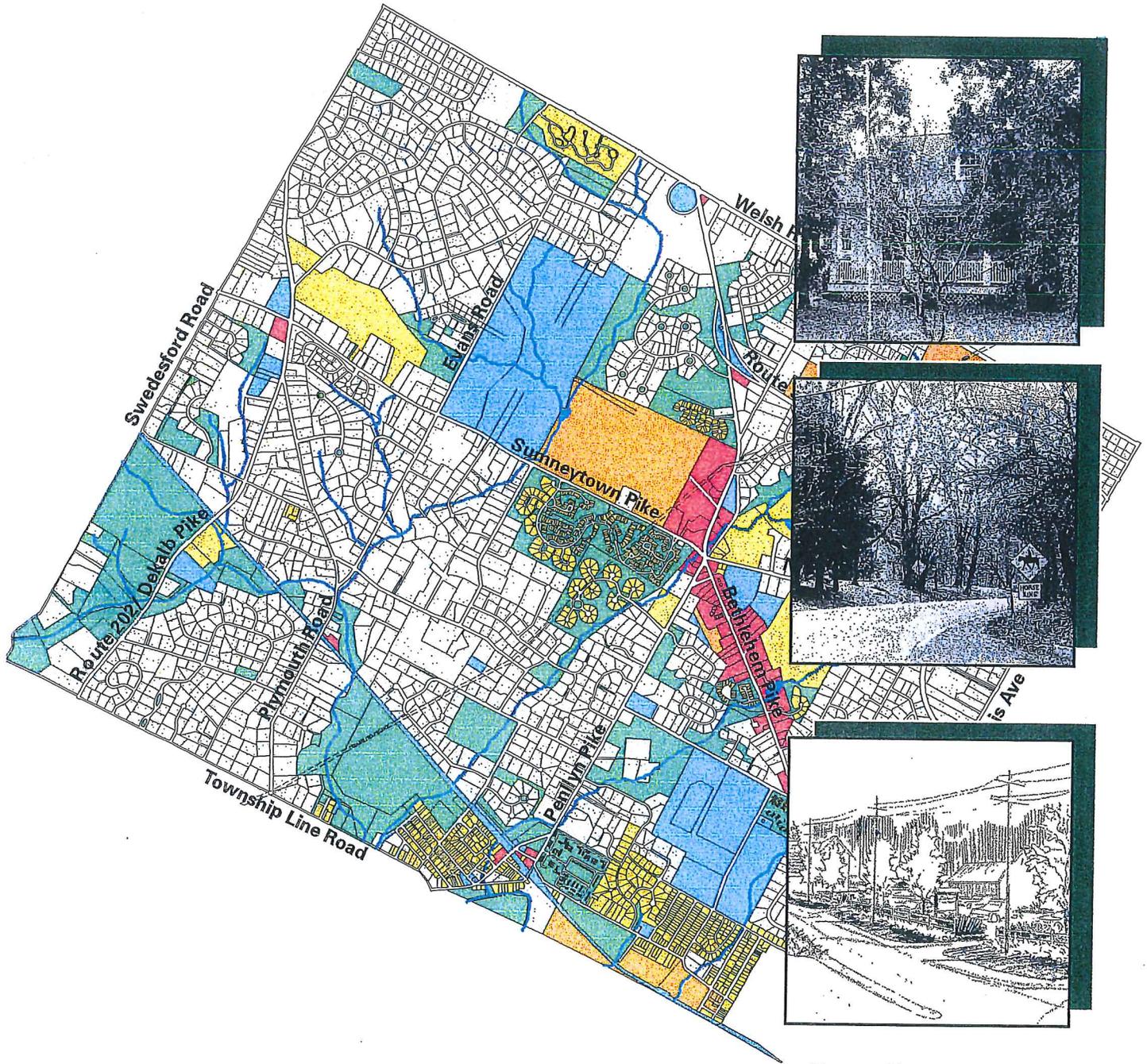


COMPREHENSIVE PLAN • REVISION 2000

Lower Gwynedd Township, PA



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LOWER GWYNEDD TOWNSHIP COMPREHENSIVE PLAN 2000

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ILLUSTRATIONS

Note that the maps, sketches, diagrams, and drawings included in this Plan are intended to convey the fundamental ideas on which the analyses and recommendations are based. For detailed and up-to-date information, see the GIS and Zoning maps on file in the Township Building.



1. EXECUTIVE SUMMARY

Lower Gwynedd Township is a beautiful, open, and green community that has a great variety of housing, employment, and shopping uses within it, all of which the residents find important in their community life. The Township has retained these characteristics in spite of considerable growth in recent years - especially since the completion of the 1987 Comprehensive Plan.

The fact that the open and serene quality of the Township remains, after a period of such significant growth, is a consequence of the careful planning that has taken place in the past. The challenge of the Comprehensive Plan Revision: 2000 is to provide the same wise guidance for the next decade, so that the community can preserve what it has, and yet at the same time can accept and encourage appropriate change. This plan, therefore, is more about conservation and enhancement, than it is about growth and expansion.

SUMMARY OF THE VISION FOR THE FUTURE

Five Visions for the future of the Township have been established, which are based on deeply held community feelings, and which guide all the recommendations made in this Plan. Those five Visions which are listed in detail in 2. *Visions for the Future*, can be summarized in this way:

Vision 1 expresses the need to preserve the green quiet, historic quality of the Township.

Vision 2 recognizes Spring House as the Township's Town Center, created by the transformation of the Bethlehem Pike shopping district.

Vision 3 identifies the need to encourage the various neighborhoods and other parts of the Township to feel and function as a unified community.

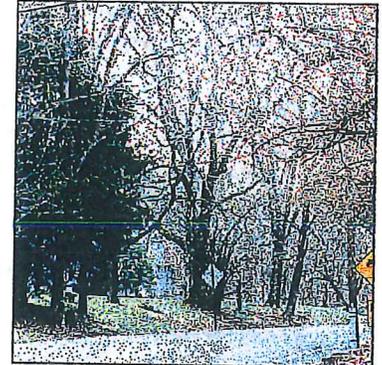
Vision 4 recognizes the Township's role in the region, where regional shopping and office uses are balanced with community needs and a large residential population.

Vision 5 hopes that traffic - especially regional traffic - will not change the peaceful quality of life here.

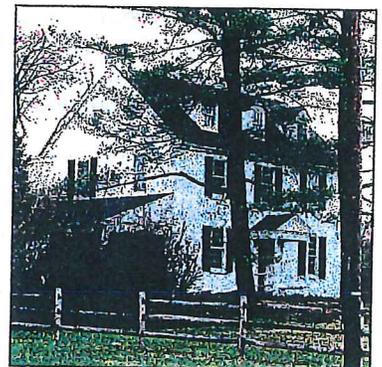
SUMMARY OF EXISTING CONDITIONS

Lower Gwynedd is located within several important regional transportation corridors, and is quite close to significant regional commercial and shopping centers. This condition, when combined with the fact of limited additional development opportunities within the Township, indicates that the forces of the region and the efforts of the Township to preserve its quality of life, will have far greater impact than any new developments within the Township. Specifically:

- The Township is surrounded by four major shopping malls, at Montgomeryville, Willow Grove, Plymouth Meeting, and King



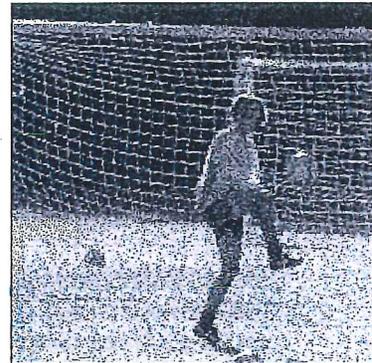
The landscape of Lower Gwynedd takes many forms: waterways, wetlands, and forests; open lawns and meadows; beautiful tree-lined roads; and outdoor recreation areas. All are important to the quality of life in the community.



Another aspect of the quality of the Township is its history: many historic buildings remain, which should set a design standard for all future buildings.

of Prussia. In addition, the Township has seen the development of the second part of a major shopping center within its own boundaries (although this center is not of the same size or regional scale as those others mentioned above).

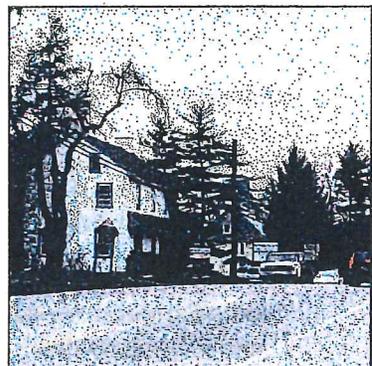
- The Township is crossed by three heavily travelled regional roadways: Route 309, Route 202, and Sumneytown Pike/Norristown Road. It is also bordered by Route 63 (Welsh Road) which serves many of the surrounding communities.
- Two of these regional highways are now being planned for rebuilding: Routes 309 and 202. Both of these actions will create additional high speed traffic volumes within the community, and therefore can have significant impacts on existing patterns of land use - as well as on local traffic patterns.
- It appears that no more than 185 to 310 new homes can be built in the Township. Note that is only a 5% to 8% total population growth possibility (depending on the availability of certain properties for residential development). Since this is the amount of the *total* build-out, and not merely what could happen in the next few years, the amount of new development is not a significant issue. Most of this new development may, in fact, be redevelopment of existing properties. The important issue is therefore to assure that the quality of new construction, and changes to the existing building and landscape fabric, will realize the vision the Township has for itself.
- There are many older and historic individual structures throughout the Township, with significant groupings generally near the compact neighborhoods that once could have been considered small villages. There are also many tree-shaded roads and green vistas that have a great impact on the historic character of the community. The identification of these buildings and places, and their preservation, has become of great importance to the future quality of life here - especially because of the limits on new development, and because the Township can see the future redevelopment of already built properties.
- The residential developments that have taken place in the last decade have, in many cases, been planned in the cul-del-sac form. The result is that there are many neighborhoods that are quiet and beautiful, but that are not well linked to the wider community, and that put additional traffic loads on the Township's road system.
- Approximately 40% of the residences in Lower Gwynedd are smaller dwellings (townhouses, apartments, and retirement communities). The remaining 60% are single family detached homes, which are located on small lots as well as large. In addition, the number of people per household is declining while the average age is increasing. Also, the Township has a higher than average over -65 popula-



Open spaces and the trail system can knit the community together, and will maintain the green and quiet quality that is so valued.



Bethlehem Pike is the focus of community attention, to make the area appear to be of the same character as the rest of the Township, and to transform it into "town center."



The few remaining older buildings on Bethlehem Pike set standards for future building design.

tion, and diverse levels of income. It offers higher than average educational opportunities to its citizens, but the age and population projections suggest that there is no anticipated need for additional schools.

- The Bethlehem Pike shopping area, which has been developed over the past decades in a suburban auto-oriented strip commercial style, is perceived by the residents as lacking the character evident in the rest of the Township. It is also felt that the existing businesses are struggling to attract Township shoppers, and that - on the whole - the area does not act, look, or feel like the "center" of the community. The residents of the community therefore often go elsewhere to shop.
- The large office/research/industrial businesses in the Township appear stable but, because they are all part of the new international economy, they are subject to considerable change by forces far beyond the borders of the Township. Therefore, Township planning for the future must include strategies in the event some of these changes do take place.
- The public open space and recreational inventory is being greatly expanded by the preservation of Penllyn Woods, a new large public park and recreation facility south of the SEPTA R-5 train tracks. It is also being increased by the recent purchase, in conjunction with Ambler Borough, the Henkel ball fields along Pen-Ambler Road.
- The most significant issue regarding open space is the need to complete the Township Trail System. Analysis readily indicates that the community is now not a walkable one; all trips, whether for access to recreation or to some other destination, are by car. It is therefore essential to offer alternative transportation options by completing and extending the trails. These options will increase walkability, reduce the need for cars, and encourage the Township's identity as a single, connected community.

The completion and extension of the trails (including those to the shopping areas, the R-5 regional rail line, the employment areas, and the schools) should alleviate some traffic issues and encourage the perception and feel of the Township as a unified community.

- Because the community has limited opportunities for growth, the utility systems and various public facilities will require little or no expansion the future. The only significant expansions could be to those existing neighborhoods in the Township that do not have them now.

SUMMARY OF PLAN RECOMMENDATIONS

Relationship to our Neighbors

Lower Gwynedd recognizes that, geographically, politically, and environmentally, its future is inextricably linked to that of its neighboring communities - and, in a larger sense, with all of the communities within Montgomery County and, ultimately, within the Commonwealth of Pennsylvania.

With this understanding, the Township has been an active participant in many local and regional organizations that collaborate in economic, recreational, open space, and planning decisions. The Township also has long participated with the Wissahickon Valley Watershed Association in planning activities that recognize the shared environment with other communities up and down stream along the Wissahickon Creek. In addition, the Township's recent collaboration with Montgomery Township in sharing a recreation director, and with Ambler Borough to purchase land for recreation fields, demonstrate its specific commitment to pursuing mutually beneficial relationships with nearby neighbors. All of these relationships and cooperations should be fostered, and other cooperative ventures explored.

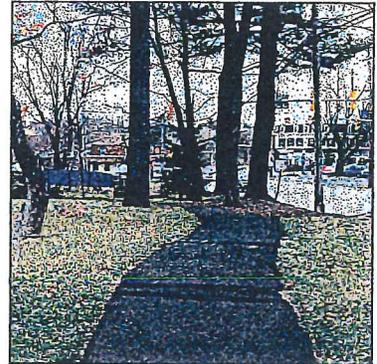
Lower Gwynedd's Trail System should be linked with the Wissahickon Valley Watershed Association's trails, with the trails in neighboring communities, and with the County's regional bikeway system.

Functionally, it is clear that the region is economically well-served by four regional malls beyond the Township's borders. A large expanded shopping center (Spring House Village I & II) also now exists within the Township. In addition, there are ample areas in the Township that are now commercially zoned, and which are available to be redesigned or renovated to address local shopping needs for the foreseeable future. The creation of a real town center along Bethlehem Pike in Lower Gwynedd will therefore become part of a network of complementary local neighborhood shopping districts, so that each of them - including Ambler, Lansdale, and Maple Glen - functions as part of a wider marketplace.

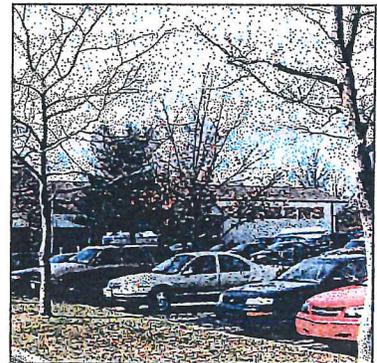
Finally, joint land planning with the surrounding communities should be explored, given the pending state legislation that would permit this.

Land Use

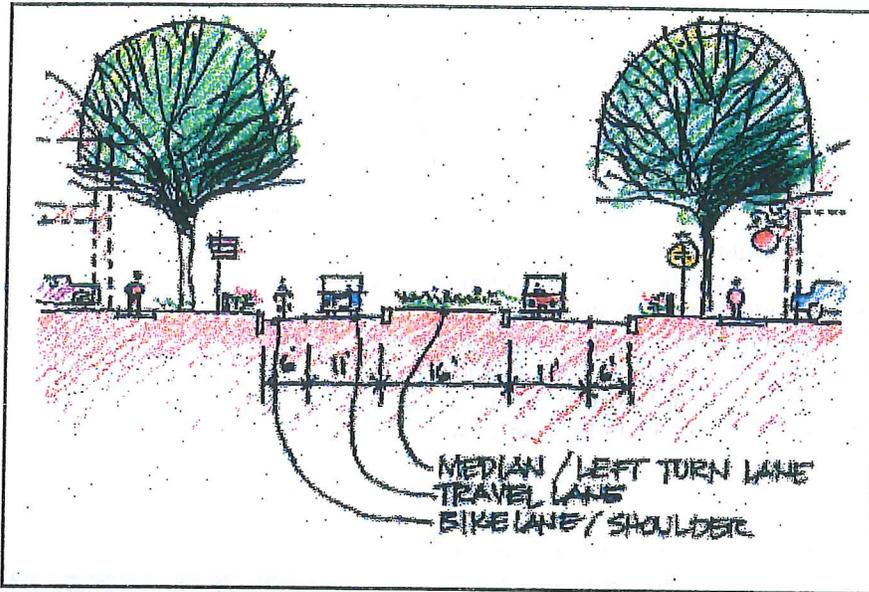
Although there is limited room for further new development in the Township, several important land issues will need resolution. The first significant recommendation of this plan is the transformation of Bethlehem Pike into a shopping area that is as beautiful as the rest of the Township, that is walkable between the businesses and shops, that is easy to drive through, that has ample parking shared by the various businesses, and that becomes a new town center for the Township. This area of Bethlehem Pike, to be called the "Spring House Town Center", will extend from Chesterfield Drive and the Township Building to Dager Rd. At the center of this area, the strip of existing shops between the



Destination "trails" will link key areas of the Township to each other (college, Town Center, offices, train stations), and to the community at large. A walkable Township will become possible, thus reducing the need for auto use.



Lower Gwynedd has a large, two-part shopping center on Bethlehem Pike, which includes two supermarkets, several retail shops, and offices.



The central area of Bethlehem Pike can be transformed by the remaking of the roadway with a center island, left turn lanes, and landscaping.

Spring House intersection of Norristown Rd. and Sumneytown Pike, and Penllyn Creek east of Sheble Lane, will include a dramatically transformed roadway, with a planted center island, dedicated left turn lanes, improved lighting, and a new landscape (with flowers, fences, and large spreading trees). In addition the redevelopment of the existing lots will be permitted and encouraged, to create a mix of uses that includes shops and residential apartments, and provides a more attractive pedestrian-oriented shopping place. This area will share a consistent appearance, will have businesses linked by walking paths, and will create a sense of place and sense of identity for the entire Spring House Town Center.

The abundance of shopping opportunities in the region has led to the recommendation that no additional regional shopping centers are needed in Lower Gwynedd. The existing regional malls and nearby "power centers" are easily reached by the Township's resident population. The Township has its own two-part, large regional shopping center, several other smaller shopping centers, many large regional employers, three major region-serving retirement communities, a nursing home, and a regional college. The roads and other services of the community cannot serve additional regional facilities without improvements far beyond the economic and physical capabilities of the Township.

The goal of encouraging a perception of Lower Gwynedd as a unified community out of the many neighborhoods requires careful study of traffic patterns and the completion of the trail system to physically link them together. This goal also requires the preservation of the historic buildings and landscapes, which visually tie the community together. The careful planning of residential cluster developments are also an important part of the resolution of this issue, since they have been shown to help create better roadway patterns and to help complete the trail network and can often be designed to encourage interconnected open spaces

As has been observed, the large regional employers and research/development facilities located in the Township are vulnerable to changes in the global economy. Nevertheless, these uses have always been of benefit to the Township, and remain desirable for the Township's future. The ability to permit multiple tenants in a single facility should be considered, for instance, but the large preserved open spaces should remain.

This plan makes recommendations regarding two other issues, which are focused on certain specific areas of the Township. The lands along Route 202 should remain residential, with the added possibility of professional office uses within the existing houses. The major educational institutions should be encouraged to remain, and to preserve their fine open spaces; they all should be linked to the neighborhoods and Town Center by extensions of the destination trail system which is part of the larger Township-wide circulation system.

Open Space and Recreation

The Township's 1996 Open Space Plan is an excellent documentation of the existing open spaces, and the of needs and strategies for their preservation and growth. The major efforts regarding open space protection focus on all the methods now in use: purchase, tax incentives, donations, etc. The Township continues to pursue active negotiations with landowners whose lands were identified in the 1966 Plan as desirable for preservation and acquisition. The recent major efforts regarding recreation are the ongoing project to complete Penllyn Woods and, in conjunction with Ambler, to create a 17 acre recreational site on Pen Ambler Rd. In addition, it is strongly recommended that the Township Trail System be extended and completed, so that it links the various neighborhoods together. It is specifically recommended that the differences between horseback riding paths and jogger/biking paths be clarified, and that this set of recreational trails be linked with the destination trails recommended as part of the Land Use Plan.

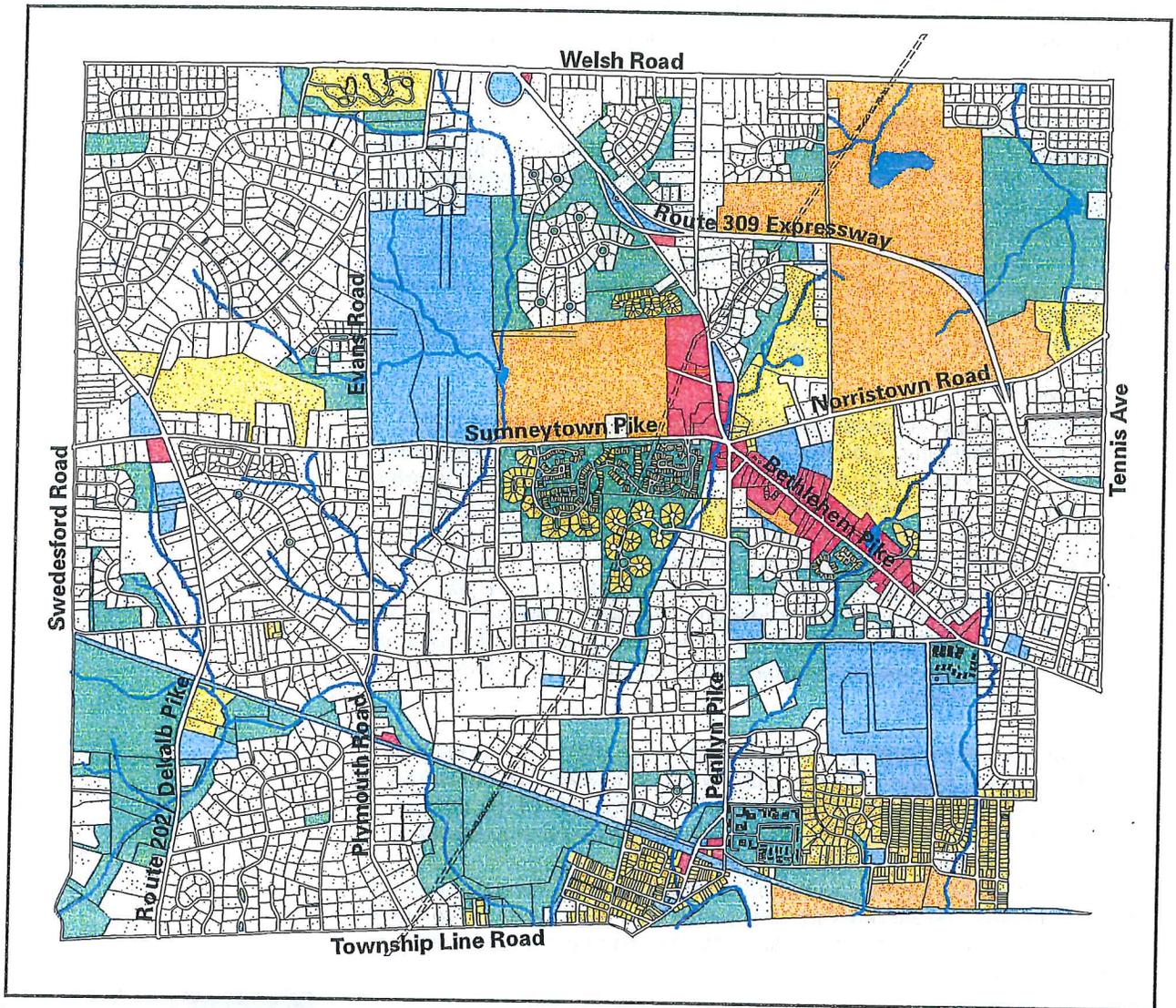
Historic and Cultural Resources

The Township has also started to prepare an inventory of historic buildings in the Township, an effort which is being done in accordance with State and Federal regulations. Existing historic structures are not currently protected by any regulations. Redevelopment pressures may cause the demolition of structures the Township would prefer to see preserved. It is therefore recommended that the Township evaluate a variety of historic preservation efforts, including ordinances regarding the alterations or demolition of historic buildings, the creation of a review board, and the designation of historic districts.

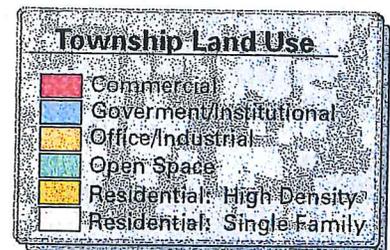
Part of the history of the Township is its landscape. View corridors, tree-lined roadways, natural habitats, and other green areas (many of which contain the remains of earlier structures) should be protected as much as the historic buildings. Just as with historic buildings, methods for the preservation of historic landscapes should be considered, including the



The natural areas of the Township - especially the Wissahickon Creek - are the backbone of the community's open spaces.



Land Use Plan: The pattern of uses that exist in the Township will continue as it is now, with the inclusion of a great variety of residential, commercial, and institutional uses. Many types of housing - including retirement communities, large homes, small homes, townhouses, and apartments are distributed throughout the Township. Large and small retail businesses, major employment centers, and a college serve the community and the region. Significant efforts have been made to preserve the natural environment, the many historic buildings, and the overall landscape of the entire Township.



establishment of landscape preservation standards, the identification of the historic roadways, and the possible creation of a shade tree commission.

Natural Resource Protection

Lower Gwynedd is fortunate to have such a rich variety of natural lands - especially the Wissahickon Creek and its various watersheds. Much of this land is already preserved by either public or private action. The work must continue: development and preservation must always address **natural habitat protection, riparian corridor protection, and the preservation of steep slopes**, which should be required by ordinance. Some of the community's natural landscapes lie along its roadways, so the planning for natural environment must be coordinated with planning for traffic flow.

Circulation

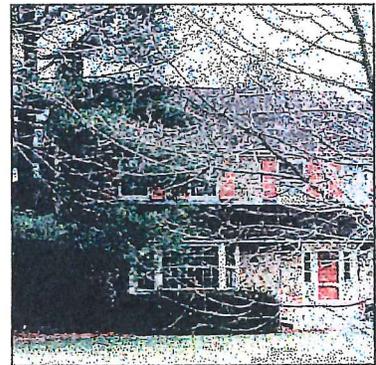
Growth in the region continues to have a considerable impact on the traffic in the Township. Roads built originally built for horses and carriages carry bumper-to-bumper traffic, shortening tempers and lengthening trips. As a result, some roadways may need widening, to include shoulders or left turn lanes. In addition, some roads and intersections have poor visibility due primarily to the nearby plantings. However, the expectation of retaining the tree-lined roadways that are so important to the community must be considered when evaluating changes to accommodate traffic. Improvements designed solely with "efficiency" in mind might involve unacceptable trade-offs involving trees, or aesthetics or environmental values.

