sites and historic districts; (b) identifying the standards used to assess worthiness for historic site or district identification; and (c) analyzing the impact of each component and element of the master plan on the preservation of historic sites and districts).

7.2 Brief History of Long Hill Township

The Township of Passaic, in Morris County, was established by an act of the Legislature in 1866. The name of the township was changed to Long Hill Township in November 1992. “Long Hill”, for which the town gets its name, is shown as early as 1769 on a series of William Faden Maps archived at the Library of Congress. The original inhabitants of Long Hill Township were the Lenni-Lenape Indians. Long Hill Road, connecting early farming settlers with Elizabethtown and Newark, began as an Indian trail along the major ridge in the area. In the 18th and 19th centuries it was an important east-west route from Chatham to Somerville, carrying stagecoaches, military units, general commerce, and local transportation.

The villages and areas surrounding Gillette, Millington, Meyersville, and Stirling were settled in the early 1600's and 1700's. Records affirm that Meyersville was the earliest to be settled. In those days this area was a farming community. Major settlement of the Millington area began in the 1730's. Millington was named for the gristmill and sawmill built along the river.

Gillette was another early farming community dating to 1732. This community included a general store and other local businesses. The area now known as Homestead Park was established in the 1730's with the purchase of farm acreage. This land is in the most easterly section of Long Hill Township. In 1740 a 176 acre farm in the area that is known today as Stirling was settled. Headstones of persons who lived during the Revolutionary War exist here. Stores and services thrived in the village of Stirling through the years.

Modest development of the area began after 1871 when the West Line Railroad, a spur of the Delaware Lackawanna and Western's Morris & Essex Railroad, was laid out from Summit to Bernardsville. The railroad and cheap labor attracted industry to Stirling, first in the form of a button factory, and then a silk mill. After the original building burned, the Stirling Silk Manufacturing Company was erected in 1896. Stirling was created at this time as a company town. Streets were laid out in a grid pattern, and small frame cottages constructed for workers in the silk mill, many of whom were immigrants from southern Europe.

About the same time, in Millington, another group of people were also discovering Long Hill Township. These were wealthy city dwellers in search of locations for summer homes. The heights of Long Hill, with a view across the wooded Passaic Valley appealed too many and expensive houses in the Shingle style and Colonial Revival style began to appear by the 1890's.

Also during this period, a more modest summer colony was established on the hillside south of the Meyersville Circle, with small bungalows and Shingle style cottages crowded along streets with idyllic names like Land Street, Home Street, Youngsters Lane and Ideal Street.

One of the first major residential subdivisions, Homestead Park, grew out of the summer estate of the Cammeyer family. The original Queen Anne style cottages survive, but their hillside grounds began to be filled in with houses in the 1920's. Construction in the Homestead Park area continued until the 1960's.

The post World War II suburbanization boom common elsewhere in northern New Jersey largely bypassed the township. The municipality's relative isolation and mass of the Great Swamp comprising a major part of the northern end of the town, made the area less desirable to developers through the 1940s and 1950s. The Port of New York Authority's 1959 proposal to build the world's largest jetport within township borders in the Great Swamp halted meaningful development for another decade. By the 1970s, after the Port Authority's defeat, the area's newfound federal environmental protection emanating from the formally established Great Swamp Wildlife Preserve and a culture of wilderness preservation adopted by residents who had defeated the jetport influenced the patterns of development and preservation in Long Hill and its neighboring Great Swamp watershed towns.

Long Hill Township is still visually shaped by the survival of the early settlement pattern and road alignments making up its historic neighborhoods and streetscapes. As such, these patterns represent a historical identity that can be recognized and understood.

7.3 Existing Conditions

7.3.1 Legal Basis

The Historic Preservation codes at the federal and state level include the National Historic Preservation Act (NHPA) of 1966, Public Law 89-665:54 U.S.C. 300101 et seq. amendments and updates and the New Jersey State Historic Preservation Office (NJ SHPO).

At the local level, New Jersey municipalities obtain their authority to identify, evaluate, designate, and regulate historic resources from the MLUL which permits the governing body to empanel a historic preservation commission. The HPC may either be advisory, where the commission only makes recommendations to the Planning Board, or regulatory, where the commission itself is empowered to make final decisions on projects subject to its review.

7.3.2 Historic Preservation Advisory Committee

The Historic Preservation Advisory Committee ("HPAC") was established, per §2-35 in the Municipal Code, as a Mayoral Advisory Committee, to provide guidance on issues related to preserving Long Hill Township's properties.

7.3.3 Design Standards

The Historic Preservation Advisory Committee shall be guided by the following design standards in reviewing applications:

- a. Every reasonable effort should be made to provide a compatible use for structures which will require minimum alteration to the building.
- b. Rehabilitation should not destroy the distinguishing qualities or character of the structure. The removal or alteration of any historic material or architectural features should be held to a minimum, consistent with the proposed use.
- c. Deteriorated architectural features should be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplication of original features.
- d. Distinctive stylistic features or examples of skilled craftsmanship which characterize older structures and which often predate the mass production of building material should be retained wherever possible.
- e. All structures should be recognized as products of their own time. Authorization to create an appearance inconsistent with the original character of the structure should be discouraged.
- f. Contemporary design for new structures in historic districts and additions to existing structures or landscaping should not be discouraged if such design is compatible with the size, scale, color, material and character of the historic district, building or environment.
- g. Consideration shall be given to detrimental impact and the financial hardship on the applicant affected by the application of historic preservation standards, and promoting less expensive alternatives when undertaking an alteration, improvement, rehabilitation or restoration of a structure.
- h. Most properties change over time; those changes that have acquired historic significance in their own right should be preserved.
- i. The Committee shall be guided for further details by the "Secretary of Interior Standards for Historic Preservation Projects", prepared by the Office of Archeology in Historic Preservation, United States Department of the Interior, Washington, D.C., as amended and supplemented.

7.3.4 National and State Registers of Historic Places

The National Register of Historic Places is the official list of the nation's historic resources worthy of preservation. The first historical registry was established by Congress in 1935, and designated properties

of national importance as National Historic Landmarks. In 1966, the National Historic Preservation Act (80 Stat. 915, as amended) established a National Register of Historic Places to include districts, sites, structures, buildings, and objects of local, state, and national significance. The New Jersey Register of Historic Places is the official list of New Jersey's historic resources of local, state, and national interest. Created by the New Jersey Register of Historic Places Act of 1970 (N.J.S.A. 13:1B-15.128 et seq.), the New Jersey Register is closely modeled after the National Register program. Both Registers have the same criteria for eligibility, nomination forms, and review process.

The current inventory of building listed on the New Jersey Register of Historic Places (SR) or the National Register of Historic Places (NR), or have received Certifications of Eligibility (COE) are as follows:¹

All Saints' Episcopal Church (ID#4636): 15 Basking Ridge Road - COE: 8/24/2006. Architecturally significant church embodying Millington's rise as a wealthy rural enclave at the beginning of the 20th Century.

Boyle-Hudspeth-Benson House (ID#2137): 100 Basking Ridge Road - SR: 12/5/1974 NR: 12/10/1975 (NR Reference #: 75001151). One of the oldest structures in the township associated with the families which settled the area.

Gladstone Branch of the Delaware, Lackawanna and Western (DL&W) Railroad Historic District (ID#5030) - SHPO Opinion: 10/20/2010. This railroad line opened up the Somerset Hills to development and brought industry to the area. Fundamental to the establishment of Stirling.

Millington Railroad Station (ID#2138): Long Hill Road - SR: 3/17/1984 NR: 6/22/1984 (NR Reference #: 84002767). An elaborate gateway station to Morris County. Permitted the growth of industry in Millington and the rise of commuter suburbs.

Millington Schoolhouse (ID#5135) 1802 Long Hill Road - SR: 1/4/2012, NR: 3/12/2012 (NR Reference #: 12000109), COE: 5/5/2008. Rare surviving mid-19th century wood construction schoolhouse. Served education and later as the town hall from the Civil War era until the early 21st Century. The Schoolhouse is the only public historic site owned by the township. A historic easement has been placed on the deed to protect it and to make it available to the public.

Stirling Worker's Historic District (ID#4356): Bounded by Valley Road, Passaic Avenue, High Street and Warren Avenue - SHPO Opinion: 7/21/2004. A planned industrial and residential village brought about by the railroad in the decade after the Civil War. The layout and scale of the 1870s plan remains largely intact.

Morris County Heritage Commission Historical Markers: There are four markers in Long Hill out of approximately 180 located throughout Morris County's municipalities. To date, local markers include the Sentinel Elms/Trinity House, Millington Railroad Station, Millington Schoolhouse and the Stirling Worker's District. Additional markers can be added by the county for historically significant sites. Morris County

¹ See: https://www.nj.gov/dep/hpo/1identify/nrsr_lists/Morris.pdf (page8)

also maintains a historical entry marker at the Valley Road Passaic River bridge crossing from Bernards Township, Somerset County.

7.3.5 Other Historic Resources

In addition to the historic resources listed on the National and State Register of Historic Places, Long Hill's historic sites inventory consists of the following categories:

1. A scattering of farmhouses from its agricultural period.
2. Spacious former summer residences primarily located along the Long Hill Road corridor.
3. Stirling, Millington and Meyersville Streetscapes
4. Scattered community serving buildings, i.e. churches, stores, railroad stations, schools etc.

The architecture of these structures and streetscapes is widely varied and represent most, if not all, of the existing vernacular architecture prominent in northeastern United States at the time of their construction.

7.4 Recommended Action for Historic Preservation

1. HPAC shall continue to prepare an annual Historic Sites Survey.
2. HPAC should continue to assist property owners with historic research about their homes and property and continue preserving data about Long Hill's history.
3. All applications for issuance of Zoning and Construction permits pertaining to historic sites shall be referred to HPAC for an advisory report which shall be submitted to the Construction Official.
4. Require that any commercial or mixed-use development or redevelopment in Long Hill Township's historic villages/hamlet support the goals and recommendations of the Master Plan Land Use Element.
5. Continue to encourage appropriate signage and street amenities to enhance a sense of history and community pride. The purpose of this program is to highlight the Town's rich history, instill a sense of community pride, and encourage preservation of historic resources in Town. The program is completely voluntary and in no way impacts or restricts property modification.
6. There are many buildings with historic significance and integrity located throughout the Township. They were built in a great variety of styles, sizes and placement before building codes and zoning requirements and, therefore, often do not conform to current standards. The Township's ordinances should encourage PRESERVATION, rather than REPLACEMENT of these structures. The Land Use Boards should encourage that structures retain their character and remain consistent with the predominant character of the surrounding neighborhood.
7. This Master Plan element recognizes that the demolition of structures on Long Hill Township's Historic Inventory cannot be regulated as a land use. HPAC should continue to take an active role in documenting the historical significance of structures to be demolished, if appropriate.

8. Long Hill Township's land use decisions when pertaining to historic properties and neighborhoods should not cloud optimistic future development or become burdensome to homeowners. "If there is any hope for preservationists and planners to win the inevitable upcoming battle, it is dependent on accepting the vocabulary of progress and using it to their own ends. Rather than running from growth, it should be embraced and tamed. This means abandoning the outmoded approach of saving isolated buildings by freezing them in time or making museums out of them and embracing the concepts of fusion architecture and adaptive reuse. Only if preservation is recognized as an environmental factor and historic buildings as ripe for adaptive reuse, can change accommodate the best of the past." ²

² Morris County Master Plan, Historic Element; p64.

8 Conservation Plan Element

8.1 Introduction

The Municipal Land Use Law (MLUL) permits a municipality to prepare and adopt a Conservation Plan Element as part of its Master Plan. The MLUL describes a conservation plan element as follows:

A conservation plan element providing for preservation, conservation, and utilization of natural resources, including, to the extent appropriate, energy, open space, water supply, forests, soil, marches, wetlands, rivers and other waters, fisheries, endangered or threatened species, wildlife and other resources, and to systematically analyze the impact of each other component and element of the Master Plan on the present and future preservation, conservation and utilization of those resources. MLUL (N.J.S.A.40:55D-28.19 b(8).)

This Conservation Element reaffirms the longstanding commitment to safeguard Long Hill's natural resources. The Element builds upon previous conservation planning decisions and the strong, continuing public support of environmental preservation by the residents of Long Hill Township.

Long Hill has both an Environmental Commission (Ordinance 2-31) with responsibility for the protection and development or use of natural resources, including maintaining a Natural Resource Inventory and Shade Tree Commission (Ordinance 2-23) who has broad oversight of the health and wellbeing of shade and ornamental trees and shrubbery on public lands, and maintaining a list of "Big Trees". Both Commissions are required to conduct reviews for applications before Land Use Boards. Therefore, the involvement of the Commissions to provide input into the Conservation Element is of significant importance.

Long Hill has faced, and continues to face, a variety of complex conservation and environmental challenges:

- **Jet Port:** Long Hill Township's modern history of active conservation dates to official measures taken to oppose the Port of New York Authority's proposal to build a major jetport in the Township in 1959. The Passaic Township Planning Board "cited the poor location, the noise, a protest of any prospects involving the water-shed of the Passaic River" who also "suggested that the area would be better suited either for a Federal or State wild life preserve". The Passaic Township Zoning Advisory Committee stated, "that an airport of the proposed type would destroy the residential character and the planned orderly growth of the Township." Ultimately the Jet Port proposal was defeated wherein the land obtained was added to the National Natural Landmarks program in 1966 and in 1968 became the first formally designated wilderness refuge in the United States.
- **Passaic River Floodwall:** In January 2003, the US Army Corps of Engineers and the NJ Department of Environmental Protection presented the Township with a flood damage reduction plan. The tentative plan was to build a ±5-foot-high wall/levee/berm extending approximately 4,000 feet that was intended to protect the lowest part of Valley Road. The wall would start near Lounsberry

Meadow, run behind the existing houses on Valley Road, cross South Main Street, then run behind the businesses on Valley Road and ShopRite Plaza. It would end near Poplar Drive and Magnolia. The purpose of the wall was to prevent the waters of the Passaic River from backing up the creeks that flow through downtown Stirling. The strategy was to install "closure structures" (flood gates) at three creeks: two on the western side of the Township and one on the eastern side. The gates would remain open after the rain to allow drainage of the surface water. A day or two later, water from the Great Swamp and the Upper Passaic River would pass through the Gorge and down to the Stirling area. Then, the flood gates would close, to keep the river from backing up into those creeks. Funding for the wall failed to be secured and the wall has not been built.

- **Environmental Contamination:** The 2013 Conservation Element identified sites containing industrial pollution as conservation challenges, however, the recognition of these challenges has now been placed within the Land Use Element.
- **Stormwater Management** is of critical importance to Long Hill Township. Due to the Township's environmental setting bordered to the west and south by the Passaic River, existing and future development must utilize Best Management Practices to minimize stormwater runoff volume and to protect stormwater quality.

8.2 Existing Conditions

The abiding public interest in the protection of Long Hill Township's environment can be traced to the rich and diverse natural resources that make up the Township. There exists large expanses of contiguous Municipal, County, State and Federal government owned or controlled open space comprising approximately 50 percent of the Township's area. These include:

- The northern area of the Township features the Great Swamp National Wildlife Refuge and Wilderness Area ("Great Swamp"). Most of the southern border has a large buffer of County- and State-owned parklands along the flood prone Passaic River.
- The Third Range of the Watchung Mountains forms a ridge of steep slopes through the entire central portion of the Township, with dramatic vistas to both the north and south. This ridge is the long hill that is the Township's namesake.
- The Black Brook (a NJDEP designated Category One stream) that flows through the Great Swamp and the Passaic River that forms the westerly and southern borders of Long Hill Township are both historic waterways. The Passaic River is a major regional water supply and has a long history of recreational use for canoeing and fishing.
- The combination of steep, wooded terrain of the Watchung Mountains, the wetlands of the Great Swamp and Passaic River, and being a part of the Atlantic flyway provide rich habitat for many species of birds, mammals and reptiles, including state threatened and endangered species.

8.3 Geology

Situated within the physiographic province of the Piedmont Plain, the Township has been shaped by a confluence of geologic events. During the Triassic Period (~250 to 200 million years ago), volcanic activity

resulted in basalt flows and intrusions into the existing Passaic Formation, a slightly older formation composed of red siltstone, sandstone and shales. The more erosion resistant basalt flows formed Long Hill, one of the three principal ridges of the Watchung Mountains. The less erosion resistant Passaic Foundation formed the sediment deposits in lowland areas.

Glacial Lake Passaic, the 200- to 250-foot-deep temporary surface water impoundment created by the Wisconsin Stage of the last glacial epoch to impact this area (~19,000 to 14,000 years ago), left behind the Great Swamp as a minor remnant of its extensive coverage. The lake was formed during the melting and retreat of the Wisconsin ice sheet and the damming of southern flowing drainage channels against the north side of Long Hill. As time passed, glacial meltwaters slowly eroded geologic materials forming the Passaic River and the lake slowly drained and transitioned into today's Great Swamp.

8.4 Topography

The Township is characterized by rolling terrain, expansive lowlands and higher elevations along the Third Watchung ridge or Long Hill, which is one of three parallel ridgelines of the Watchung Mountains. Long Hill divides the lowlands of the Great Swamp to the north from the Passaic River along the southern boundary of the Township. Significant topographic relief is observed across the Township, with elevations ranging from El 449 feet above mean sea level near the intersection of Long Hill Road and Gillette Road to lower elevations along the Passaic River floodplain.

Steep slopes in the Township are most prominent above the Passaic River and along Long Hill (both north and south facing) posing particular challenges to protect suitable drainage patterns, native vegetation, slope stability, pollution and sediment from stormwater runoff. Published sources (U.S. Natural Resources Conservation Service and the NJDEP) indicate that slopes 10-25 percent should be left in their natural condition, maintained in grass or tree cover, and slopes greater than 25 percent should be left undisturbed.

8.5 Water Resources

Understanding and protecting our geologic and hydrologic resources are critical to maintaining good quality groundwater and surface water resources. Protection of groundwater resources requires the definition and characterization of sensitive recharge areas, where surface water can infiltrate more permeable soil and flow into deep subsurface aquifers. Protection of surface water resources requires the preservation of wetlands for flood storage capacity and contaminant filtering, along with vegetative buffers between impervious development and surface water bodies. It also requires maintaining tree canopy cover and a healthy understory of native trees, plants and shrubs.

The Passaic River is a 90-mile waterway, traversing 45 municipalities, of which Long Hill has one of its longest stretches, and provides drinking water for more than 2 million people. The river flows south from the Great Swamp and then turns east following the valley between the Third and Second Watchung Ridges. Tributaries of the Passaic crisscross the Township. All of these unnamed tributaries, as well as the portions of the Black Brook and Passaic River which border or run through the Township are classified as fresh water non trout producing (FW2-NT). While they do not currently provide proper conditions for wild trout, the Passaic River in Long Hill is regularly stocked with rainbow trout by the State of New Jersey. In addition,

Stirling Lake is maintained by the Township for recreational purposes and is occasionally stocked with trout for fishing derbies.

The health of the riparian buffer is very important to the well-being of the Passaic River ecosystem and its floodplain. Substantial areas of riparian buffer are publicly owned by the State, County, or Municipality. State and County owned properties are largely protected and preserved by regulation. The publicly owned riparian buffers are generally healthier than areas under private ownership. The quality of the riparian buffer, especially in many privately owned areas, has been compromised by landscaping practices such as the replacing of native vegetation with turf grass to create views of the river. Protecting and restoring riparian buffers while providing access to the natural beauty of our waterways creates recreational resources that add to the appeal of our community.

The protection of its flood plain provides important flood storage capacity and buffers to protect water quality. This river is prone to flooding because of its very shallow gradient and meandering path. The Township has purchased flood prone properties utilizing Blue Acres fund as part of the Township's proactive work to address flood hazards.

8.6 Wetlands

Wetlands form a critical landscape type in the Township with the largest contiguous area of wetlands found within the Great Swamp. Wetlands are also found along the floodplains of Black Brook and the Passaic River, along with many unnamed tributaries leading to these surface water features. Wetlands within the Township play a critical role in filtering non-point surface water runoff contaminants, as well as providing storage capacity for direct precipitation and surface water flooding events. Long Hill also hosts a number of vernal pools which provide critical habitat for many amphibian species.

8.7 Woodlands

In addition to the Great Swamp, Long Hill Township contains over 800 acres of municipal, county or state-protected forested bottomlands that includes floodplains and riparian habitats. These act as an important buffer zone for the Great Swamp and are of particular importance to migrating songbirds and raptors.