The most significant traffic recommendations regard the central area of Bethlehem Pike, between the Norristown Rd./Sumneytown Pike intersection and the Penllyn Creek bridge. In order to clarify all of the turning movements here, and to make driving to the shops safe and pleasant, a center planted island with dedicated left turn lanes is recommended for this part of the Spring House Town Center district. All business driveways can be accommodated, shared parking can be created, and the roadway can be transformed from one of black top to one of curbs, sidewalks, flowers, grass, and shrubs.

The other major circulation issue is not about cars: it is about walking. The existing trail system is focused on recreational uses. An addition to that system is needed to encourage walking - to and among the shops of the Town Center, to and from employment areas, to and from the schools and the trains. This set of trails should be paved and lighted, but must link also to the recreational system.

Housing

Since the opportunities for residential growth are limited, the primary issue that confronts the Township is the quality and character of the development that takes place. Recent experience revealed that a few houses (three, four...) can be purchased by a developer, who will demolish them and build back the number of houses that are permitted by the zoning code. Because the community wishes to preserve its historic heritage, this kind of development raises two challenges: the older and



Many of the older existing can be considered precedents for the design of new homes in the Township

historic homes should be preserved; and, when new homes are built as infill, they should be integrated into existing neighborhoods in a way that respects and enhances those historic buildings.

In general, therefore, there are no major changes recommended for the existing regulations, regarding the location and density of the various housing types. The only two changes recommended for residential development in this Plan regard the Route 202 area and Bethlehem Pike. It is recommended that the residential use and character of the properties along Route 202 remain, in spite of the widening of the roadway. Because Route 202 is already four lanes through much of the Township, many of the houses along it are set back from the road and can continue to function as residential, despite the anticipated increase in traffic. However, shared driveways (front or back), or individual rear access driveways may be desirable.

In addition, to preserve its residential character and scale, consideration of the addition of some office uses might be warranted, but only if they are located within the existing homes along the Route 202 highway (many of which are historic). Along Bethlehem Pike, it is recommended that apartments be permitted (above the shops) as part of mixed use developments in the Town Center.

Utilities

Although some areas of the Township remain without public water or sewer service, the two water companies and the Municipal Sewer Authority report that they have sufficient capacity to serve the entire community, and to handle any growth or expansion that takes place. A 537 Plan regarding sewers and other waste disposal systems is now being prepared by the Lower Gwynedd Sewers Authority, for review and approval by the Township's Board of Supervisors.

It should be the policy of the Township to extend public water and service to those existing neighborhoods that don't have them now, when agreements can be reached with the various property owners.

Public Facilities

The police and fire departments are capable of handling the needs of the community without expansion, given the analysis of the growth possibilities. The police department has observed that the only development change that would cause a need for additional officers and equipment would be the construction of another large shopping center.

The Wissahickon School District has determined that, with the completion of ongoing renovations of the high school and the recent completion of the elementary school, no additional expansion will be needed in the foreseeable future.

2. VISIONS FOR THE FUTURE

Five visions for the future guide all of the recommendations made in this Plan:

Vision 1: We envision a community where the green, scenic, and peaceful quality of our landscape – both wooded and open – remains preserved and enhanced. We envision a place where the natural environments and habitats are always protected, and are integrated with the life of the community. We also envision a place where the handsome older buildings are cherished and preserved as an essential part of that beautiful landscape.

Vision 2: We envision a new “Spring House Town Center”, which is created by the transformation, stimulation, and growth of the Bethlehem Pike shopping district. We envision that this “center” will flourish, will become part of the wider community, and will become the real focus of community life.

Vision 3: We envision a place that feels and functions as a unified community, that has an identity and a sense of place, that has a town center, and that has its many separate and varied neighborhoods linked together by all three existing circulation systems: walking, biking, and driving. We also envision that this community is united in the quality of the design of its buildings and landscapes, and yet includes a wide variety of housing and neighborhood types.

Vision 4: We envision a relationship to our neighbors in the surrounding region that is both cultural and functional: where, for instance, we continue to have joint activities with our neighboring communities; where our shops, large employers, and institutions are integrated into the life of the region; where our citizens are fully served by the large shopping malls in the nearby townships; and, where the college, retirement communities, and employment centers can have train and bus links beyond the township to the region.

Vision 5: We envision a place where the traffic management is appropriate to our peaceful quality of life, where it is easy for traffic to move around and through our township to regional destinations, but where the regional traffic does not make our lives stressful or dangerous, and where the automobile is complemented by walking and biking in an integrated township system of circulation.

EXISTING CONDITIONS

3. EXISTING CONDITIONS: LAND USE

There are six significant categories of existing land uses that reflect the intentions of this Plan. The categories begin with Bethlehem Pike, which is planned to be the center of community life, and extend out geographically to encompass the whole community.

BETHLEHEM PIKE / LOCAL RETAIL

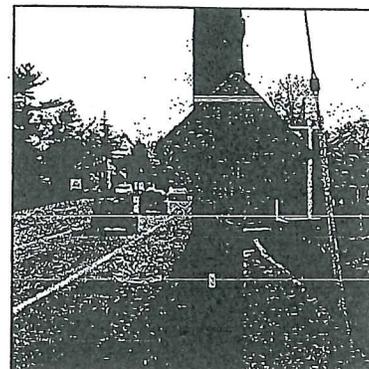
The business owners in the area of Bethlehem Pike between the Spring House intersection and the creek near Sheble Lane have expressed a desire to attract more business. At the same time, the neighbors have observed that the existing retail and business uses, the auto-access-only pattern of development, and the general appearance of highway-oriented businesses, do not reflect the character and quality of the Township generally. Moreover, a logical place to begin to create or recreate the community's identity as a special place is in its very visible, publicly oriented business district. Township officials have therefore expressed a desire to see the area achieve an identity that is both functional and aesthetic, and which will help to recognize this corridor as Lower Gwynedd's town center and enhance the community's sense of place. To achieve these aims, changes are needed. Four general conditions suggest these changes:

Retail and Other Businesses

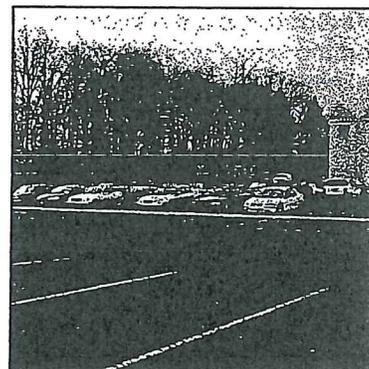
The existing retail businesses in this area of Bethlehem Pike target a broad range of markets. Some businesses provide convenience goods and services, largely oriented to the surrounding residential neighborhoods and nearby offices. These convenience-oriented businesses include several restaurants, the WaWa, a beer distributor, two video rental stores, dry cleaners, delicatessens and specialty food stores, and hair salons. These community-oriented retailers are supplemented by the Post Office and the Harleysville and First Union Banks.

In addition to the surrounding neighborhood markets, several of the restaurants also attract a more geographically dispersed clientele. Other retailers also serve a widely scattered customer base, who usually visit the area for single destination trips. These specialty businesses include furniture, equipment rental, windows and storm windows, decorating, etc. Some businesses (florist, pet supplies) serve both local and target destination markets.

Much of the business activity along Bethlehem Pike is not retail, despite the zoning. Large and small office complexes make up much of the commercial uses in the area. These uses are quite compatible with a pedestrian-oriented district and help support restaurants and other convenience retailers and service providers. Other non-retail uses, however, are less compatible. These include, in particular, the large Somerset Farms wholesale opera-



Although the regulations ask drivers to "Share the road," the significant means of getting around the Township is by car - which has a great impact on community life, and on the ability to shop on Bethlehem Pike.



The practice of development in the central area of Bethlehem Pike has included a policy of "Don't share parking." As a result, more parking is provided than needed, more driveways are required on the Pike, and less area is available for creating new and walkable shopping.

tion behind the existing Post Office, which is located in a building traditionally used for industrial purposes, but is now somewhat out of place in the Spring House Town Center. There are also several other large car dealerships which, while functional, are not presently designed so as to encourage pedestrian activities along their frontages.

Building Types and Parking

The businesses here are located in three building types: small individual buildings that house one business, strip centers (which include retail uses and medical offices), and multistory offices. They range in size from 1,000 to 15,000 sf, including the strip centers and office buildings. All of these buildings are set away from each other, generally with parking lots between them. Note that a few residential uses exist, in the form of some apartments, and in the historic house in front of Bevivino's Restaurant.

Each building, or group of buildings, provides its own separate parking lot and has its own driveway(s) for access from Bethlehem Pike. Of all these parking lots (approximately 27 individually owned lots now exist), only the two strip centers that include the Post Office and video store are connected and, (by implication) shared. This condition creates a great deal of complicated (and potentially dangerous) car and truck movement to and from Bethlehem Pike. In addition, there are two small hills on the Pike, which screen visibility of oncoming cars from cars exiting one of the many driveways.

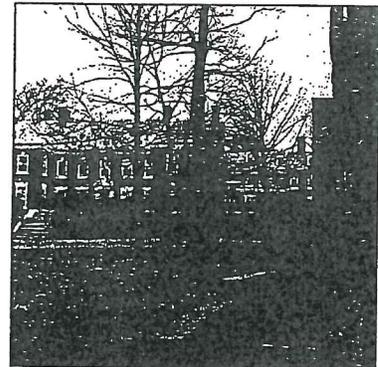
Roadway

The roadway itself consists of three lanes, with the center lane striped for left turn lanes only. The complexities of the movement that this design, and the many existing curb cuts, creates are discussed in detail in the Existing Conditions chapter regarding Circulation.

Lot Sizes and Zoning

In this portion of Bethlehem Pike many of the parcels on which the businesses sit are rather large in area, and are very deep. The existing zoning district ("D" Business District), in many ways, constrains the extent and character of the development that can take place on those lots. The regulations for this district include these criteria, for instance:

- *Residential and lodging uses are not permitted.*
- *A minimum front yard set back of 45' (note that the only buildings located closer to the road are the handsome older houses now generally converted to business uses).*
- *A minimum front yard set back for parking lots of 20'.*
- *A minimum rear yard set back of 50' (or 100' when adjacent to residential uses), which is true of most buildings on the southern side of Bethlehem Pike.*
- *A maximum building coverage of 30%.*
- *A maximum building height of two stories.*
- *A maximum building gross area of 6,500 sf.*



Gwynedd Mercy College is located on Sumneytown Pike, not far from the shops of Bethlehem Pike, but has no walking connections to any of them.

- A minimum of 10 parking spaces for each 1,000 sf of retail for individual shops (but if the shop shares parking with adjacent shops, the requirement reduces to 5 spaces per 1,000 sf).
- A minimum of 5.5 parking spaces for each 1,000 sf of shopping center area.

These criteria essentially require the development of isolated buildings, prevent a real mix of uses, essentially require parking to be located along the highway in front, and result in large paved areas for driveways and parking. Walking among the shops and businesses is more than discouraged by these regulations: it is essentially forbidden. The historic pattern of shopping, working, and living that exists in many other thriving communities in the area - homes and businesses located along a roadway that made it possible to walk more easily - is not possible without some adjustments to the zoning code.

A significant consequence of all these existing conditions and regulations is that the shopping area of Bethlehem Pike does not act as a focus of community life. The vision for the future that the citizens have expressed specifically calls for a transformation of this area, so that it can become the heart of the Township, and that can fully serve as a walkable "downtown," an area that gives a recognizable identity to the Spring House.

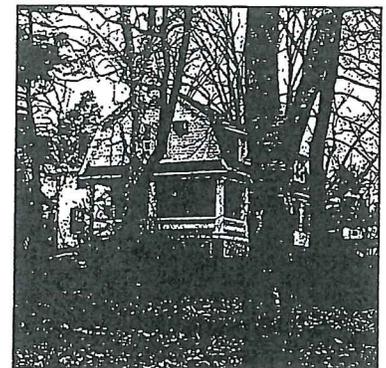
BETHLEHEM PIKE / REGIONAL RETAIL

There are two large sections of one major shopping center in Lower Gwynedd: Spring House Village I and II. They include two super markets (Clemens and Genuardi's), restaurants, smaller retail shops, plus a significant amount of office space. The two large stores total 100,000 sf in area, with the adjacent retail and office uses adding to that total. The market for these businesses is the region that extends beyond the boundaries of the Township (the market area for a large supermarket, for instance, is a five mile radius). In relationship to retail business in Lower Gwynedd, it is necessary to consider four extremely large shopping malls that include department stores as well as other retail (King of Prussia Mall, Willow Grove Mall, Montgomery Mall, and Plymouth Meeting Mall). These malls are located in nearby communities and are well served by the largest of the region's highways. They more than adequately offer shopping opportunities for Lower Gwynedd's citizens, as well as the residents of other communities. They also have far better regional road access than any location in Lower Gwynedd. The ability of the Township to house more than it's regional shopping centers is extremely constrained by both the highway access and the availability of other infrastructure needs.

In addition, it should be noted that several automobile dealers are located on Bethlehem Pike, between the Penllyn Creek and Dager Road. Clearly, they serve a wider market than that in Lower Gwynedd Township

RESIDENTIAL

Approximately 68% of the land in Lower Gwynedd is devoted to residential uses. The range of those uses is wider than is normally perceived:



Many of the houses along Route 202 could be considered historic; the widening of the highway may threaten the residential character of the area.

while 60% of the dwellings are single family detached homes (on lots that are both large and small), it is important to note that 40% of the homes are a variety of other housing types. These other types include, significantly for the variety of residential options in the Township, apartments, townhouses and three retirement communities. The details of the various housing counts are given in the Existing Conditions: Population and Housing section,

Several other related facts of residential life are also explained in the Existing Conditions: Population and Housing section. For example: this existing mix of housing types serves a population that has 41.3% of its households as other than married couples, the community continues to have a high average age (24% are over 65, as was the fact in 1980), and the average family size has essentially remained stable at 2.46 persons per household.

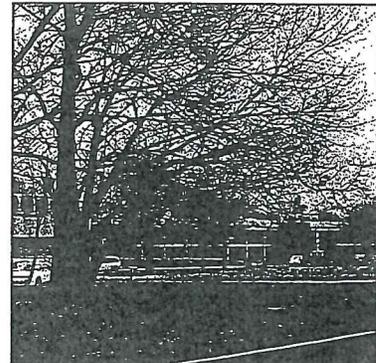
Cluster development has been encouraged by the zoning regulations since the 1987 Comprehensive Plan. Clusters permit single family detached dwellings on lots of 14,000sf to 26,000sf in return for the creation of permanent open spaces. This is in contrast to A Residential which requires 40,000sf to 80,000sf per lot and no open spaces. As stated earlier, part of this open space has often included extensions of the Township trail system, but the trails are not specifically required by code, although sidewalks are mandatory.

OFFICE / RESEARCH / MANUFACTURING

These three distinct use types, which are identified as "Office/Industrial" in the zoning regulations, now occupy 482 acres in the Township. The largest area of these uses (including Advanta, McNeil Pharmaceuticals, Rohm & Haas, and Spring House Corporate Center) is located primarily along Route 309, with access from its Norristown Road exit, and Welsh and McKean Roads. Siemens-Moore Process Automation Inc. (Siemens-Moore) is located on Sumneytown Pike, at the center of the Township, and between Gwynedd Mercy College and the Spring House Village I & II Shopping Center.

All of these uses serve as employment centers for a very wide region, much as the four large shopping centers in adjacent communities (described in the Regional Retail section of this chapter) serve the retail needs of the entire region. This is Lower Gwynedd's most significant contribution to the economic health and variety of this part of Pennsylvania, since these industries provide high quality jobs and products used in the global economy.

The pattern of the development of these uses has created a sense of openness and of preserved green in two areas of the Township. The design and location of the buildings and parking lots have preserved large green, campus-like, setbacks along Welsh Road, McKean Road, Route 309, Norristown Rd., and Sumneytown Pike. Each of these roads is an important part of the green and beautiful quality of the community.



Typical of the several large office and research facilities in the area, this development shows the large landscaped setbacks that are so important to the visual quality of the Township.

Most of these open spaces are preserved by the zoning regulations, which require 200' front yard setbacks in the F-1 Industrial and D-1 Special Use Districts. The only significant property of these uses that does not require green setbacks of this size is the Rohm & Haas property on the west side of McKean Rd., which - although the existing buildings now house conforming uses - is actually zoned A Residential (40,000 sf lots and 75' front yards).

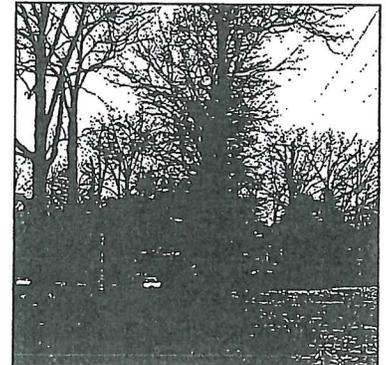
Although these businesses appear stable, and their open lands are well preserved, it must be recognized that they are all now part of the global economy. In this condition, decisions could be made far from Lower Gwynedd Township that change the existing uses and buildings considerably. Mergers, acquisitions, significant international competition, bankruptcies, and so on could make businesses change, or even leave. The Township therefore has the responsibility for planning ahead, to take advantage of an unknown future, rather than merely to react to it. These uses have proven themselves to be desirable and their continuation should be encouraged. Conversion to residential uses could upset the economic balance of Lower Gwynedd and the region.

INSTITUTIONAL

Although there are several churches, a synagogue, and other service institutions in the Township, the most significant institutions - in terms of size, land area, and regional impacts - are the educational facilities: Gwynedd Mercy College, Gwynedd Mercy High School, Gwynedd Mercy Elementary, and the three schools of the Wissahickon School District (high school, middle school, elementary school).

All of these schools have large land holdings, most of which are used for recreational purposes. In particular, the College is one of the largest properties in the Township, which includes large open green fields that are quite visible to the surrounding neighborhoods (some of the fields are for recreation, some are for the general campus appearance) and forests. It is important to note that all of these schools are located in districts that are zoned A Residential, and therefore any of their unused open lands could be permitted by the regulations to be developed.

All of the schools also serve communities beyond the Township's borders. The College, especially, has needs to be connected to the wider region. Currently it has no regional access other than by private automobile and by its own bus shuttle service to the Gwynedd Valley train station. There is no public bus service available, and the locations of the train stations are too far away for walking. In addition, as a further deterrent to walking, the roads between the stations and the college have no pedestrian paths. It is strongly felt, for instance, that the trains to the city would be well used if they were linked to the college by some form of public transit. In addition, buses to adjacent communities, the nearby Montgomery County Community College and shopping facilities (or even to a revived Bethlehem Pike shopping area) would be equally well used by the college community. Pedestrian trail connections to appropriate public bus stops should also be explored.



The College campus includes historic buildings and large green open spaces, and serves the entire Delaware Valley region.

OPEN SPACES

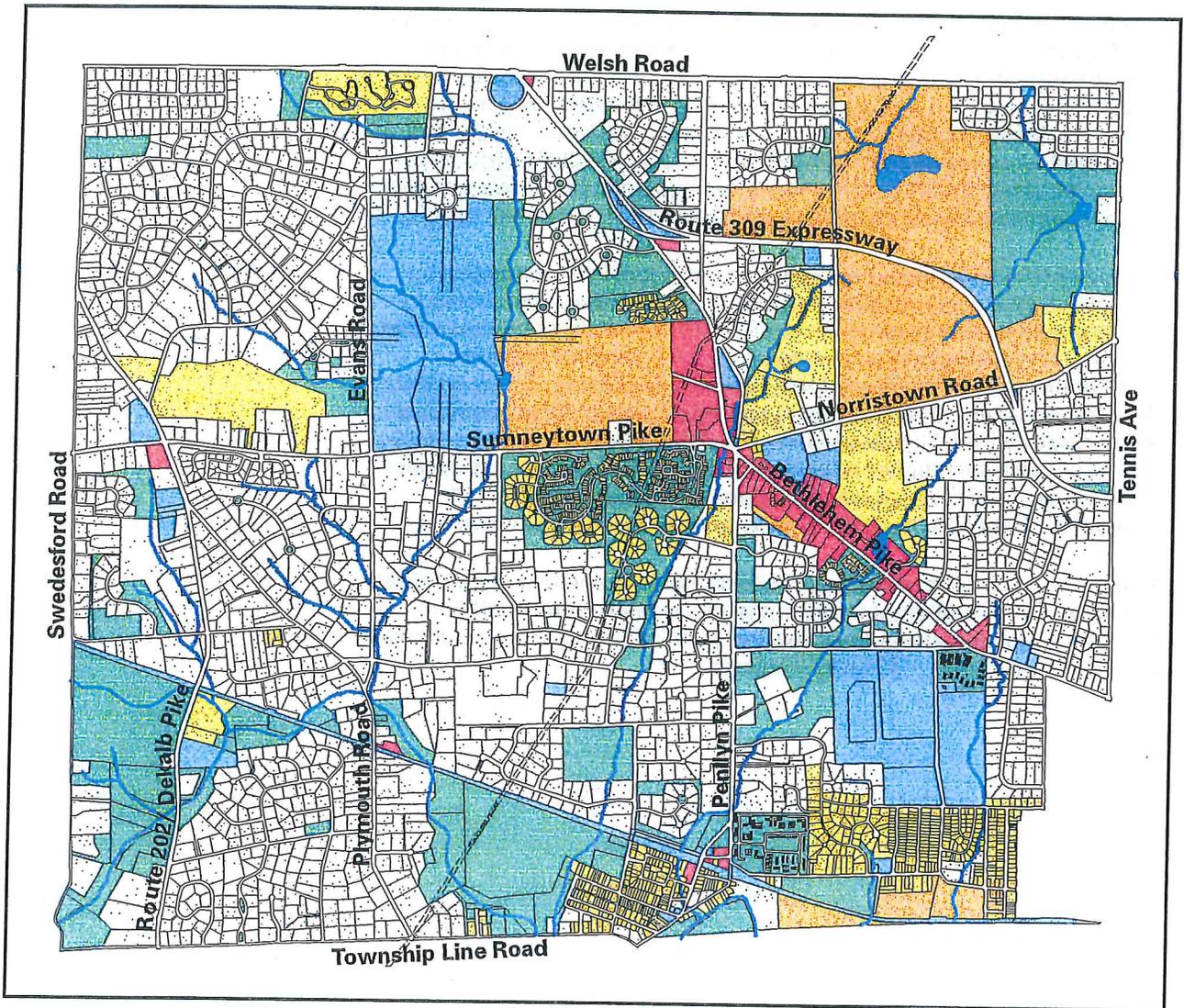
The open spaces of the Township create the sense of openness and greenness that is a dominant quality of the community. They are made of many different parts: public recreation areas; preserved natural habitats; privately preserved lands; the large setbacks of the offices, manufacturing, and institutions; the lands preserved by the cluster developments; private clubs; and, the Township trail system. The open spaces, particularly because they are wooded or natural, provide habitat, a pleasant appearance, a sense of spaciousness and visual relief from the built environment. They link all of the parts and neighborhoods of the community together, sometimes as physical walking or biking connections, sometimes as symbols that are constant in all areas of the Township. Each of them is discussed in detail in the Existing Conditions: Open Space and Recreation / Natural Resources sections of this Plan.

LAND USE AREAS

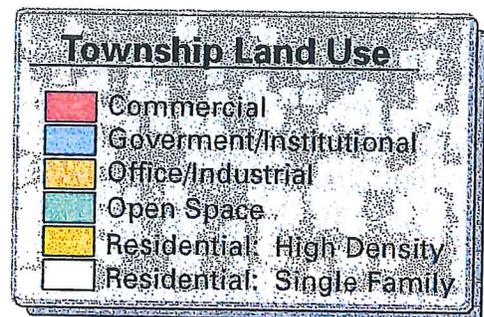
Statistically, the community's land used can be described as follows:

Estimated Areas for Major Land Use Categories:

Use Type	Acres	% of Total
Low Density Residential: (single family units on lots of 30,000 sf or more)	2991.8 acres	54.9%
High Density Residential: (single family units on lots less than 30,000 sf, townhouses, retirement communities, apartments)	516.2 acres	0.5%
Commercial: (retail, offices)	185.4 acres	3.4%
Office/Industrial:	482.0 acres	8.8%
Government, Institutional: (government facilities, schools, churches)	449.9 acres	8.3%
Open Space: (public recreation and permanently preserved open spaces)	826.7 acres	15.1%
"Undeveloped" (See Page 3-8 for the estimate of the additional residential development that could take place in the Township.)	-0 acres	0%
Total Land Use Areas: (Note: roadways not included)	5,452.0 acres	100.0%



Plan of the existing Land Uses in the Township, which shows the significant locations of the office/ research/ manufacturing developments, the institutions, the retail/ commercial areas, and the residential neighborhoods, and the distribution of the various open space types.



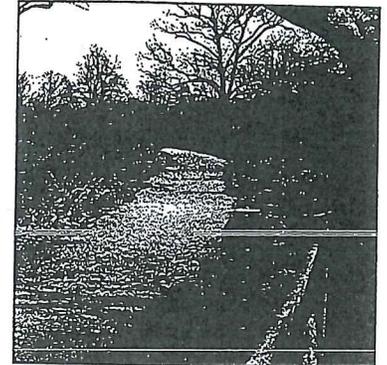
Within these various land use areas, certain parcels are large enough to be further subdivided, based on the requirements of the zoning code, despite wetlands constraints, and regulations regarding reasonable automobile access. These parcels are generally in the Single Family Detached zoning districts (A, A-1, and AA Residential), and in the Office/ Research/ Manufacturing zoning districts (D-1 Special Use District, and F-1 Limited Industrial District). Moreover a recent trend to combine smaller parcels, demolish existing buildings and "redevelop" has been noted.

A study of the residential properties indicates that the *total* additional development that is reasonable to assume to take place, according to existing zoning, would generate about 250 – 310 additional homes. Note that this area includes several smaller (e.g. 5 – 10 acres) properties located throughout the Township, the Rohm & Haas "farm" property on McKean Road, and the undeveloped property (zoned A-10) at Bethlehem Pike and Welsh Rd. The development of the Old York Road Country Club would generate the higher of the two numbers. This amount of development would result in an increase in population of about 500 to 650 residents, or about 6.5% to 8.1 % more than now live in the Township.

If, however, the Rohm & Haas and Country Club properties are assumed to be stable and continuing in their current uses, the total additional possible residential development drops to 185 - 235 units (a total increase of 5% to 6%), and 370 – 470 more residents.

3. EXISTING CONDITIONS: OPEN SPACE AND RECREATION

- T**he 1996 Open Space Plan prepared by the Township puts forth five goals to “maintain the character of Lower Gwynedd”:
- Provide a trail system that is readily accessible to all residents of Lower Gwynedd Township.
 - To provide facilities adequate to meet the active recreational needs of all residents of Lower Gwynedd Township
 - To provide a proper amount of open space so as to achieve a balance between the developed and undeveloped land in the Township, and provide for the passive recreational needs of the community.
 - To preserve the visual quality of the landscape and protect the environmentally sensitive and ecologically important lands within the Township.
 - To provide connections to adjacent municipalities so as to incorporate Lower Gwynedd into the fabric of Montgomery County.



View of an existing Improved Recreational Trail

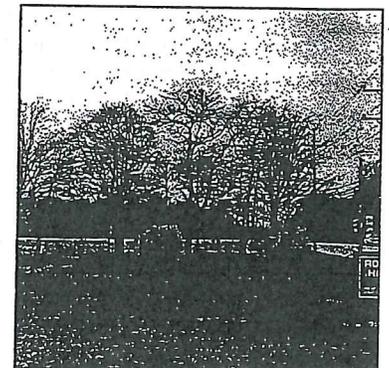
OPEN SPACE CONSERVATION

Preservation areas are formally protected from development either by some governmental body or by some organization acting in the public interest. In Lower Gwynedd, these areas include lands protected by the Wissahickon Valley Watershed Association (Driscoll Estate and Green Ribbon Preserve); by the Natural Land Trust (Lippincott Estate and Gwynedd Preserve); by Lower Gwynedd Township (Penllyn Woods, Centennial Park, and Bird Sanctuary); and by the Wissahickon School District (Wissahickon Nature Area).

Wooded areas in Lower Gwynedd often are mature woodlands, with trees which are irreplaceable. A large part of the character of Lower Gwynedd is dependent on the existence of wooded areas punctuating and threading the rolling terrain. The historic pattern of “Gentleman’s Farms” and wooded areas along the Wissahickon Creek and its tributaries has given the community a visual identity as a green, verdant, shady place. The preservation of that pattern is clearly important.

Horseways trails are, at present, clustered in an area comprising only about a third of the Township. Despite the development which has changed the face of the Township, equestrians still ride here and the trails, historically equestrian, are now also used by pedestrians.

Watercourses, as much as wooded areas, form an essential element of the character of Lower Gwynedd, providing scenery and wildlife habitats. In addition, they are natural determinants

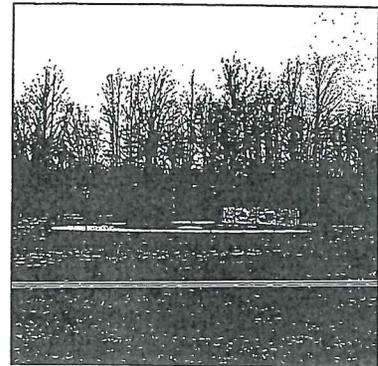


View of an open space preserved by required setbacks in the office/research areas of the Township.

for a potential Township-wide open space system. See the accompanying map indicating the various protected open spaces. Note that some of the spaces are permanently protected by various methods, while others remain only temporarily protected. These areas could become developed when private land owners change their minds about the value of conservation.

RECREATION SPACE

Recreation areas are those areas developed for active recreation use, either for the public in general or for some specific private group. In Lower Gwynedd public recreation areas include Penllyn Woods, Penllyn Park, Oxford Park, Ingersoll Ballfields (the Little League fields), the playing fields of the Wissahickon School District; and the Township's Project 70 land along the Wissahickon. The Township is in the process of acquiring a park, with Ambler Borough along PenAmbler Road. Private recreation areas include the Old York Road Country Club, the employee playing fields of McNeil and of Rohm & Haas; Cedarbrook Country Club; the Penllyn Club; and the playing fields of Gwynedd Mercy College, Gwynedd Mercy Academy High School, and Gwynedd Mercy Elementary School. In addition, areas classed as private recreation areas include the wooded areas and walking paths provided on the grounds of Foulkeways, Spring House Estates, Woodbridge Meadow, and Trewellyn Farms. Some limited public access is permitted at Foulkeways and Spring House Estates.



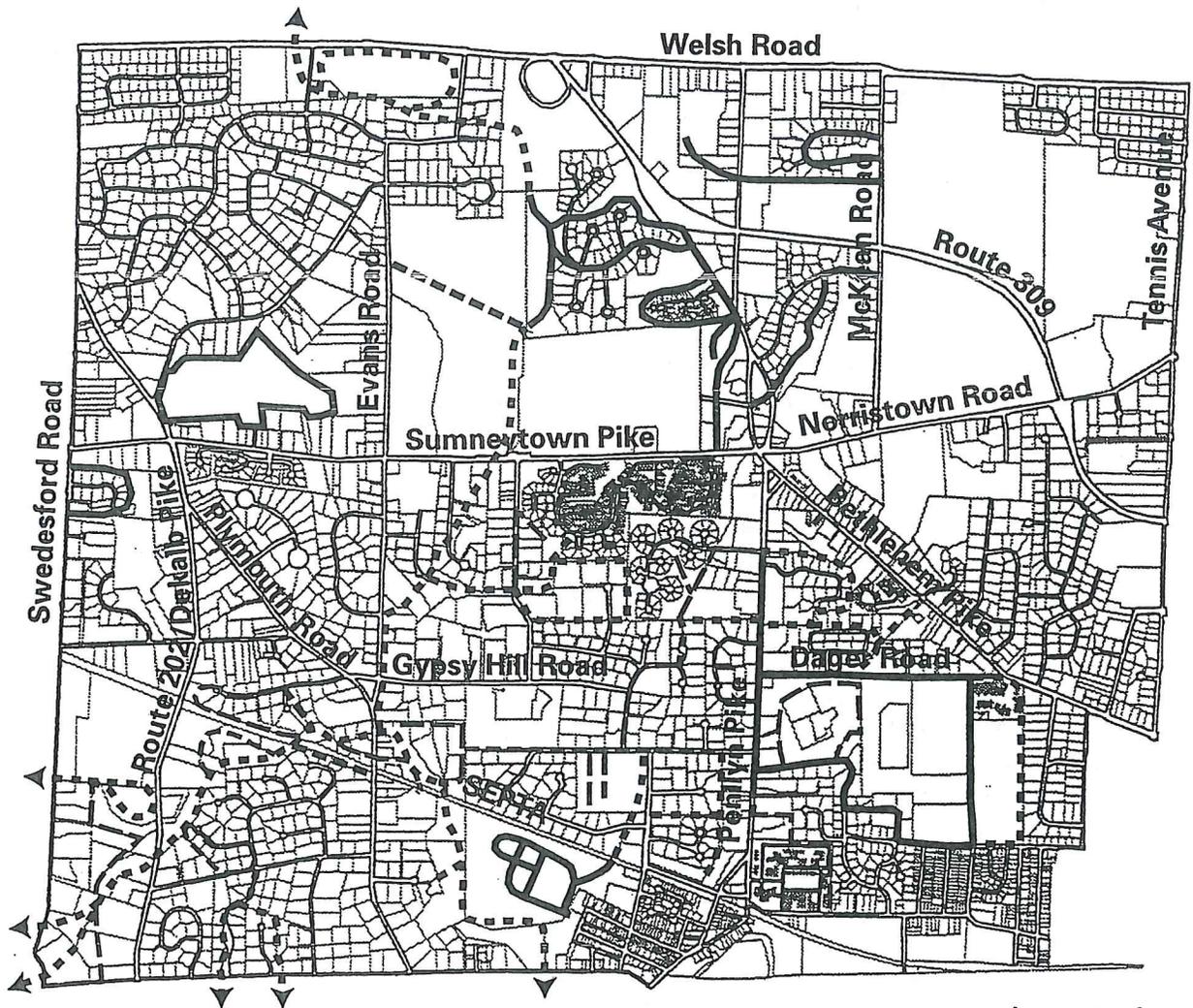
A view of the Ingersoll (Little League) Ballfields on Penllyn Pike.

PEDESTRIAN AND BICYCLE TRAILS

The existing trail system serves two purposes: horse back riding, and jogging/ walking/ biking. This difference is important to understand as the trail system is completed. Horses can use narrower paths and softer surfaces, which can in some instances be incompatible with pedestrian and bike movement. Horses, however, can easily use the "improved" type of trails now being built. The Existing Trails Map indicates that some of the pedestrian/ bike trails are "unimproved," while others are "improved." The unimproved trails are often grass areas where it is the custom, or it is formally agreed, to permit walkers to use the area. The improved trails are built with compacted limestone quarry fines, and are therefore continually maintained. The screenings are handsome and, in many ways, visually compatible with the landscape of the Township.

The existing trails have been built as individual residential neighborhoods have been developed. This one-at-a-time method is slowly succeeding, where linkages are now being made. The Open Space Plan of the Comprehensive Plan includes a sketch map that indicates possible locations for completing the "loops" and other routes of the system. If the Vision of making one community is to be realized, these connections are essential.

Many studies throughout the country have shown that trails built adjacent to suburban residential communities are very safe, and that well-maintained and continuous trail systems significantly increase the values of nearby properties. Since residents of new developments often express



Plan of the Existing Trail System: note that it is not yet continuously linked, and therefore only connects some of the major areas and uses of the Township.

- Improved
- Unimproved
- - - - - Horse

fear - of crime, of noise, of trash - when trails are proposed, two steps have been found to be important in the trail-building process: build the trails before the new neighbors move in; and, undertake a continuing educational process that reveals that the positive qualities of living adjacent to these trails. Often it is necessary to be sensitive to the privacy concerns of adjacent property owners by planning landscape buffers.

CHANGES IN OPEN SPACE AND RECREATION AREAS, 1987-1999

Since the writing of the 1987 Comprehensive Plan, Lower Gwynedd Township has taken additional and important steps forward, in address-

ing the need to conserve open space and recreational space. The Open Space Plan was prepared in 1996, which supported the Township in its ongoing process of applying for funds from the Montgomery County Open Space Fund. That Fund was established to acquire and conserve important open space and recreational lands throughout the County.

Changes in Open Space Conservation

Since 1987, several parcels of land have been either purchased or received conservation easements in the Township. In the 1996 Open Space Plan six properties were identified as high priority for conservation and the completion of the Trail System. The sites and their current status are as follows:

- *Kolb Farm: Remains available for preservation.*
- *Driscoll Tract: Privately preserved with a conservation easement held by Wissahickon Valley Watershed Association.*
- *Kinsley/Bullock: One single family lot has been created, and the remaining 12 acres have been preserved by the Natural Lands Trust and Wissahickon Valley Watershed Association.*
- *Jackson Parcel ("Trewellyn Reserve"): 10 of 20 acres are now developed in townhouses; 10 acres are now preserved.*
- *Claytor/Ingersoll: Conditional Use Approval has been granted to developer, for single family homes and some preserved acres.*
- *Brown Nursery: Is no longer available for preservation, since it is fully developed with single family houses.*
- *Henkel (now Cognis) Site: Under Agreement of Sale; future development as active recreation.*

Note that two of these sites remain available for preservation. Three have been partially preserved, one has been fully developed, and one is now being preserved.

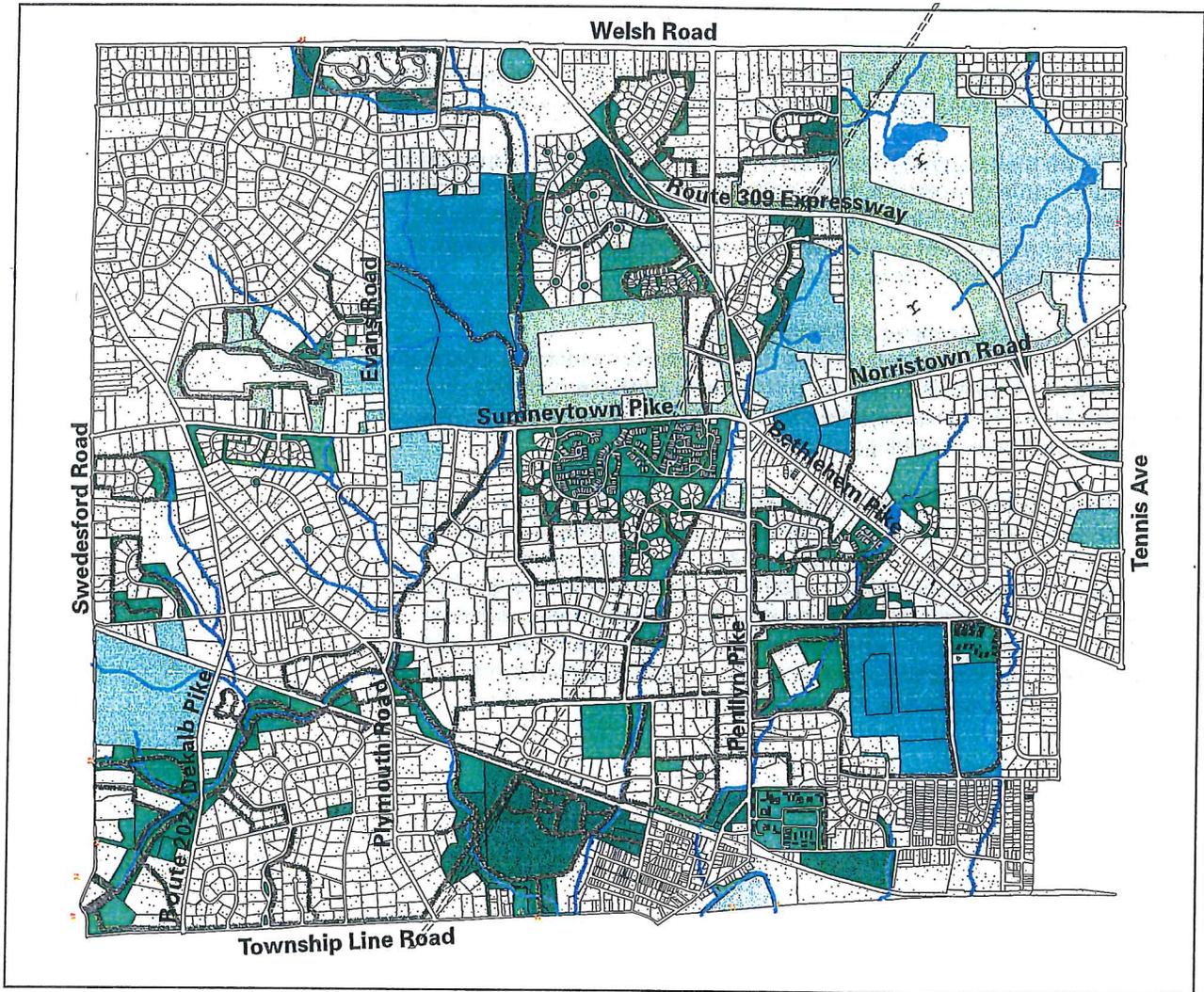
It is significant to note that over 100 acres have now been set aside as open space as a result of the Cluster Zoning Ordinance, which has been the primary open space protection initiative in the Township. Clustering has also been the primary method for creating the trail system.

Changes in Recreation Areas

Regarding recreation space, the 1987 Comprehensive Plan recommended the acquisition of three recreation areas. Two of these parcels have since been acquired or conserved. A portion of the Claytor Properties east of Old Bethlehem Pike has become a municipal park. The Penllyn Woods site, though still being developed, will become a prominent community asset both for active and passive recreation. This is a superb site that, once completed, will create a substantial community park that will link to two adjoining neighborhoods.

Changes in the Horse Trails

When the 1987 Comprehensive Plan was being prepared horse trails were an important recreational feature that was emphasized and under



Existing Open Spaces in Lower Gwynedd Township, showing the various types of spaces, their locations, and their ownerships.



active expansion. The 1996 Open Space Plan identified many of these same horse trail locations which seemed to indicate that the network of trails had not expanded. In the late 1980's and early 1990's the Horseways organization was actively promoting and developing these trails.

In recent years the usage of these trails has decreased and some of the trails have become overgrown. In some cases adjacent property owners have created hazards to block the use of these trails. These changing usage levels and apparent conflict with adjacent neighbors warrants additional investigation and review.

Changes in the Pedestrian and Bicycle Trails

The 1987 Comprehensive Plan did not document the location of existing pedestrian or bicycle trial routes, so it is difficult to characterize the changes. However, that Plan did recommended the creation of a Township-wide walking and riding path network.

With the introduction of the Township's Cluster Zoning Ordinance and the 1996 Open Space Plan, the Township has been able use both tools to require land owners to build components of this trail network. The process has slowly and steadily born fruit, but the Trail System remains incomplete. They serve some neighborhoods for recreation purposes, but not all neighborhoods. They also do not, in their incomplete state, give the walking and biking access to key Township destinations - and therefore do not yet fulfill the Visions of this Plan.

3. EXISTING CONDITIONS: HISTORIC, CULTURAL RESOURCES

History in Lower Gwynedd is more than old houses. The rich historical heritage of the community includes many building types (the "historic resources"), as well as the archeological ruins of structures that remain within the Township. In addition, many of the landscapes - the "cultural resources" - that make the community have its "green and peaceful" quality are also historic, and are considered in this plan to be equally worthy of preservation

HISTORIC RESOURCES

Lower Gwynedd was first settled in 1698 by Welsh Quakers fleeing religious persecution. Due to the development patterns that have taken place over the years, including a period of local history where the Township consisted largely of "Gentleman's Farms", many of these historic resources are still in place. These can be classified in the following three categories:

Individual Historic Structures

These structures are identified in the Historic Inventory prepared for the Township in the Route 202 and 309 corridors, per Section 106 of the Federal Guidelines. The locations of these structures are indicated in the accompanying map. They represent a wide range of historic properties that reflect the earlier development patterns within the Township. Many of the structures include the older farm houses, houses developed during the expansion of the railroad, and large estates built since the turn of the century. They represent a lasting culture of the community. Unfortunately, recently many of these structures have been threatened due to their close proximity to adjacent roadways or market demands, which encourage their demolition in order to build larger or more modern homes. As these resources are lost, so is a vital link with the historic culture of the community. Sadly, the loss of these attributes, which individually often seem insignificant, become one of the key factors in changing the overall character of a community and often represent an erosion of the values which make it special.

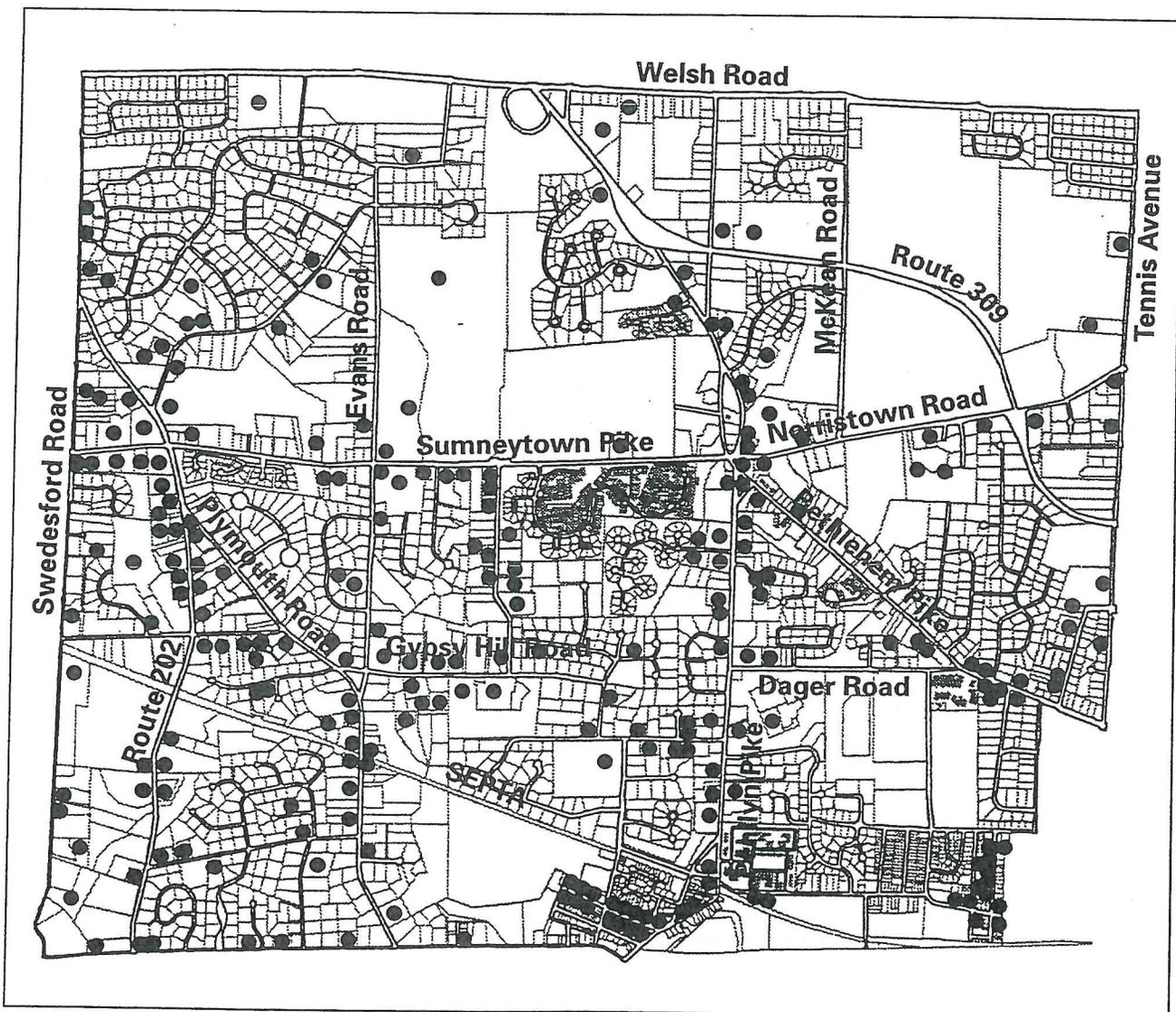
Groups of Historic Structures

The pattern of development over time indicates that many of the historic structures in the Township are grouped into distinct areas. Most of these groups are located either near circulation points, such as older key intersections (note the groups at the Plymouth Rd. / Evans Rd. and Penllyn Pike / Old Penllyn Rd. intersections), and the train stations.

The neighborhoods associated with the development of the railroad include some period houses at the Gwynedd Valley and Penllyn Stations. These structures reflect the architecture that was prevalent during the construction of the railroad. As a group they reflect an interesting timepiece.

The area along Penllyn Pike, and including the Village of Spring House at the old five points intersection, includes some fine farm houses that are indicative of eighteen and nineteenth century rural landscapes and large estates that were developed since the turn of the century. Although infill development has taken place among these historic resources, there are enough of the original structures to tell a story of how this area was originally developed.

Other groups of historic buildings line historic roads, some of which were once post roads. DeKalb Pike (Route 202) and Penllyn Pike are examples of this linear pattern of development. Route 202, for example, is charac-

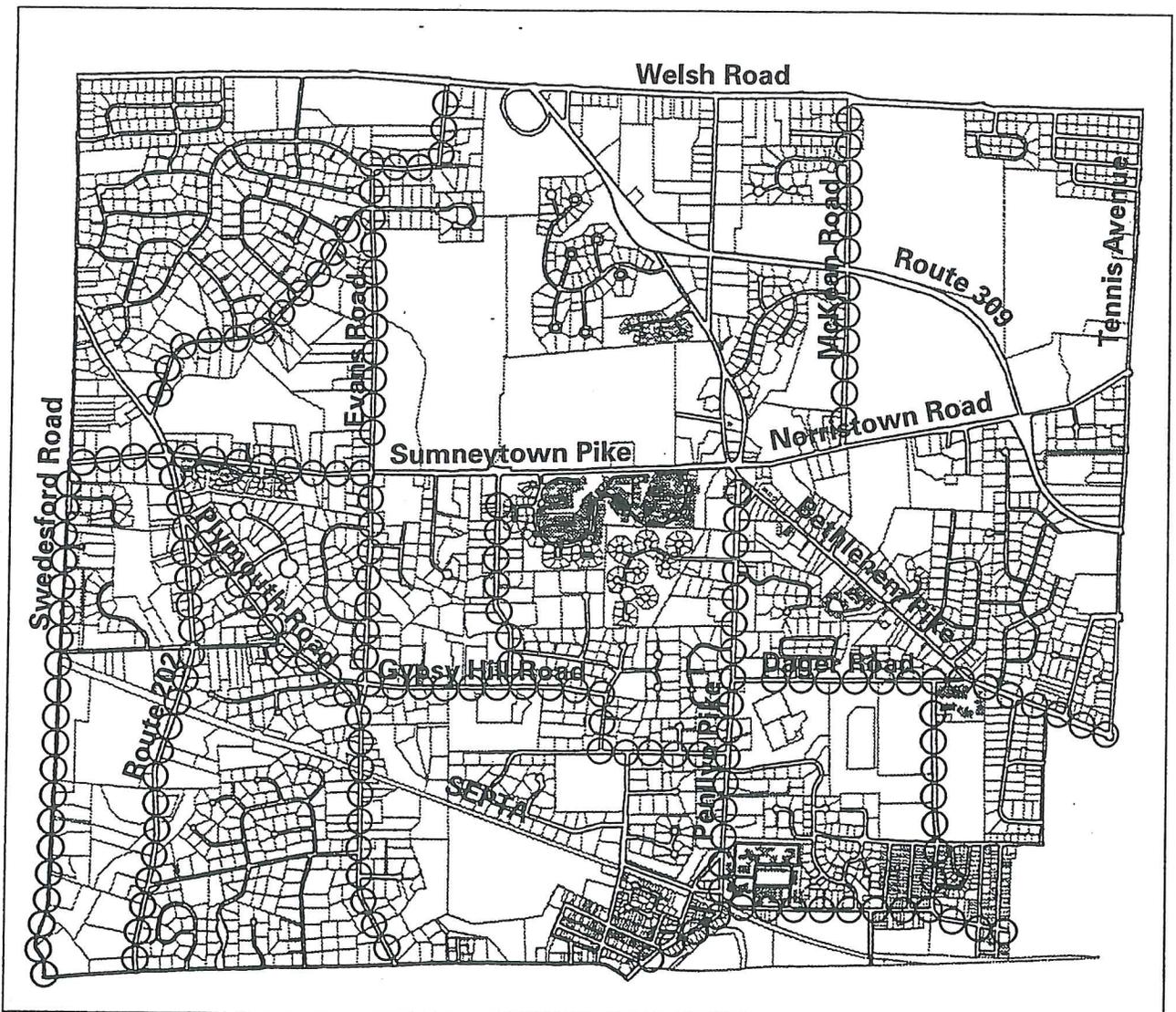


A map of the Township showing the locations of the many historic homes. Note the general locations along the older roadways, and near the two train stations..

terized with some large farms, old inns such as the William Penn Inn, the Gwynedd Quaker Meeting and the Episcopal Church of the Messiah, to name a few. Part of the Route 202 Corridor is significant because it is one of the few sections in the area that is still historically intact with open space, historic structures, and a cultural landscape of canopied trees.

CULTURAL RESOURCES

The cultural resources of the Township are the landscapes of view corridors that include tree canopied streets, various linear open spaces and natural landscape features, former road alignments, remains of earlier



A map of the Township showing the existing cultural landscapes, which generally are historic roadways and should be preserved.

structures, walls, and fences. All of these contribute to defining experiences of place and identity for the community. Most typically they are associated with historic landmarks or roads. The loss of cultural landscapes would mean the loss of landscape continuity or the loss of the landscape context for an historic structure or district. The accompanying map identifies the existing cultural landscape of the Township.