The Township also protects over 100 acres of upland forest, lying on either side of Long Hill Road. Upland forest areas can host priority bird species such as wood thrush, several migrating wood warbler species and various neotropical migrants which utilize the resources of this important habitat. These forests are also important for fall migrating raptors. The greatest threat is that of invasive plant species such as Japanese barberry, garlic mustard, multiflora rose, bamboo and Japanese honeysuckle. These species thrive along forest edges and spread from surrounding residential encroachment.

Elsewhere across the Township, there are some old growth trees reminiscent of woodlands which once covered the area. The locations of most of these have already been recorded by the Shade Tree Commission and details are on offer to the public as a tour package. Apart from their aesthetic and historic significance, such old growth trees offer a greater diversity of microhabitats and act as reservoirs for species of insects, lichen, and fungi not commonly found elsewhere.

8.8 Wildlife

The woodlands of Long Hill offer critical habitat for a variety of high priority bird species such as red-headed woodpeckers, a species regarded as “imperiled in New Jersey because of rarity” (Office of Natural Lands Management 1998). Several other bird species, such as barred owl and red-shouldered hawk, are State-listed as Endangered and Threatened wildlife species. The bottomland forests may also host the State-listed blue-spotted salamander, or federally listed bat species such as Indiana bat.

The Great Swamp is the best studied area in the Township, and is home to 240 bird, 39 mammal, 42 reptile and amphibians, and 29 fish species. Twenty-six species in total are listed by the State of New Jersey as threatened or endangered. Approximately 109 bird species have been recorded nesting within the refuge, including important State populations of barred owls, American woodcock, wood ducks, and eastern bluebirds. Many of these species occur on Township properties. Studies focusing on specific federal and State Threatened and Endangered species are regularly conducted at the refuge. The habitat utilization and demography of Indiana bat, bog turtle, wood turtle, and blue-spotted salamander have all been studied there. Information from these studies is incorporated into management strategies on the refuge.

Ten bat species, including the federally listed endangered Indiana bat, have been identified at the refuge. Other species of concern include eastern red bat, Eastern small-footed bat, and Hoary bat. The Indiana bat, a State and federally listed endangered species and the northern long-eared bat utilize riparian corridors at Great Swamp for foraging and warm season roosting. It is quite probably that most of these bat species breed in or forage over areas of forests along the Passaic River and the slopes above.

Approximately 300 species of Lepidoptera (butterflies and moths) have been recorded in the Great Swamp, as well as many other insect species. The refuge also plays host to hundreds of species of trees, shrubs, flowers and other vascular plants, as well as an impressive list of mosses, liverworts, fungi and other flora. Many of these species will be present outside of the Great Swamp in the relatively undisturbed habitats throughout the Township.

8.9 Stormwater Management

The proper management of stormwater is critical to a Township with significant wetlands and surface water resources. Historically most towns handled stormwater by moving it downstream as fast as possible, using storm and sanitary drains to feed unfiltered stormwater directly to streams and rivers. This often contributed to catastrophic flooding and destruction of natural and man-made resources.

Our understanding of flood processes and stormwater management has come a long way since then. In 2000, the Long Hill Environmental Commission and the Passaic River Coalition prepared a document entitled “The Upper Passaic River Riparian Conservation Project Master Plan” with a detailed analysis of the interaction of land use, development patterns, riparian forest health and their impacts on the overall health of the Passaic River.

More recent publications such as the NJDEP Stormwater Best Management Practices (BMP) recommend separating storm from sanitary drain systems, and slowing down stormwater closer to the source where possible. A subset of these BMPs is called Green Infrastructure (GI) which are management practices that

address stormwater runoff through soil infiltration, or reuse. These practices filter stormwater into the groundwater, streams, and rivers, even encouraging its re-use by homeowners for landscaping and gray-water use. Green Infrastructure GI practices include, but are not limited to, pervious paving, bioretention basins, vegetated swales, and cisterns. The use of green infrastructure encourages the idea that stormwater is a resource that can be reused, instead of being treated as a nuisance that needs to be removed as quickly as possible.

8.10 Assessment

Long Hill faces a number of conservation challenges. Some are local, while others are the result of influences outside of Long Hill Township's control.

- **Air Quality:** While there are few uses within the Township that would release harmful pollutants into the air, its location in the densely populated northern New Jersey region, which includes many long-standing industrial uses, still results in potentially harmful conditions for residents. The Township should continue to recognize the importance of Air Quality which is addressed within the Sustainability Element.
- **Climate Change:** Extreme weather events are happening more frequently than expected, for example the Hurricane Irene and Superstorm Sandy storm events in back-to-back years of August 2011 and October 2012, and more recently Hurricane Ida in September 2021. The Millington Flood Gauge uncommonly was within inches of the action stage several times over the winter of 2018-19. More frequent thunderstorms have a greater rainfall intensity leading to more significant erosion, especially on unprotected steep slopes. On the other extreme are more frequent droughts that stress or kill critical vegetation that is needed to mitigate erosion which, in turn, poses a threat to water supplies.
- **Flooding:** Significant portions of the Township lie within the FEMA designated 100-year floodplain and are susceptible to flooding. The prevalence of water bodies throughout the Township as well as a high groundwater table creates unique land use challenges and poses threats to both private properties and critical Township facilities. The maps contained herein show the extent of these flood-prone areas.
- **Invasive Species:** Diseases and harmful insects are an increasing threat to our trees. Ash trees throughout the Township are susceptible to the fatal ash yellows disease and the invasive emerald ash borer. Streetscape and forest trees are threatened by the Asian longhorn beetle, gypsy moth and the spotted lanternfly, which was found in NJ for the first time in 2018. The spread of invasive plant species poses a threat to the ecosystem as well, aided by the consumption of native plant species by herbivores such as deer, whose populations thrive in the wooded suburbs of New Jersey where they are largely unimpeded by their natural predators. The greatest threat is from invasive plant species, such as Japanese barberry, garlic mustard, multiflora rose, bamboo and Japanese honeysuckle. These species thrive along forest edges and spread from surrounding residential encroachment.

8.11 Recommended Action for Conservation

1. Update a Township wide Environmental Resource Inventory (ERI), or Index of Natural Resources. The Township's existing Natural Resources Inventory or NRI was last updated in 2000. The ERI should be a compilation of text, tables, maps and other visual information about the natural resource characteristics and environmentally significant features of an area. The ERI should include and expand policies for conservation development, the Passaic River riparian buffer and habitat restoration. The previous NRI was performed with the Great Swamp and other organizations forming a factual database of all environmental assets, threatened and endangered species (for example Indiana bats), and valuable environmental attributes, such as recording the location of specific microhabitats (for example vernal pools). The updated ERI should also include GIS data-layers of natural resource information and be utilized in the creation of/modification to land use ordinances for the protection of riparian buffers and other natural resources.
2. Review and revise, where necessary, ordinances regarding the protection of environmentally critical areas (steep slopes, wetlands and areas of special flood hazard), important environmental habitats and the riparian buffer.
3. Explore opportunities for grants from NJDEP and other governmental and NGO sources to fund a Township wide assessment of streams, identifying problem areas and opportunities for stream restoration projects.
4. Encourage the ongoing strategic acquisition of open space properties, to include land for conservation, flood protection and critical habitats that support Threatened and Endangered Species as listed under the Endangered Species Act (ESA) and the Township's updated ERI. Long Hill Township should utilize County programs, such as the Morris County Preservation Trust Fund and State programs such as the New Jersey Green Acres Program, The New Jersey Blue Acres Program or the Easement Purchase Program available through the Morris County Farmland Preservation Program.
5. Develop list of recommended native species of plants and planting bed materials to be incorporated into the Land Use ordinance and used by Boards and applicants in site plan review.
6. Co-operate with local municipalities, county governments, government agencies, and environmental organizations who, like Long Hill Township, seek to protect, restore and improve the:
 - Ecosystems of the Great Swamp and Passaic River watershed
 - Tree cover canopy and riparian buffer
 - Monitoring of water quality through testing Passaic River flow through de-snagging efforts
7. Decrease non-point source pollution, to the greatest extent feasible.
8. Conduct outreach to residents to discourage the use of chemical fertilizers and pesticides. If fertilizers are needed, they should be 100% organic and phosphate free, particularly near water bodies.
9. Encourage greater tree preservation and planting efforts.

10. Support the updating of the Community Forestry Management Plan (2017) to maintain the plan's continued relevance to the preservation of the Township's tree canopy and heritage trees. The plan updates should be undertaken by the leadership of the Shade Tree Commission.
11. Foster interest in and appreciation for trees by discouraging tree removal and expanding the discount tree program (Challenge Grant operated by the Long Hill Shade Tree Commission) to property owners to increase the community's overall canopy.
12. Prepare ordinances requiring the planting of trees in large parking lots to provide shade, food for wildlife, and to reduce the "heat island" effect.
13. Promote Township initiatives like the Big Tree list to increase the public's appreciation for the value that trees provide for the health of the local ecosystem.
14. Explore the option of designating County Roads in the Township as "scenic corridors" which would protect the natural vegetation including old growth trees along the roadways.
15. Promote enjoyment of and education about the environment in order to encourage environmental stewardship among residents, children and visitors.
16. Expand open space access. Create access areas to the Passaic River and Great Swamp and other open space to allow greater use, enjoyment and appreciation of these resources.
17. Promote watershed awareness. Promote school instruction on the town watersheds and how stormwater drains from school and home properties into storm sewers and brooks.
18. Promote conservation projects. Promote environmental restoration or improvement projects on public and private lands.
19. Use NJ Stormwater Best Management Practices (BMP) practices as a key component of all land development projects, with a goal for each project site of having no net increase in rate, volume, or pollution levels of stormwater following development.
20. Consider the formal adoption of practices as suggested within the NJ Stormwater Best Management Practices (BMP) such as Green Infrastructure.
21. Outside of major development projects, focus efforts on the reduction and improvement of stormwater runoff such as rehabilitating existing impervious cover to interrupt and infiltrate stormwater.
22. Educate landowners and businesses about Green Infrastructure landscaping practices such as wildflower meadows and rain gardens that will enhance the environment, reduce local flooding and sedimentation, and slow stormwater runoff. To this end, Long Hill should actively engage the community through:
 - Promoting water conservation, water re-use, and stormwater management.
 - Promoting the use of: indigenous plants that provide natural habitat, chemical free lawn maintenance, the reduction of impervious cover, rain gardens and other BMPs.
 - Expanding its efforts to raise awareness and protection of our natural resources by hosting more events centered on the Passaic River.
 - Facilitating volunteer groups to participate in river cleanups and volunteer water quality monitoring activities.

- Conducting annual BMP and land use educational programs for Township volunteers, employees and officials.
 - Partnering with a local environmental conservation group, such as the Great Swamp Watershed Association to install a Green Infrastructure demonstration project in a high-profile part of the Township that can serve as an educational tool for how to better manage stormwater runoff.
23. Consider undertaking an assessment of Stirling Lake and its watershed in order to identify opportunities to mitigate the impacts of stormwater runoff.

9 Green Building and Sustainability Plan Element

9.1 Introduction

Sustainability is a new element for the Township’s Master Plan and one that looks to support initiatives being driven at the State and Federal level. Globally, “sustainable development” has been defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” - The United Nations World Commission on Environment and Development (The Brundtland Commission, 1987).

This Element is being written to support a more sustainable and resilient New Jersey, a State ready to take on the many environmental, economic and social challenges which face us in the future. Most people would agree to the benefits of clean air, fresh water, waterways filled with fish, garbage in its proper place, clean energy options, parks and open space, and a healthy place to work and live. The big question for communities such as Long Hill is how can we contribute to achieving these goals.

In New Jersey, Governor Murphy unveiled the State’s Energy Master Plan in January 2020. It outlines key strategies to reach the Administration’s goal of 100 percent clean energy by 2050. This will also strengthen NJ’s Global Warming Response Act that mandates 80% emissions reduction by 2050.

It is critical that Long Hill Township be proactive in deciding how these targets will be met at the local level rather than depending on decisions coming from the “top down”. Such “top down” decisions may have been made without unique local concerns in mind. This Sustainability Element outlines how Long Hill Township’s sustainability objectives can serve as a foundation for recommendations in other elements of the Master Plan as well as offer a variety of strategies to meet the State energy and emission reduction plans. Some of the strategies and goals addressed below are expanded upon in the different elements.

One of the best ways forward is for municipalities to adopt and pursue the principles and practices of sustainable development. Sustainability is being addressed by nearly 400 municipalities across New Jersey through participation in the Sustainable Jersey Program. This program provides a science-based, measurable framework for municipalities to follow to become more sustainable. Municipalities that achieve certification become eligible for grant funding to help pursue their sustainability related goals such as the efforts to improve energy efficiency and conserve natural areas being pursued by the Township.

The certification is free and completely voluntary. Long Hill Township has been a registered participant since the program’s founding in 2009 though progress towards receiving certification has been slow. The Township established a “Green Team Advisory Committee” by Resolution 17-198 in July 2017 and this is now working towards achieving certification.

9.2 Existing Conditions

When introducing a relatively new concept to a municipality and its residents, education pays off. The growing consensus among experts and organizations working for sustainability is that sustainability must be accomplished at the local level if it is ever to be achieved on a global basis. When sustainable development is community-based, it is more likely to be viable because it:

- Helps keep economic benefits and resources within the community;
- Supports existing local businesses that tend to be more responsive to local needs and more likely to support the community;
- Encourages the establishment of greener enterprises;
- Seeks small-scale solutions, which are usually faster, more flexible, less expensive, and more manageable than larger ones; and
- Builds social capital – the capacity of its people to work together for the common good.

9.2.1 Building mix and Uses

Long Hill has a number of historic buildings and the historic neighborhood of Stirling village. Reinvesting in existing infrastructure and rehabilitating historic buildings conserves resources, protects the historic character of a neighborhood and reduces material going to landfill. Existing single-story commercial properties could have an additional story of apartments built above. Where new developments are proposed they should house a mix of structures such as residences, commercial stores, community centers, day-care facilities, and artist's studios. Flat roofed buildings should be designed for multiple uses such as roof-top restaurants, viewing platforms, gardens and patio spaces, solar pods, play areas and more.

9.2.2 Water-Use Infrastructure

Clean, readily available water supplies are a growing concern for towns and cities. Sustainability of the water supply system faces several imminent challenges such as increasing water main breaks, decreasing fresh water resources, untraceable non-revenue water use, and increasing water demands. Efforts to meet future needs include a variety of Internet-based innovations, such as the Internet of Things (IoT) technology. Using sensors installed throughout the water supply infrastructure IoT can produce large amount of data to monitor both the infrastructure and consumers' usage. Such proactive measures frequently result in positive consumer benefits, as well as a reduced need for emergency repairs and service disruptions for this vital utility in the future.

9.2.3 Waste Reduction and Recycling Efforts

Long Hill Township has made substantial efforts towards improving its waste management and reducing the amount which goes to expensive landfills. The Township previously produced a Recycling Element as part of the 1995 Master Plan, which indicated that 3,568 tons of materials were recycled in 1993. In 2018, the last year for which data is available, the township recycled 50,457 tons of materials, a very commendable 14-fold increase. The Township manages its recycling program out of the public works facility off Warren Street.

9.2.4 Energy Efficiency

One of the easiest ways to reduce our environmental impact is through improving energy efficiency. Increasing energy efficiency is a proven cost-effective strategy which:

- Saves money;
- Demonstrates fiscal responsibility;
- Testifies to community leadership;
- Helps stimulate the economy; and
- Reduces emissions of air pollutants and greenhouse gases.

By improving energy efficiency in their own operations, local governments are leading by example, motivating the private sector and other stakeholders to follow suit. An energy audit was carried out in 2018 of all municipal buildings to examine the cost and benefits of upgrading to high efficiency fixtures and fittings. This showed that if all of the recommendations were carried out the Township would have annual savings of over \$78,600 with an average payback period of 6.4 years.

Involving the private sector in municipal energy efficiency improvements can also foster a community-wide discussion about saving energy, money and the environment. This is supported by 86% of respondents in the 2016 Township-wide survey who either agreed or strongly agreed that new commercial developments should be environmentally responsible. In addition, the 2020 Land Use Assessment showed that a majority of respondents found environmental standards in new building and remodeling projects to be important or very important.

9.2.5 Smart Street Poles

As cities switch from conventional streetlights to LED-based updates, they have the opportunity to connect light poles to form a web of information sensors that can do everything from broadcasting severe weather warnings, gathering air quality data to monitoring traffic and reducing the risk of crime. Traffic signals and street lighting which use LEDs typically consume 80% to 90% less energy than conventional traffic signals, and because traffic signals operate continuously, LED traffic signals can reduce peak energy demand. The 2018 energy audit stated that if the recommendations were followed street lighting energy costs would be reduced by approximately \$8,400 annually.

9.2.6 Solar Energy

Solar photovoltaic panels for electric generation or solar thermal for water heating is readily available at a cost competitive with the grid. Wherever they are installed, solar arrays can produce an income, reduce electrical costs for nearby buildings, support EV charging stations and provide shaded parking. Rooftop solar arrays on flat roofs can be raised structures, allowing the area beneath to double as shaded roof gardens or multi-function venues. Solar carports over existing parking lots help keep cars dry in inclement weather, provide security from sun and hail damage, and keep cars and the tarmac cooler in the summer.

However, a common complaint of homeowners and businesses wishing to install solar are the “soft costs”, which have significant local impacts on the affordability of solar energy systems. “Soft costs” refer to business processes or administrative costs that can increase the time and money it takes to install a solar

energy system – costs that are then passed on to customers. These costs arise due to permitting processes, planning and zoning considerations, financing, and a wide variety of other factors. Overall, these soft costs represent up to 64% of the total cost of a solar energy system.

To address solar soft costs at the municipal and county levels, the U.S. Department of Energy Solar Energy Technologies Office (SETO) funds SolSmart, a program that provides designation and no-cost technical assistance to accelerate the development of local solar energy markets and reduce soft costs. During the SolSmart application process, communities are required to provide a formal letter of commitment acknowledging their solar energy goals and plans. A community then earns points by introducing or streamlining various administrative processes related to solar applications. Depending on how many points are earned determines whether the community qualifies for Bronze, Silver or Gold Designations. These designations signal to both installers and their customers that a town has streamlined its solar permitting and administrative processes and is “open for solar business”.

For residents who cannot install solar on their own property an alternative is to participate in a Community Solar Program as offered by some solar companies. With Community Solar, solar arrays are installed in a centralized location such as a brownfield site or parking canopy, which may be outside of one’s own town. Residents can purchase or lease a ‘share’ in a solar project, and receive a credit on their utility bill for the energy produced by your share. Community Solar gives participants all the benefits of solar energy, allowing a household to go green and save, but also support the local economy by helping to create jobs.

9.2.7 Green Buildings

A variety of energy standards have been adopted across the U.S. to improve the energy efficiency and environmental health impacts of new buildings beyond existing code. Some examples of such standards in the residential field are the ENERGY STARTM certification or those supported by the National Association of Home Builders (NAHB), which has adopted the ICC/ASHRAE 700-2015 National Green Building StandardTM (NGBS).

A high performance building includes:

- Energy-efficiency improvements, such as high levels of insulation, efficient HVAC systems, high-performance windows and energy-efficient appliances or lighting
- Water conservation measures, such as water-efficient appliances, water-conserving fixtures, filtration and water re-use systems, and water-efficient or low-maintenance landscaping
- Resource conservation techniques, such as using high-performance engineered wood, wood alternatives, recycled building materials, sustainably harvested lumber and more durable products. Reducing the amount of construction debris which goes to landfill should be a priority.
- Indoor environmental quality considerations, such as effective HVAC equipment, use of formaldehyde-free finishes, allergen-free materials, and products with low levels of volatile organic compounds.
- Site design techniques, like maximizing solar orientation, using existing shade, minimizing disruption and preserving open space. It should be required that roofs be solar-ready in all

new construction – strong enough to support the additional weight, with appropriate roof truss spacing and 50-year roof shingles.

- In the commercial sector standards such as LEED (Leadership in Energy and Environmental Design) or IgCC (International Green Construction Code) set minimum requirements for increasing the environmental and health performance of buildings, sites, and structures.

9.2.8 Trees

Long Hill has a rich and varied tree coverage, and the wooded character of the Township is highly valued by residents. trees are a vital part of a Township’s “natural capital”. Natural capital is the stock of natural resources and environmental assets including water, soils, air, flora, fauna, minerals, and other natural resources. Apart from their aesthetic appeal, trees provide environmental services such as oxygen supply, wood for timber and fuel, and wildlife habitat. They also reduce temperature extremes, moderate stormwater flows, sequester carbon, and capture nutrients from runoff.

Apart from street trees, other features such flower beds, window boxes and bioswales contribute to a sense of place while satisfying the basic human need to connect with nature. Bioswales are planted channels which slow water flow down and allow it to infiltrate into the soil. They are particularly useful along streets or in parking lots where they can redirect water from the curbside. When native water-wise plants are used, they may even self-sustain vegetation, reducing watering costs

9.2.9 Residential Agriculture

Communities like Long Hill can help cut food waste by growing perishable produce right in their own communities, boosting an individual’s connections to food and reducing spoilage-promoting lengthy transit distances and time. With the emergence of new hydroponic and aquaponic gardening technologies, walls, roofs and other structures that serve one function can multitask as food-producing gardens too. Where appropriate, consideration can also be given to including indoor-agriculture as an allowable use to encourage private enterprises to expand such practices in ways that could also enhance the local economy.

9.2.10 Non-motorized Transit

When non-motorized transport options are encouraged, streets become less congested, air quality improves, and human health and well-being is boosted. An important way to increase such options is to provide safe traffic lanes for bicycles and a well-marked trail system for walkers. These discussions are expanded upon in the Circulation Element.

9.2.11 Sustainable Landscaping

Sustainability in landscaping is a concept which emphasizes the environmental impacts and benefits of ornamental landscapes. Sustainability involves coordination of landscape planning, design, and management actions for greater overall environmental benefits within the environment.

This section addresses actions which collectively work to conserve, recycle and reuse resources invested in landscapes and which work to optimize the environmental benefits provided by landscapes. Conservation actions are directed toward increasing the efficiency and reducing the consumption of

energy, water, and chemicals in landscaping. Recycling and reuse of resources is pursued through use of reclaimed water and composted landscape trimmings. Environmental benefits of landscaping are increased through the protection of riparian corridors, the additional production of oxygen to the atmosphere, storage of carbon, developing associations of plants to provide increased wildlife value, and microclimate benefits in the form of temperature and pollution mitigation. The avoidance of future issues caused by invasive species is promoted through public education and the careful selection of plant species in local and large-scale landscaping.

It is the goal of this Sub-Element to ensure that the environmental impacts and benefits of landscaping are considered throughout the planning and design process, in conjunction with aesthetic and functional goals. Good design decisions will result in increased benefits, decreased impacts to the environment and reduced consumption of resources.

Applicants for development are encouraged to seek imaginative concepts which meet or exceed the purpose and intent of the Sustainability Element and any supporting ordinances. The principles and guidelines contained herein are provided as one method to assist in preparing landscape plans which meet the intent of the Township's Policies. Based on recommendations from landscape professionals, alternative methods may be used providing they too meet the intent of such policies. If alternative methods are used, the project documents shall include information addressing each of the design guideline objectives.

Sustainability in landscaping can be improved when:

- Landscapes are planned, designed and maintained upon principles of conservation, recycling and reuse of resources, with particular emphasis on energy and water conservation, and local sourcing of materials.
- Landscapes are planned, designed, and maintained to protect riparian areas, achieve improved levels of carbon storage and oxygen production, species diversity, micro-climate benefit and natural habitat value.
- Increased productivity through reduction of lawn coverage in favor of more diverse plantings leads to greater storage of carbon, production of oxygen, and greater air pollution mitigation. This productivity helps to offset the release of carbon and pollutants to the atmosphere resulting from direct and indirect use of fossil fuels in the development and long-term maintenance of the landscape.

9.2.11.1 *Appropriate Plant Choices*

The right choice of plant species can improve the productivity, compatibility and vigor of the landscape, reduce the use of energy, water, and fertilizers, and increase maintenance efficiency. It will also enable the landscape to adapt to varying project conditions now and in the future.

Invasive plant species such as Japanese stiltgrass (*Microstegium vimineum*) usually have few or no natural controls. Native herbivores and insects often find these invasive species to be unpalatable thus encouraging the alien's spread to the detriment of native plants. Some problematic species such as

'Bradford' pear (*Pyrus calleryana*) can be both invasive and prone to wind and snow damage, or be susceptible to blight damage.

9.2.11.2 Energy Conservation

Energy consumption in landscaping can be divided into two broad categories:

- Direct energy use occurs through fossil fuel consumption of equipment.
- Indirect energy use occurs through the use of electricity to supply irrigation water, and in the manufacture of chemical fertilizers and pesticides. Furthermore, the production and long-distance transportation of mulches and peat-based products in other parts of North America affect national energy use, transport infrastructure and air quality. It also causes immense damage to forests and peat bogs and directly impacts water quality, native wildlife, carbon storage and oxygen production.

9.2.11.3 Water Conservation

Water conservation practices result in less indirect energy use, less demand for imported water, reduced loss of water to runoff onto pavement and into water bodies, and more efficient use of reclaimed water supplies.

9.2.11.4 Microclimate

The judicious use of shrub and tree planting can have beneficial effects on nearby buildings, parking and playground areas by providing optimal levels of summer cooling, improving solar heat gain in winter, and ameliorating the effects of vehicular air pollution.

9.2.11.5 Best Practices for Soil Management

Sustaining natural processes of nutrient development and microorganism activity can ensure the successful establishment and healthy growth of plants. In particular, too much reliance on artificial fertilizers and chemicals can lead to a reduction in soil biodiversity, the development of resistant pest species and have a serious impact on nearby water bodies.

9.3 Recommended Action for Green Building and Sustainability

1. Make a public commitment for the Township of Long Hill to work towards being a sustainable, green community.
2. Continue to investigate the potential for the Green Team to achieve certification with the Sustainable Jersey Program.
3. Partner with the Schools. Create a School Green Team. Ideally, one of the members of the Municipal Green Team acts as a liaison to the School Green Team. The School Green Team should be comprised of administration, students, faculty, staff members, custodial staff, and parents and should include a liaison from the Municipal Green Team.
4. Develop networks with other municipalities as well as utility partners for information exchange and learning best practices with regard to sustainability

5. Work with other municipalities within the Upper Passaic River Watershed to create a new staff position responsible for furthering the twin goals of economic development and environmental sustainability.
6. Improve the efficiency of the municipal vehicle fleet. When replacing vehicles consider to purchasing hybrid and/or electric vehicles, which offer significant energy savings, potentially reducing maintenance costs while creating positive environmental benefits. .
7. Carry out the recommendations in the 2018 Township energy audit
8. Review the completed full audit of the town’s lighting. Prioritize and act on the stated recommendations as soon as possible. Work with local utilities to encourage the installation of smart street poles.
9. Consider measuring the municipality’s carbon footprint. The carbon footprint is the amount of greenhouse gas (GHG) emissions produced by local government operations in a given year. The footprint will detail the sources of emissions so that actions can be focused on the largest emitters. The footprint will also enable a municipality to track its progress and determine if new policies are having an impact.
10. Increase public awareness of sustainable best management practices. The Township should facilitate community education and participation in sustainability efforts by developing resource materials to help the public understand how sustainable actions benefit public health and welfare.
11. Hold informational sessions and create brochures or other materials regarding sustainable best management practices. This information could be available at Town Hall; a sustainability link on Township website; conveyed through email and social media, etc. Specific topics to cover could include, but not be limited to, the following:
 - Construction, renovation, remodeling and available grants and incentives
 - Waste reduction including food waste reduction
 - Green Infrastructure landscaping practices such as wildflower meadows and rain gardens that will enhance the environment, reduce local flooding and sedimentation, and slow stormwater runoff
 - Water conservation, water re-use, and stormwater management
 - Benefits of using indigenous plants that provide natural habitat; chemical free lawn maintenance; the reduction of impervious cover; rain gardens and other BMPs.]
12. The Township should expand its efforts to raise awareness and protection of our natural resources by hosting more events centered on the Passaic River.
13. The Township should conduct annual BMP and land use educational programs for Township volunteers, employees and officials, in accordance with the Township’s MS4 Tier A Permit
14. The Township should facilitate volunteer groups to participate in river cleanups and volunteer water quality monitoring activities.
15. The Township should partner with a local environmental conservation group, such as the Great Swamp Watershed Association to install a “green infrastructure” demonstration

project in a high-profile part of the Township that can serve as an educational tool for how to better manage stormwater runoff.

16. Implement “green streets.” Design complete streets as green streets, using Long Hill’s network of roadways for stormwater management. Design and implement right-of-way green/gray infrastructure practices concurrently with sewer, water, or roadway improvement projects.
17. Include curb-extension rain gardens, where feasible, on future roadway re-surfacing projects.
18. Increase the number of ‘garden’ features in the town’s public spaces such as bioswales, rain gardens, flower beds and hanging baskets.
19. Incorporate green infrastructure measures such as pervious pavement, street trees, or bioretention basins into the street layout through traffic calming features like curb bump outs, green stormwater practices in rights-of-way and permeable sidewalks.
20. Expand the returns from the flexible plastic waste recycling program to include composite decking for boardwalks for trail construction
21. Increase recycling rates through education and enforcement where necessary.
22. Encourage backyard composting through educational outreach. All municipal collection, processing, and distribution costs are avoided for leaves and yard trimmings, as well as food waste, that are composted by residents. Expand existing composting efforts by offering subsidized composting containers to residents for their food and garden waste
23. Encourage residents to leave grass clippings on the lawn. [The clippings will then filter down to the soil, acting as a natural fertilizer. The lawn will be healthier, and the taller grass will shade the soil, cooling roots and limiting weeds.]
24. Explore a Pay-as-you-Throw Program for waste management. Consider the economic, operational, and environmental pros and cons of implementing a pay-as-you-throw program or other changes to the Township’s waste management system.
25. Host prescription drug safety and disposal events.
26. Continue to support community paper shredding days
27. Create household hazardous waste (HHW) collection programs for two or more materials (e.g., anti-freeze, batteries, consumer electronics, compact fluorescent light bulbs, paint, pesticides and herbicides, motor oil).
28. Adopt a policy for construction and demolition waste recycling to divert it from landfill disposal.
29. Establish a “dump shop” or “take it or leave it shop” in which residents can drop off household goods which might be of interest for other residents. This can be established in a municipal parking lot on one day of the weekend.
30. To accommodate the anticipated future growth in electric vehicle usage, all new single-family with garages should be encouraged to provide a high-capacity electrical infrastructure to support electric vehicle charging within the garage.

31. Consider installing EV charging stations at municipal parking lots (including municipal building, and public parks) and encourage the installation of others at existing stores, restaurants, public spaces and existing multi-family units (who would not be subject to the State law as they are existing developments), to meet rising demand.
32. Incorporate State EV ordinance in the Long Hill Land Use Ordinance.
33. Investigate enrolling in SolSmart to reduce solar administrative costs and send a clear signal to solar companies that the town is encouraging solar installations.
34. Consider converting municipal buildings to renewable energy sources over time.
35. Review the practicality of installing solar carports at publicly-owned parking lots, such as municipal and NJ Transit train station parking lots, where solar arrays would also provide summer shading.
36. Encourage residential and commercial properties to install solar arrays on flat roofs and use the area beneath for rooftop gardens or multi-function venues.
37. Provide education to residents on how they can participate in Community Solar programs.
38. Incentivize the retrofitting of older buildings and new development to incorporate “green” building design. [The Township might consider creating incentives to encourage the incorporation of green building design, such as by offering expedited review processes or reduced submission fees for such development applications]
39. Consider creating a green development checklist as well as site plan green design standards, and incorporate them into Planning and Zoning Board checklists.
40. Sustainable site design could include, for example:
 - Positioning coniferous trees and shrubs along western and northern boundaries to reduce the effects of winds from these directions; and
 - Locating trees with open canopies or deciduous habits along south and east facing walls to provide winter sun exposure on window and wall surfaces while offering shade during the summer months.
 - Providing Green Building education and training to Zoning, Planning, Public Works, and Construction Code officials, as well as Planning and Zoning Board members.
 - Requiring secure, long-term bicycle parking facilities, in new multi-family development.

10 Utilities Plan Element

10.1 Introduction

Adequate utility infrastructure is essential to the support of land use and development. Accordingly, land use planning must take into consideration and be consistent with utility infrastructure. The two utility systems most frequently generating concern in developing a realistic land use plan are water supply and wastewater disposal systems. Electric, telecommunications and natural gas utilities are discussed herein as well.

10.2 Existing Conditions

10.2.1 Water Distribution Plan

New Jersey American Water is the supplier of potable water to most sections of the Township. A number of properties continue to be serviced by privately owned wells. The operation of New Jersey American Water's network within the Township is regulated by the New Jersey Board of Public Utilities. The Township is located within the Baltusrol Gradient in New Jersey American Water's Short Hills System (PWS ID: NJ0712001). This system is a public community water system consisting of 25 wells, 4 surface water intakes, 12 purchased ground water sources, and 3 purchased surface water sources. All water source intakes are located outside the Township. Source water comes from the Passaic River and the Brunswick aquifer. Within the Township, approximately 306 fire hydrants are maintained by the company and serve as the primary sources of water for fire suppression purposes. At the present time, New Jersey American Water has no plans for any significant expansion of their service territory within the Township. However, the company continues to invest heavily in the rehabilitation or replacement of existing mains to enhance reliability and quality of service. The Township should coordinate future capital public works improvements, most notably roadway rehabilitation and main rehabilitation and replacement, with the company.

10.2.2 Electric Power and Telecommunications Utilities Plan

Electric power service is provided in the Township by Jersey Central Power & Light ("JCP&L"), whose operations are regulated by the Board of Public Utilities. Telecommunication lines are provided by Verizon and Comcast. All new electrical utility distribution lines and telecommunication lines should be installed below-grade and existing above-grade utilities should be relocated below-grade whenever they are rehabilitated, relocated or renewed. Any development or re-development efforts in the Millington and Stirling Villages should be required to relocate all utilities below grade.

Relocation efforts should be coordinated with planned municipal road reconstruction efforts. However, when utilities are relocated below grade, JCP&L will need to continue to maintain existing pole-mounted street illumination that is not privately owned or owned by the municipality. When development or redevelopment impacts existing aerial utilities or entails the installation of new electrical, telecommunication or traffic control equipment, special emphasis must be placed on ensuring that

screening, location, and size of above-grade utility cabinets is harmonious with the surrounding landscape and respects the sight triangle. When this equipment is planned or is requested by the Township, any formal notification should be forwarded to the Planning Board, where the available finishes, designs and configurations which best integrate into the aesthetic of the local area should be considered.

The Township seeks to embrace outdoor illumination principles which minimize the amount of illumination, minimize the area of illumination, minimize the duration of illumination, minimize the amount of "cold" wavelength illumination and minimize wasted energy, while not compromising the safety, security, and well-being of persons engaged in outdoor night time activities. The goal of adopting these principles is to control the obtrusive aspects of excessive and careless outdoor lighting usage while preserving, protecting, and enhancing the lawful nighttime use and enjoyment of any and all property.

Unused, abandoned or functionally-obsolete above-grade utilities should be encouraged to be removed by the utility owners, particularly utility elements which contain hazardous materials or whose presence represents a hazard in the event that the facility is subject to damage by a man-made or natural disaster.

Two high-voltage electrical transmission rights-of-way are currently located within the Township. The future upgrade or replacement of electrical transmission lines and substations, including the replacement of existing towers with monopoles is acceptable, provided the replacement facilities are located within the existing right of way. While the NJ BPU Vegetation Management Rules govern vegetation management along utility rights-of-way, existing vegetative buffers between the utility right-of-way and adjacent residential properties should not be unnecessarily reduced. All vegetation management activities along the right-of-way should incorporate arboricultural and landscape best management-practices that maintain the health of existing vegetation and limit the use of herbicides. The width of clear zones should be guided by site-specific technical requirements to maintain reliable service, not uniform application of non-site-specific standards.

Ground-mounted electrical transformers or substations should be located away from occupied structures and adequately screened with evergreen vegetation and secured with perimeter fencing that matches the aesthetics of neighboring areas.

10.2.3 Natural Gas Utility Plan

Natural gas utility service is provided in the Township by Public Service Electric & Gas. An interstate natural gas transmission pipeline is located within the same right-of-way as high-voltage electrical transmission lines. The Master Plan supports future efforts by the utility to replace existing aging cast iron gas distribution pipes with new, durable plastic and/or coated steel piping to improve reliability, reduce the possibility of methane leaks, and facilitate the installation of excess flow valves on service lines that dramatically reduce gas flow if a pipe is damaged. The installation of new mains that allow for elevated pressure that provide better support for high-efficiency appliances like furnaces and water heaters is a benefit to the Township. The Township should coordinate future capital public works improvements, most notably roadway rehabilitation and main rehabilitation and replacement, with the company.

10.3 Recommended Action for Utilities

1. Coordinate future Township infrastructure capital improvements with the water, natural gas, telecommunications, cable and wastewater utilities to economize and synchronize efforts.
2. Embrace outdoor illumination principles which minimize the amount, area and duration of illumination, minimize the amount of "cold" wavelength illumination and minimize wasted energy, while not compromising the safety, security, and well-being of persons engaged in outdoor nighttime activities.
3. Extend wastewater service to areas in the Township to serve existing and new development where practical and economically feasible.
4. Work with New Jersey American Water regarding the wastewater treatment plant and collection system network infrastructure assets in a manner that ensures that sufficient treatment capacity is provided to address increased flows associated with any redevelopment or new development in the Township, particularly projects related to the Township's affordable housing compliance.
5. Install, where feasible, new electrical utility distribution lines and telecommunication lines below-grade and relocate existing above-grade utilities below-grade whenever they are rehabilitated or renewed.
6. Require prompt removal of unused, abandoned or functionally-obsolete, above grade utilities by the utility owners. Particular emphasis is placed on the prompt and proper removal of all utility elements which contain hazardous materials or whose presence represents a hazard in the event that the facility is subject to damage by a man-made or natural disaster.
7. Site improvements within the watershed of the Great Swamp should continue to be held to the existing high standard for stormwater management, as described by the New Jersey Best Management Practices Manual.
8. Continue to support Township Ordinances which address stormwater discharge particularly within flood prone areas or worsen/ aggravate existing flooding conditions.
9. Update Township Ordinances to reflect the current New Jersey Department of Protection regulations on Freshwater Wetlands (N.J.A.C 7:7A), Flood Hazard Areas (N.J.A.C. 7:13), and Stormwater Management (N.J.A.C. 7:8)
10. When utility or traffic control equipment is planned or requested, any formal notification should be forwarded to the Planning Board, where the available finishes, designs and configurations which best integrate into the aesthetic of the local area should be considered.

Chapter 11-Relationship to Other Master Plans

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11.1	Master Plans of Contiguous Municipalities	11-1
11.1	Morris County Master Plan	11-2
11.2	Morris County Solid Waste Management Plan.....	11-5
11.3	State Development and Redevelopment Plan.....	11-5

11 Relationship to Other Master Plans

Pursuant to New Jersey Municipal Land Use Law at N.J.S.A. 40:55D-28, a municipal master plan must address the relationship of the proposed development of the municipality, as developed in the master plan, to the master plans of contiguous municipalities, the master plan of the county in which the municipality is located, and State Development and Redevelopment Plan, and the district solid waste management plan. As detailed below, the stated vision and goals of the 2023 Long Hill Master Plan are consistent with and support the policies and objectives of the aforementioned plans.

11.1 Master Plans of Contiguous Municipalities

The Township of Long Hill borders five municipalities:

Township of Bernards

Township of Bernards is located to the west of Long Hill in Somerset County. Bernards borders Long Hill roughly from Route 78 in the south to Lord Stirling Park in the north along the Passaic River. Land uses near the border of Long Hill are predominantly single-family residential and protected open space which is consistent with the predominant land use character of Long Hill along the border. The 2010 Master Plan for Bernards and the 2023 Long Hill Master Plan are consistent.

Harding Township

Harding Township is located to the north of Long Hill in Morris County. The entirety of the border between the two municipalities is part of the Great Swamp National Wildlife Refuge. Portions of the refuge in Harding are zoned for Public Lands which adjoin lands in Long Hill that are zoned for Conversation. These are compatible land use designations. As noted in the Land Use Element of the Harding Township Master Plan, "The National Wildlife Refuge straddles both townships and is an area of special mutual concern and responsibility."