3. EXISTING CONDITIONS: NATURAL RESOURCE PROTECTION

The existing conditions of the natural resources in Lower Gwynedd Township include an understanding of its Geology, its classifications of Soils, its Topography of the land, and its Drainage and Hydrology characteristics. All of these facts have not changed since the preparation of the 1987 Comprehensive Plan, so the descriptions given here are based on Section 4: Natural Resources, of that Plan. The information given here is to be used as a guide for both development and preservation

GEOLOGY

Knowledge of the rock formations underlying Lower Gwynedd is important primarily in an understanding of their usefulness as aquifers or water supply sources. The Stockton and the Lockatong are the two primary rock formations that underlay the Township, and divide it approximately in half.

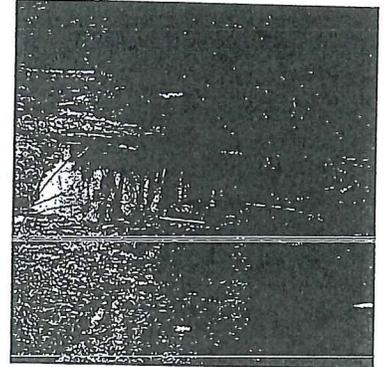
The Stockton formation underlies the southern portion of the Township. This geologic formation consists of Arkosic sandstones and conglomerates with some underlying beds of shale, and occasional diabase (trap rock) dike intrusions.

The Stockton formation is one of the better aquifers in Montgomery County and is used by both the North Wales Water Company and the Ambler Water Company as a source of ground water. Many of the wells in this formation are of artesian quality. The water yield of wells in the Stockton formation typically ranges from 50 to 400 gallons per minute. In addition, the recharge area of the Stockton aquifer is extensive.

The Lockatong geologic formation underlies the northern portion of Lower Gwynedd Township. It consists mainly of agrillite, with an occasional zone of shale. Agrillite does not have any systematic groupings of fissures or cracks, and therefore has poor water storage and aquifer recharge capabilities. Where cracking has occurred in the bedrock the cracks tend to be rapidly filled with mudstone deposits. The Lockatong is therefore a poor aquifer. Wells in this formation seldom yield as much as 50 gallons per minute, which is adequate only for a private household. In addition, since wells are dependent on the existence of limited localized fissures for their water supply, both the number of wells and the amount of impermeable surface (which reduces the aquifer recharge area) in an immediate area can be important determinants of supply.

SOIL CLASSIFICATIONS

An inventory and analysis of soil classifications based on a 1967 Soil Survey of Montgomery County prepared by the USDA Soil



View of the natural environment in the Wissahickon stream corridor

Conservation Service in cooperation with the Pennsylvania State University and the Pennsylvania Department of Agriculture has been undertaken. Twenty-nine specific types of soils are identified in Lower Gwynedd Township.

Each type exhibits various properties including depth to bedrock, depth to water table, internal drainage, erosion hazard, bearing capacity, and slope. These properties combined make possible predictions concerning the developmental suitability of areas within Lower Gwynedd based on the natural capacities of the land. In general, four broad soils groups encompass all of the soil types found in Lower Gwynedd:

The Made Land - Glenelg- Chester Association occurs in a narrow peninsula in the southeastern area of the Township, largely bounded by Bethlehem Pike, Norristown Road, and Route 309, and extending into Ambler and Upper Dublin. According to the USDA Soil Survey, this association is characterized by deep, well-drained soils on undulating uplands, underlain by limestone. In the largest portion of this association, the original soils have been so altered by human intervention that the individual soils can no longer be identified, and careful engineering investigations should be made prior to substantial development on these Made Land soils types.

The Lansdale-Penn-Readington Association is found in a small portion of the Township, in one area roughly centering on Penllyn and another area including Gwynedd Estates and a portion of the Old York Road Country Club. This association is characterized by deep and moderately deep well-drained soils underlain by shale and sandstone, on rolling uplands. The main limitations for development are short, steep, eroded slopes, bedrock near the surface, and occasional areas of seasonal high water tables. Generally, however, this association is well suited to development.

The Lawrenceville-Chalfont-Doylestown Association occupies most of the remainder of the eastern sector of the Township, with inter-fingerings with the third major soil association, discussed below. This soil association, the most prevalent in Lower Gwynedd, is characterized by deep, moderately well drained to poorly drained soils formed in windblown silt deposits on undulating uplands. In Lower Gwynedd, the most prevalent soil types of this association are poorly drained, with a very high seasonal water table. If the soils are used for development, septic tanks do not operate satisfactorily, basements are wet, and erosion is severe after the soils are disturbed.

The Abbottstown-Readington-Croton Association occupies the rest of the Township. The second most prevalent soil association in the Township, it is largely located in the western segment of Lower Gwynedd. Characterized by deep, moderately well drained to poorly drained soils underlain by shale and sandstone, this association is found on undulating uplands. The use of the major soils of this association is limited by the slow permeability of their subsoil and by a seasonal high water table, which

prevents the efficient operation of on-lot sewage disposal systems, causes wetness in basements, and causes the deterioration of paved surfaces.

The Soil Suitability Table, Technical Memo 1, which was included in the 1987 Comprehensive Plan, describes more explicitly the soil types and associated limitations found in Lower Gwynedd. For specific locations of the twenty-nine soil types, the USDA Soil Survey Maps for Lower Gwynedd, Montgomery County, should be consulted.

SOIL SUITABILITY FACTORS FOR DEVELOPMENT

	Slope	Depth to Water Table	Depth to Bedrock
A - Few Constraints	≤ 8%	>3'-0"	>3'-0"
B - Moderate Constraints	≤ 15%	>3'-0"	>1'-0"
C - Severe Constraints	≤ 15%	0'-3'-0"	>3'-0"
D - Extreme Constraints	≤ 35%	0'-3'-0"	>1'-0"
E - Development Prohibited	≤ 35%	0'-2'-0"	0'-3'-0"

In Lower Gwynedd, the vast majority of the soils are Group C (severe constraints), primarily due to the slow permeability of the subsoils throughout the Township. This causes a high seasonal water table affecting the operation of septic tanks, causing seepage in basements, and causing paved surfaces to break up as a result of frost heaves and freeze-thaw cycles.

Although a significant amount of land in the Township displays severe limitations to development, this does not necessarily mean that development cannot or should not take place. The fact that development continues to occur in areas exhibiting severe limitations suggests that some of the limiting factors alone (such as a high water table) are not critical problems for developers to overcome. However, the more limitations there are in a specific area, the less suitable it will be for development. This analysis is intended to show the relative degree of suitability, not necessarily where development will actually occur. Because the limitations occur in varying degrees and combinations, a "severe" or "extreme" rating simply implies that the area should be carefully investigated prior to development.

TOPOGRAPHY

The dominant feature molding the landscape of Lower Gwynedd Township is the Wissahickon Creek and its tributaries. The Wissahickon Creek's highest elevation, 422 feet above sea level, is in Montgomery Township, north of Lower Gwynedd; the Wissahickon then traverses 12.4 miles, about 20% of which is in Lower Gwynedd Township, to join the Schuylkill River at an elevation of 15 feet above sea level.

In Lower Gwynedd the highest point of elevation, 470 feet, is located on a minor Wissahickon basin ridge line in the northern corner of the Township, near the junction of Welsh Road and Swedesford Road. The lowest point of elevation is at the southwest boundary of the Township, where the Wissahickon exits from Lower Gwynedd at an elevation of 195 feet above sea level. A major basin ridge line, separating the Wissahickon and Neshaminy watersheds, roughly parallels Route 309 across the eastern corner of the Township.

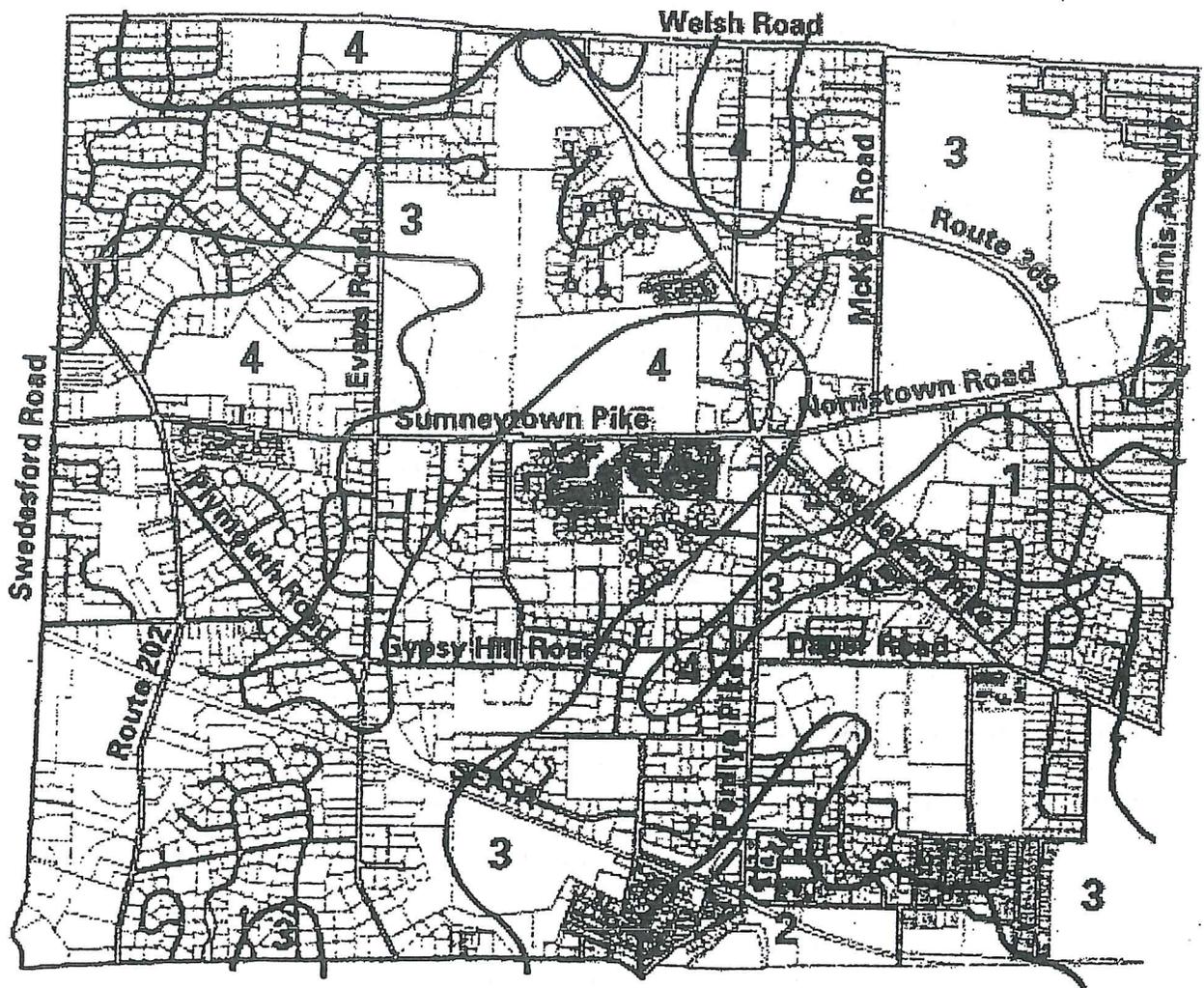
Slope conditions can be very important for suburban development. Flat ground will have very poor drainage despite soil characteristics, creating groundwater and surface water drainage problems. Fortunately, such areas are rare in the rolling countryside of Lower Gwynedd; where they do occur they lie within the floodplain of the Wissahickon.

Alternatively, construction on slopes of over 10% can cause erosion and vehicular access problems, and increase development costs. Most of the steep slopes in Lower Gwynedd are associated with the Lockatong geologic formation, eroded by the stream action of the Wissahickon and its tributaries. Almost all the areas of steep slopes are located near the stream banks, approximately delineating floodplains.

DRAINAGE AND HYDROLOGY

The drainage and hydrologic characteristics of the Township have been identified based on USGS topographic maps, FIRM flood insurance maps, and the USDA soil survey.

The majority of Lower Gwynedd Township is in the watershed of Wissahickon Creek. In the eastern corner of the Township, however as previously noted, a ridge line roughly following Route 309 separates the Wissahickon from the Neshaminy watershed. Within the Wissahickon watershed, several smaller ridge lines separate the minor watersheds of tributaries to the Wissahickon. Finally, surface water and drainage channels complete the description of drainage patterns. These drainage patterns illustrated on the Drainage and Hydrology map (Figure 2.8 Drainage and Hydrology) are important in the prediction and analysis of storm-water runoff, as well as the planning of sanitary and stormwater sewer extensions.



General Soils Groups:

1. Gleneld - Chester - Association
2. Landsdale - Penn - Readington - Association
3. Lawrenceville - Chalfont - Doylestown - Association
4. Abbotstown - Readington - Croton - Association

The Soil Patterns that exist in the Township can give guidance to the location and nature of both development and open space preservation.

Hydrologic characteristics can result in development constraints. In Lower Gwynedd, the primary characteristics of concern are flood prone soils and areas of seasonal high water tables. Flood prone soils can generally be found adjacent to streams and water bodies. These areas have soils consisting of stream sediments, and are extremely susceptible to flooding. Development of these soils is considered a hazard to life and property, not only for the development itself, but for pre-existing developments elsewhere which may be threatened by resulting changes in stream and flood paths.

Areas having a seasonal high water table also result in development constraints. Depth to the seasonal high water table, according to the Soil Survey, is "the distance from the surface of the soil to the highest level that groundwater reaches in the soil in most years." Generally, if water saturates the soil within 6 to 36 inches of the surface, it can be considered as having a high water table. In Lower Gwynedd a map of these areas would include nearly the entire Township. For purposes of this analysis, therefore, a water table depth of one foot or less below the soil surface qualifies an area as having seasonal high water table.

Note that the Township has floodplain ordinances that prohibit development in the floodplain, and a wetlands ordinance that prohibits disturbance within 25' of the wetland edge. Accurate mapping of the drainage and hydrology characteristics are on file in the Township offices.

CHANGES SINCE THE 1987 PLAN

There have been two changes that have improved the protection of natural resources in the Township since 1987. The first change was the establishment of the Lower Gwynedd Open Space Planning effort, which occurred between 1994 and 1996. It has created an excellent resource for prioritizing natural resources, and has established the opportunity to take advantage of the Montgomery County Open Space Grant program. The second change was the creation of the Cluster Zoning Ordinance, which has become one of the primary tools for the conservation of important natural resources.

3. EXISTING CONDITIONS: CIRCULATION

A safe and efficient circulation network is critical to a community's economic success and overall livability. The circulation network should connect the community to regional activities and opportunities as well as provide for convenient access to local attractions. Lower Gwynedd Township's circulation network is comprised of three basic components: roadways, public transportation services and the local trails. Roadways are the prominent element; however, public transit services and an expanding trails network provide important alternatives to driving.

A summary of existing transportation facilities is provided for roadways and public transit. The trail network is included in more detail with the open space and recreational elements of the Comprehensive Plan Revision 2000. The existing traffic problems, current plans and improvement proposals are also summarized. This information provides the basis for an evaluation of future transportation needs and serves as the framework for the Circulation Element of the 2000 Plan.

Transportation facilities have been grouped according to the types of connections they provide, either local, intercommunity or regional. The local network consists mostly of residential streets and low volume roadways. Trails and pathways that connect residential neighborhoods with specific activity areas, such as schools, parks or local businesses, are also considered local transportation facilities. Intercommunity facilities include medium volume roadways that connect local communities to neighboring municipalities and certain types of bus routes. Regional transportation facilities provide connections to major activity areas throughout the Delaware Valley area. Arterial roadways, the PA 309 Expressway and SEPTA's R-5 regional rail line are regional transportation facilities.

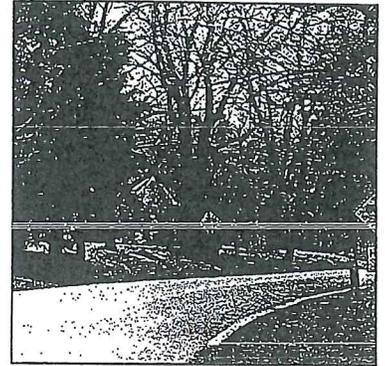
EXISTING TRANSPORTATION FACILITIES

The following information includes the administrative and functional classifications of roadways, key physical characteristics, and average daily traffic volumes on major roads. Existing traffic problems and current roadway improvement plans have been identified. A summary of existing transit services is included.

ROADWAY CLASSIFICATIONS

There are two classifications of roadways discussed in this analysis, administrative classification and functional classification. The administrative classification refers to the ownership of the roadway. The functional classification refers to the character of service provided by specific roadways.

Administrative Classification: In Lower Gwynedd, roadways belong to the State, the County or the Township. The primary



A typical, quiet, tree-shaded, Collector Road in the Township.

Collector Roadways

Collector roadways provide the transition between arterial and local roads. Trip length and travel speeds can be moderate and some access to major trip generating land uses on adjoining parcels can be provided. Collector roadways are also divided into major and minor collectors.

The Federal Highway Administration establishes a functional classification for most major roadways, and are based on network geography and traffic volumes. This classification is consistent throughout the United States and is associated with federal improvement funding categories. Municipalities can also classify roadways per local ordinances. The federal functional classification of roadways in Lower Gwynedd Township is as follows:

- *Expressways:*
PA 309 Expressway
- *Principal Arterials:*
US 202, DeKalb Pike
PA 63, Welsh Road
PA 309, Bethlehem Pike
Sumneytown Pike/Norristown Road.
- *Minor Arterials:*
Bethlehem Pike, from the Expressway to Ambler Borough
- *Major Collectors:*
Swedesford Road (between U.S. 202 and Sumneytown Pike)
Evans Road, from PA 63 to Plymouth Road
Plymouth Road from U.S. 202 to Whitpain Township
Penllyn Pike, from Bethlehem Pike to Whitpain Township
Pen-Ambler Road, from Penllyn Pike to Ambler Borough
Tennis Avenue, from PA 63 to Ambler Borough

Lower Gwynedd Township has defined ultimate rights-of way for most roadways and has classifications for major, inter-community, marginal access and residential or private streets. However, there are no ordinances that establish design guidelines for these roadways.

ARTERIAL ROADWAY CONDITIONS

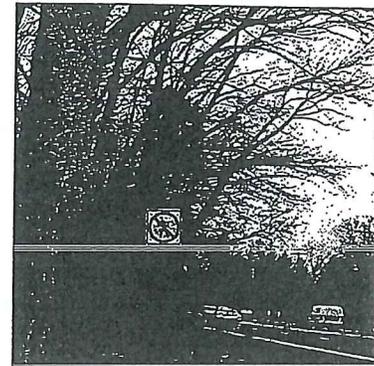
Expressways

The PA 309 Expressway is the only limited access roadway in the Township. The Expressway enters the Township north of Ambler Borough and exits at PA 63. Currently, the Expressway is a four lane divided facility with limited shoulders. There are no full movement interchanges in Lower Gwynedd Township, only a northbound exit to Norristown Road, a southbound entrance from Norristown Road and the area where Bethlehem Pike and the Expressway merge near PA 63. The Expressway serves regional traffic between Philadelphia, Montgomeryville and the Quakertown/Allentown area to the north. Problems associated with the Expressway include insufficient merge areas at the interchanges and poor pavement conditions making safety a more significant concern than congestion. The PA 309 Expressway passes through a major employment area in the northeastern corner of the Township but does not provide any

direct access. The lack of more direct access to the Expressway forces regional traffic onto lower order roads to access the Spring House Corporate Center, and the Rohm and Haas, McNeil, and Advanta employment developments.

Principal Arterial Highways

U.S. 202, DeKalb Pike is the other major roadway serving north/south traffic demands between Wilmington, Delaware and central New Jersey. Major destinations along U.S. 202 are West Chester, King of Prussia, Norristown, Doylestown and New Hope. In Lower Gwynedd, U.S. 202 has a four-lane cross-section between the bridge over the Wissahickon Creek and Meetinghouse Road. The remainder of U.S. 202 in Lower Gwynedd has two lanes and very limited shoulders. Congestion along U.S. 202 is not a significant problem because of the existing four-lane cross-section through much of the Township and the limited number of intersections and driveways. However, the intersection of U.S. 202 and Sumneytown Pike experiences significant congestion during the peak travel periods.



"No People Permitted" along Route 202!

There are four signalized cross streets along U.S. 202 including Township Line Road, School House Lane, Sumneytown Pike, and Hancock Road. There are two minor alignment problems associated with the signalized intersections. Township Line Road includes a substandard horizontal transition between the existing roadway and the western approach that was reconstructed in conjunction with the Windermere residential community in Whitpain Township." At School House Lane, the eastern approach has poor vertical alignment. There are, however, no reports of significant safety issues resulting from these alignment problems.

There are several unsignalized cross streets with poor alignments that create unsafe conditions, including the intersection of Plymouth Road, and U.S. 202, as the number one accident location in the Township. The other unsignalized cross streets are:

- Grasshopper Lane (sight distance limitations)
- Plymouth Road (skewed approach limits sight distance, high travel speeds on US 202)
- Meetinghouse Road (skewed approach)
- Swedesford Road just north of Sumneytown Pike (skewed approach)
- The intersection of U.S. 202, Gwynedd View Road and Swedesford Road near PA 63, Welsh Road (skewed approaches, confusing right-of-way for side streets)

Major improvements to the US 202 corridor are currently being planned. The Environmental Impact Study recommends a five lane cross-section through Lower Gwynedd Township. While much of US 202 is already four lanes through the Township, the proposed improvements include a 12 foot center left turn lane and minimum five foot bike lanes/shoulders along each side of the road. The minimum total width of the roadway will be 70 feet, about 20' wider than the existing four lane road. The most significant changes will occur south of the Wissahickon Creek and north of Sumneytown Pike where US 202 is currently only two lanes wide. The

roadway will double in width in those areas. Other proposed changes include signalization of the Plymouth Road intersection, relocation of the Meetinghouse Road approach to the north through an existing wooded area, realignment of the Swedesford Road approach (just north of Sumneytown Pike) and reconfiguration of the Swedesford Road/Gwynedd View Drive intersection near Welsh Road. The proposed bridge over the Wissahickon Creek will be higher and wider than the existing bridge in order to include a bridle path along the creek, under the bridge. While this will eliminate an unsafe crossing of US 202 by pedestrians and horses it will also remove a large number of trees from the oak hedgerow and will reduce the visual buffer that currently exists. (Note that there are small signs along the roadway now that say 'no pedestrians' - a symbol of the hostile environment for people that now exists.) Improvements at Sumneytown Pike and U.S. 202 may include a jughandle on the southeastern corner. The relocation of Meetinghouse Road would significantly alter access to the Gwynedd Valley Post Office and to the North Penn Fire Company, unless both of these facilities are relocated also.

PA 63, Welsh Road forms the northern boundary of the Township and is a significant east-west travel route. Welsh Road connects employment centers in Lansdale, Montgomeryville, Horsham Township, Willow Grove and northeast Philadelphia. Most of Welsh Road has a two-lane cross-section, however, short sections have been widened in conjunction with adjacent development. Congestion occurs throughout the corridor during the peak commuting hours but is primarily associated with Stump Road (Montgomery Township) and the traffic signals between Evans Road and Lower State Road. Traffic signals are currently provided at Stump Road, Evans Road, the Gwynedd Crossing Shopping Center, PA 309, Lower State Road, McKean Road, the Advanta entrance, and Tennis Avenue. The responsibility for these signals is shared between Montgomery Township, Horsham Township and Lower Gwynedd Township. Left turn standby lanes are provided at Stump Rd., Evans Road, Gwynedd Crossing Shopping Center, PA 309 and Lower State Road. At all other locations, left turns must be made from the through lane.

Sumneytown Pike/Norristown Road provides an east/west connection across the center of the Township. Most of this corridor contains a two-lane cross-section, however shoulder widening has been provided near Gwynedd Mercy College. Norristown Rd. was widened to four lanes between Bethlehem Pike and Tennis Ave., in conjunction with the PA 309 interchange. Traffic signals are located at US 202, Evans Road, the Gwynedd Mercy College entrance, the Spring House Shopping Center/Wellington Drive, Bethlehem Pike, Spring House Estates, the PA 309 entrance and exit ramps, and Tennis Avenue. Congestion is noted primarily at Bethlehem Pike and US 202. Left turn standby lanes are provided at U.S. 202, both approaches of Wellington Drive, Moore Drive, Bethlehem Pike and Tennis Avenue. The inner travel lane acts as a left turn lane at the PA 309 Expressway approaches, although it is not designated for left turns only.

Minor Arterial Highways

Bethlehem Pike, from the Expressway to Ambler Borough, is the only minor arterial roadway in the Township. Bethlehem Pike serves as the commercial center of the Township. Two major shopping centers and the Township administration and police offices are located just north of Sumneytown Pike. A variety of smaller shops, restaurants, offices, auto dealerships and the Ambler YMCA are located along Bethlehem Pike between Sumneytown Pike and Ambler Borough.

Bethlehem Pike consist of a three-lane cross section from Chesterfield Drive through Ambler Borough. The center lane has been designated a two-way left turn lane. Numerous driveways join the adjacent businesses to Bethlehem Pike - especially in the center section, between Spring House and the Penllyn Creek bridge. The access to Gwynedd Mercy Elementary School and the Spring House Post Office is the location of significant turning movements during the morning and noon peak traffic periods. Accidents are predominantly associated with turning movements at driveways and minor cross-streets. Congestion occurs at the signalized intersections at Sumneytown Pike/Norristown Road and Penllyn Pike. Other existing traffic signals are located at Dager Road and Tennis Avenue. A new signal has recently been provided at Moore Drive and the Township Fire Station.

COLLECTOR ROADWAY CONDITIONS

The collector roadways in the Township are characterized by two travel lanes, total pavement widths between 16 and 26 feet wide, with little or no shoulder. The posted speed limits are either 25 or 35 miles per hour. Houston Road's pavement width is 34 feet and it is striped as four lanes in the vicinity of the Wissahickon High School, the Wissahickon Middle School and Lower Gwynedd Elementary School.

Excessive travel speeds are the most commonly noted complaint along the Township's collector roadways. Many of the collector roadways are used by local commuters to bypass the arterial roads and congested intersections. The collector roadways in the Township are:

- Brushtown Road
- Dager Road
- Evans Road
- Grasshopper Lane
- Gypsy Hill Road
- Houston Road
- McKean Road
- Meetinghouse Road
- Pen Ambler Road
- Penllyn Pike
- Plymouth Road
- School House Lane
- Swedesford Road
- Tennis Avenue
- Township Line Road

LOCAL ROADWAY CONDITIONS

Local roadways fall into two categories: those constructed as part of a subdivision and those older roadways that form connections to the overall road network. Subdivision streets are generally newer and wider than the older roads. They generally have curbing and storm drains. The older local roads are generally narrower with no curbing or storm drains.