Chatham Township

The northeast corner of Long Hill borders Chatham Township in Morris County. The area located roughly north of Meyersville Road is part of the National Wildlife Refuge. This area is zoned Wilderness Area District and is compatible with the refuge area in Long Hill which is zoned for Conservation. These are compatible land use designations. Land uses in Chatham south of Meyersville Road are characterized by single-family neighborhoods in the R-1 and R-3 Residence districts. These areas border and are compatible with the single-family residential neighborhoods and open space in the vicinity of Long Hill and Meyersville Roads. Further to the south, the land in Chatham bordering Long Hill includes protected open space that is part of the Passaic River Reservation and Park adjacent to the Passaic River which forms the southern boundary of Chatham. The land in this area is zoned County Park district which adjoins the areas zoned Conservation that border the Passaic River in Long Hill. These are also compatible land use designations. The recommendations of the 2023 Long Hill Master Plan to conserve natural resources, such as the Passaic

River corridor, is consistent with similar goals of Chatham’s 2016 Master Plan Reexamination to “Protect the environmental and open space resources.”

Berkeley Heights Township

Berkeley Heights Township in Union County is located along Long Hill’s southern border. The Passaic River serves as the boundary line between Berkeley Heights and Long Hill. To the south of the river, Berkeley Heights contains a portion of the Passaic River Reservation as well as residential neighborhoods. North of the river on the Long Hill side is another portion of the Passaic River Reservation, while there are also residential developments and the Valley Road commercial corridor in the area east of Mountain Avenue. The future land use plan and other recommendations of the 2021 Berkeley Heights Master Plan does not conflict with the stated goals of Long Hill’s 2023 Master Plan and Development Regulations Reexamination to preserve the single-family residential community character, conserve natural resources, and manage traffic on County roadways.

Township of Warren

The Township of Warren is located to the south of Long Hill in Somerset County. The Passaic River separates the two municipalities and the areas of Warren bordering Long Hill are characterized by unimproved and protected open space. Warren’s 2016 Amended and Restated Master Plan Reexamination and Land Use Plan Amendment continue to designate these areas as Township owned open space, Township owned land, Somerset County owned land, conservation easements, and farmland assessed land. These land use designations are compatible with the adjoining land in Long Hill which is mostly designated for Conservation and Public land use.

11.1 Morris County Master Plan

The Land Use Element of Morris County’s Master Plan was adopted in 2020. The guiding principle of the plan is to “Promote, enhance and preserve the natural resources, community assets, and the rich culture and history of the County, while actively promoting a thriving, robust economy, diverse housing opportunities and a strong infrastructure to protect and enrich Morris County’s overall quality of life.” The goals and objectives of the Land Use Element are listed below:

GOALS

- 1. The creation of balanced and diverse economic and housing opportunities.** *Encourage the creation of balanced and diverse economic and housing opportunities suitable to meet the economic, employment and housing needs of Morris County, consistent with the local determination of appropriate land use and community character, coordinated with infrastructure capability and the protection of environmental resources.*
- 2. The efficient use of land and resources.** *Encourage the focus of housing and economic growth in areas with existing or planned infrastructure (sewer/water/transportation) and in existing or planned population and employment centers consistent with environmental protection limitations and environmental protection goals. Encourage less intense growth,*

and focus major land conservation and preservation activities in areas that do not contain existing or planned infrastructure.

3. The protection of natural, historic, agricultural and scenic resources. *Encourage the protection and preservation of environmental resources, unique natural features, open space, historic assets and farmland throughout Morris County, focusing major conservation, preservation and protection activities in areas without existing or planned infrastructure, in which the majority of these resources are located.*

4. Development that proceeds only after careful analysis of environmental conditions. *Support desired development that proceeds only after careful analysis of environmental conditions and within the limitations imposed by such analysis, with emphasis on the mitigation of associated environmental impacts and potential hazards to life and property.*

5. Greater integration of land use and transportation planning. *Advocate for greater integration of land use and transportation planning to reduce traffic congestion, expand public transit use and increase the availability of alternative modes of transportation.*

6. The achievement of community planning goals and objectives and increased cooperation between municipalities in their respective land use decisions. *Support local efforts to achieve community planning goals and objectives and encourage cooperation between municipalities in their respective land use decisions. Recognize and support local land use planning initiatives and activities where consistent with County goals and objectives and sound planning principles. Encourage inter-municipal cooperation and coordination for projects generating multi-jurisdictional impacts.*

POLICY OBJECTIVES

1. Promote the continued revitalization and redevelopment of the County's established downtown centers and commercial corridors.

2. Encourage compact development patterns, cluster development, and infill development, consistent with local goals, to reduce sprawl, mitigate environmental impacts, and to make improved utility and transportation infrastructure feasible and economical.

3. Minimize Greenfield development where possible; prioritize redevelopment of Brownfield sites, Greyfield sites, obsolete land uses and other previously developed sites.

4. Promote the revitalization of suburban town centers as multi-modal, mixed-use centers of diverse commercial and housing opportunities.

5. Support the creation of a diverse and robust economy, including a variety of economic uses and employment opportunities.

6. Support the creation of diverse housing types that meet the needs of all age groups, income levels and lifestyles.

- 7. Encourage higher density and mixed-use developments in downtown areas, near public transit, consistent with infrastructure availability and community goals.*
- 8. Promote careful environmental analysis and the avoidance of environmental resources in all development proposals. Advance development in a manner that avoids these resources and mitigates potential environmental impacts.*
- 9. Support the integration of a variety of open space/greenway, park and recreation opportunities throughout Morris County, particularly in proximity to population concentrations, mixed-use areas, and major employment centers; support municipal efforts to expand and/or improve these opportunities.*
- 10. Promote use of more advanced wastewater treatment infrastructure in non-sewered areas of concentrated development where existing septic systems are failing, especially where these conditions negatively affect nearby water bodies and/or groundwater supplies.*
- 11. Support local planning efforts that focus growth near existing and planned transit facilities that expands the use of public transit, increases service along existing lines, and that provides multi-modal transportation opportunities between various land uses and communities.*
- 12. Maintain and improve the County's roads, stormwater and other infrastructure systems to promote sustainable economic and residential development, protect environmental resources and mitigate the negative impacts of extreme weather events (e.g. reduce flooding).*
- 13. Encourage municipalities to invest in robust comprehensive planning, review of zoning and land development ordinances to ensure timely consideration of changing land use conditions, emerging land use/market trends, evolving zoning techniques and development standards.*
- 14. Encourage municipal governments to coordinate the planning and redevelopment of commercial corridors, particularly as concerns inter-municipal traffic impacts and to consider the compatibility of adjacent land uses along municipal boundaries in their land use planning. Facilitate inter-municipal communication, coordination and partnerships concerning significant land use issues and associated inter-municipal impacts, including, but not limited to traffic, stormwater, and incompatible land uses.*
- 15. Support municipal efforts to provide adequate local community facilities and municipal services that keep pace with the needs of new growth and that supports local land use goals and objectives. This includes, but is not limited to, the use of cooperative agreements and shared services where appropriate.*

16. Encourage municipalities to plan, zone and permit compatible land uses adjacent to or affecting County properties, facilities and infrastructure in order to mitigate any negative impacts of development on these County assets.

17. Encourage state lawmakers to examine potential changes to the property tax system, in particular, as pertains to the funding for public schools. Under the existing system, fiscal considerations constrain the ability of local planning boards and governing bodies to consider certain land use, intensity and density options, commercial and housing opportunities during the planning process. Establishment of a more equitable tax system would free local governments to consider a wider range of land use options.

The goals and objectives of the 2023 Long Hill Master Plan are broadly consistent with the goals and objectives of the County Land Use Element. Overall, the goals and objectives of the 2023 Long Hill Master Plan advances the visions for economic vitality; conservation and investments in open space and natural systems; improved transportation for diverse modes and users; balanced growth in land use and housing; maintaining high quality of public services and utilities; and enhancing arts, culture, and historical resources.

11.2 Morris County Solid Waste Management Plan

The Solid Waste Management Act designates every county in the state as a solid waste management district, and each district is required to prepare a Solid Waste Management Plan. The Morris County Municipal Utilities Authority is responsible for the Morris County Solid Waste Management Plan, which serves as a blueprint for how the County reduces, recycles, and disposes of all waste generated within the district. This Master Plan is committed to sustainability, including recycling and source reduction initiatives. The goals and objectives of the Conservation and Sustainability Elements are consistent with the recommendations and requirements of the Bergen County Solid Waste Management Plan.

11.3 State Development and Redevelopment Plan

The 2001 State Development and Redevelopment Plan (SDRP) places almost the entirety of Long Hill in the Environmentally Sensitive Planning Area 5 (PA5). There are some areas in the vicinity of the Great Swamp National Wildlife Refuge in the northern portion of the Township and the Passaic River County Park in the southern portion of the municipality which are in the Parks and Natural Areas (PA-6, 7, and 8). The primary goal for Planning Area 5 communities is to protect environmental resources through large contiguous areas of open space land, accommodate growth in Centers, protect the character of existing stable communities, confine programmed sewer and public water services to Centers, and revitalize cities and towns. The Land Use Element of the 2023 Long Hill Master Plan identifies potential areas for infill development and redevelopment, with particular focus on the revitalization of the main commercial corridors. The Master Plan is consistent with the SDRP and encourages patterns of development recommended within the PA-5 Environmentally Sensitive Planning Area.

Appendix A: Demographics

Appendix A: Population, Housing, Construction, and Labor Characteristics

1.1 Introduction

The following subsections examine characteristics of Long Hill’s population, housing stock, recent construction, and labor statistics. Where possible, the below data compares 2020 Decennial Census data with Township data from earlier decennial censuses and/or with similar data for Morris County and the State. It should be noted that up until 2000, two decennial census questionnaires were used to collect information: a “short form” with only basic questions such as age, sex, race, and Hispanic origin; and a “long form” with the basic short-form questions plus additional questions on social, economic, and housing characteristics. After the 2000 Census, the long form was replaced by the American Community Survey (“ACS”), which continued to collect long-form type information. Currently, the Decennial Census only collects basic information and is distributed to every household residing in the nation, while the ACS is distributed to a sample of the population to collect detailed information about population and housing characteristics. The Five-Year Estimates use 60 months of collected data, has the largest sample size, and is the most reliable form of the ACS dataset. Please also note that any Census data from 1990 or earlier is for Passaic Township. The name of the township, Passaic, was changed to Long Hill Township in November 1992, when the voters approved the new name by a narrow margin in a referendum.

The most recent Decennial Census survey was conducted in 2020. However, due to COVID-19 global pandemic, there have been delays in releasing some of the data. To supplement the 2020 Decennial Census data, the below sections use data from the American Community Survey¹ (“ACS”) 2016-2020 Five-Year Estimates for the most recent demographic and household information available from the Census Bureau. Please note that any Census data from 1990 or earlier is for Passaic Township. The Township of Passaic, in Morris County, was established by an act of the Legislature in 1866. The name of the township, Passaic, was changed to Long Hill Township in November 1992, when the voters approved the new name by a narrow margin in a referendum.

¹ In every decennial census from 1940 through 2000, two questionnaires were used to collect information: a “short form” with only basic questions such as age, sex, race, and Hispanic origin; and a “long form” with the basic short-form questions plus additional questions on social, economic, and housing characteristics. After the 2000 Census, the long form was replaced by the ACS, which continued to collect long-form type information. Currently, the Decennial Census only collects basic information and is distributed to every household residing in the nation, while the ACS is distributed to a sample of the population to collect detailed information about population and housing characteristics. The Five-Year Estimates use 60 months of collected data, has the largest sample size, and is the most reliable form of the ACS dataset.

1.2 Population Characteristics

1.2.1 Population Change

The population of Long Hill grew almost 21 percent between 1980 and 2000. However, since 2000 the population has remained fairly steady as is shown in Table 1. This may be due, in part, to the voluntary sewer service ban put in place in 2001. However, there are also significant environmental constraints of undeveloped land in the Township. Morris County has experienced growth over these same decades, although the growth has slowed since 2010.

Table 1: Population Change, Long Hill Township and Morris County, 1970-2020

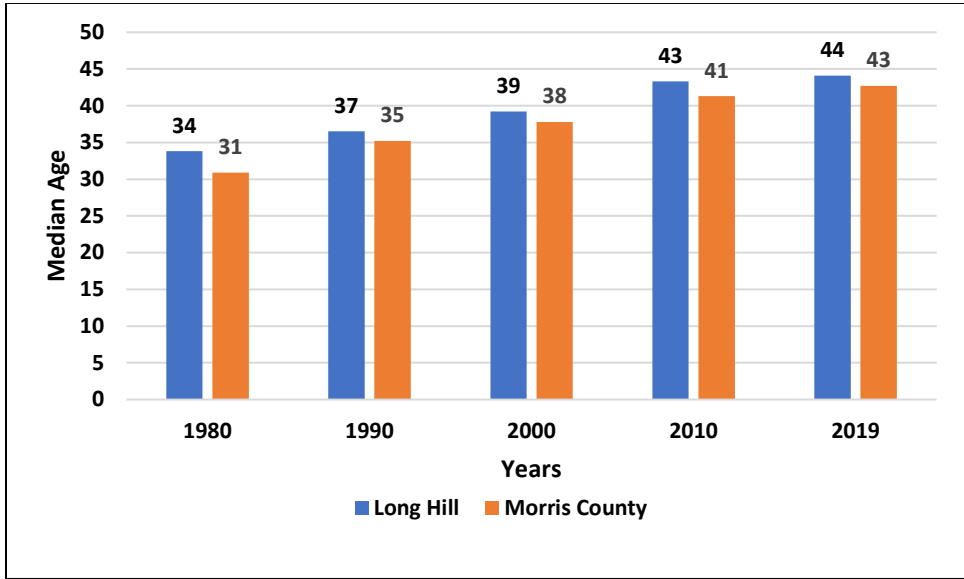
	Long Hill	% Change	Morris County	% Change
1970	7,393		383,454	
1980	7,275	(1.59)	407,630	6.3
1990	7,826	7.57	421,353	3.36
2000	8,777	12.15	470,212	11.59
2010	8,702	(0.85)	492,276	4.69
2020	8,629	(0.84)	509,285	3.45

Source: US Census Bureau, Decennial Census 1980, 1990, 2000, 2010, and 2020.

1.2.2 Age of Population

Long Hill's population has steadily aged, with the median age of residents now 10.3 years higher than it was in 1980. See Table 2 below.

Table 2: Median Age, Long Hill Township, 1980-2019



Source: US Census Bureau, Decennial Census 1980, 1990, 2000, 2010, and American Community Survey, 2015-2019 Five-Year Estimates.

The reason for the increase in median age is found in an examination of the age cohorts for the different periods (see Table 3). Significant changes have occurred in the number of school age children, which has dropped from about 24.8% of the population in 1980 to 17.9% in 2020. The percentage of persons aged 55 and over has increased significantly during this period, rising from 19.0% of the population in 1980 to 34.1% of the population in 2020. The percentage of persons aged 65 and over has also increased significantly during this period, rising from 8.3% of the population in 1980 to almost 18% of the population in 2020. However, the population under 5 years of age has also grown in recent years but there are still fewer total children in this cohort than there were in the 1980s and 1990s.

Table 3: Population by Age, Long Hill Township, 1980, 1990, 2000, 2010, and 2020

Age Cohort	1980		1990		2000		2010		2020	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Total	7,275	100%	7,826	100%	8,777	100%	8,702	100%	8,519	100%
Under 5 years	399	5.5%	617	7.9%	680	7.7%	453	5%	566	6.6%
5 to 9 years	519	7.1%	449	5.7%	727	8.3%	590	7%	481	5.6%
10 to 14 years	656	9.0%	394	5.0%	617	7.0%	749	9%	457	5.3%
15 to 19 years	636	8.7%	436	5.6%	410	4.7%	622	7%	601	7.0%
20 to 24 years	475	6.5%	440	5.6%	263	3.0%	350	4%	366	4.3%
25 to 34 years	1,103	15.2%	1,352	17.3%	950	10.8%	577	7%	888	10.4%
35 to 44 years	1,101	15.1%	1,351	17.3%	1,788	20.4%	1,188	14%	971	11.4%
45 to 54 years	1,004	13.8%	1,095	14.0%	1,339	15.3%	1,747	20%	1,355	15.9%
55 to 59 years	454	6.2%	397	5.1%	529	6.0%	632	7%	741	8.7%
60 to 64 years	326	4.5%	445	5.7%	365	4.2%	514	6%	636	7.5%
65+	602	8.3%	850	10.9%	1,109	12.6%	1,280	15%	1,528	17.9%

Source: US Census Bureau, Decennial Census 1980, 1990, 2000 and 2010; and American Community Survey, 2016-2020 Five-Year Estimates.

1.2.3 School Enrollment

According to the New Jersey Department of Education Fall Enrollment data, in the most recent 2021-2022 school year, Long Hill Township School District had a total enrollment of 830 students in pre-kindergarten through 8th grade (see Table 4). This is a decline of almost 20 percent since the 2008-2009 school year. However, there were increases in the pre-kindergarten and kindergarten grade levels which corresponds to Table 3 above which reflects an increase in the percentage of Long Hill’s population in the under 5-years old in 2020 cohort.

Table 4: School Enrollments at Long Hill Township School District, 2008-2009 and 2021-2022

	Pre-K	K	1	2	3	4	5	6	7	8	Total
2008-2009	6	80	97	108	117	111	119	116	135	118	1,026
2021-2022	27	87	90	80	95	86	95	90	95	85	830
% Change	+350%	+8.7%	(7.2%)	(25.9%)	(18.8%)	(22.5%)	(20.1%)	(22.4%)	(29.6%)	(27.9%)	(19%)

Source: New Jersey Department of Education and “Demographic Study for the Long Hill Township School District,” prepared April 2018 by Richard S. Grip, Ed.D. and accessed from the Long Hill Township Board of Education website.

1.2.4 Generational Shifts

Based on 2018, American Community Survey estimates, the Baby-Boom population, born between 1946 and 1964, accounted for roughly 24.1 percent of the total population of Morris County. In Long Hill that percentage is close to 26 percent (see Table 4). Following the Baby Boomers is “Generation X” generally defined as including those born between 1965 and 1980. On a nationwide basis, this group is much smaller than the Boomers who preceded them which is evident in both the Long Hill and Morris County 2018 population estimates which both indicate Generation X comprising approximately 22 percent of the population. Millennials or “Generation Y”, is typically defined as those born between 1981 and 2000. On a nationwide basis, Millennials represent a much larger percentage of the population than Generation X similar to the Baby Boomer generation. The 2018 Population estimates for Morris County affirm this as the percentage of the total Millennial population in Morris County was approximately 25 percent. Interestingly the Millennial population in Long Hill was approximately 19 percent or almost 3 percentage points less than the Generation X population. The goals, objectives, and recommendations of this Land Use Plan Element intends to take into account the characteristics and preferences of these different generations with regard to housing and economic growth as they move through their different life stages. It is anticipated that the number of residents aged 65 and over will continue to rise as the trailing edge of the Baby-Boom generation takes its place in this age group over the next ten years (see Table 3 above). The combination of lower birth rates and increased longevity have contributed to the significant growth of this segment as a percentage of the overall population.

Table 5: Generational Cohort Percentage of Population, Long Hill Township and Morris County, 2018

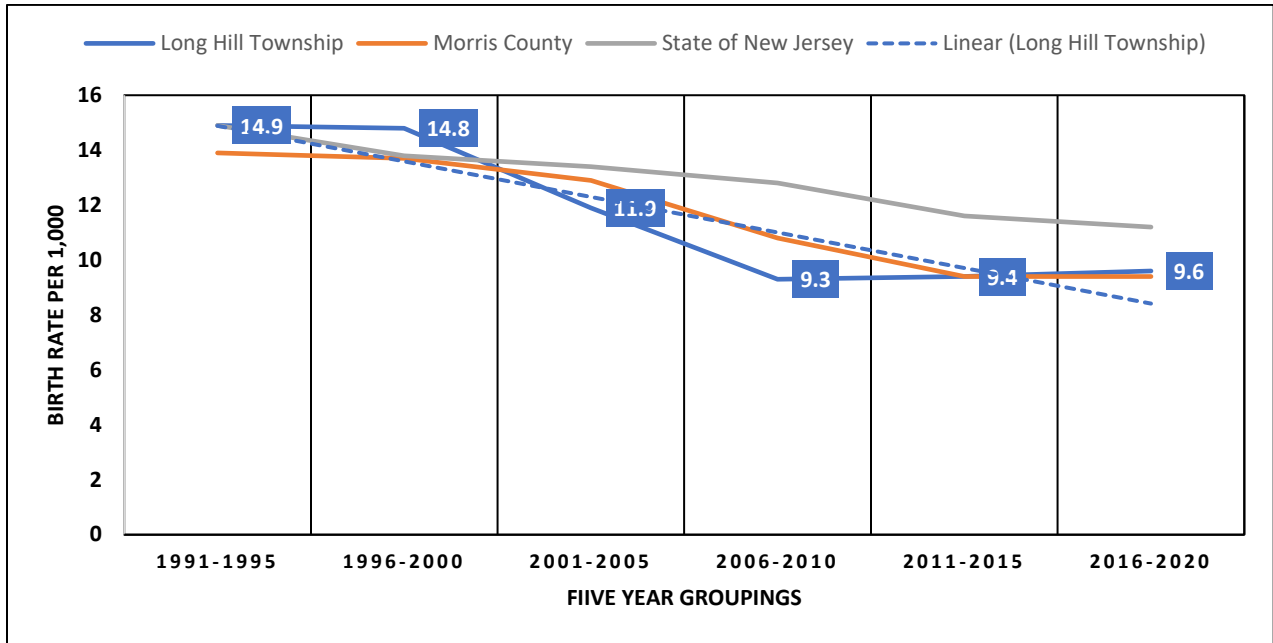
Pop. 2018	Millennials (born 1981-2000)	Gen X (born 1965-1980)	Baby Boomers (1946-1964)
	Percent	Percent	Percent
Long Hill	18.8%	22.8%	25.8%
Morris County	25.1%	22.0%	24.1%

Source: US Census Bureau, American Community Survey, 2018 One-Year Estimates.

1.2.5 Birth Rates

Like much of the country, the birth rate in New Jersey, Morris County, and Long Hill Township has been experiencing declining birth rates which has impacted the growth rate of the overall population (see Table 6). The birth rate in Long Hill has declined from 14.9 births per 1,000 people in the 5 year period between 1991-1995 to 9.6 births per 1,000 people in the 5 year period between 2016-2020.

Table 6: Generational Cohort Percentage of Population, Long Hill Township and Morris County, 2018

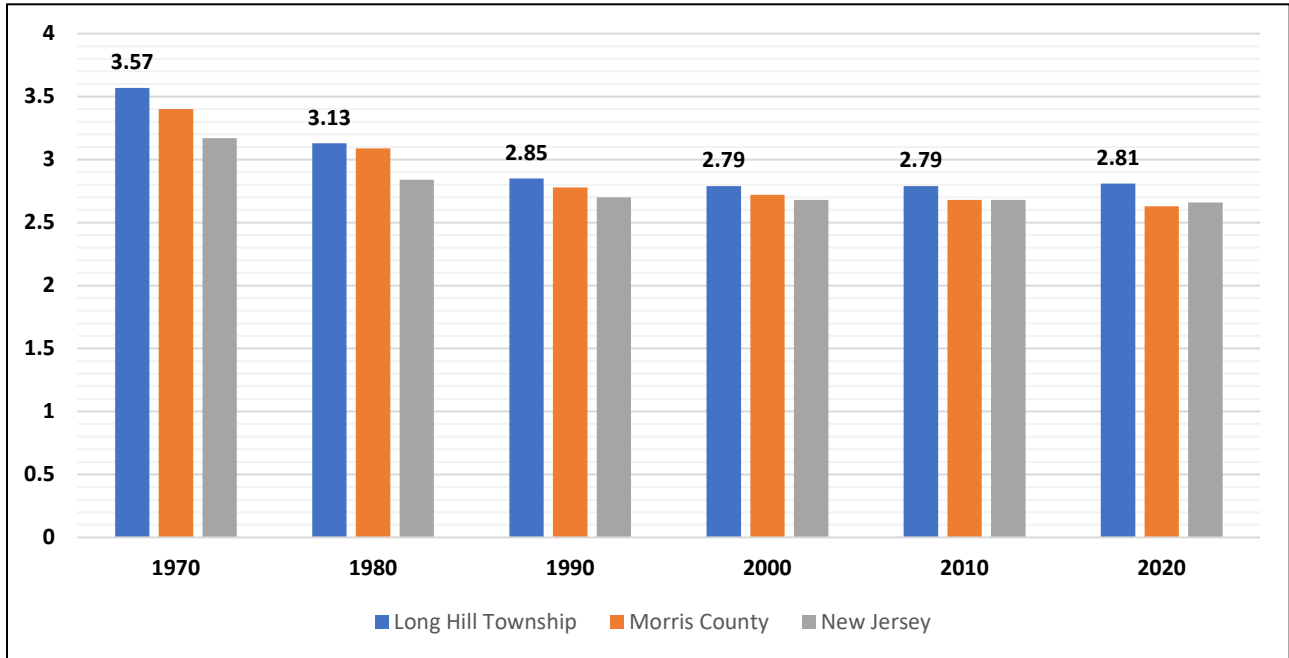


Source: New Jersey Department of Health State Health Assessment Data (SHAD)

1.2.6 Average Persons Per Household

In 1970, the average size of a household in Long Hill was 3.57 persons. This average dropped significantly over the next 20 years, followed by a more recent leveling off (see Table 7).

Table 7: Average Household Size in Long Hill Township, Morris County, and State of NJ 1970-2020



Source: US Census Bureau, Decennial Census 1970, 1980, 1990, 2000 and 2010; and American Community Survey, 2016-2020 Five-Year Estimates.

1.2.7 Household Types

Table 7 provides a profile of the types of households that living in Long Hill since 1990. In 1990, 82 percent of households were considered family households. A household consists of all the people who occupy a housing unit including families. The Census defines a family as a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such people (including related subfamily members) are considered as members of one family. That percentage has remained relatively steady over the past three decades. Of the family households approximately 91 percent in 1991 consisted of married couples. That number has also remained relatively steady in the ensuing decades. The percentage of married couples with children under 18 living at home has increased since a low of 44 percent in 1990 to roughly 50 percent in the subsequent decades.

Non-family households include consists of a householder living alone (a one-person household) or where the householder shares the home exclusively with people to whom he/she is not related. The percentage of non-family households increased in the 1990s and 2000's but appears to have decreased in the last decade. The number of people living alone reflects this same pattern, i.e., an increase between 1990-2010 and a recent decrease. In 1990, approximately 14 percent of occupied housing units were occupied by those living alone. That number rose to 18 percent in 2010. However, recent data indicates that approximately 15 percent of all occupied housing units are people living alone. It This number is lower than the Country where 28 percent consist of people living alone.

Table 8: Types of Households, Long Hill Township 1990-2020

	Number of Households in 1990	Number of Households in 2000	Number of Households in 2010	Number of Households in 2020
Households	2753	3,139	3,105	3,021
Family Households	2,260	2,458	2,434	2,450
<i>Married Couple Family</i>	2,066	2,185	2,098	2,181
<i>With Own Children under 18 years</i>	896	1,057	1,029	Data not available
<i>With No Children under 18 years</i>	1,170	1,128	1,069	Data not available
Non-Family HH	493	681	671	571
HH Living alone	384	570	569	442

Source: US Census Bureau, Decennial Census 1990, 2000 and 2010; and American Community Survey, 2016-2020 Five-Year Estimates.

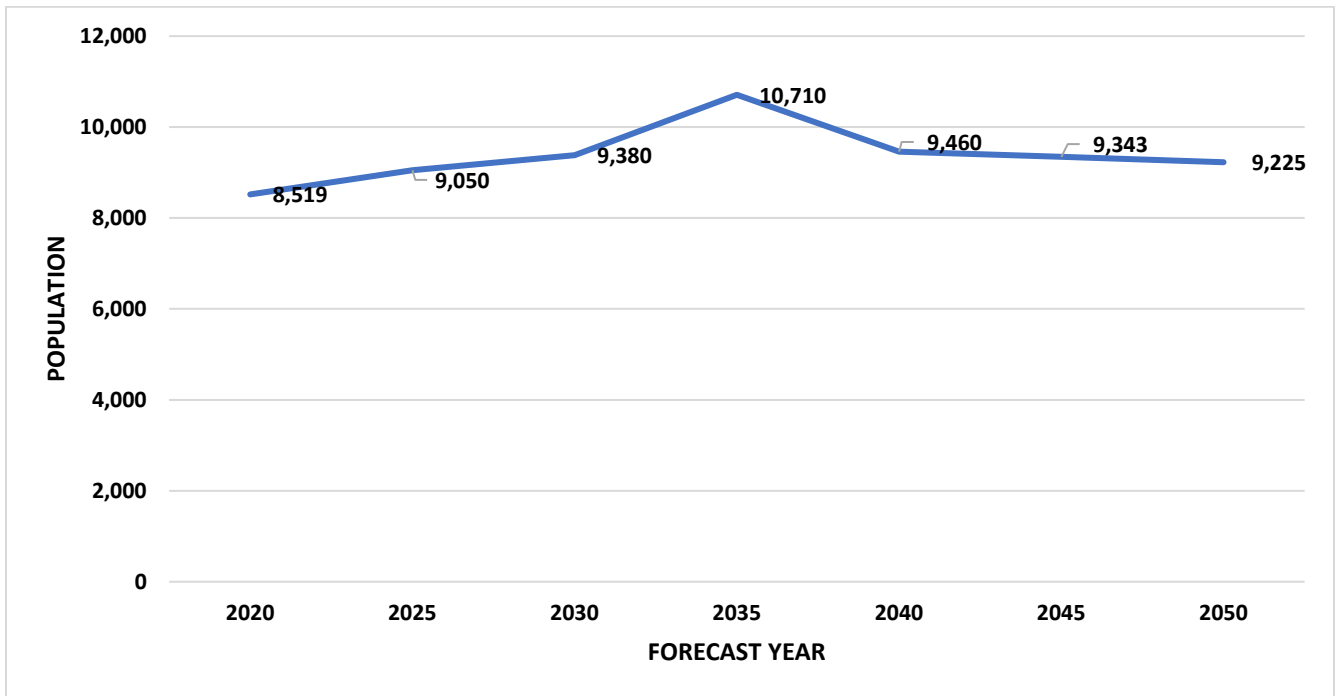
1.2.8 Race

Residents identifying as “white alone” in the Census make up most of the population in Long Hill. However, this percentage has declined over the last two decades. In 2000, approximately 92 percent of the population reported a race of “white alone” whereas that number had fallen to 91 percent in the 2010 Decennial Census, and to 76 percent in the 2020 Decennial Census. The second largest race represented in Long Hill is Asian. The percentage of the population identifying as “Asian alone” in the 2000 Decennial Census was 5 percent. That number increased to 6 percent by 2010 and 8 percent by 2020. The Census Bureau does not consider Hispanic as a race but rather an ethnicity. Long Hill residents reporting a Hispanic identify was 3 percent in 2000, 7 percent in 2010, and 11 percent in 2020 which is an increase of over 200 percent in the last two decades.

1.2.9 Population Forecasts

Despite recent slowdowns, population is expected to increase over the long term, but the rate of growth will likely be less than in past decades. The North Jersey Transportation Planning Authority (NJTPA) prepares population and employment forecasts based on trends and other data. According to their most recent analysis, Long Hill Township’s population is forecast to reach approximately 9,225 persons by 1950 (see Table 9). Anticipated development in multi-family housing, both market rate and affordable, will add more residents to Long Hill. These new citizens will offset the otherwise slowing population growth resulting from declining birthrates and an aging population.

Table 9: NJTPA Population Forecast for Long Hill Township, 2020-2050



Source: NJTPA Demographic Forecasts

1.3 Housing Stock

1.3.1 Housing Units, Tenure, and Characteristics

From 1990 to 2020, the total number of housing units in Long Hill Township grew by 316 units or just over 11 percent (see Table 10). The percentage of total occupied housing units which are owner occupied versus renter occupied has remained relatively stable over the last three decades. However, the number of housing units that are renter occupied is anticipated to increase in the coming years as new multifamily rental developments approved for *Mt. Laurel* compliance are built including the 140 multifamily units on Division Avenue which is part of the redevelopment of the Tifa site in Millington, as well as the 62 multifamily units at 621 Valley Road in Gillette. The number of vacant units spiked in 2010 in the wake of the 2008 housing market crash and subsequent Great Recession. However, that number has decreased in the past decade. The rate at which the Township has added new housing has also declined. For example, the number of housing units grew by 402 units in the 1990s so that the total number in 2000 was 14 percent greater than the total number in 1990. However, the number of units in 2010 represented a change of less than one percent. The estimates for 2020 actually reflect a negative growth. The slowdown is most likely due to the sewer ban; declining land availability, particularly environmentally unconstrained land; and restrictive zoning and environmental regulations. These constraints have the greatest impact on development of traditional single-family detached housing on vacant lots. Affordable housing compliance, changing housing preferences, combined with redevelopment efforts may improve housing unit growth moving forward. The average household size of renter-occupied units has also increased since 2000. The 2016-2020 American Community Survey Five Year estimates list the average household size of renter occupied units in 2020 as 3.04 persons, an increase of 28 percent since 2010 and an increase of 48 percent since 2000.

Table 10: Number of Housing Units, Tenure, and Characteristics, Long Hill Township, 1990-2020

	1990	Percent of Total	2000	Percent of Total	2010	Percent of Total	2020	Percent of Total
All Housing Units	2,804		3,206		3,226		3,120	
Occupied Housing Units	2,743	98%	3,139	98%	3,105	96%	3,021	97%
<i>Owner-Occupied</i>	2,304	84%	2,687	86%	2,657	86%	2,534	84%
<i>Renter Occupied</i>	439	16%	452	14%	448	14%	487	16%
Vacant Housing Units	61	2%	67	2%	121	4%	99	3%
Average Household Size of Owner-Occupied Units	2.95		2.91		2.87		2.76	6%
Average Household Size of Renter-Occupied Units	2.3		2.05		2.37		3.04	-32%

Source: US Census Bureau, Decennial Census 1990, 2000 and 2010; and American Community Survey, 2016-2020 Five-Year Estimates.

1.3.2 Housing Unit Types

Single family detached homes represent 79 percent of all housing units in the Township (see Table 11). The percentage of single-family homes dipped in the 1990s from 84 percent to 79 percent by year 2000. During that same period, the percentage of single-family attached units (i.e., townhouses) doubled from 4 percent of the housing stock to 8 percent. In the first decade after 2000 the percentage of single-family homes increased again to 84 percent before falling to 79 percent in the 2020 estimates. The percentage of townhouses increased in the first decade after 2000 but has decreased in recent years. The percentage of 2 to 4 family buildings has increased significantly from 7 percent of the housing stock in 2000 to 13 percent in 2020 estimates. The number of multifamily units is expected to increase significantly in the coming years once the *Mt. Laurel* projects are constructed.

Table 11: Housing Unit Types, Long Hill Township, 1990-2020

	1990		2000		2010		2020	
	Number of Units	Percent	Number of Units	Percent	Number of Units	Percent	Number of Units	Percent
Single family detached	2,344	84%	2,546	79%	2,593	84%	2,468	79%
Single family attached	124	4%	246	8%	282	9%	196	6%
Two to four family	208	7%	276	9%	60	2%	415	13%
Multi-family	93	3%	117	4%	108	4%	41	1%
Other	35	1%	21	1%	36	1%	-	0%
Total	2,804	100%	3,206	100%	3,079	100%	3,120	100%

Source: US Census Bureau, Decennial Census 1990 and 2000; American Community Survey, 2009-2010 Five-Year Estimates; and American Community Survey, 2016-2020 Five-Year Estimates.

1.3.3 Number of Rooms in Housing Units

Long Hill has a housing stock with relatively large individual units. As indicated in Table 12, the number of housing units with 7 or more rooms make up over 70 percent of the housing stock. This number has steadily increased over the last three decades. In 2000, less than 60 percent of the housing stock had 7 or more rooms. This reflected in the median number of rooms per housing unit which has steadily increased from 6.9 in 1990 to 7.7 in 2020. For comparison's sake, the median number of rooms in 2020 in Morris County was 6.7 which consistent with the median number of rooms in 1990. The number of smaller homes, i.e., 4 rooms or fewer, has fluctuated over the decades in Long Hill but in 2020 made up 11 percent of the housing stock which is consistent with the 1990 housing stock.

Table 12: Number of Rooms, Long Hill Township, 1990-2020

	1990		2000		2010		2020	
	Number of Rooms	Percent	Number of Rooms	Percent	Number of Rooms	Percent	Number of Rooms	Percent
1 to 3 rooms	107	4%	155	5%	158	5%	116	4%
4 rooms	210	7%	154	5%	87	3%	212	7%
5 rooms	284	10%	356	11%	276	9%	160	5%
6 rooms	590	21%	588	18%	438	14%	426	14%
7 rooms	428	15%	562	18%	566	18%	528	17%
8 rooms	550	20%	590	18%	758	25%	632	20%
9 rooms or more	635	23%	801	25%	796	26%	1,046	34%
Total	2,804		3,206		3,079		3,120	
Median Number of Rooms	6.9		7.1		7.5		7.7	

Source: US Census Bureau, Decennial Census 1990 and 2000; American Community Survey, 2009-2010 Five-Year Estimates; and American Community Survey, 2016-2020 Five-Year Estimates.

1.3.4 Number of Bedrooms in Occupied Housing Units

The occupied housing units in Long Hill have a larger percentage of units with 4 or more bedrooms (46 percent) than either Morris County (37 percent) or the State of New Jersey (26 percent) indicating that the housing stock in Long Hill is larger than either the County or the State on a percentage basis (see Table 13). Additionally, the Township has only 5 percent of total occupied units that are studio or one-bedroom units whereas the County has 15 percent, and the State has 17 percent. The lower numbers of smaller units indicates a limited housing supply for smaller households.

Table 13: Number of Bedrooms in Occupied Housing Units in Long Hill Township, Morris County, and New Jersey, 2020

	Long Hill Township		Morris County		New Jersey	
	Number	Percent	Number	Percent	Number	Percent
No bedroom	0	0%	3,175	2%	84,914	3%
1 bedroom	168	5%	25,824	13%	452,942	14%
2-3 bedrooms	1,497	49%	92,888	48%	1,896,916	58%
4 or more bedrooms	1,414	46%	72,539	37%	837,282	26%
Total housing units	3,079	100%	194,426	100%	3,272,054	100%

Source: American Community Survey, 2016-2020 Five-Year Estimates.

1.3.5 Number of Cars Available for Occupied Housing Units

Residents of Long Hill are generally dependent on having access to a car. Less than one percent of the occupied housing units have no cars available whereas in the County that number is 5 percent and for the State that number is 11 percent. Close to 80 percent of the occupied housing units have 2 or more vehicles compared to 67 percent for the County and 55 percent for the State. The number of vehicles per housing units is an indicator on resident’s reliance on automobiles to get around the Township and the region which has implications on parking requirements appropriate for the Township, particularly for new multifamily projects,

Table 14: Number of Cars Available in Occupied Housing Units in Long Hill Township, Morris County, and New Jersey, 2020

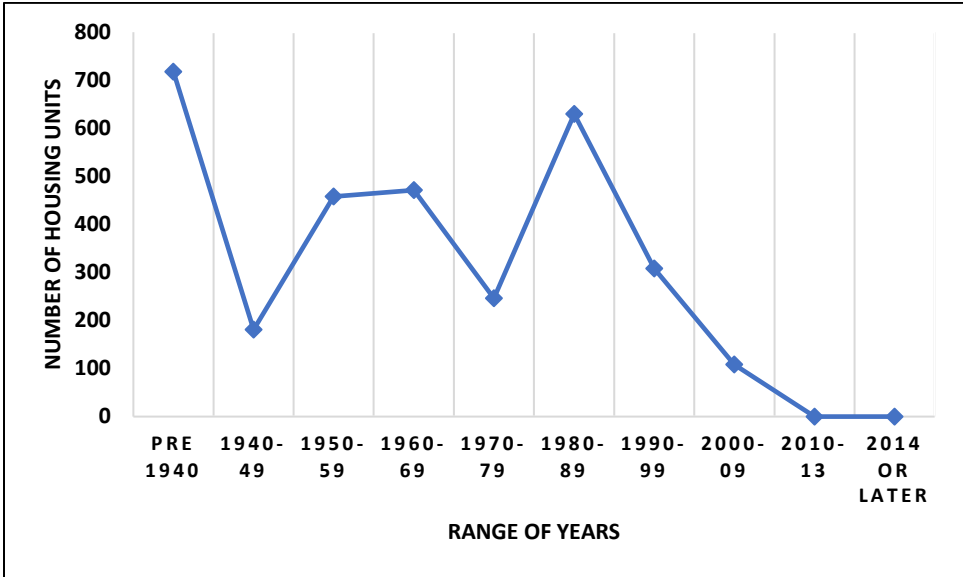
	Long Hill		Morris County		State of NJ	
	Number	Count	Number	Count	Number	Count
No vehicles available	26	1%	8,996	5%	367,585	11%
1 vehicle available	590	20%	51,320	28%	1,104,179	34%
2 vehicles available	1,582	52%	78,258	42%	1,180,596	36%
3 or more vehicles available	823	27%	45,588	25%	619,694	19%
Occupied housing units	3,021	100%	184,162	100%	3,272,054	100%

Source: American Community Survey, 2016-2020 Five-Year Estimates.