In Lower Gwynedd Township, many subdivision streets end in cul-de-sacs rather than connecting to other streets. Cul-de-sacs are favored by many homeowners because they are quiet with low traffic volumes. However, cul-de-sacs force local traffic onto higher order roadways to circulate within the community, making overall congestion worse. They also isolate small neighborhoods, limit travel options within the community and make the delivery of emergency services more difficult.

Also, there are few roadways that provide cross-Township connections other than the main roads. Consequently, even trips between neighborhoods require a car and often a long, circuitous route. All this adds to area congestion, air pollution, separation of communities and limitations on travel options for those who do not or cannot drive. Trail connections might help pedestrian mobility, but the Township should consider the negative impacts of too many cul de sac roads.

TRAFFIC VOLUMES

Average daily traffic volumes on major arterials in Lower Gwynedd Township range from about 12,000 to over 20,000 vehicles per day. Average daily volumes on the PA 309 Expressway are about 45, 000 vehicles per day.

The hourly variation of weekday traffic flow on major arterials includes two main traffic peak periods throughout the day, in the morning between 7:00 AM and 9:00 AM and in the later afternoon between 4:00 PM and 6:00 PM. Most roadway congestion occurs during those times.

Bethlehem Pike south of Sumneytown Pike, is an exception to the typical traffic peaking pattern. Between Sumneytown Pike and Ambler Borough there is no discernible morning peak; traffic slowly increases during the morning with a slight drop-off after lunch and a more typical afternoon peak flow from 4:00 to 6:00 PM.

ROADWAY OPERATING CHARACTERISTICS

Traffic engineering techniques provide information regarding the operating characteristics of traffic volumes throughout the Township. Capacity, delay, and Levels of Service are the principle concepts used to define a range of operating conditions. Level of Service is a qualitative measure describing operating conditions within the traffic stream and the motorists' perceptions of those conditions. The relative freedom of executing a

desired maneuver is limited by many factors including the presence and type of traffic controls, the volume and speed of conflicting traffic movements, and the geometry of the intersecting roadways. Capacity is the maximum rate of vehicle flow that can pass through a given point under prevailing conditions. The conditions affecting capacity are vehicular volumes, turning movement distribution, vehicle types, intersection geometry, lane widths, approach grades, signal phasing, timing and progression, among others. Capacity is evaluated using the ratio of intersection volumes to intersection capacity (v/c). Delay is the measurement of driver discomfort, frustration, fuel consumption, and lost time, and is expressed in average stopped delay per vehicle, in seconds.

Intersections and cross traffic are the primary constraint to the free flow of traffic. They are the main source of delay along most roadways. In Lower Gwynedd, intersection congestion and poor levels of service occur along the principal arterial roadways, mainly at signalized intersections. Congestion at the intersections causes back-ups to extend well beyond the intersection, often interfering with adjacent intersection operations. These corridors include:

- *PA 63, Welsh Road at Stump Road and from Evans Road, the Gwynedd Crossing Shopping Center, PA 309 to Lower State Road.*
- *Sumneytown Pike/Norristown Road at U.S. 202 DeKalb Pike, between Evans Road and the Gwynedd Mercy College entrance and at the Spring House intersection with Bethlehem Pike.*
- *Tennis Avenue at Bethlehem Pike.*

Mid-block intersections and driveways can also create delays along major roadways, especially where there are no left turn lanes available. Conflicts between through traffic and turning traffic cause delays and can create unsafe traffic conditions. Even when a left turn lane is provided, such as the two way center left turn lane on Bethlehem Pike, turning movements can cause delays. The center left turn lane on Bethlehem Pike does not provide sufficient shelter for vehicles turning because drivers don't fully understand how it is to be used, and because of the head to head conflicts that occur at the numerous commercial driveways. The slopes of the road also contribute to the confusion, and to the dangerous conditions that are possible in the center lane. These numerous traffic conflicts increase the possibility of accidents, and decrease overall traffic operating conditions.

Stop sign controlled intersections throughout the Township generally operate at acceptable levels of service during the non-peak traffic hours. Delays on the stopped street increase as the traffic volumes increase on the main street. Several intersections have recently been signalized to address this problem including School House Road at U.S. 202; Township Line Road at U.S. 202; Evans Road at PA 63 and at Sumneytown Pike, Lower State Road at PA 63; and, the Gwynedd Mercy College entrance at Sumneytown Pike.

Other safety concerns in the Township are mainly related to sight distance limitations at intersections. Many of these situations result from inadequate vegetation maintenance while others are related to roadway alignments. Intersection improvements that require realignment of roadways or other structures are more difficult to address than those related to vegetation. Sight distances are an issue at these intersections:

- *School House Road at Swedesford Road, (SEPTA bridge structure & North Wales Water Authority piping)*
- *Wister Avenue at Penllyn Pike, (SEPTA bridge, road curvature)*
- *Houston Road at Spring Garden Street/Pen Ambler Road, (realignment)*
- *Mount Pleasant Road at Bethlehem Pike, (vertical geometry)*
- *Gypsy Hill Road at Evans Road, (vegetation)*
- *Swedesford Road at Sumneytown Pike, both approaches (vegetation, utility poles)*
- *Township Line Road at Plymouth Rd. (vegetation)*
- *Plymouth Road at DeKalb Pike*
- *Wellington Drive at Sumneytown Pike (setback at the pedestrian crossing)*

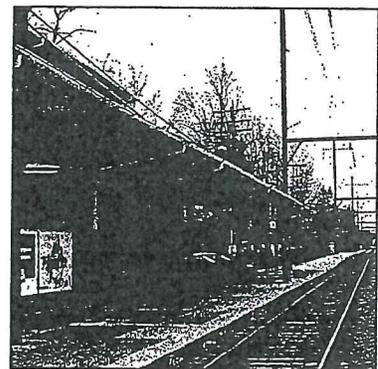
NEIGHBORHOOD VS. THROUGH TRAFFIC

As discussed previously, the main function of arterial roadways is to carry regional traffic between distant origins and destinations. Local roadways are meant to serve the access and circulation needs of the local community and are meant to operate at slower travel speeds. When "through traffic" drivers become impatient with operating conditions along arterial roadways, they look for shortcuts, often through residential areas on local roads. In Lower Gwynedd, the collector roadways are also impacted by cut-through traffic. Conflicts between local drivers and regional through traffic are becoming more common as area-wide congestion and delays increase.

Traffic calming techniques can be used to make regional short-cutting less desirable. A variety of roadway design changes could be used in Lower Gwynedd to effect changes in travel speeds along residential roads, however, arterial congestion is the critical force that generates short-cutting. Therefore, efforts to maintain arterial traffic flow are also critical to minimizing cut-through traffic and the associated conflicts.

PUBLIC TRANSPORTATION

The Southeastern Pennsylvania Transportation Authority provides regional rail (RR) and bus services to the Delaware Valley. The R-5, Regional Rail line parallels the southern boundary of the Township from Ambler Borough, through Upper Gwynedd to North Wales and on to Doylestown. There are two stations in Lower Gwynedd, at Gwynedd Valley on Plymouth Road and at Penllyn with access from Pen-Ambler Road and Old Penllyn Pike. Average daily ridership on the R-5 Line



The R-5 has two station stops in the neighborhoods of the Township.

between Doylestown and Center City Philadelphia is about 13,000 passengers. Daily ridership at the Lower Gwynedd train stations are about 250 riders at the Penllyn Station and 450 riders at the Gwynedd Valley Station. These stations were established long ago to serve 'bedroom' communities within the Township only. As a result, there is no access to this regional rail network at the crossing of Route 202 (which could give access to commuters from a far wider area) and the R-5 line.

Bus services in Lower Gwynedd are very limited. Route 94 begins at the Ambler RR station, travels through west Ambler and along Pen-Ambler Road to the Penllyn RR station. From this point the bus travels south on Penllyn Pike to Morris Road in Whitpain Township. Route 94 re-enters Lower Gwynedd along U.S. 202 as the bus travels from the Montgomery County Community College to the Montgomery Mall. The Route 96 bus also provides limited service along US 202. There are no public transportation services in other activity areas in the Township, such as the employment centers in the northeastern corner of the Township, the commercial core along Bethlehem Pike, and the various Township institutions (e.g., Gwynedd Mercy College, Spring House Estates, Gwynedd Estates, Foulkeways).

Numerous opportunities exist to expand traditional bus transit services in Lower Gwynedd. There are also opportunities to provide more tailored services (such as shuttle bus services) to specific activity zones within the Township. A new bus service has recently been instituted along Bethlehem Pike between Chestnut Hill and Montgomeryville. This route serves several of the large employers and institutions in the Township.

3. EXISTING CONDITIONS: POPULATION AND HOUSING

Population and its projections are a necessary part of planning for the future, in that they can be translated into rough estimates of the future need for housing, community facilities, and other forms of development. The composition of future population, in terms of age structure for example, is useful in informing the Township more specifically of future needs. However, many factors go into making these projections and most of these factors are subject to change at any time. The longer the time period of the projections and the smaller the base population, the less reliable the projections. In addition, projections are even more tenuous when past trends have been based on a relatively abundant supply of developable land, while future projections are constrained by the development capacity of a finite geographical area.

Table 1 presents recent population trends for Lower Gwynedd in a regional context. The region is defined as the Philadelphia Metropolitan Statistical Area (MSA) which consists of Philadelphia and the nearest eight counties in New Jersey and Pennsylvania. Table 1 also presents the population growth histories of the MSA, Philadelphia, Montgomery County, along side Lower Gwynedd. The MSA has declined between 1960 and 1967, but since that time has regained a population level greater than that in 1960. The population of Philadelphia itself has been declining steadily since 1960. This decline of population growth is mirrored by population growth in the surrounding areas. Montgomery County grew rapidly in population in the 1950's, less rapidly in the 1960's, and relatively slowly in the 1970's and 1980's. A significant source of the County's growth has been the out migration to the suburbs from Philadelphia. Lower Gwynedd has consistently grown in population at nearly double the County's rate with a surge in the 1980's equal to its rapid growth of the 1950's. By 1990, Lower Gwynedd had not only grown, but housed an increasingly greater percentage of the regional population. The Township doubled its share with respect to the MSA and grew by fifty percent in contrast to the County, which only grew about twenty percent.

The recent population growth rates of the County indicate continued growth at a slightly higher rate than the 1980's Lower Gwynedd, however, is expected to grow at a far lower rate than in the recent past, since the amount of developable land is so limited in the Township (see P. 3-8 for an assessment of the total growth possibilities).

**Table 1
REGIONAL POPULATION TRENDS
1950-1990**

TOTAL POPULATION:

	1960	1970	1980	1990
Philadelphia MSA	4,824,110	4,716,818	4,922,175	N/A
Philadelphia	1,971,239	1,949,996	1,688,210	1,585,577
Montgomery County	515,790	624,080	643,621	678,193
Lower Gwynedd	4,546	6,361	6,902	9,958

POPULATION PER SQUARE MILE:

	Area*	1960	1970	1980	1990
Philadelphia MSA	3,540	1,363	1,332	1,390	1,380
Philadelphia	127	15,522	15,354	13,293	11,736
Montgomery County	482	1,070	1,295	1,335	1,407
Lower Gwynedd	9	497	696	755	1,071

* In square miles

LOWER GWYNEDD AS A PERCENTAGE OF:

	1960	1970	1980	1990
Philadelphia MSA	0.1 %	0.1 %	0.2 %	N/A
Philadelphia	0.2 %	0.3 %	0.4 %	0.6 %
Montgomery County	0.9 %	1.0 %	1.1 %	1.5 %

DECENNIAL GROWTH RATES (PERCENTAGE INCREASE OVER 10 YEARS)

	1950-1960	1960-1970	1970-1980	1980-1990
Philadelphia MSA	- 2.3 %	2.9 %	N/A	N/A
Philadelphia	- 4.8 %	- 1.1 %	- 13.4 %	- 6.1 %
Montgomery County	46.3 %	20.7 %	3.0 %	5.4 %
Lower Gwynedd	83.6 %	39.9 %	8.5 %	44.3 %

Source: US Census Bureau

**TABLE 2
POPULATION COMPARISONS AND PROJECTIONS
Lower Gwynedd and Montgomery County**

(Total population projections based on demographic analyses)

	1980	1990	1998	2000	2010	2020
Montgomery County	643,621	678,193	719,718	730,100	759,305	730,900
Lower Gwynedd	6,902	9,958	10,457	10,580	11,035	10,600

TABLE 3
POPULATION DENSITIES AND GROWTH RATES
Montgomery County, Lower Gwynedd and Surrounding Municipalities

(Growth, 1990-1998: Estimated Populations)

MUNICIPALITY	PERCENTAGE (growth 1990 - 98)	POPULATION (1998 Estimate)	DENSITY (thousand per square mile)
Montgomery Township	66.6	20,293	1.9
Whitpain Township	14.7	17,959	1.4
Upper Gwynedd Township	12.2	13,680	1.7
Upper Dublin Township	6.1	25,495	2.0
Horsham Township	5.9	23,197	1.3
Lower Gwynedd Township	5.0	10,457	1.1
Ambler Borough	-2.2	6,465	7.2
Montgomery County	6.1	719,718	1.5

Source: US Census Bureau and Montgomery County Planning Commission

Table 2 presents the latest population estimates of the County and Township. Lower Gwynedd is influenced by the surrounding population as well as its own. Population trends in the surrounding municipalities in Table 3 provide this local context. Table 3 also compares the recent population growth of Lower Gwynedd with its immediately neighboring municipalities. The table presents their growth rates in descending order, starting with the largest growth rate during the first eight years of this decade. Montgomery Township to the north of the Township grew at a very significant rate. Only Limerick Township in Montgomery County exceeded the 67 percent growth of Montgomery Township over the last eight years. Whitpain and Upper Gwynedd Townships to the west of Lower Gwynedd, grew slightly over twice the rate of the Township. To the east, Upper Dublin and Horsham Townships grew at the rate of Lower Gwynedd. The neighboring borough (Ambler) to the south lost population. The population migration trend continues to the north out of the Philadelphia area.

The second aspect of population that influences Lower Gwynedd is the concentration of the total population in the neighboring communities. Population projections are indicated in Table 2. Population densities are provided in Table 3. Except for Lower Gwynedd, the density values correlate with the growth rates, further reinforcing the thesis of the northerly migration out of Philadelphia. Considering the position and population density of the Township, some development pressure could be expected, but within the limits of developability, as explained in Existing Conditions: Land Use.

TABLE 4
POPULATION BY BROAD AGE GROUPS
Lower Gwynedd

Age Group	1960		1970		1980		1990	
	People	%	People	%	People	%	People	%
Under 5	483	10.6	415	6.5	222	3.2	517	5.2
5 - 24	1,436	31.6	2,223	4.9	1,918	7.8	2,154	21.6
25 - 64	2,249	49.5	2,944	46.3	3,016	43.7	4,867	48.9
65 and older	378	8.3	781	12.3	1,746	25.3	2,420	24.3
Total	4,546	100.0	6,361	100.0	6,902	100.0	9,958	100.0

Source: US Census Bureau

TABLE 5
1990 POPULATION BY BROAD AGE GROUPS
Lower Gwynedd

Age Group	1990 People	%
Under 5	517	5.2
5 - 17	1,454	14.6
18 - 24	700	7.0
25 - 44	2,723	27.4
45 - 64	2,144	21.5
65 - 74	909	9.1
75 and older	1,511	15.2

TABLE 6
1990 HOUSEHOLD BY TYPE
Lower Gwynedd

Households	1990	%
Married-couple	2,197	59.7
Single Parent	277	7.5
Non-family	1,205	32.8
Total	3,679	100.0

Source: US Census Bureau

Knowledge of the age distribution of the population is important for an understanding of its social and economic structure. In addition, an understanding of the dependency ratio of the population, provides for more accurate projection of the demand for various public services, such as schools or elderly centers; and of household size and the demand for various housing types. Two tables of population distribution are provided, the first, is a summary table comparing the populations of 1960 through 1990 (Table 4), and the second, is the detailed distribution of the 1990 population (Table 5). Through the 1980's, the age group in the Township experiencing the greatest proportional increase over time has been the age 65 and over population. Much of that increase had been due to the development of retirement communities, and the result in-migration of older people into Lower Gwynedd in addition to the aging of the existing population. The senior population of the Township seems to have stabilized in the 1980's Families have been establishing themselves and now show a growth pattern.

Table 4 is the detailed distribution of the 1990 population. Lower Gwynedd's school population, represented by the ages 5 through 17, make up fifteen percent of its population while twenty percent of the population is either under five (5) or over 75 years of age. The median is 42.5 years of age. The other categories represented in the Table are nominal age groups for the college community, initial families, mature families, retirees or empty nesters and finally the elderly. Each of these represent the various population constituencies which have different needs and use different services.

Paralleling the changes in age group composition in the Township, are the changes in households. Table 6 tabulates the Township's 1990 household composition. Almost a third of the households are recorded as non-family units. Only 7.5 percent are single parent households. The average household size in Lower Gwynedd while declining through 1980, shows a small increase to 2.46 persons per household in the 1990 census data. All categories of households are utilized in computing this average. The latest estimate of households in Lower Gwynedd is a 1997 estimate of 3,860. This represents a five (5) percent increase, which is approximately the same as the population increase for the same period.

HOUSING CHARACTERISTICS : CONCLUSIONS

Lower Gwynedd displayed a very high rate of growth in housing in the years 1983 through the present (see Table 8). A significantly lower growth in housing development occurred in the Township from 1975 through 1982. Analysis suggests that housing growth was suppressed in Lower Gwynedd Township during the 1970's and early '80's. This is indeed the case; Township sewage disposal limitations resulted in a development cap of 15 DU/year in Lower Gwynedd during those years. Construction of additional sewage treatment capacity in Ambler, with a significant proportion of capacity reserved for Lower Gwynedd's use, resolved that problem at the same time that national economic indicators began to encourage development, and the extremely high rate of issuance of residential building permits in the Township in the past three years

TABLE 7
NUMBER OF HOUSING UNITS
Lower Gwynedd

	1960 (Estimated)	1970	1980	1990	1998
Housing Units	1,339	1,930	2,008	3,820	4,195
Decennial Unit Growth	642	591	78	1,812	375
Decennial Percentage Growth	92 %	44 %	4 %	90 %	

Source: US Census Bureau and Montgomery County Planning Commission

reflects the resulting release in pent-up demand. A comparison of the rate of housing growth in Lower Gwynedd in the various individual time periods from 1960 through 1998, could be misleading. Adding the two decades starting in 1970 and ending in 1990 together and then calculating an average growth results in a 47 % growth rate per decade. This compares favorably with the previous decade ending in 1970. The growth rate has been consistent. The estimate for growth in the 1990's is now at one quarter of that rate. If the 1998 housing data is prorated, the decennial growth rate would be only 12 percent.

An evaluation of these statistics that indicate the periods of rapid residential growth in the 1980's and 1990's, and a recognition of the fact that there is now less vacant land available for development, suggests that the Township's rate of growth will slow down. Planning for Lower Gwynedd, as a community that is largely "developed" as opposed to "developing," is perhaps the Township's greatest challenge for the next decade.

TABLE 8
HOUSING UNITS BY TYPE
Lower Gwynedd

	Single Family Detached	Single Family Attached	Multi- Family	Other	Total
1980 Census	1,485 74%	142 7.1%	30 15.4%	71 3.5%	2,008 100%
1990 Census	2,204 57.7%	313 14.2%	564 25.6%	55 2.5%	3,820 100%
1998 Estimate	2,532 60.4%	351 14.0%	589 23.3%	58 2.3%	3,820 100%

Source: US Census Bureau and Montgomery County Planning Commission

3. EXISTING CONDITIONS: UTILITIES

An evaluation of the utilities in Lower Gwynedd focuses on two sets of service: public water and public sanitary sewer. In both cases, a few properties remain in the Township which provide their own water and sewer service, with on-site wells and septic systems.

Water Service

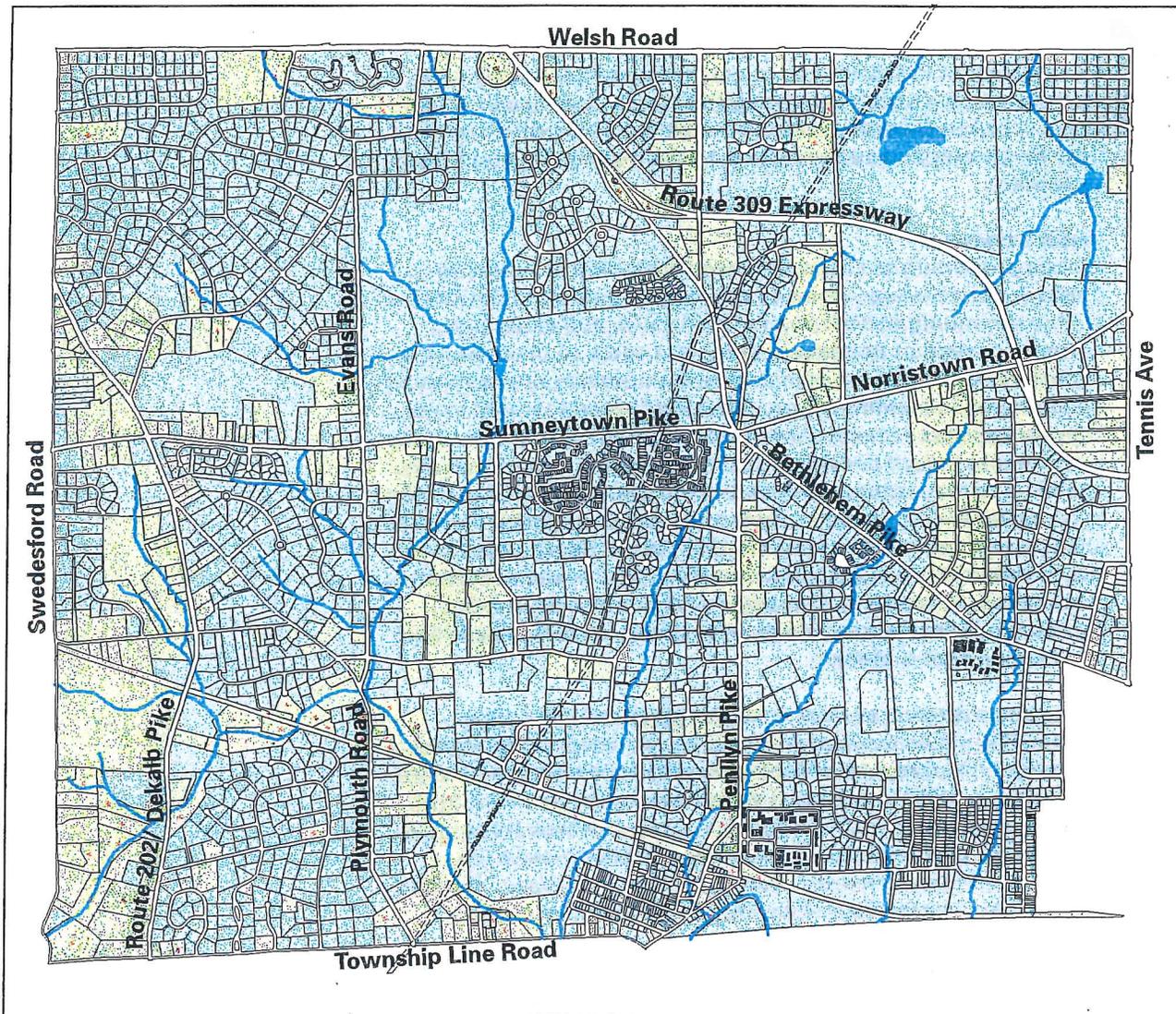
A large proportion of Lower Gwynedd Township is served by public water. However, much of the eastern portion of the Township (surrounding McNeil and Rohm & Haas, and along the northern portion of Bethlehem Pike), and some of the older, low-density residential areas in the western portion, are not served by public water. In addition, several specific "islands" within existing service areas remain without service. This condition is largely due either to lack of development, of public water service availability, or to resistance on the part of longtime residents to hook-up charges, and the other costs associated with gaining access to public water service. It is worth noting that, although this condition exists, it is not as significant as the lack of sewer service in some areas. In addition, the lack of services is often a dual problem for the property owner, who would wish to have both, and not just one of them.

Except for a small area near the Borough of Ambler, Lower Gwynedd's public water is provided by the North Wales Water Authority. The area near Ambler is served by the Ambler Water Authority. In 1999, the North Wales Water Authority had 2,252 service connections in the Township, some of which are supplying multiple unit facilities. The Ambler Water Company has currently 517 customers in Lower Gwynedd Township, including residential, commercial, industrial, and institutional users.

Sanitary Sewer Service

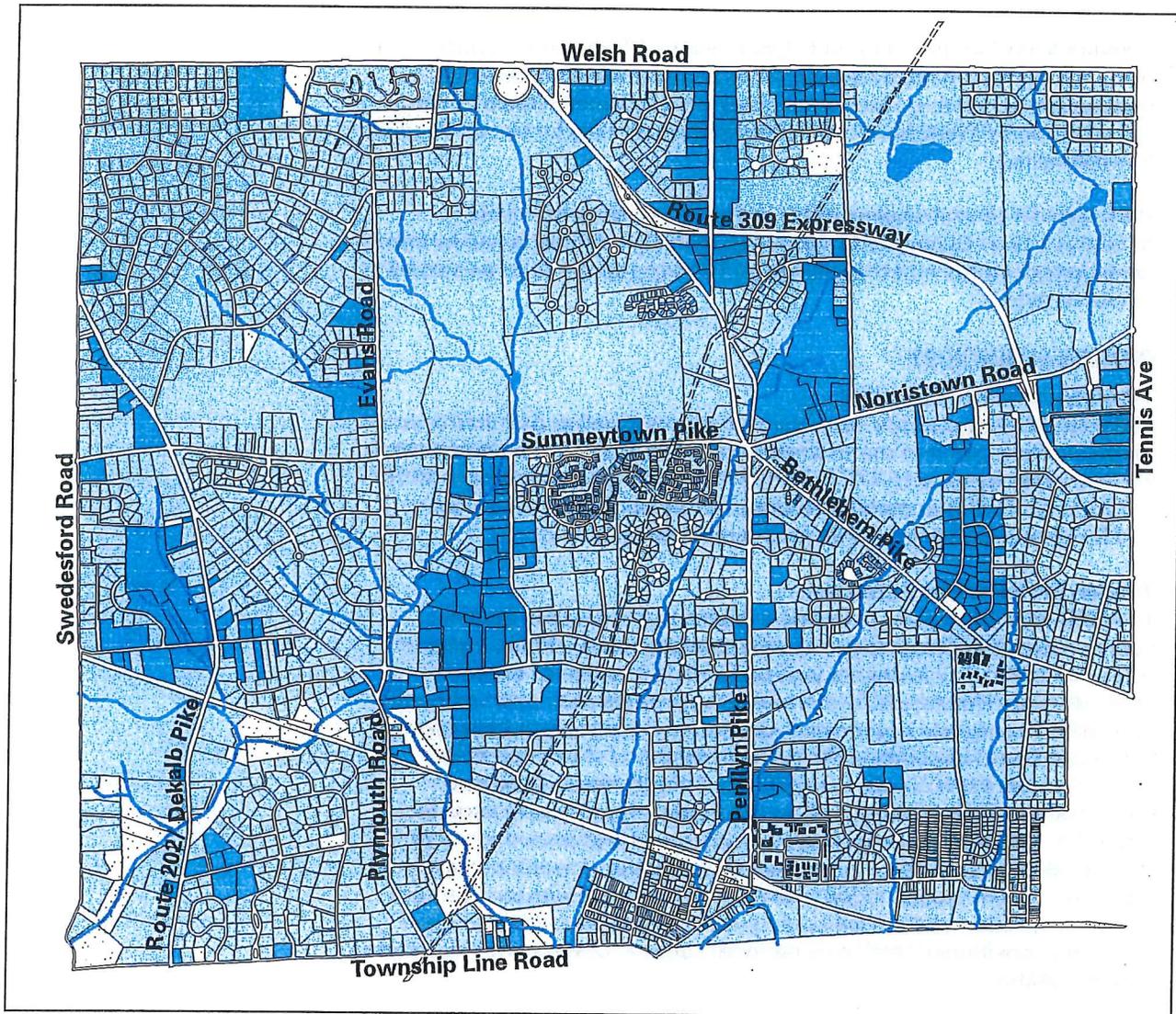
About one-half of the total land area in Lower Gwynedd is served by a centralized sewer system. Those areas that are served (including those that have been added since the 1987 Comprehensive Plan) are distributed fairly evenly across the Township.