1.3.6 Age of Housing Stock

Table 13 provides estimated construction dates for all housing in Long Hill. Much of the existing housing stock was built either before 1940 or during the 1980s. There are significantly fewer homes built since 2000. Similar to the growth rate in housing units, the slowdown is most likely due to the sewer ban; declining land availability, particularly environmentally unconstrained land; and restrictive zoning and environmental regulations. Affordable housing compliance, changing housing preferences, combined with redevelopment efforts may improve housing unit growth moving forward.

Table 13: Date of Construction of Existing Housing Units, Long Hill Township, 2020



Source: American Community Survey, 2016-2020 Five-Year Estimates.

1.3.7 Recent Home Construction and Demolitions

Certificate of occupancy data are summarized in Table 14 to examine recent home construction trends in Long Hill since 2000 and 2021 which is the latest year for which data is available. This information is collected from the New Jersey Construction Reporter which is published online via the New Jersey Department of Community Affairs website. Every month, construction officials submit reports on building permits and certificates of occupancy. Certificates of occupancy give indicators on the end of the construction process, when buildings are completed and ready for occupancy. Construction data are one of the few indicators available from every town every month. In the first decade of the new Millennium the Township added a net positive of 61 units. Between 2010 and 2020 the Township removed a net negative of about 53 units. Similarly in 2020, the Township saw two residential units demolished and none added, whereas in 2021, the Township saw two residential units added and none demolished. Over the 20 plus years, the Township experienced a net positive of 8 units. However, there are likely to be more certificates of occupancy issued than demolition permits in the coming years as the *Mt. Laurel* projects are constructed and the sewer ban is lifted.

Table 14: Residential Certificates of Occupancy and Demolition Permits, Long Hill Township, 2000-2020

	Certificates of Occupancy for Residential Units	Demolition Permits for Residential Units	Net Housing
2000	18	0	18
2001	16	2	14
2002	17	4	13
2003	5	1	4
2004	13	7	6
2005	9	10	-1
2006	5	1	4
2007	3	6	-3
2008	6	2	4
2009	6	4	2
2010	2	1	1
2011	2	2	0
2012	2	3	-1
2013	3	1	2
2014	3	3	0
2015	4	2	2
2016	1	28	-27
2017	1	25	-24
2018	0	5	-5
2019	1	2	-1
2020	0	2	-2
2021	2	0	2
Totals	119	111	8

Source: NJ Construction Reporter.

1.3.8 Housing Unit Density

Long Hill has an average housing density of 0.40 housing units per acre, which is significantly lower than the County or the State (see Table 15). However, it should be noted that of Long Hill's 7,808 acres of land, approximately 2,600 acres is part of The Great Swamp National Wildlife Refuge, the County owns close to 600 acres of open space and parkland, the State DEP owns over 100 acres of open space and parkland, and the Township owns approximately 600 acres of land. The housing unit density of the remaining areas is closer to the housing unit density of the State of New Jersey.

Table 15: Housing Unit Density, Long Hill Township, Morris County, State of New Jersey in 2020

	Long Hill	Morris County	New Jersey
Land Area (acres)	7,808	305,792	4,779,520
Total Housing Units	3,120	194,282	3,761,229
Units Per Acre	0.40	0.64	0.79

Source: US Census Bureau, Decennial Census 2020.

1.3.9 Length of Tenancy

Long Hill residents have a longer length of tenancy in their housing units than residents of either Morris County or the State of New Jersey indicating that residents remain in their homes for longer lengths of times than residents elsewhere in the State (see Table 16). Almost a quarter of residents have lived in their current place of residency for over 30 years compared to just 17 percent and 15 percent in the County and State, respectively. Approximately 45 percent of Township residents have lived in their home for over 20 years compared to 33 percent and 29 percent in the County and State, respectively. The percentage of residents who moved into their homes between 2015 and 2020 is significantly lower in the Township (16 percent) compared to the County (26 percent) and State (29 percent).

Table 16: Length of Residency, Long Hill Township, Morris County, State of New Jersey in 2020

	Long Hill Township		Morris County		State of New Jersey	
	Number	Percent	Number	Percent	Number	Percent
Moved in 2019 or later	61	2%	6,934	4%	131,445	4%
Moved in 2015 to 2018	427	14%	41,258	22%	797,407	24%
Moved in 2010 to 2014	524	17%	31,861	17%	622,681	19%
Moved in 2000 to 2009	633	21%	44,214	24%	794,753	24%
Moved in 1990 to 1999	642	21%	28,762	16%	448,598	14%
Moved in 1989 and earlier	734	24%	31,133	17%	477,170	15%
Total Occupied housing units	3,021	100%	184,162	100%	3,272,054	100%

Source: US Census Bureau, Decennial Census 2020.

1.3.10 Housing Value

As Tables 16 shows, housing value in Long Hill is generally higher than in Morris County as a whole. In 2020 the median value of owner-occupied housing units in the Township was \$591,100 compared to \$462,100 in the county. Notably, the great majority (64 percent) of owner-occupied housing units in the Township are valued between \$500,000 and \$999,999, and the Township has no occupied housing stock worth less than \$200,000. In contrast, in Morris County the majority (57 percent) of occupied housing units are valued below \$500,000.

Table 16: Value of Owner-occupied Housing Units in Long Hill Township and Morris County, 2020

VALUE	Long Hill		Morris County	
	Number	Percent	Number	Percent
Less than \$50,000	0	-	1,120	1%
\$50,000 to \$99,999	0	0%	1,239	1%
\$100,000 to \$149,999	0	0%	1,232	1%
\$150,000 to \$199,999	0	0%	3,216	2%
\$200,000 to \$299,999	95	4%	16,004	12%
\$300,000 to \$499,999	708	28%	54,819	40%
\$500,000 to \$999,999	1,615	64%	50,010	37%
\$1,000,000 or more	116	5%	8,347	6%
Total Occupied Housing Units	2,534	100%	135,987	100%
Median (dollars)	\$ 591,100		\$ 462,100	

Source: American Community Survey, 2016-2020 Five-Year Estimates.

1.3.11 Housing Rents

As shown in Table 17, the median gross rent of renter-occupied housing units in the Township was \$1,829 compared to \$1,622 in the County. Of renter-occupied units, 27 percent have gross rents over \$3,000 compared to just 7 percent in the County. The construction of rental housing associated with Mt. Laurel affordable housing mandates may have only a minor impact on the level of future median contract rents as these units, where proposed, typically make up less than 20% of rental units in any given project.

Table 17: Gross Rent of Renter-Occupied Housing Units in Long Hill Township and Morris County, 2020

	Long Hill		Morris County	
	Number	Percent	Number	Percent
Cash Rent for Occupied Units Paying Rent	481		46,821	
Less than \$500	0	0%	2,355	5%
\$500 to \$999	39	8%	2,799	6%
\$1,000 to \$1,499	116	24%	15,186	32%
\$1,500 to \$1,999	130	27%	12,558	27%
\$2,000 to \$2,499	49	10%	6,981	15%
\$2,500 to \$2,999	18	4%	3,736	8%
\$3,000 or more	129	27%	3,206	7%
Median (dollars)	\$1,829		\$1,622	
No rent paid	6	1%	1,354	3%

Source: American Community Survey, 2016-2020 Five-Year Estimates.

1.4 Labor Characteristics

1.4.1 Employment

Table 18 illustrates the employment characteristics of Long Hill residents 16 and over. During the period between 2000 and 2020, the population of Long Hill 16 years and older grew by 6 percent but the percent of that population in the work force increased by less than 1 percent. Additionally, the percentage of residents 16 and over not in the labor force increased.² This is indicative of a residents of retirement age have increased. The number and percentage of residents in the labor force that are unemployed has gone up significantly over the past two decades. The unemployment numbers increased significantly between the 2010 and 2000 Census most likely due to the 2008 financial crisis triggering the Great Recession It should be noted that the numbers below do not reflect part-time workers.

Table 18: Employment Status in Long Hill Township 2000-2020³

	2000	2010	2020	Percent Change Since 2000
	Number	Number	Number	Percent
Population 16 years and older	6,638	6,595	7,032	6%
In Labor Force	4,559	4,471	4,601	0.9%
<i>% of Population 16 years and Older In Labor Force</i>	69%	68%	65%	
Civilian Labor Force	4,559	4,471	4,601	0.9%
<i>% of Labor Force in Civilian Labor Force</i>	100%	100%	100%	
Employed Civilian Labor Force	4,431	4,205	4,305	(3%)
<i>% of Civilian Labor Force Employed</i>	97%	94%	94%	
Unemployed Civilian Labor Force	128	266	296	131%
<i>% of Civilian Labor Force Unemployed</i>	2.8%	5.9%	6.4%	
Armed Forces	0	0	0	
Not in Labor Force	2,079	2,124	2,431	17%

² Not in labor force includes all people 16 years old and over who are not classified as members of the labor force. This category consists mainly of students, housewives, retired workers, seasonal workers interviewed in an off season who were not looking for work, institutionalized people, and people doing only incidental unpaid family work (less than 15 hours during the reference week).

³ The labor force includes all people classified in the civilian labor force (non-institutionalized civilians), plus members of the U.S. Armed Forces (people on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard). The civilian labor force consists of people classified as employed or unemployed.

% of Population 16 years and Older Not In Labor Force	31%	32%	35%	
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Source: US Census Bureau, Decennial Census 2000; American Community Survey, 2009-2010 Five-Year Estimates; and American Community Survey, 2016-2020 Five-Year Estimates.

1.4.2 Industry Groups of Long Hill Resident Work Force

The major industries in which Township residents are employed have stayed relatively consistent, and include the following sectors: Educational services, and health care and social assistance; and finance and insurance, and real estate and rental and leasing; and professional, scientific, and management, and administrative and waste management services. Notably, there has been a significant increase in residents employed in the Arts, entertainment, and recreation, and accommodation and food services sector; and a significant decrease in the number of residents engaged in manufacturing.

Table 19: Employed Residents by Industry in Long Hill Township, 2000 and 2020

	2000		2020		Percent Change Since 2000
	Count	Percent	Count	Percent	Percent
Agriculture, forestry, fishing and hunting, and mining	19	0.4%	0	0.0%	-100%
Arts, entertainment, and recreation, and accommodation and food services	295	6.7%	471	10.9%	60%
Construction	244	5.5%	142	3.3%	-42%
Educational services, and health care and social assistance	810	18.3%	820	19.0%	1%
Finance and insurance, and real estate and rental and leasing	573	12.9%	722	16.8%	26%
Information	338	7.6%	198	4.6%	-41%
Manufacturing	647	14.6%	367	8.5%	-43%
Other services, except public administration	165	3.7%	207	4.8%	25%
Professional, scientific, and management, and administrative and waste management services	513	11.6%	605	14.1%	18%
Public administration	140	3.2%	200	4.6%	43%
Retail trade	378	8.5%	405	9.4%	7%

Transportation and warehousing, and utilities	134	3.0%	93	2.2%	-31%
Wholesale trade	175	3.9%	75	1.7%	-57%
Civilian employed population 16 years and over	4,431		4,305		

Source: US Census Bureau, Decennial Census 2000; American Community Survey, 2016-2020 Five-Year Estimates.

1.4.3 Income Levels

Table 21 shows that the median household income of residents in 2020 in Long Hill Township was significantly more than the residents in Morris County as a whole. The median household income in 2020 for Long Hill residents was \$136,542 which was 16 percent higher than for residents of the County as a whole which had a median income of \$117,298. Approximately 72 percent of Long Hill residents reported incomes of \$100,000 or greater whereas only 57 percent of County residents reported incomes of \$100,000 or greater.

Table 21: Income Levels for Long Hill Township and Morris County Employed Labor Force, 2020

	Long Hill Township		Morris County	
	Number	Percent	Number	Percent
Less than \$10,000	30	1%	5,112	3%
\$10,000 to \$14,999	36	1%	3,336	2%
\$15,000 to \$24,999	116	4%	7,187	4%
\$25,000 to \$34,999	101	3%	7,414	4%
\$35,000 to \$49,999	156	5%	12,353	7%
\$50,000 to \$74,999	244	8%	21,877	12%
\$75,000 to \$99,999	167	6%	21,479	12%
\$100,000 to \$149,999	780	26%	35,992	20%
\$150,000 to \$199,999	416	14%	24,849	13%
\$200,000 or more	975	32%	44,563	24%
Total households	3,021		184,162	
Median household income (dollars)	\$136,542.00		\$117,298.00	
Mean household income (dollars)	\$189,160.00		\$156,161.00	

Source: American Community Survey, 2016-2020 Five-Year Estimates.

1.5 Non-Residential Construction and Employers in Long Hill

1.5.1 Non-Residential Construction Activity

Table 22 shows the square footage of non-residential certificates of occupancy issued between 2000 and 2021 per the New Jersey Construction reporter. Since 2000 the most significant non-residential development that was constructed was retail and “other assembly uses” which includes libraries, museums, places of worship, community centers, etc. Other square footage constructed included for office. educational purposes from daycare centers through the 12th grade, and buildings categorized as “utility and miscellaneous.” Utility and miscellaneous buildings include, but are not limited to, the following: agriculture buildings; fences more than 6 feet in height; greenhouses; stables, retaining walls, tanks, and towers. There were also certificates of occupancy granted for restaurants/bars/taverns; theaters; and storage. Notably, there was no industrial construction or hotels/motels.

Table 22: Square Footage of Non-Residential Certificates of Occupancy Issued, 2000-2021

Year	Office	Retail	Theaters	Restaurants/ Bars/Taverns	Other Assembly Uses	Hotel/ Motel	Education	Industrial	Institutional	Storage	Utility & Misc	Total By Year
2000	0	7,942	0	0	0	0	0	0	0	0	1,656	9,598
2001	2,382	0	0	0	0	0	0	0	0	0	4,752	7,134
2002	0	35,874	0	0	0	0	0	0	0	0	4,668	40,542
2003	1,036	0	0	6,006	52,560	0	0	0	0	0	1,532	61,134
2004	6,850	0	4,179	0	5,293	0	0	8,640	0	6,000	3,455	34,417
2005	27,704	0	0	0	16,115	0	0	0	0	1,020	3,352	48,191
2006	3,438	0	0	0	0	0	0	0	0	5,600	572	9,610
2007	0	0	0	0	0	0	56,220	0	0	0	0	56,220
2008	0	0	0	0	480	0	0	0	0	0	2,728	3,208
2009	0	0	0	0	0	0	0	0	0	0	240	240
2010	1,809	35,874	0	0	0	0	0	0	0	0	1,890	39,573
2011	0	0	0	0	0	0	0	0	0	0	2,280	2,280
2012	2,945	277	0	0	0	0	0	0	0	0	2,208	5,430
2013	0	0	0	0	0	0	0	0	0	0	0	0
2014	0	12,610	0	0	0	0	0	0	0	0	929	13,539
2015	4,415	0	0	0	0	0	0	0	0	0	5,833	10,248
2016	4,400	0	0	0	0	0	0	0	0	0	1,467	5,867
2017	0	0	0	0	0	0	0	0	0	0	1,097	1,097
2018	0	0	0	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	8,611	0	0	0	0	8,611
2020	0	0	0	0	0	0	0	0	0	0	864	864
2021	0	0	0	0	0	0	0	0	0	0	0	0
Totals	54,979	92,577	4,179	6,006	74,448	0	64,831	8,640	0	12,620	39,523	357,803

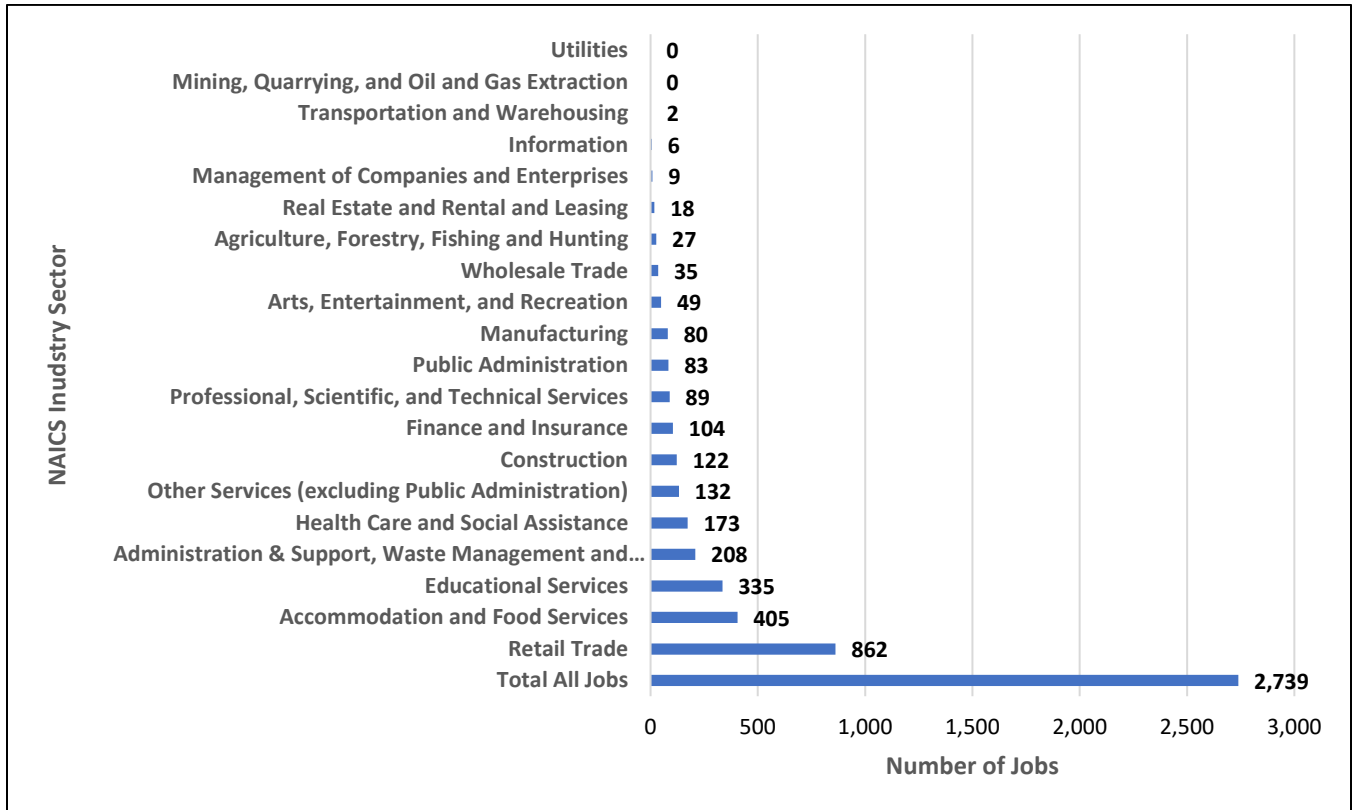
Note: Does not include Multifamily/Dormitory uses.

Source: NJ Department of Community Affairs, Construction Reporter, Certificates of Occupancy Yearly Summary Data, 2000-2021.

1.5.2 Employers Located in Long Hill

According to the US Census Bureau, in 2019 there were 2,739 jobs in Long Hill. The large majority of those jobs (862 jobs or 32 percent of the total) were in the retail trade followed by the accommodation and restaurant services (405 jobs or 14.8 percent of the total), and the educational services (335 jobs or 12.2 percent of the total).

Table 23: Job Counts by NAICS Industry Sector in Long Hill Township, 2019



Source: United States Census Bureau, On the Map, 2019.