The central sewage collection system in the Township continues to be generally designed to follow natural drainage basins, with few notable exceptions. Sewage originating in the eastern corner of the Township, in the Neshaminy watershed, is pumped across the ridge to the Wissahickon drainage basin. In addition, major sewer mains follow Sumneytown and Bethlehem Pikes and Norristown Road for a significant distance, perpendicular to natural flow lines, necessitating the use of force mains.



Areas in the Township that served by Sewer, and those that are not.





Map of the Township Water Service, showing the areas that are not served by public water, and those that are not.



Sewage from Montgomery and Upper Gwynedd Townships continues to enter the Lower Gwynedd system at three points: on Bethlehem Pike, where it enters Ambler, on Houston Rd. where it enters Whitpain Township, and along Wissahickon Creek where the creek exits Lower Gwynedd for the last time.

While nearly all central sewer service in the Township is provided through the Lower Gwynedd Township Municipal Authority, a few homes along Swedesford Rd. and the William Penn Inn continue to be served by Upper Gwynedd.

CHANGES SINCE 1987

The Ambler Water Company:

The Ambler Water Company, which serves a very small and limited area of the southern portion of the Township has increased its customer base in the Township by only 10.7 % from 1987 to 1999; 467 customers in 1987 to 517 in 1999. This is understandable since this portion of Lower Gwynedd Township is considered an older and built-up area.

The North Wales Water Authority:

The NWWA has undergone dramatic changes in the areas of water supply and distribution since the current Comprehensive Plan was last prepared in 1987. The Authority was primarily a supplier of ground water with approximately 30 active wells supplemented by interconnections with Pennsylvania American (Keystone Division) and Philadelphia Suburban Water Companies. With the completion of the Forest Park Water Treatment Plant, which is part of the Point Pleasant Diversion Project on the Delaware River, 85% of the water supply is now surface water. The Authority has been able to shutdown and abandon many of those wells which were poor producers or attributed to water quality problems. The interconnections with American and Suburban are in a standby condition and are used on an emergency basis only. The Authority has positioned itself as a regional supplier of water with bulk sales to other utilities.

The Lower Gwynedd Township Municipal Authority

The Lower Gwynedd Township Municipal Authority has kept pace with development and the need for collection of sanitary sewage since the building expansion in the 1970's and 1980's, according to the 1987 Comprehensive Plan. This was particularly true for residential development projects. The use of on-lot sewage treatment and disposal continues to be common, both on the large estates and in subdivisions built in the 1960's and 1970's. To catch up now, the Sewer Authority is currently seeing to the installation of collection mains in eight tracts of land, and three others are being contemplated. No longer are new developments constrained by the lack of collection mains, treatment facilities, and capacities.

3. EXISTING CONDITIONS: PUBLIC FACILITIES

The public facilities in the Township that are analyzed here include the three public schools, the police department, and the two volunteer fire companies:

SCHOOLS

The Wissahickon School District serves Whitpain Township and Ambler, as well as Lower Gwynedd Township. The Wissahickon High school, the Wissahickon Middle School, and the Lower Gwynedd Elementary School are located in Lower Gwynedd, off of Dager Road.

The District's projections for future enrollments guide their planning decisions, and have revealed that there is estimated to be very little growth in the next ten years.

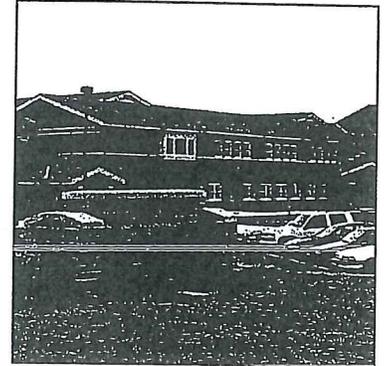
Those projections are:

1999-2000	4,503 students
2000-01	4,548
2001-02	4,574
2002-03	4,607 (note that this is the estimated peak)
2003-04	4,597
2004-05	4,585 (all estimates up to this year are based on live births)
2005-06	4,564 (all estimates after this year are projections only)
2006-07	4,503
2007-08	4,438
2008-09	4,417

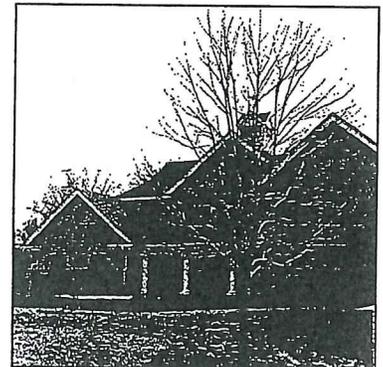
Note, in particular, that the characteristics of the population of Lower Gwynedd Township (which indicate a higher average age a lower number of people per household, and an estimated peak population occurring in 2010 with a subsequent decline in the total) rather parallels the school projections. Each estimate shows a very small amount of increase in populations in the near future, reaching a peak five to ten years out, and then beginning a small decline.

In addition, these projections by the School District also take into account their age and population projections for Whitpain Township and Ambler. Even though Whitpain Township, for instance, may be able to accept more development and growth than either Ambler or Lower Gwynedd, the net projections indicated here still suggest that the schools will not expand significantly in the next ten years.

The issue that these projections raise is that the growth in the number of students through 2003 will take place in the elementary schools first, and that "bubble" of students will move on through to the high school. The current \$25 million renovation of



View of the Lower Gwynedd Elementary School is one of three Wissahickon District schools located off of Dager Road.



View of the Township Building, which faces Bethlehem Pike.

the high school is, in part, focused on dealing with that future increase, since the numbers will not justify the construction of any major new school facilities.

POLICE

The population projections, coupled with the limited development options in the Township, indicate that there is no anticipated need for an increase in police services or facilities. The existing police offices in Township Building are now somewhat crowded, with some sharing of desks, but that is the extent of the current physical space problem.

The one event that could cause a significant need for increased police services and equipment would be the addition of a major shopping center into the Township. Large retail centers generate far more need for police attention (e.g., shoplifting, car theft, car-jacking, credit card and ATM card theft, robbery, etc.) than do residential areas. Since no shopping centers are planned at this time, and since there is no site zoned for that use, police expansion is not anticipated.

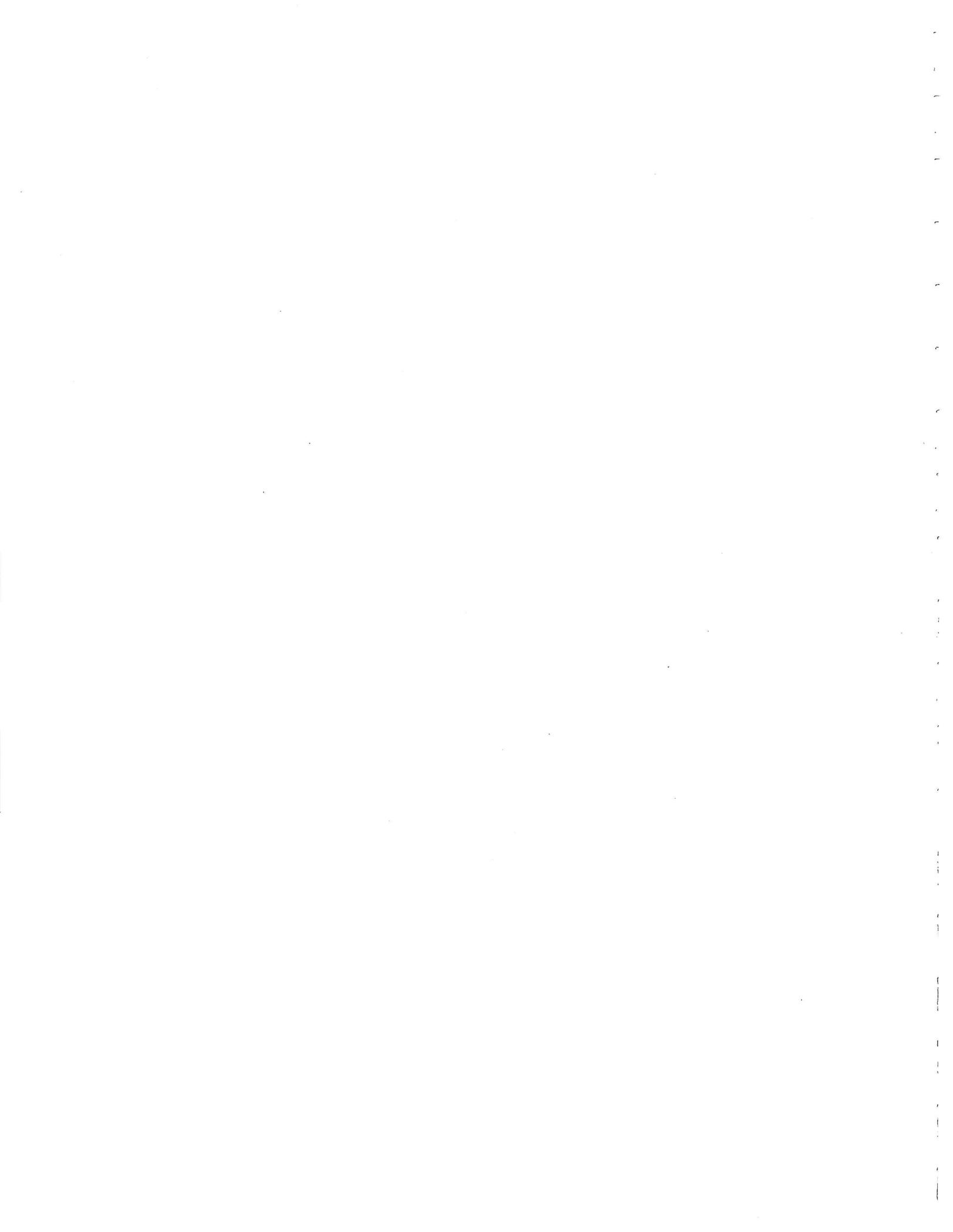
FIRE

The Township is covered by two volunteer fire companies: North Penn and Wissahickon. The North Penn Fire Department headquarters are located in North Wales, with a substation in Lower Gwynedd. The Wissahickon Fire Department is located in Ambler, with a substantial substation in the Lower Gwynedd Township Building. North Penn covers about 1/3 of the Township, and Wissahickon covers the remaining 2/3, plus Ambler.

The current facilities of the Wissahickon Department are sufficient for the foreseeable future, but the North Penn Department requires a newly-relocated facility near Route 202. This substation is being planned now, in collaboration with the Township and Foulkeways, who is donating the land and on whose property the existing building is now located.

The only significant characteristic of the situation that could affect the facility needs in the future is the fact that the companies are now staffed by volunteers. In recent years it has become increasingly more difficult to get and keep volunteers; indeed, Wissahickon used to have 100 volunteers, and now has between 60 and 80. If fewer volunteers are available, it becomes necessary to add paid firefighters. Since the paid firefighters stay at the firehouse, facilities for sleeping and eating will become increasingly necessary, and the Township will face a significant annual budgetary expense.

THE PLAN



4. RELATIONSHIPS WITH OUR NEIGHBORS

There are a number of external forces that will have an impact upon the future of Lower Gwynedd. In this respect, the Township recognizes that geographically, politically, environmentally, and economically, its future is inexplicably linked to that of its neighboring communities (and, in a large sense, with all of the communities within the lower portion of Montgomery, Bucks, and Chester Counties, as well as Delaware and Philadelphia Counties). These inter-linking factors include, but are not limited to, development patterns in the surrounding communities, the planning initiatives within Montgomery County and the surrounding counties, the forces of the regional economy and environment, the overall growth trends within the Philadelphia region as a whole, and ultimately within the Commonwealth of Pennsylvania.

Although all of the five Visions are supported by careful planning of our relationships with the neighboring municipalities, two are especially and directly relevant to the issues covered here:

Vision 4: *"We envision a relationship to our neighbors in the surrounding region that is both cultural and functional... where the region is fully served by the large shopping centers in the nearby Townships... and where (our) employment centers serve the entire region."*

The Township recognizes that traffic, commerce, public safety, education, the environment and the economy are all shared with our neighbors.

Vision 5: *"We envision a place where the traffic management is appropriate to our peaceful quality of life... and where the automobile is complemented by walking and biking in an integrated Township system of circulation."*

Traffic already has had a great impact on the life of the Township; careful cooperative planning is essential to maintain the quality of life in Lower Gwynedd, and in all of the surrounding communities.

RELATIONSHIP TO THE GREATER PHILADELPHIA REGION

For the last half of the century, the Philadelphia Region has been experiencing a major out migration of development from the City of Philadelphia to the suburbs. At the same time, the population of the entire has been expanding somewhat. All this has contributed to renewed pressures of development within the suburbs, increased congestion, and a decrease in the quality of life that suburbanites have been led to expect. It also means that instead of the city being the center for commercial activities, employment, housing and cultural activities, these are more and more being addressed by the new development of the suburbs. Lower

Gwynedd is one of the region's employment centers. In addition, the Township, due to its location it is crisscrossed by a number of regional roads that direct people from the adjoining communities to these regional centers through Lower Gwynedd Township.

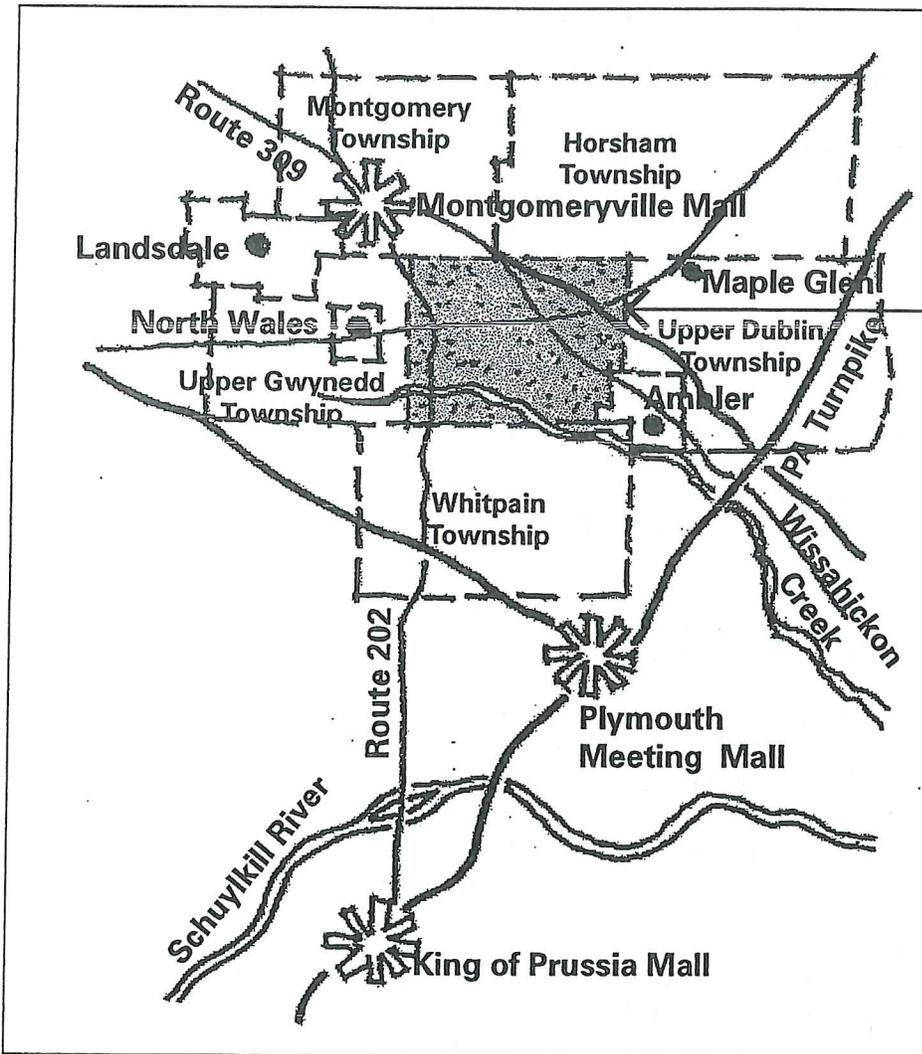
With respect to retail services, the map of the nearby region shows that Lower Gwynedd is surrounded by major regional shopping malls. Montgomery Mall is the closest, located in the adjacent Montgomery Township. Within a thirty minutes' drive are Plymouth Meeting Mall, Willow Grove Mall and the King of Prussia Mall, the latter of which is one of the largest in the country. Consequently, the Lower Gwynedd community is well served by retail developments throughout the region.

With respect to employment, Lower Gwynedd is a net importer of workers within the region. The SEPTA R-5 commuter train provides the opportunities for commuters who work outside the Township, in Center City Philadelphia, as well as for an in-migration of those workers who work at the employment centers of the Township. The use of the R-5 for commuting into the township is limited, however, since most of these workers within arrive in the Township by car. If this condition is to change, additional and more useful public transportation routes to and through Lower Gwynedd need to be created.

Regional transportation also has a major impact upon the Lower Gwynedd community. Transportation systems, such as major highways and the rail system, which originally directed movement to and from the city, like spokes on a wheel, now must also direct movement to and from adjoining suburban communities. Lower Gwynedd is in a key location since the direct route to the regional employment or retail centers from the adjoining and regional communities is often through Lower Gwynedd. Consequently, as the region further develops and the transportation movements increase, the regional through traffic impact upon the Lower Gwynedd could threaten the quality of the residential character of the community. This clearly contradicts the Visions for the Township, and represents a planning challenge.

RELATIONSHIP TO THE COUNTY

Montgomery County has developed a proactive role in open space preservation, greenway development along the Wissahickon Creek watershed, and the development of a regional bikeway system. Lower Gwynedd, because of its central location within the lower portion of the county, has much to benefit by participating in these programs. The Township used Montgomery County Open Space funds to purchase Penllyn Woods and cooperated with Ambler to use the Open Space funds for a joint Park purchase on Pen Ambler Road. Recognizing the value in participating in such multi-municipal cooperative ventures, Lower Gwynedd has been an active participant in the Montgomery County Consortium, the Montgomery County Association of Township Officials, the Delaware Valley Insurance Trust, and other regional associations.



Lower Gwynedd Township

Map of the area surrounding Lower Gwynedd Township

Three of the four nearby major regional shopping centers shown on this map of the nearby townships - showing the great number of the services that are available to Lower Gwynedd, and to the region. The existing Spring House Village Shopping Center in Lower Gwynedd adds yet another retail center to this regional collection.

In addition, the several small towns and downtown shopping districts in nearby townships will complement the Town Center recommended for Bethlehem Pike.

Note the easy access that Lower Gwynedd has to the various important areas of this region, and that the large regional shopping centers are located at the intersections of the largest and most important regional highways.

EXISTING RELATIONSHIPS WITH CONTIGUOUS MUNICIPALITIES

Lower Gwynedd has a long history of active, organized cooperation with its neighbors. For example:

- Lower Gwynedd and Montgomery Townships share a Recreation Director. A state grant was obtained to pay a portion of the costs. Programs are being developed to serve the residents of both communities.
- Lower Gwynedd and Ambler Borough have purchased a 17 acre parcel off of PenAmbler Rd. to develop for active recreation purposes. The purchase was made possible by utilizing Ambler's County Open Space Funding and Lower Gwynedd's matching funds. Both municipalities have been approved for a Planning Grant application through the Keystone Grant program to jointly design recreation facilities for the property.
- The Township is a member of a fledgling organization made up of Whitpain, Upper Dublin, and Ambler to promote the theme of "Community Unity."
- Lower Gwynedd is an active member of a joint authority that cooperates with Ambler Borough regarding the operation of the Ambler Sewage Treatment Plant. Presently, Lower Gwynedd presently pays 39% of the plant's operating costs.
- The Township is a member of the Delaware Valley Insurance Trust, which was formed by many Montgomery County municipalities joining to create a trust to provide liability insurance coverage.
- In collaboration with the Wissahickon Valley Watershed Association, the Township participates in the Planning activities that recognize the shared environment with other communities both upstream and downstream along the Wissahickon Creek.

Ambler Borough and Lower Gwynedd enjoy a close working relationship in many ways - some carefully organized as described above, but some are just a part of life in the two communities. Ambler and Lower Gwynedd share a fireworks display, a Christmas parade, a fire company and, with Whitpain Township, a library and public school system. Ambler, which recognizes its role as a community downtown serving a number of municipalities, is currently in the process of a revitalization program that Lower Gwynedd hopes will be complementary to the Township's own efforts.

The Maple Glen area, to the north of the Township, is also undergoing a revitalization program, which when further developed, will serve the portion of the Township that is adjacent to Horsham and Upper Dublin. As a result of the efforts of these neighboring shopping downtowns, the plan recommended for Bethlehem Pike as a Spring House Town Center for Lower Gwynedd must be seen in the context of the entire regional network of local shopping places.

RECOMMENDATIONS FOR STRONGER RELATIONSHIPS WITH OUR SURROUNDING COMMUNITIES

The recognition that Lower Gwynedd's future is inexorably tied to the larger region by development in the region - both residential and commercial/retail - suggests that even more efforts should be made to plan cooperatively with our neighbors. Many issues can be better resolved if communities work together; legislation specifically encouraging a wider range of joint planning actions is pending in the State Legislature.

Specifically Lower Gwynedd and Ambler should develop a program for supportive integration between the businesses of Lower Gwynedd and the Borough of Ambler. The creation of "Spring House Town Center" will encourage development of a focus of Township life, and will help create a sense of place and identity as the "downtown" of the Township. Ambler Borough can be seen as a second downtown for the Township; it functions that way for many other local communities also.

Traffic issues need to be addressed regionally. There needs to be joint planning as it relates to the major regional transportation corridors, such as Routes, 202, 309, Bethlehem Pike, Sumneytown Pike, and Norristown Pike.

To better reinforce its unique identity within the region and with adjoining municipalities, Lower Gwynedd should begin a program of creating gateways at important entrances to the community and within the Spring House Town Center.

While many of the surrounding municipalities are built out, the rapid development in Horsham Township and extensive improvements to Route 202, including an interchange at Welsh Road, will influence the traffic patterns within the Township and increase the commercial opportunities for the Spring House Town Center corridor.

Finally, Lower Gwynedd Township should continue to work with its neighbors by taking advantage of the efficiencies of scale in providing services to its residents. Cooperative purchasing should continue, and perhaps be expanded to include provision of some services when mutually beneficial.

5. THE LAND USE PLAN

The recommendations for the future uses of the land in Lower Gwynedd are organized based on the geography of the Township, which begins at the center - on Bethlehem Pike in Spring House - and then moves out through the regional shopping areas, the residential neighborhoods, and the various office and manufacturing developments. This organization is rooted in the basic tenets of the Township's Vision for the future. Because Land Use is an overview of the entire Township, all of the Visions apply directly to the recommendations made here:

Vision 1: *"We envision a community where the green, scenic, and peaceful quality of our landscape - both wooded and open - remains preserved and enhanced. We envision a place where the natural environments and habitats are always protected, and are integrated with the life of the community. We also envision a place where the handsome older buildings are cherished and preserved as an essential part of that beautiful landscape."*

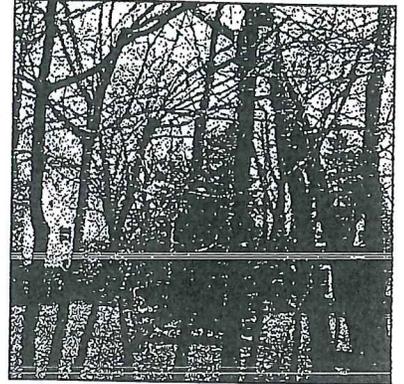
This Vision supports the recommendations for preservation of land that is environmentally sensitive and to consider a historic preservation ordinance so that new development in the Township and the redevelopment of already built areas follow the pattern set up by the Township previously and which gives the Township its green, leafy, attractive appearance.

Vision 2: *"We envision a new "Spring House Town Center", which is created by the transformation, stimulation, and growth of the Bethlehem Pike shopping district. We envision that this "center" will flourish, will become part of the wider community, and will become the real focus of community life."*

A special set of recommendations for the future of Bethlehem Pike is part of the Land Use Plan; these recommendations affect not only the commercial area of the Pike, but the quality of life and sense of place in the entire community.

Vision 3: *"We envision a place that feels and functions as a unified community, that has an identity and a sense of place, that has a town center, and that has its many separate and varied neighborhoods linked together by all three existing circulation systems: walking, biking, and driving. We also envision that this community is united in the quality of the design of its buildings and landscapes, and yet includes a wide variety of housing and neighborhood types."*

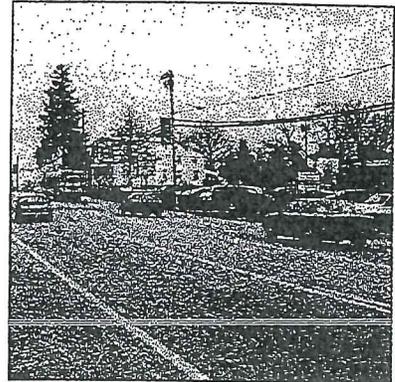
This Vision relates to traffic patterns and walking and biking systems that physically link the various neighborhoods, and to the unifying quality of the homes and buildings throughout the entire Township.



A typical, handsome, Lower Gwynedd neighborhood.