Table 24 shows that between 2002 and 2019, Long Hill lost 350 jobs. The largest losses were in the construction sector (706 jobs lost) and the manufacturing sector (142 jobs lost). The largest gains were in the accommodation and food services sectors which includes restaurant and bar workers.

Table 24: Job Counts by NAICS Industry Sector in Long Hill Township, 2002 and 2019

	2002		2019		Change Since 2002 Count
	Count	Share	Count	Share	
Total All Jobs	3,089	100.00%	2,739	100.00%	-350
Retail Trade	721	23.34%	862	31.50%	141
Accommodation and Food Services	236	7.64%	405	14.80%	169
Educational Services	223	7.22%	335	12.20%	112
Administration & Support, Waste Management and Remediation	106	3.43%	208	7.60%	102
Health Care and Social Assistance	84	2.72%	173	6.30%	89
Other Services (excluding Public Administration)	96	3.11%	132	4.80%	36
Construction	828	26.80%	122	4.50%	-706
Finance and Insurance	78	2.53%	104	3.80%	26
Professional, Scientific, and Technical Services	162	5.24%	89	3.20%	-73
Public Administration	79	2.56%	83	3.00%	4
Manufacturing	222	7.19%	80	2.90%	-142
Arts, Entertainment, and Recreation	15	0.49%	49	1.80%	34
Wholesale Trade	76	2.46%	35	1.30%	-41
Agriculture, Forestry, Fishing and Hunting	58	1.88%	27	1.00%	-31
Real Estate and Rental and Leasing	23	0.74%	18	0.70%	-5
Management of Companies and Enterprises	0	0.00%	9	0.30%	9
Information	59	1.91%	6	0.20%	-53
Transportation and Warehousing	21	0.68%	2	0.10%	-19
Mining, Quarrying, and Oil and Gas Extraction	0	0.00%	0	0.00%	0
Utilities	2	0.06%	0	0.00%	-2

Source: United States Census Bureau, On the Map, 2002 and 2019.

Appendix B: Community Survey Summary



UNLOCKING POTENTIAL
IN PLACES YOU LOVE

MEMORANDUM

DATE: July 22, 2020
TO: Long Hill Master Plan Committee
FROM: Topology
SUBJECT: LAND USE ASSESSMENT FINDINGS

Master Plan Committee Preface

The 2020 Long Hill Township Master Plan Land Use Assessment Survey was conducted this Spring by Topology, a Town Planning consulting firm based in Newark, NJ. Focusing upon the Township's village sections and Valley Road Business District, over 400 respondents completed the Survey and shared their thoughts through written comments.

In general, residents would like to see unappealing properties removed and replaced with more aesthetically desirable options focusing upon tasteful, small-scale retail/business establishments and social spaces for entertainment and dining. These views are consistent with open space, environmental and sustainability considerations, including measures to protect local waterways and create walkways/trails to link the distinct and unique sections of the Township.

Overall, residents continue to enjoy the semi-rural and small scale feel of Long Hill which echoes the general survey conducted in 2016.

The Master Plan Committee would like to thank the over 400 residents who responded to the Assessment and look forward to incorporating this information in the Master Plan Land Use Element.

Overview

This assessment was designed to collect input on various land use planning concepts as part of the adoption of Long Hill Township's Master Plan. The assessment was open to the public from April 20, 2020 to May 22, 2020, during which time, 411 individuals participated. The 30 questions included a mix of multiple choice, ranking and open-ended response fields which

explored the respondent's personal connections to Long Hill, and proposals for each of the Township's distinct Villages and commercial areas. Respondents were not required to answer each question, and as such the percentages included are a reflection of the total number of comments received for a particular category among respondents for that specific question. Advertisements for the survey were published in the Echoes-Sentinel newspaper, and links were posted on the Township website.



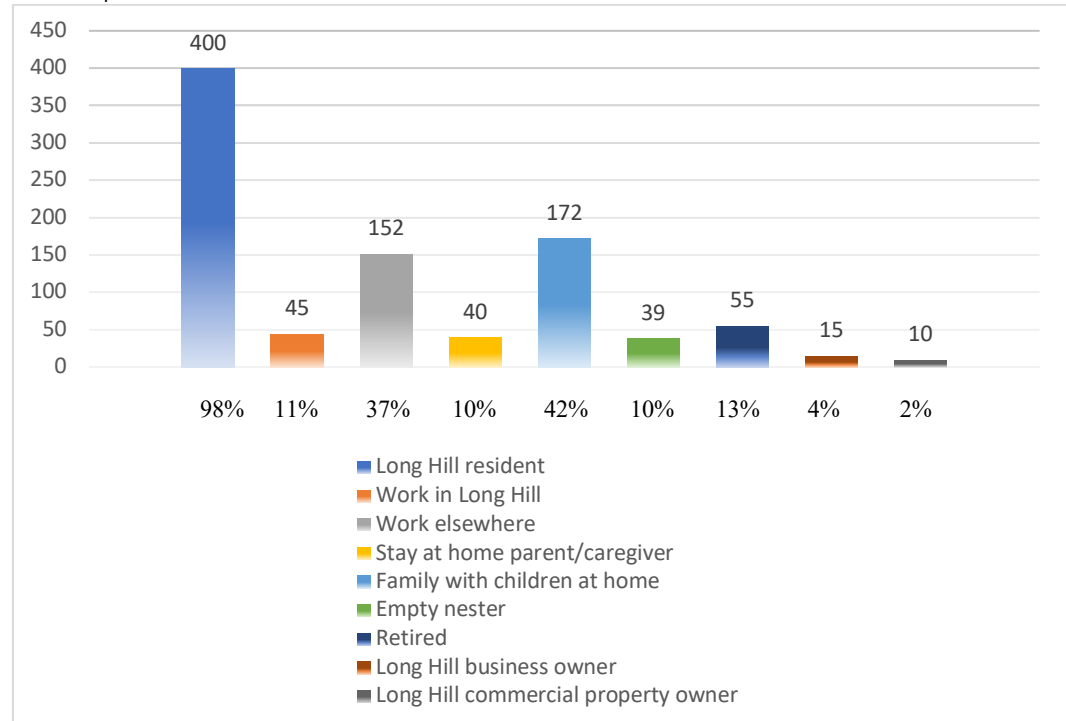
Demographics

Average Years of Long Hill Residence: 19

407 respondents

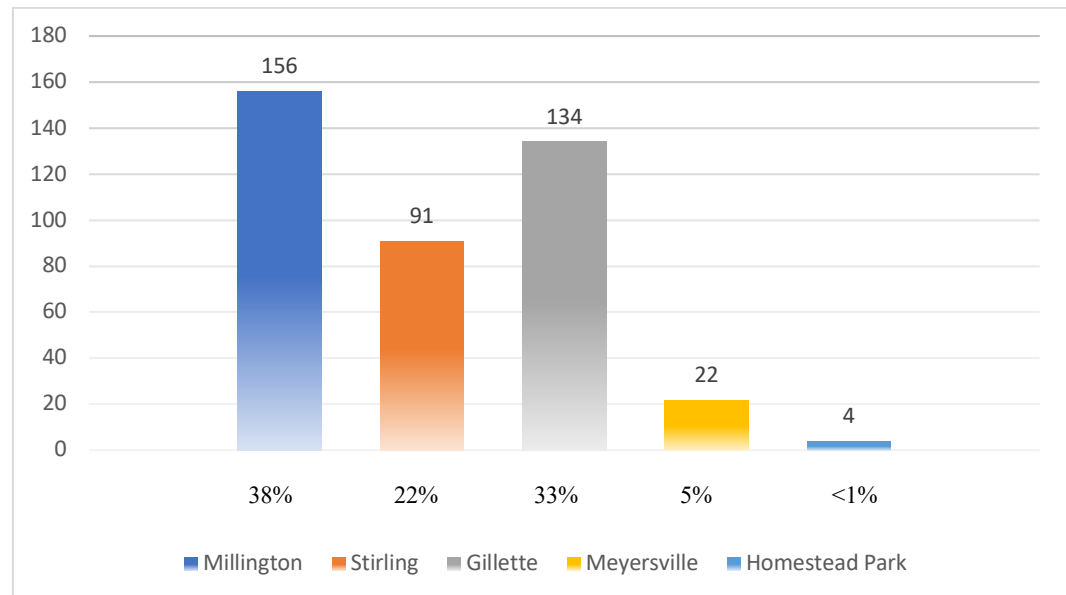
Respondent Profiles:

410 respondents



In which part of Long Hill do you live?

407 respondents

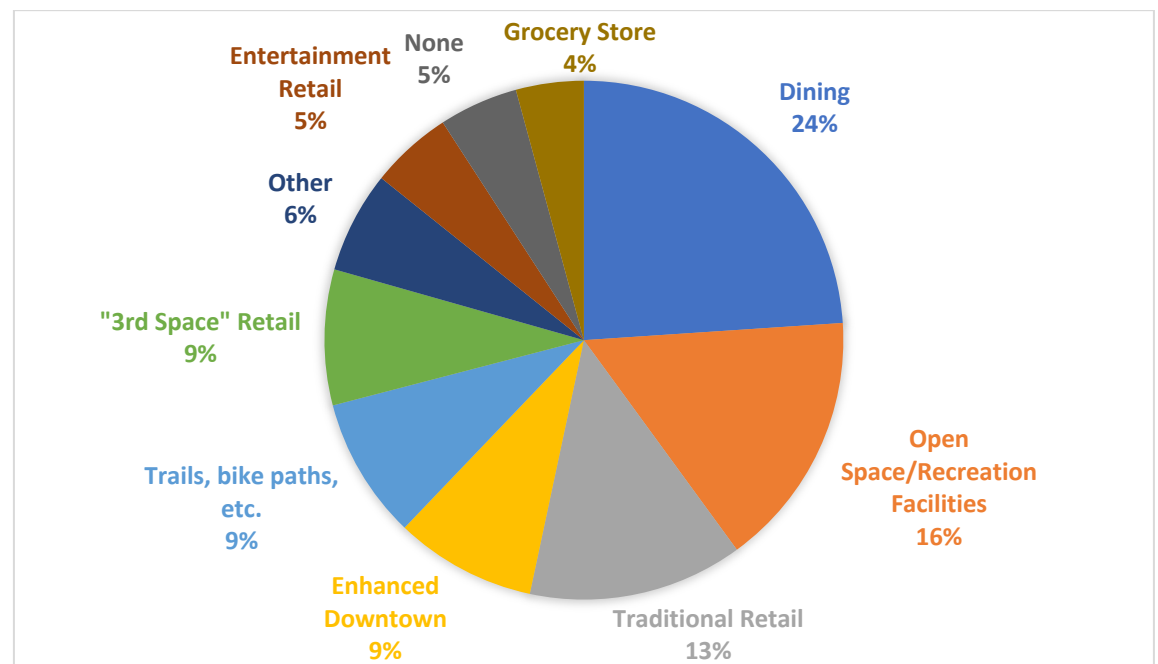


Facilities/Amenities/Shopping and Entertainment

351 respondents

When asked about which facilities, amenities, shopping, and entertainment options were most needed in Long Hill, survey respondents indicated a preference for destinations such restaurants, public open spaces, and "3rd Space" retail options like coffee shops. Connectivity, particularly to destinations such as train stations, parks and commercial districts also emerged as a high priority for respondents.

Interpretation: The frequency of responses expressing an interest in more social spaces indicated a high degree of desire among respondents for more places to gather with their fellow residents.

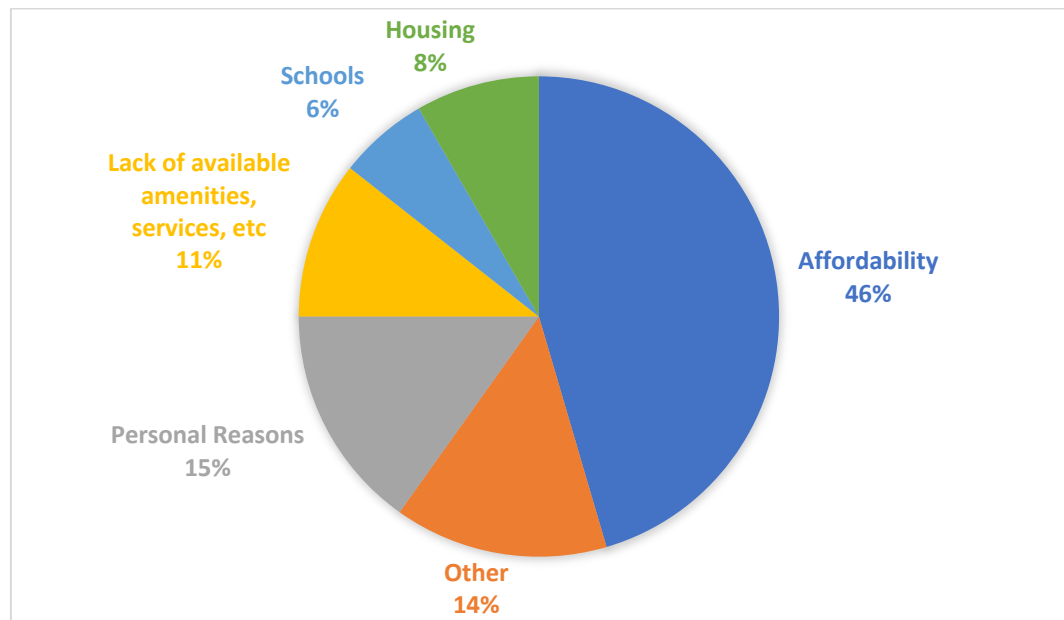


Reasons for Leaving the Township

401 respondents (112 intend to leave within 10 years)

Among the reasons that the approximately 28% of Township residents who indicated they were likely to leave Long Hill within the next ten years, those associated with the cost of living were the most common. Other reasons included dissatisfaction with the school system, available amenities, a lack of suitable housing options, and various other quality of life factors.

Interpretation: The overall percentage of residents stating they intend to leave the Township is comparable to other communities where this question has been posed. The explanations offered appear to reflect difficulties with the cost of living in northern New Jersey such as taxes and the expense of real estate, goods and services.



Support for Sustainability Strategies

404 respondents

Apart from increased electric vehicle charging stations, all proposed sustainability strategies enjoyed a net positive level of public support. Bio-retention strategies for stormwater management enjoyed very strong support with over 50% of respondents rating them as “very important”.

Strategy	Weighted Average (1 – 5)*
Environmental standards (EnergyStar, LEED, etc.) in new building and remodeling projects	3.67
Vegetated buffers and green infrastructure to protect local waterways from run-off pollution	4.19
Increase the availability of electric vehicle charging stations	2.49
Solar panels in areas unsuitable for development, over parking lots, or on rooftops	3.09
Expand the availability of recycling and composting facilities	3.52
Discourage the use of single-use plastic items such as shopping bags and water bottles	3.14

* 1 = not important; 5 = very important

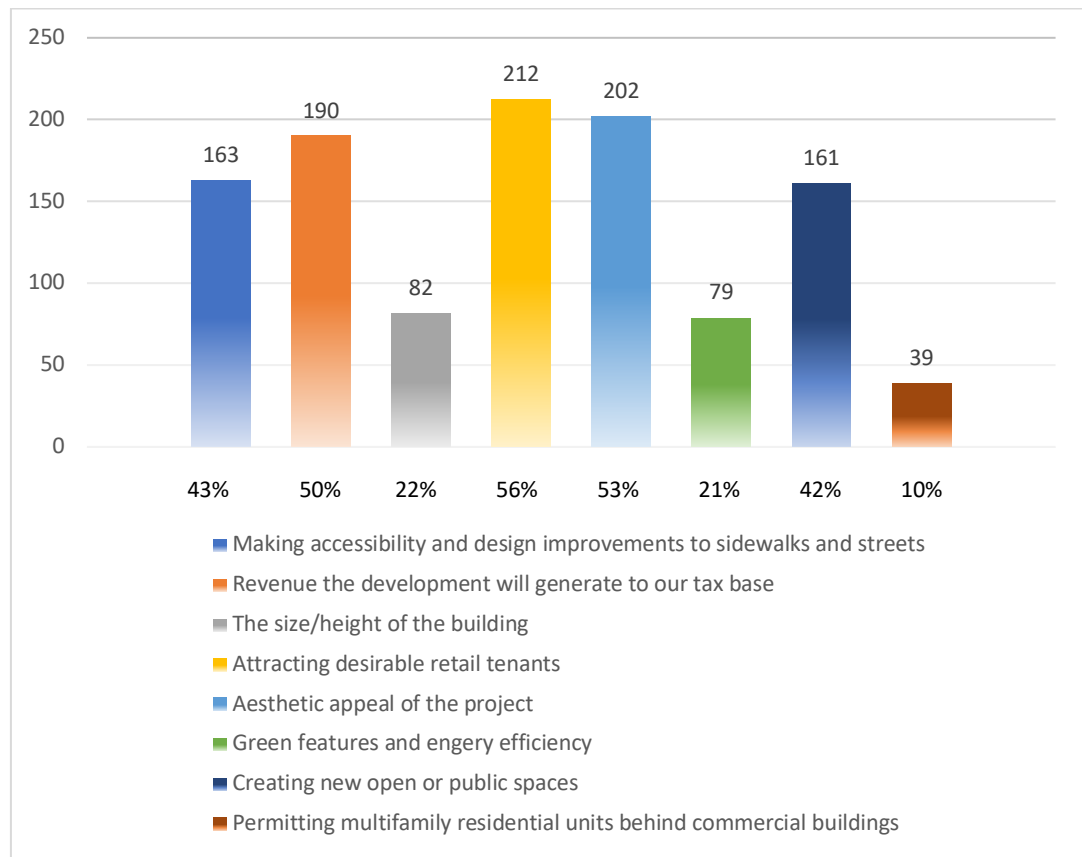
Downtown Long Hill (Valley Road)

What is most important to you in consideration of potential development in the Valley Road Business District? Pick your top three and explain why.

379 respondents

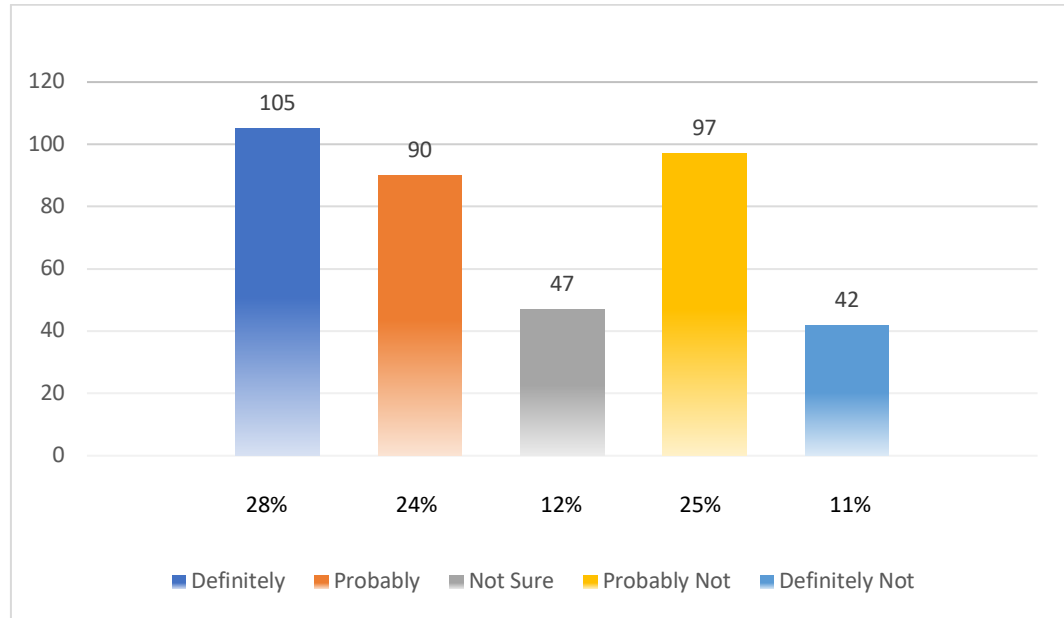
Respondents indicated that additional commercial destinations would be the most important consideration for them regarding development along Valley Road. They also prioritized the fiscal impact of any future development in the Valley Road district, with many expressing their approval for ways to increase the presence of ratables and lower tax burdens on residents. Aesthetic concerns were another high priority, with many respondents expressing the desire for more attractive storefronts and landscaping, as well as the hope that dilapidated buildings along Valley Road could be either renovated or removed.