Vision 4: *"We envision a relationship to our neighbors in the surrounding region that is both cultural and functional: where, for instance, we continue to have joint activities with our neighboring communities; where our shops, large employers, and institutions are integrated into the life of the region; where our citizens are fully served by the large shopping malls in the nearby townships; and, where the college, retirement communities, and employment centers can have train and bus links beyond the township to the region."*

The Township's future development and redevelopment should consider its relationship to neighboring communities and recognize the interrelationship between the Township and these communities.



Bethlehem Pike, in the central portion, is not attractive as the rest of the community, and is entirely focused on the automobile; walking is almost impossible.

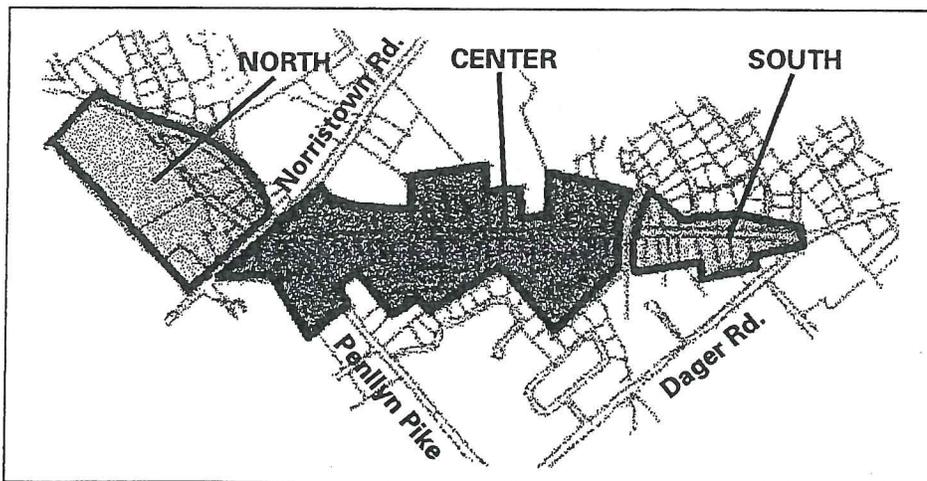
Vision 5: *"We envision a place where the traffic management is appropriate to our peaceful quality of life, where it is easy for traffic to move around and through our township to regional destinations, but where the regional traffic does not make our lives stressful or dangerous, and where the automobile is complemented by walking and biking in an integrated township system of circulation."*

This Vision presents the Township with a formidable challenge, while striving to help Spring House and Lower Gwynedd retain a community and "sense of place", the Township also recognizes its motorists' individual immediate desire that traffic flow smoothly and quickly. The recommendations that come from this Vision are supported by the patterns of Land Use, but are discussed in detail in the Circulation Plan, also. Development and redevelopment within Lower Gwynedd and elsewhere in the region will impact this vision.

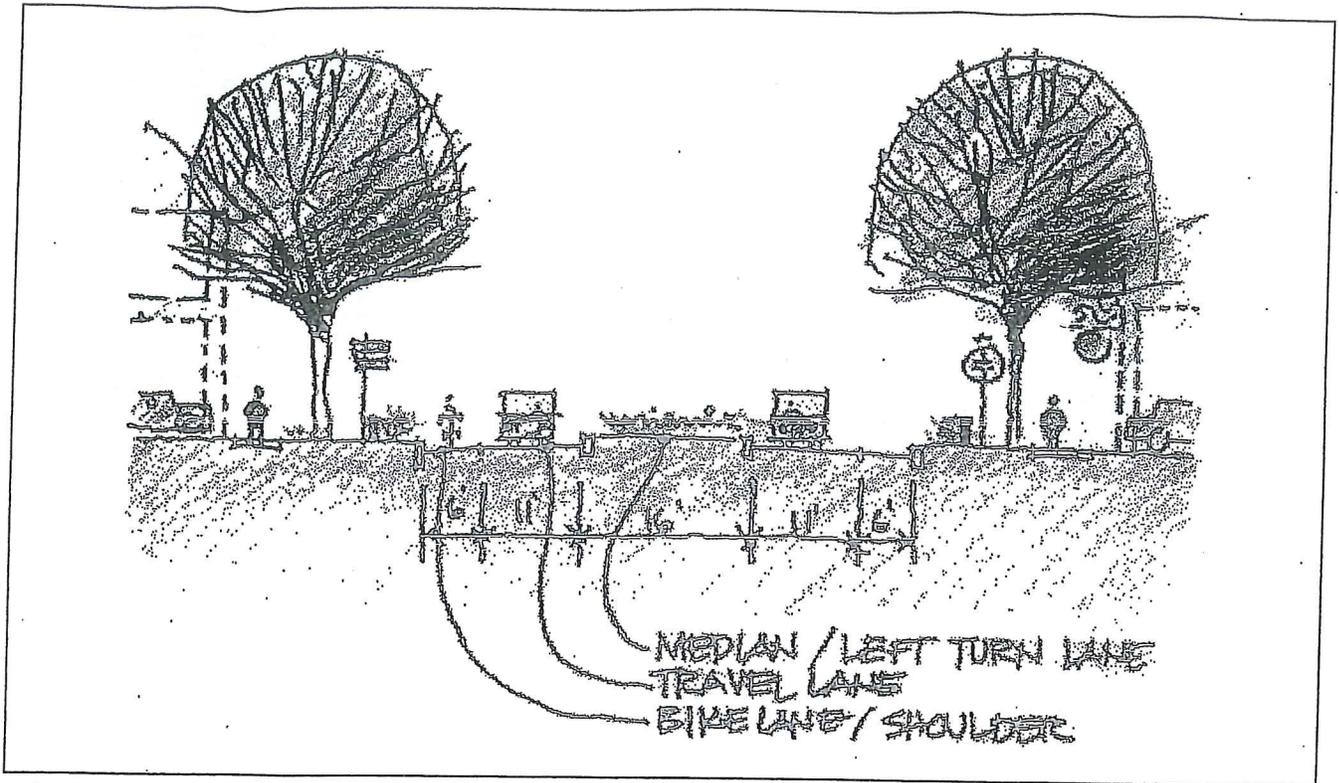
The geographic organization of the recommendations is divided into six areas and land types:

BETHLEHEM PIKE AS THE "VILLAGE OF SPRING HOUSE"

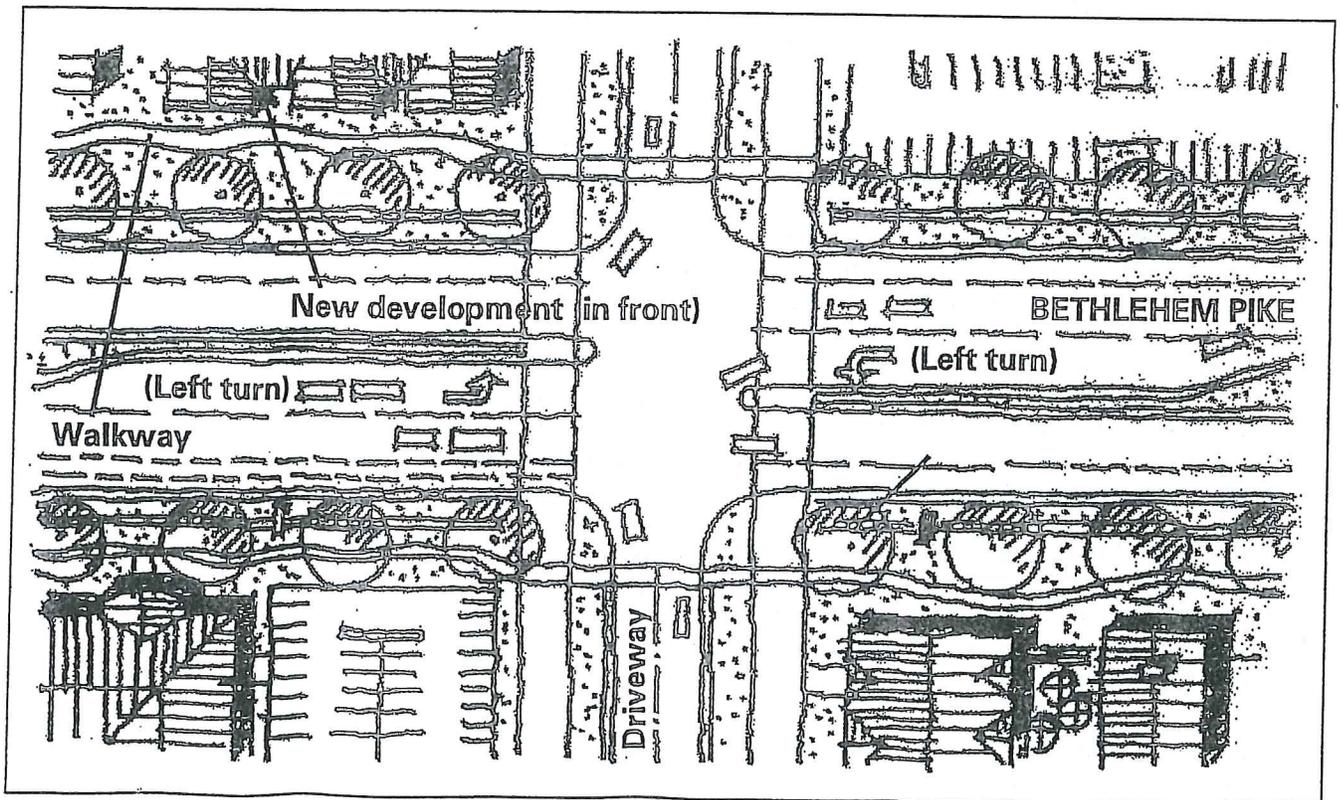
Vision 2 (above) for this Plan includes the need to identify and create a center for community life. Bethlehem Pike, from Chesterfield Drive to



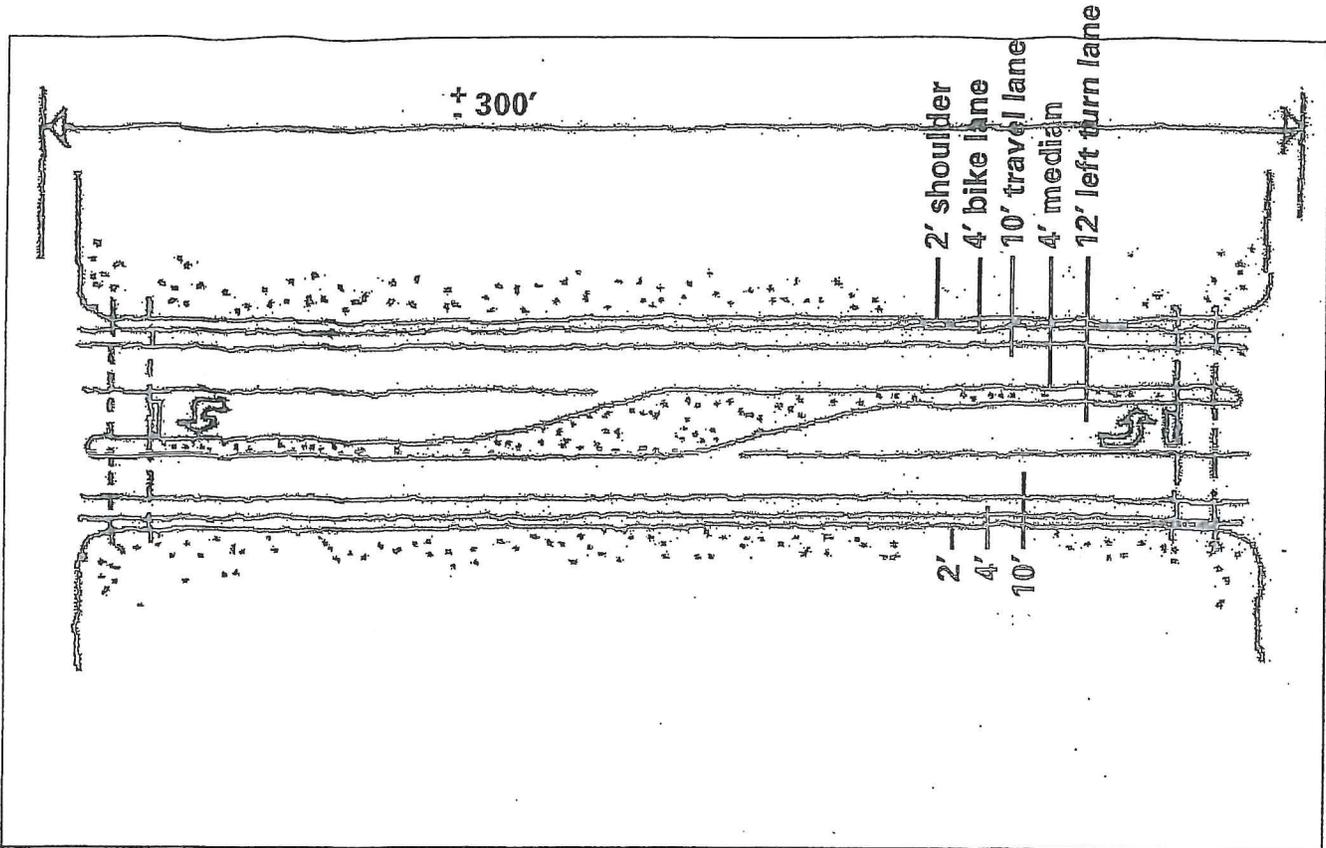
The plan of Bethlehem Pike shows the three distinct areas that can become "Spring House Town Center."



A transformed Bethlehem Pike will have a planted center island, dedicated left turn lanes, bikeways, and a continuous landscaping along the curbs, with large open shade trees, flowers, and a low white, two-rail, fence.



The traffic islands and dedicated left turn lanes create easy and safe access to all businesses in the Town Center portion of Bethlehem Pike; they also make the area appear green and pleasant - as opposed to the wide areas of black top and confusing traffic patterns that now exist.



A typical center island will have two dedicated left turn lanes, a 4' curb and planter at the narrowest part, and a 16' curb and planter area at the widest. The new intersections will be about 300' apart, which meets safe roadway design standards, and yet gives access to every business in the Town Center district.

Dager Road, includes all of the major retail businesses in the community, plus the government facilities and one of the three post offices. Although it contains all of these activities that serve the entire Township, it does not now act or feel like a "center," or a "downtown." Therefore certain actions must be taken to realize the Vision for a town center, for the area to become known as "Spring House Town Center."

The length of the area is such that it is naturally divided into three sections, each of which also serves a distinct purpose, and therefore each has a different form and character (see the plan diagram on P. 5-2). The recommendations made here intend to build on those individual characteristics, but also to link the three areas together.

The North portion includes the Spring House Village I & II Shopping Center, as well as the Township Building and several individual offices. It is designed as an automobile-oriented place, but has the beginnings of a handsome roadway landscape that could set a pattern for the rest of Bethlehem Pike.

The Center portion is the true heart of the Township: the several shops and businesses between the Spring House intersection, and the creek near Sheble Road. This is the area requiring the greatest change in order to fulfill the Visions.

The South portion includes car dealers, some homes, and some smaller businesses. It is, like the north area, focused on the automobile, and will remain that way. Also, like the north area, it includes some handsome landscaping that is quite different in feeling from the center area.

The Walkable Center

The most important transformation that will take place in the new Spring House Town Center will be in the Central area. The Visions of this Plan vividly support the need to transform this portion of Bethlehem Pike. It is located at the very heart of the Township, and is already zoned and developed for shopping and business uses. However, the traffic is completely and confusingly dominated by the automobile, so that it is not only dangerous to drive in and out of the various isolated parking lots, it is impossible to walk from one shop to another. In addition, the residents perceive that the existing visual character of this area of Bethlehem Pike (and of many of the individual buildings and parking areas here) is quite inconsistent with the "green, scenic" quality of the community.

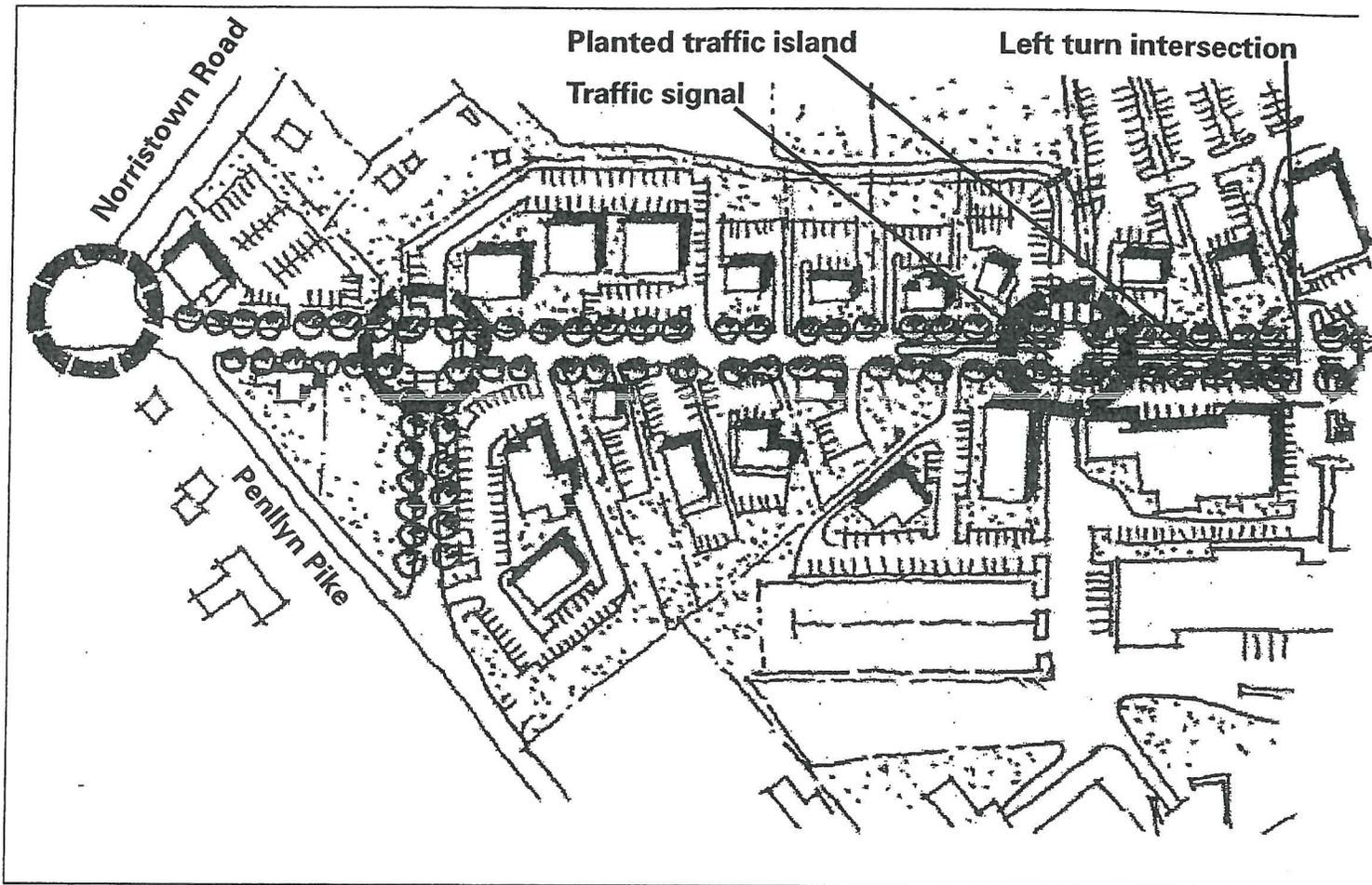
The business owners would like to increase the economic viability of their business, and Township officials perceive that the area has the potential to have an identity as a "Town Center" known by its historic name, "Spring House." All who participated in the planning process agree with both of these objectives, which together should produce a bustling center for the Township.

Therefore, a reorganization of the Land Uses, and the visual improvement of the area, would enhance its sense of place as the center of the community, would increase the opportunities for shopping by the individual shopper, and would therefore increase business. This is a win-win situation for all concerned – the residents, the business owners, and the Township as a whole.

Within the frameworks established by the Visions, six actions are required to accomplish the needed transformation:

- **Traffic**
As is stated in the Circulation Plan, the existing three-lane roadway configuration that is accompanied by the many separate parking lot driveways presents an unusually high number of conflict points for drivers. This confusion not only creates opportunities for accidents, it makes visibility of the shops very difficult and hazardous from passing automobiles, it makes it virtually impossible to walk across the roadway, and it creates a perception of the shopping area as dominated by open blacktop. Left turns in and out of the many parking lot driveways are especially difficult.

To rectify this situation, it is recommended that a planted traffic island be located in the center of the road, and that dedicated left turn lanes be included to permit turning into at least one driveway for each business. The approximate distance between these left turn intersections should be about 300', which coincides with the width of two

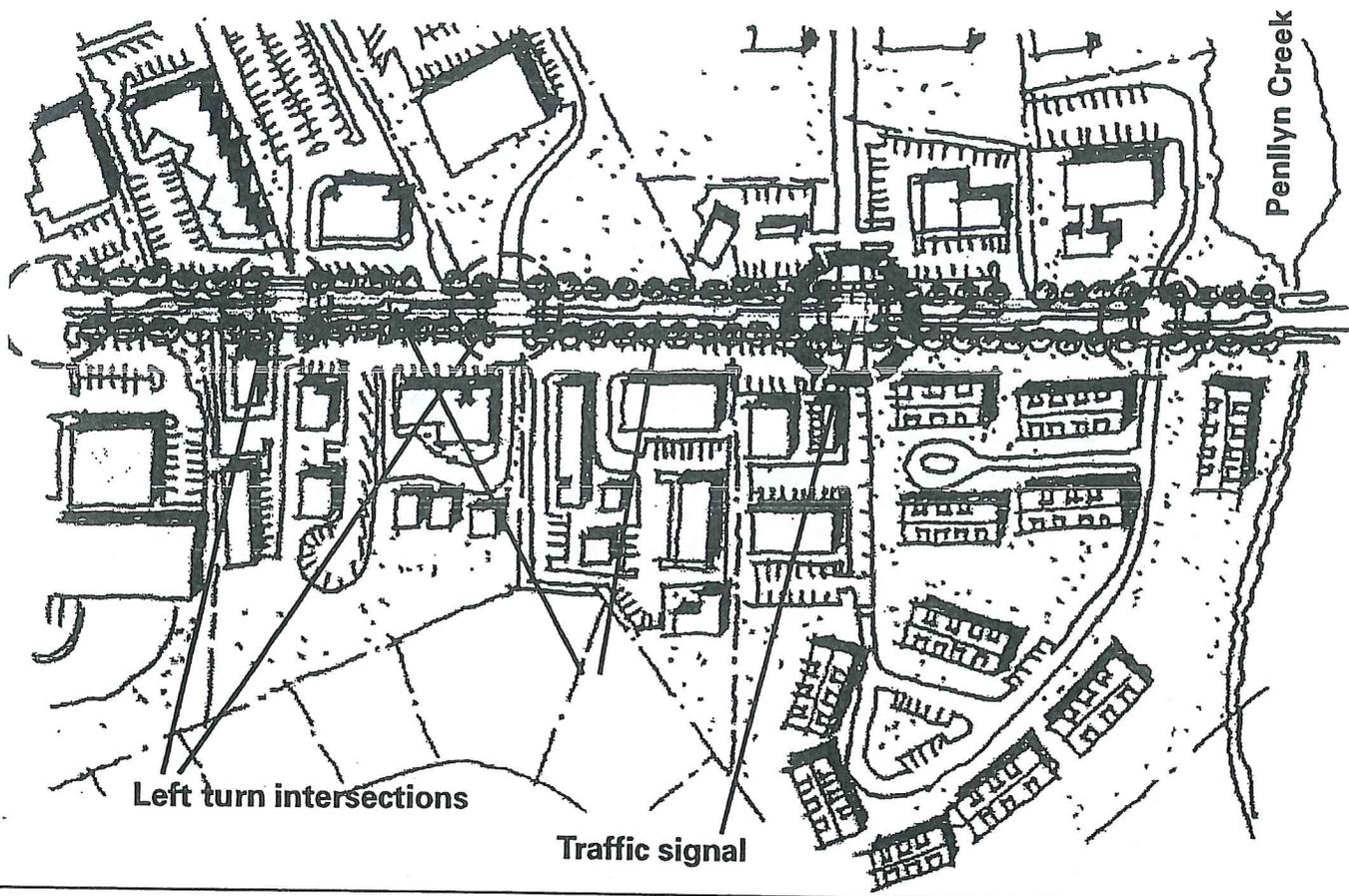


typical business properties, and which therefore gives clear and safe entrance and exit for each business. The attached sketch diagram indicates a possible plan arrangement. One necessary detail of this plan is a careful coordination of the design of the traffic island with the locations of the curb cuts. A second detail is the need to combine some curb cuts for adjoining businesses into one joint access, to reduce the traffic conflicts.

The map of the central area of the Town Center district on Bethlehem Pike shows the planted traffic islands, the easy left turn accesses to all of the businesses, the continuous landscaping along the curbs, and the possibility of shared parking and a common rear driveway in many locations.

This plan will also permit the addition of one or two signalized intersections, which will ease the access to parking (see the Parking recommendations, below), and will make walking across the roadway between shops safe and possible. Critical to this recommendation, and to the overall traffic functioning of Bethlehem Pike, is the coordination of all traffic signals in the area - including the new signals, and the two at Penllyn-Bluebell Pike and Norristown Road. This is essential to reduce rush hour delays, and to permit safe movement of emergency vehicles.