Interpretation: Overall, responses showed a larger theme of wanting to see a human-oriented shopping district that is safe to traverse, pleasant for families to dine or relax in, and containing a healthy mix of retail options that could appeal to a wider range of patrons.



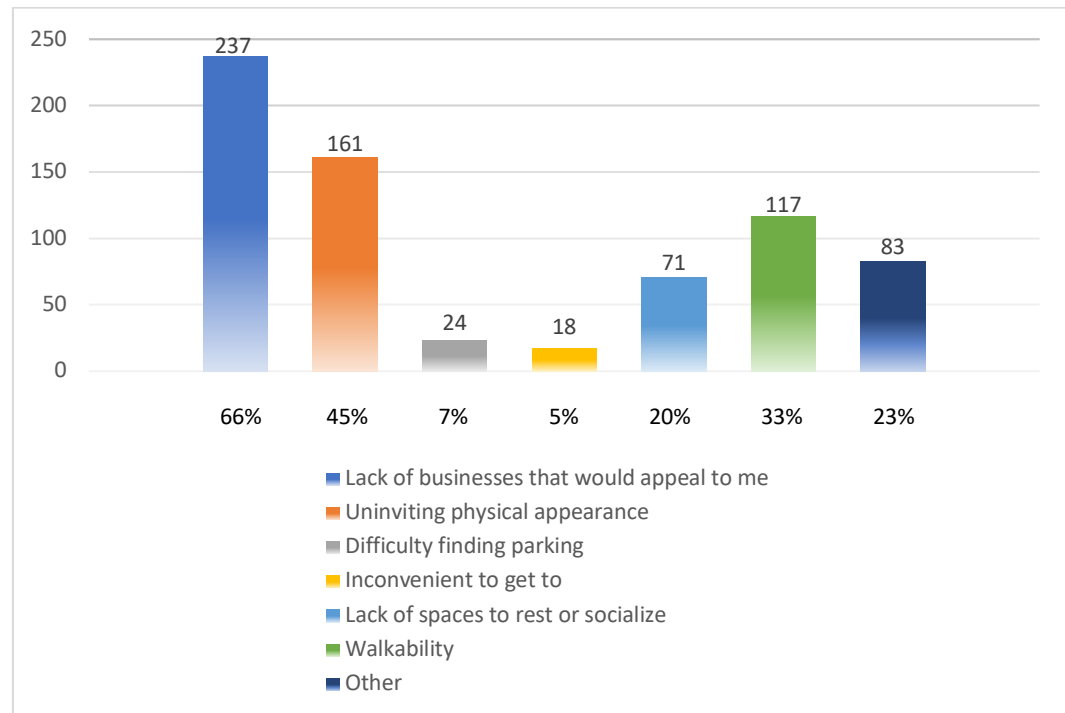
Would improved pedestrian connectivity to the Valley Road Business District from the various residential neighborhoods of the Township increase your patronage of the businesses in this area?

381 respondents

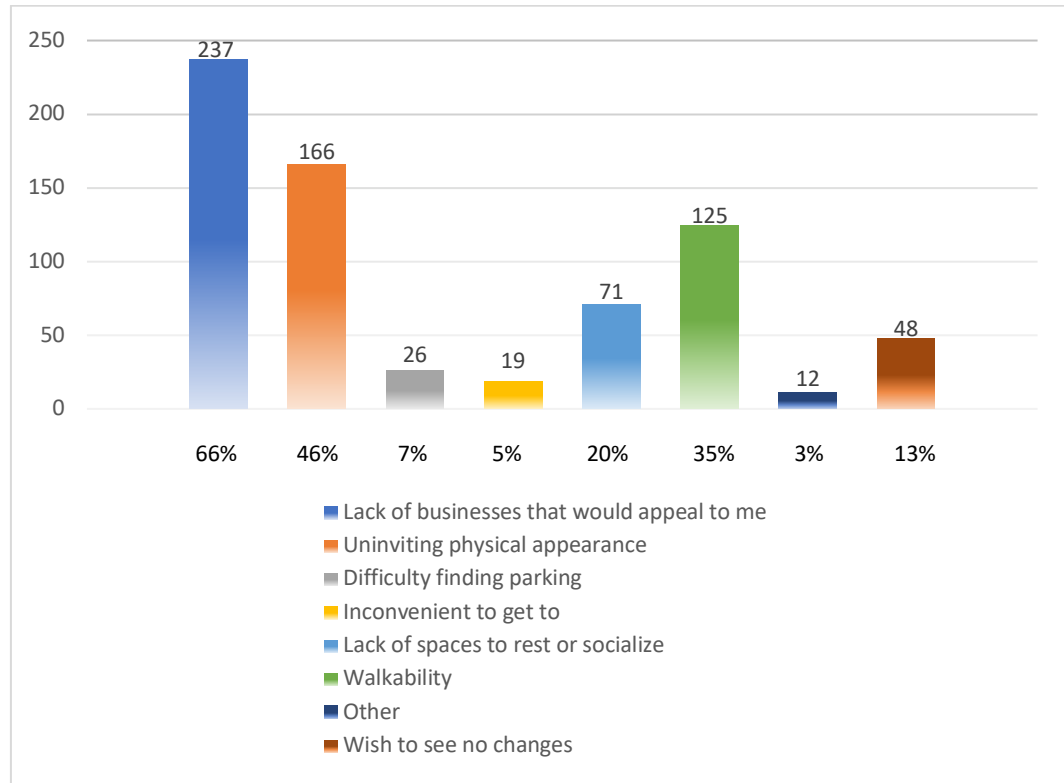


What keeps you from patronizing the shops and services in the Valley Road Business District more frequently? (Check all that apply)?

358 respondents



When asked to identify the factors which keep residents from utilizing the shops and services in the Valley Road Business District, the lack of appealing businesses emerged as the most prevalent reason.

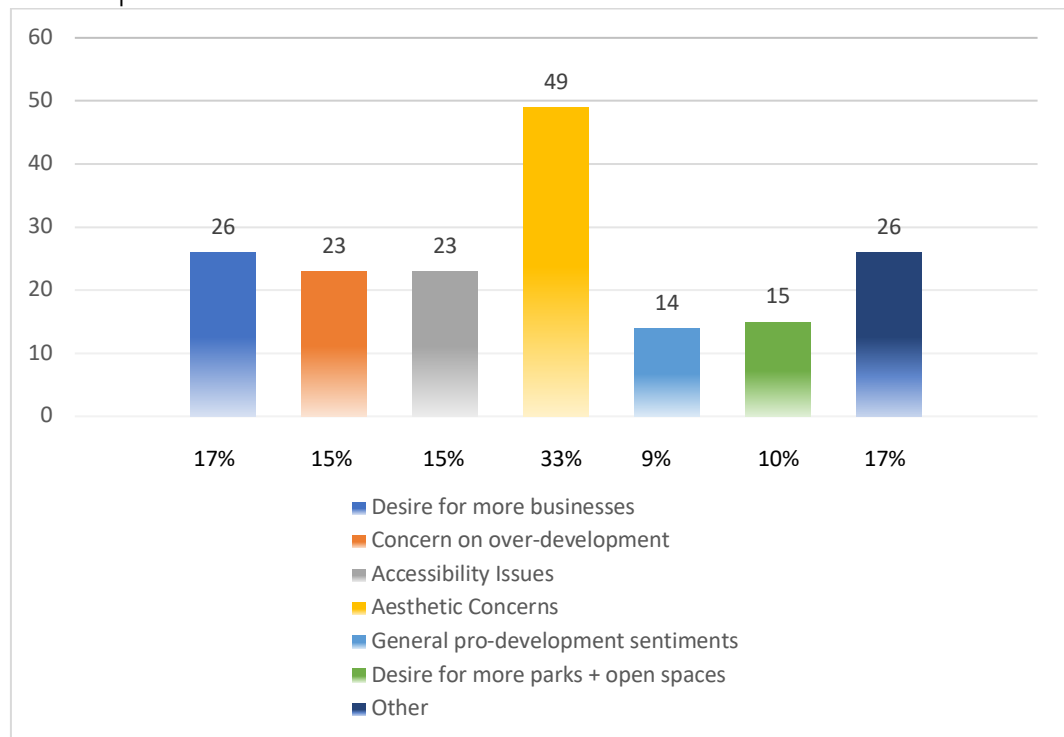


For those who selected “Other”, most indicated that there was nothing that could be done that would increase their utilization of the District, with many praising its existing features and not wishing to see them changed. Other comments received could be categorized into one of the response categories above. The table below illustrates the responses to this question with those responses added to the prior selections. The “other” in this instance includes respondents whose comments were either not relevant to Valley Road or those expressing concerns about the long-term viability of “brick and mortar” retail.

Valley Road General Comments

150 respondents

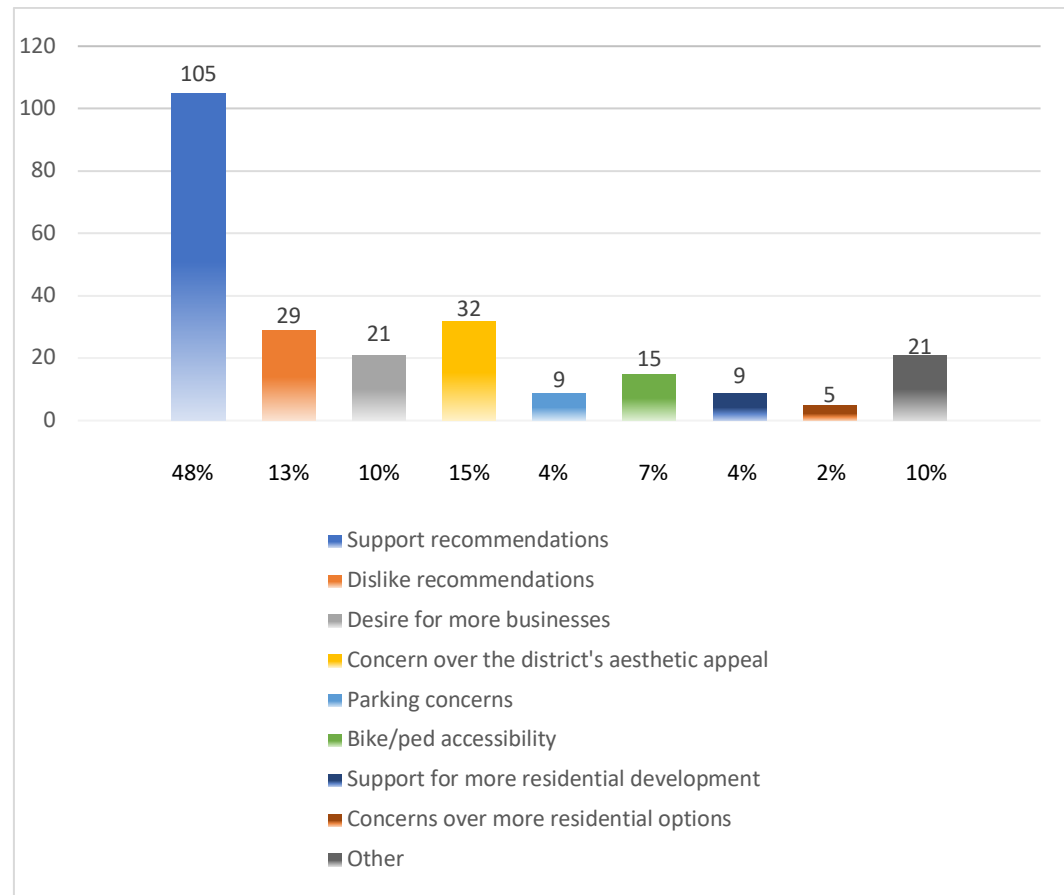
General feedback received from the public regarding the Valley Road Business District identified some aspects of the District residents felt needed the most improvement, along with concerns residents had for the district's future. The lack of appealing businesses in the area emerged as the most prevalent concern among respondents when asked what kept them from utilizing the Valley Road commercial areas more frequently. General concerns for the district appeared to be centered around the aesthetic appeal of the area. Among the respondents who cited the area's physical appearance as a major concern, 16 specifically identified the vacant buildings on the north side of Valley Road (eg: Thermoplastics, car wash) as particularly troubling areas. Comments received that are categorized as "other" included those who took the chance to voice their opposition to affordable housing or to offer suggestions for unrelated parts of the Township.



Stirling Village

220 respondents

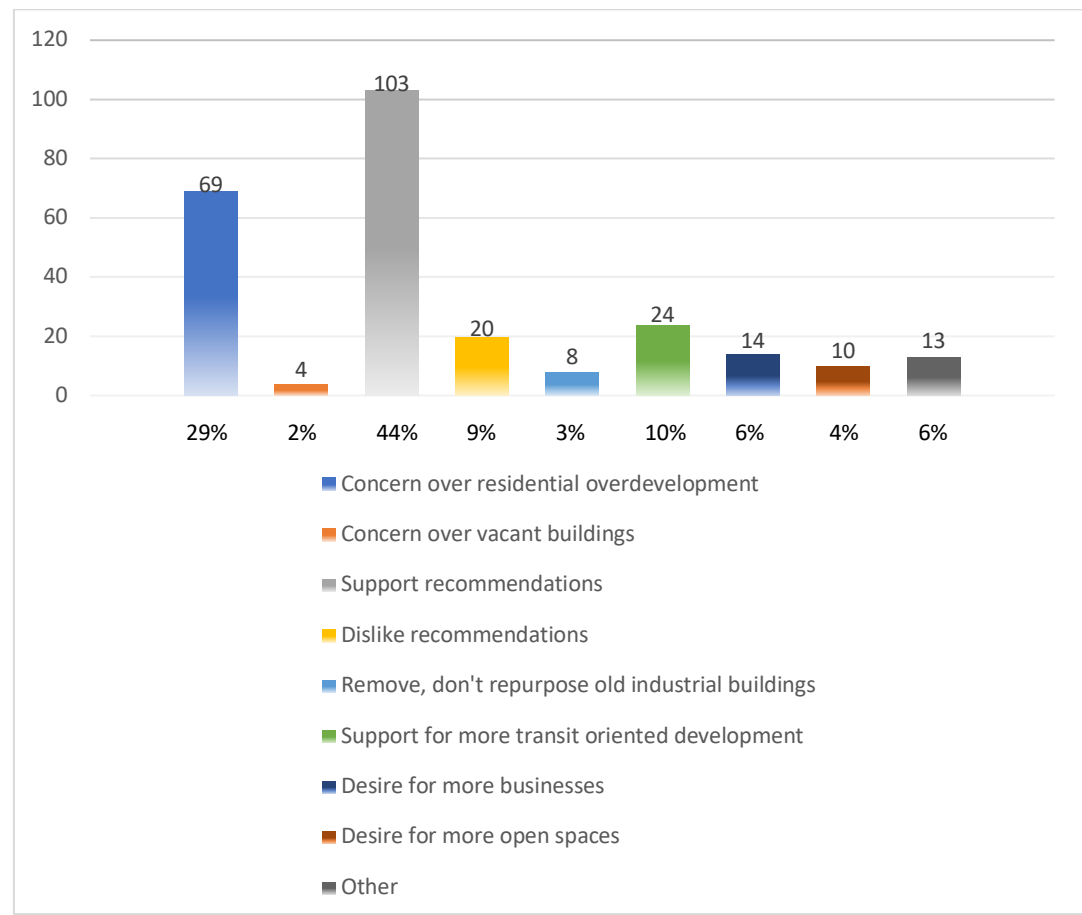
After an explanation of the Master Plan's intent to preserve and enhance the character of the *Stirling Workers Historic District*, this Assessment asked respondents to share their thoughts on extending streetscape features such as lighting and benches along Main Avenue to Valley Road, as well as the installation of vegetative street buffers at pedestrian crossings. Respondents indicated a generally high level of support for the concepts proposed. Other comments received offered specific concerns for the district including the appearance of certain properties, accessibility, and a lack of businesses. Among those who disapproved of the concepts proposed for the Village, most conveyed concerns over potential maintenance costs or questioned the viability of the concepts given insufficient service from NJ Transit.



Millington Village

235 respondents

This Assessment sought feedback on prior planning recommendations for a modestly scaled mixed-use development offering live/work units on the Barrett's property currently zoned for office use. In addition, respondents were asked if consideration should be given to repurposing industrial buildings in the area. Responses regarding the future of Millington Village were the most nuanced of the Assessment. While the recommendations regarding Millington Village enjoyed measured support, many respondents simultaneously raised concerns over excessive residential development in the area. Some respondents felt that recommendations should pursue transit-oriented development more aggressively, while others advocated for the inclusion of more businesses or more open spaces specifically. Concerns over the proper remediation of industrial sites were also common among respondents. Restaurants and smaller scale retail were the most frequently cited businesses among those who expressed support for additional commercial uses in the Village.

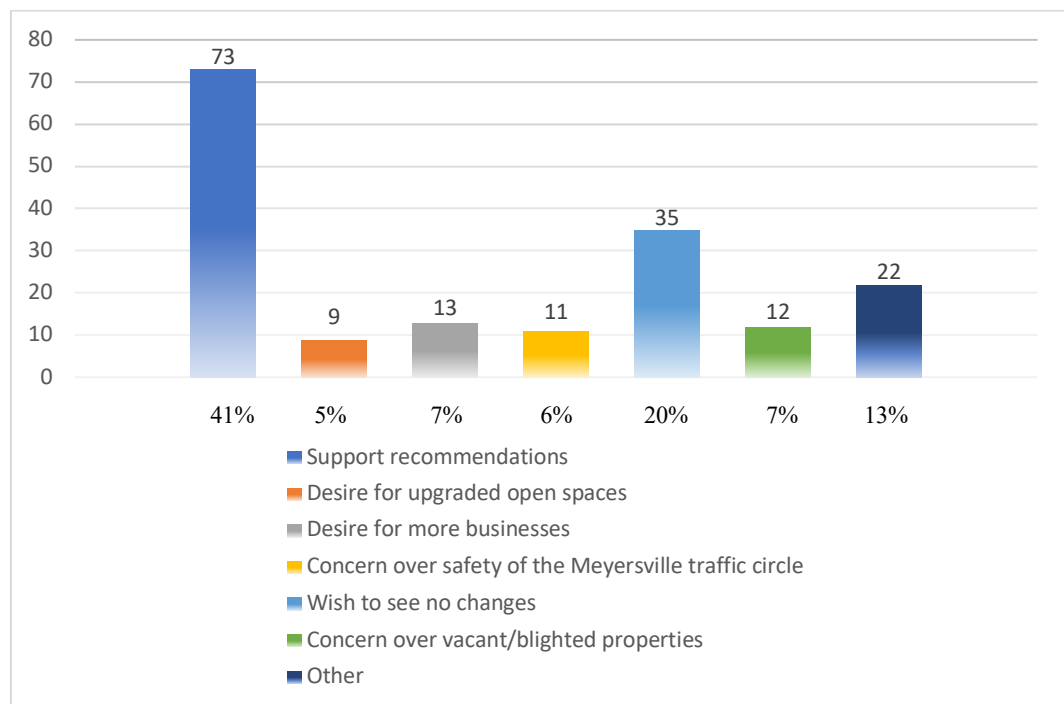


Meyersville Hamlet + Homestead Park

176 respondents

Respondents appear to be generally supportive of the approach envisioned in the assessment to largely leave these areas alone with the addition of trails that connect to other sections of the Township. While some took a more ardent stance of leaving the areas alone entirely and to not proceed with the construction of new trails, others indicated a desire for upgrades to the vitality of Meyersville's business district and traffic circulation.

Interpretation: Residents place a high premium on the unique, natural qualities of Meyersville Hamlet and Homestead Park, and wish to see them preserved. The collective 61% of those who wished to see no major changes for these areas either with or without new trails is a strong affirmation of maintaining these areas largely as they are from a land use planning perspective.



Gillette

243 respondents

The Assessment asked if the area zoned for commercial use at the intersection of Valley Road and Mountain Avenue should be expanded to include an additional parcel to the north along Mountain Avenue. Additionally, feedback was sought on the addition of open green spaces to complement the shops located there, and new sidewalks to connect the area to the Gillette train station. Respondents appeared to be generally supportive of the concepts proposed for the Gillette business zones, along with the improved connectivity to the train station. Some provided additional nuance, supporting one component while expressing concerns about other recommendations for Gillette. Among those concerns were: (i) avoid competition with the Valley Road commercial area, (ii) large increases in traffic congestion, (iii) potential disruptions to the quiet residential nature of the area and (iv) concerns over costs associated with building new sidewalks.