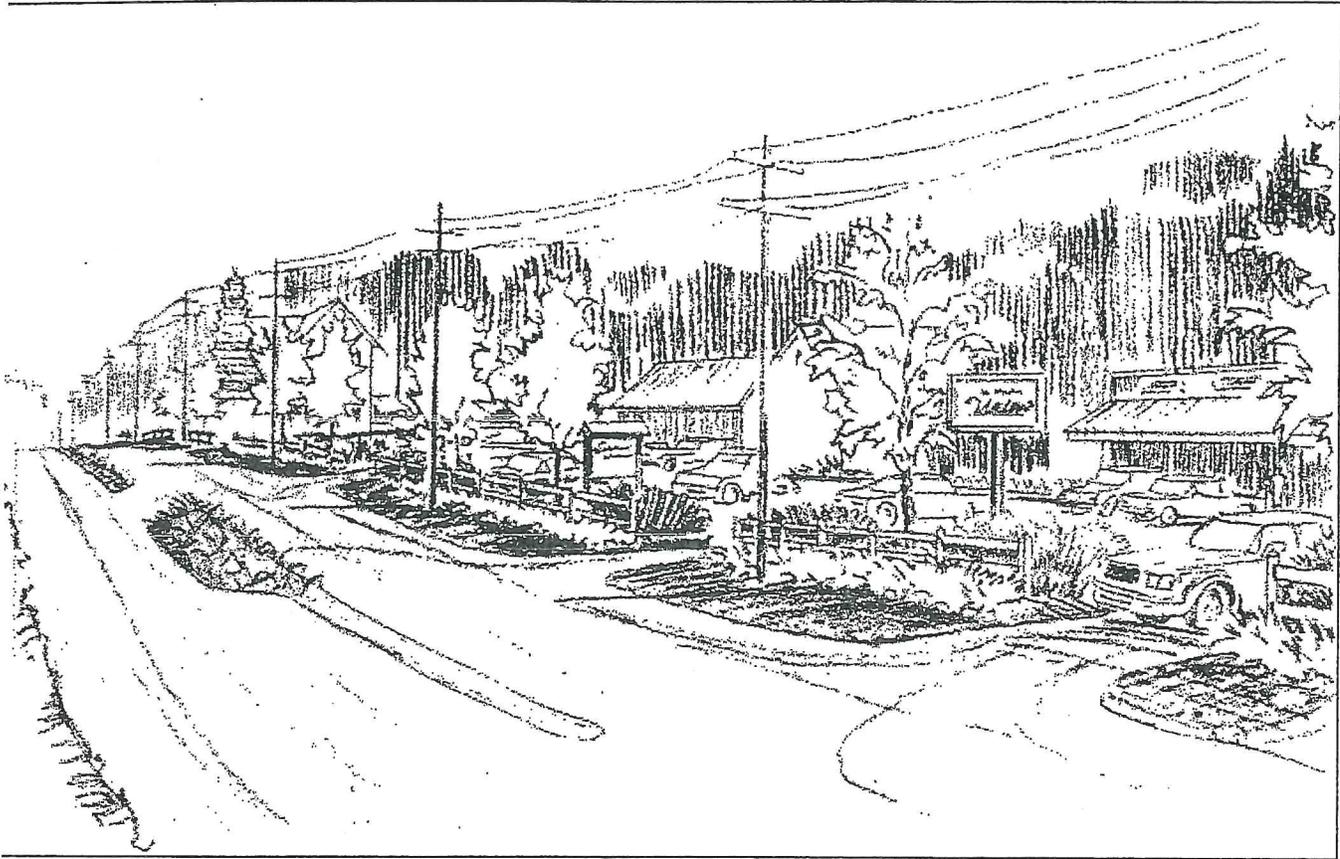
- **Walking**
There are currently so many deterrents for walking from one shop or business to another that it is very difficult to shop in more than one store at a time, or to walk from an office to a shop or restaurant. This



condition limits the growth of the retail businesses, and contradicts the objectives of the Vision. Not only is it extremely dangerous to walk across Bethlehem Pike, there are usually barriers erected between adjacent businesses (thorny bushes, fences, large stones, etc.) As a result Spring House now has a design that is very pedestrian unfriendly.

One important part of the Vision for a Town Center on Bethlehem Pike is that the businesses flourish. A second part of the Vision is that the automobile does not dominate all movement, but that it is part of a larger circulation system that includes walking. Therefore it is recommended that three steps be taken to encourage walking among the shops and businesses in this area:

- 1) Create a continuous walking path on each side of the Pike that links the front doors of all businesses. This path will be serpentine in nature as it weaves among the buildings, and will be more like an extension of the Township trail system than like a city sidewalk.
- 2) Create pedestrian crosswalks at the newly-designed left turn intersections. The two signalized intersections will be the easiest to cross, but the others will be possible to cross, since they include areas of refuge for pedestrians at the islands and will have clear and predictable traffic movements.



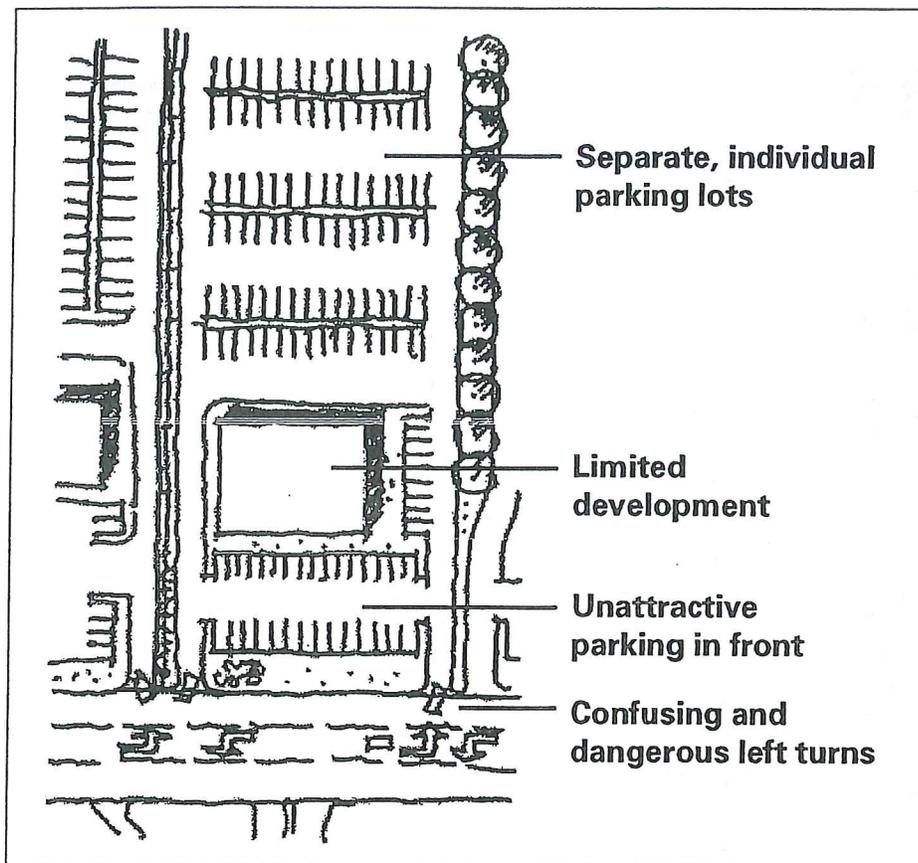
Imagine a transformed Bethlehem Pike - one that looks as handsome as the rest of the community, that has smooth and safe traffic flow, is a pedestrian-friendly environment that gives the opportunity for merchants and investors to make more money and will give members of the community a place to interact and meet!

- 3) Connect all of the walking paths to the Township trail system, so that nearby neighbors can walk to shop or work, and thus reduce the traffic somewhat.

Parking

The current pattern of providing parking for each business on its own lot necessitates large areas of black top parking lots, all of which are little used at some time during a business day. A policy and practice of shared parking should be instituted which would, for example, permit a restaurant that needs additional parking in the evening to use the adjacent parking lot of a daytime business. The reverse could be true during the day for the daytime business. This policy would reduce the area required for parking, and impervious surfaces, especially for those businesses that, in fact, require less parking than the zoning code now requires. Two steps must be taken to achieve this:

- 1) Connecting driveways (or, indeed, roadways) between lots and behind the businesses should be constructed, that join several businesses, and that could link them all to the new signalized intersection(s).



The existing development/traffic/parking condition shows many confusing driveways and left turn movements, unattractive black top as the entrance to all businesses, and parking lots that are either too large or too small, since all parking must be on the individual lots.

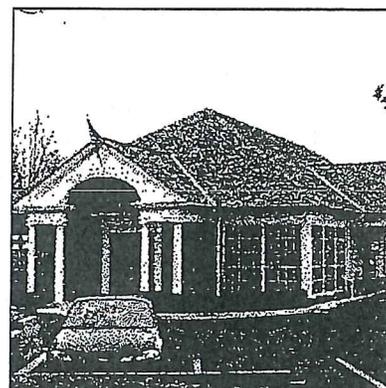
- 2) The zoning code should be changed to encourage this practice, by adding a Spring House Town Center Overlay District, in addition one specific requirement should be revised to permit fewer parking spaces on any given lot where shared parking is available.

• **Design of the Landscape and Free-Standing Signs**

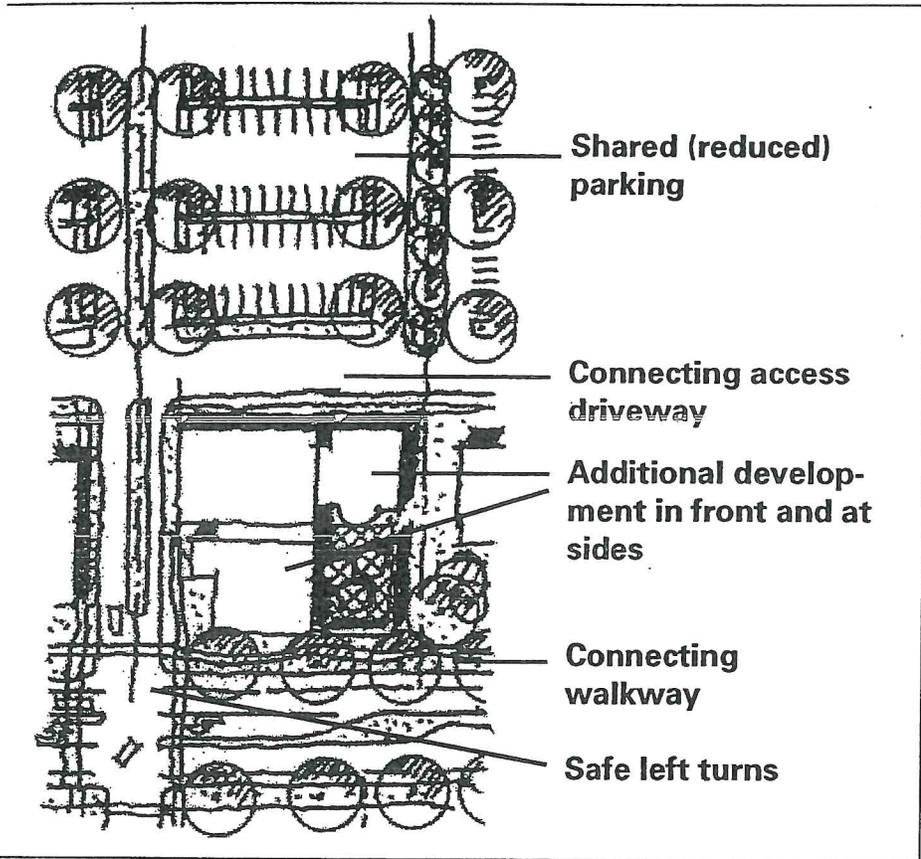
The Vision calls for a "green, scenic" quality in the Township. The wide roadway and the large parking lots that adjoin the roadway do not have this quality. If Spring House is to appear as the center of the community; it must look like it is part of the community. Other community downtowns throughout the region accomplish this, in many forms. Bryn Mawr is located along a busy roadway; the shops and landscapes of the shopping areas in Doylestown and Chestnut Hill are completely compatible with their adjoining neighborhoods; portions of Baltimore Pike in Media appear as extensions of the overall community.

Therefore it is recommended that the following five improvements be made. Note that they are coordinated with the traffic, parking, and walking recommendations. Note further that they not only add the green landscape that is currently missing, they also give a unity to what is now a visually chaotic environment:

- 1) Plant the entire center traffic island with low maintenance shrubs and perennial flowers.

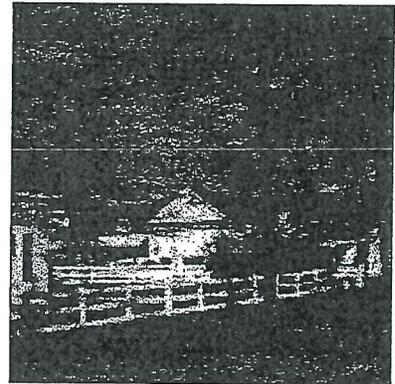


The new Harleysville Bank complex is a good model for the design of future buildings in the Bethlehem Pike Town Center area.



The properties in the new Bethlehem Pike plan will have safe auto access, more opportunities for building expansion, an opportunity to share parking with their neighbors, and a far more inviting place to do business.

- 2) Add curbs, ground covers, and daylilies with daffodil flowers along all of the roadway edges. Remove much of the existing tall shrubbery.
- 3) Plant a continuous row of high-branching London Plane shade trees along both sides of the roadway. Note that the species and spacing of these trees must be carefully determined, to assure that the signs and businesses remain visible from the roadway. The existing conditions now include tall shrubbery and confusing and uncoordinated tall signs along the road, all of which hide adjoining businesses. This is a situation that must be corrected.
- 4) Install a continuous two-rail white fence between all driveways, as a unifying backdrop for the plantings, and as a unifying front for the visually disconnected shop buildings.
- 5) Develop design guidelines for new freestanding signs, that are to be part of this overall landscape idea. The existing tall multi-business signs are not only unreadable from the road, they obscure the signs and shopfronts of adjacent properties. The guidelines for new signs should therefore include recommendations for location (near the fence, and not in front of another sign), height (high enough to be seen from a car, but lower than the tree branches), size of the letters and the message (big enough to be seen from a car passing at 25 mph, but no larger), colors (that are compatible with the buildings), overall area, and lighting.
- 6) Add curbs along the roadway edges.



This handsome, high-quality shopping center in suburban Richmond, VA show the handsome, unifying impact of a low white fence above the roadway.

- 7) Improve the lighting of the roadway: currently it is only partially lit, and the fixtures vary in design, intensity, and location, and gives a chaotic night time appearance.

- **Design and Planning of Buildings**

The existing appearance of the buildings is fragmented and diverse, and contradicts the Vision for a community that is "united in the quality of the design of its buildings and landscapes." It is also less attractive than it should be to improve business, and to flourish. Therefore it is recommended that Design Guidelines be established for new buildings, and for additions to, or conversion of the existing buildings. These Guidelines should give direction to these design characteristics:

- 1) The materials used on the exterior walls and roofs
- 2) The shapes of the roof
- 3) The general pattern and design of windows and shop fronts
- 4) A basic palette of colors

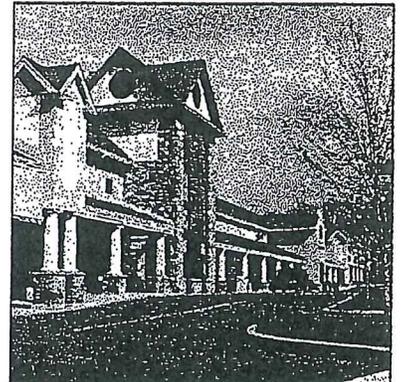
In the preparation of this Plan, the new Harleysville Bank and Offices located at the Penllyn/Bluebell Pike intersection have often been cited as one exemplary model of building design that is compatible with the community.

In addition to building design, the location of new buildings and building additions – especially the store fronts and entrances – should be given guidance to better encourage a walking / shopping environment. The existing pattern, which has been, in large part, governed by the zoning code, is of buildings set far back from the road, with large parking lots and some small green areas in front. This pattern not only contradicts the idea of a truly green landscape, it also discourages walking between shops. Therefore it is recommended that the zoning code be revised to create a Spring House Overlay District, which will permit retail buildings to be built closer to the street, and encourage parking to be on the side or in the rear of buildings. This plan envisions the possibility of future additions to the fronts of existing buildings, as well as entirely new buildings, that are built to this location standard and to the Design Guidelines described above. The development opportunities that this recommendation adds to the area are discussed below; not only will such new developments help change the appearance of the Bethlehem Pike area, they will greatly help the area to "flourish."

- **New Development Opportunities:**

In order to meet the objective of creating an active, walkable shopping area that is the focus of Township life, and that is a successful business community, a pattern of development that is more dense and compact is needed. In order to accomplish this, these steps must be taken:

- 1) Large new developments consisting of small-scale individual, pedestrian-oriented businesses, should be encouraged to take



The new Genuardi's portion of the large Spring House Shopping Center serves a region far beyond the Lower Gwynedd community.

place on the largest parcels. Remember that additional development requires additional parking. "Larger" in this case need not necessarily mean taller. It does mean, however, that more development could take place per acre of ground (one target could be at least 18,000 sf per acre, as opposed to the current pattern of about 12,000 sf per acre). If such developments were to take place they would create a "two dimensional" character to the shopping area, where pedestrians can move in two directions to the retail shops - both parallel and perpendicular to Bethlehem Pike.

- 2) These larger developments might preferably take place at the new signalized intersections, in order to assure greater ease of access.
- 3) The site plan of larger developments should be planned to promote walking between the stores, and between one development and another. A "village-like" quality is most appropriate to meet this objective. An important characteristic of this quality is that parking is not located in the front, and that the buildings are located closer to Bethlehem Pike. This arrangement will make the shops (and their signs) more visible from the roadway, will make the area more walkable, and will make the entire business corridor more attractive and more compatible with the rest of the community.
- 4) The existing limitation on building size (6,500 sf) should be reconsidered. The goal of this regulation is to encourage smaller, locally owned, businesses, but it actually requires separate buildings, thus preventing any walkable, village-like, mixed-use development from taking place. In addition, modern retailing suggests that the area of a single shop needs to be larger. Therefore the recommended Spring House Overlay District could permit greater density in exchange for developers' adherence to design standards that are necessary to achieve the overall vision. The regulations of this District could also establish the maximum area of a single business (not building) to be 10,000 sf. This area is large enough to attract new retailers (e.g., bookstores, upscale women's apparel shops, or fine restaurants), but not so large as to encourage "big box" retail which, in addition to being unneeded in this commercially saturated area, can also be characterized as being inconsistent with the scale of development in Lower Gwynedd; and not related to the walking environment that is being planned.
- 5) Parking that is shared by existing businesses should be possible, and should be further encouraged by the zoning regulations- for instance, by reducing the number of spaces required if compatible businesses share parking facilities.
- 6) A mix of uses should be encouraged, especially including residential. This is a fundamental step in making a "downtown" quality that is active at all times. In order to accomplish this, additional density should be permitted, as part of the overlay district and can include the use of three story buildings and



The Post Office in the heart of the central, walkable portion of Bethlehem Pike is an important meeting place for much of the community. Since people pick up their mail here, its function as a gathering place is an important part in creating a unified community.

increased lot coverages, along with the developer's adherence to the district's overlay standards.

- 7) The recommended Overlay District should also address these issues: front and side yard setbacks should be reduced; parking requirements should be reduced (especially by permitting shared parking arrangements); residential uses should be specifically permitted; three story buildings should be permitted; the maximum lot and building coverages should be increased. Details of these recommendations are included in the Implementation chapter of this Plan. Note also that all of these zoning regulations must be coordinated with the suggestions in the design guidelines that have been recommended.

The result of these development changes should be a greatly improved pattern of buildings, landscapes, and parking lots: a pattern that has a variety of building sizes that have a consistency in design and scale, that are closer to the road and to each other, and that are set into a green (not black top) landscape. The new pattern will encourage local office workers to walk to the local retail businesses for shopping and eating, and will create the efficient and convenient opportunity to park once and the to shop in many places. It will look like the rest of the community, it will be linked by walkways to the nearby residential neighborhoods, and the local businesses will grow and prosper.

The primary method for realizing this significant proposal is described here, and in the Implementation Strategies chapter of this Plan: the creation of a Spring House Overlay District which offers incentives in the form of increased development capacities and more flexibility in the building and parking requirements. These incentives will be used in exchange for following requirements regarding the design of buildings, landscapes, and parking areas in ways that meet the objectives of the community and this Plan.

North Bethlehem Pike:

This area of the Spring House Town Center includes the Spring House Village Shopping Center I & II, the Township Building, and various other offices in residential-like buildings. Since the Spring House Village Shopping Center includes Clemens and Genuardi's supermarkets and various other retail businesses and offices, it serves a market significantly beyond that of the Township. Note that the current "barn" office building was originally developed as a retail center and may be returned to that type of use. The Circulation Plan, as a related issue, notes the considerable impacts that regional traffic is now having on Lower Gwynedd as a result of this large development.

While almost all of the parcels now appear developed, recent history dispels the notion that a township is ever fully developed. Instead redevelopment can always be possible. Thus, attention must be paid to planning for change. One significant issue is the landscape: in order to make the Town Center feel as one place, the trees and paths recom-

recommended for "Center" of the Center should be continued along both sides of Bethlehem Pike. This area must be linked, both visually and functionally with the rest of Bethlehem Pike: it must be possible to walk easily among all the section of the Pike. The employees in this area can use the walkways to get to both the restaurants and shops elsewhere in the Center. Like the same walkways recommended for South Bethlehem Pike, they are to be part of the larger Township Trail System, which connects homes and businesses, and the citizens, to one another.

The roadway has been rebuilt and a signalized intersection has been installed, to accommodate the shopping center traffic. In addition, there are few left turn needs in the area. Therefore the planted center traffic island recommended for the central area is not needed here, although attractive landscaping would continue the planned Spring House streetscape.

South Bethlehem Pike

South of the central area, between Penllyn Creek and Dager Rd., this section of Bethlehem Pike is occupied by a variety of non-retail businesses (automobile dealers, an architect's office, plumbing supply, etc.) and a few residences. The area is now zoned residential, which is compatible with the adjacent residential neighborhoods. However, it contradicts the current pattern of use, and is inconsistent with the goals for the whole Village of Spring House. An appropriate change would be to add specific business uses to the current residential use. Standards for design, signage, and landscaping could accompany this change, to assure that it stands as a transition between the activity of the retail Center and the quiet areas of the adjacent residential neighborhoods. Specifically, the tree-lined landscape recommended for the Central area should be extended through this area, the walking paths should be extended to permit office workers to walk to the shops, and the sign guidelines should be similar to those developed for the retail area. The planted center island may not be necessary here, since there are far fewer left turns and driveways, and the various traffic movements are less confusing; however, the situation is such that further study of the value of the center island could be undertaken. This area is clearly related to the Central, walkable, area; the two should be connected, but both should have their own distinct appearances.



The existing Trail System is an exemplary recreational facility that will, ultimately provide access to everyone in the community.

RESIDENTIAL: GROWTH, PRESERVATION, AND COMMUNITY

The Township has already embarked on realizing the two Visions: those that call for creating a unified place out of many neighborhoods, and call for preserving the handsome and historic homes and landscapes that are the fabric of the residential community. An historic building analysis has been started. The existing landscape regulations should be reconsidered to add a new section regarding Spring House Town Center, and should include in all areas the recommended locations, spacing, and species of street trees. The trail system that will link neighborhoods is steadily being implemented. There are ongoing efforts to preserve the unifying open spaces and trees. Therefore the actions that are required to com-

plete this task, and that are necessary to fully realize the Visions, are subtle but important:

Creating a Unified Community

The Township is now made of many smaller neighborhoods, which include handsome homes and beautiful landscapes. There is a surprising variety of housing types (remember that 40% of the homes are not single family detached, that there is a considerable number of smaller homes that contrast with the pattern of larger houses, and that the Township is a major contributor to housing for older and retired people). These neighborhoods, these homes and landscapes, and that variety, are the result of decades of hard work by the Planning Commission, Zoning Hearing Board and Lower Gwynedd Supervisors in comprehensive planning and constant attention to zoning and subdivision details in the plan approval process. This work must continue. In addition it is especially important to preserve the older, historic, homes – an action that is described in the Historic Resources chapter of this Plan. If the Township is to continue to promote its visual unity and beauty, this act of preservation is fundamental. If these homes and their landscapes are preserved, and if new buildings and landscapes are designed carefully to be compatible with those that exist, the Township will remain beautiful, will retain its variety of housing types, and will be symbolically united by a visual character that enhances its identity as a unified community, where development respects environmental restraints and recognizes the importance of preserving trees, stream valleys and environmental features.

This symbolic unity is not sufficient by itself, however, to make the Township feel and function like a single community. An important characteristic of these neighborhoods is that many are isolated from each other, and from the rest of the Township. The development of long cul-de-sacs, with only one road connection to the rest of the Township has encouraged this isolation. In addition, the trail system does not yet fully link most neighborhoods. It is necessary, therefore, for the Township to take these two steps:

- Continue to encourage roadway linkages, where appropriate, between individual neighborhoods, and between neighborhoods and the Township road system. The current subdivision regulations require this; it should be possible to give increased flexibility of access to the residents of each neighborhood (especially including children, who can visit friends in adjoining neighborhood without the need to be driven there), without permitting "shortcut" through traffic. This is a design problem that can be solved to the benefit of everyone. Cul-de-sacs are not necessarily the best answer.
- Continue to develop the Township Trail System, with the ultimate objective of linking all neighborhoods with walking and biking routes, and with linking neighborhoods with schools, businesses, public transit and recreation areas. Again, if this is done, children can ride or walk to school or play without being driven – a condition which will reduce traffic and will give more flexibility in family life. The details of the Trail System are described in the Circulation and Open Space/

Recreation Plans. Note that the trails have two distinct needs: one to provide for recreational walking, jogging, biking, and horse back riding; and the other to create convenient walking access to key community destinations.

Reservation and Growth

As indicated in Existing Conditions: Land Use, most of the remaining parcels of land that could legally be subdivided for additional residential development are generally small and rather widely scattered throughout the Township. The Existing Conditions chapter further indicates that there are two larger parcels that might, at some time in the future, be subject to change to residential, from their current uses: the Rohm & Haas farm" property, and the Old York Road Country Club. The analyses of all of these parcels indicated in Existing Conditions suggests that a maximum of 185 - 310 additional homes could be built according to the existing regulations of the zoning code. This number represents only a 1% to 8.1% total possible increase in development and population.

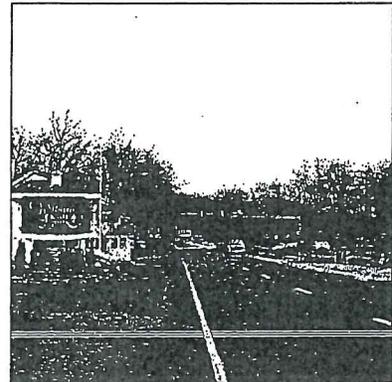
Because of the relatively small chance of further large development, and because of its scattered nature, the primary issue that is raised is the quality of the development planning and their designs, with the goal of integrating new development into the existing fabric of the community. This issue is of such importance that a special, separate, chapter is included in this Plan that addresses these recommendations in detail: the Historic and Cultural Resources Plan. It is therefore recommended that any new development meets these criteria:

New buildings should respect the location, form, material, and character of the historic buildings in the neighborhood.

New landscapes should reinforce and expand the present attractive development patterns in the Township. The conditions, like the pattern's designs of building, are the direct result of careful attention to zoning and subdivision regulations, as well as of efforts made to ensure environmental features are preserved on each site. These landscapes also should serve to provide linkages to the Township and, if required, compatible open spaces.

Existing homes that are historic and/or in keeping with the community, and that are important parts of the fabric of the neighborhood should be preserved. Older buildings can serve all modern needs if they are considered with care and imagination: it is not necessary to demolish these older buildings to make new homes and neighborhoods. It may be possible to encourage the preservation of these older buildings by permitting additional uses under zoning code in preserved buildings.

One residential portion of the Township whose character and use is being challenged by new events is the area along Route 202. While most of the roadway is already four lanes in Lower Gwynedd, it is being planned for widening and other changes throughout most of its length in the communities adjacent to Lower Gwynedd. Most specifically, it is being transformed into a four-lane road north of the Township, including a grade



The residential uses, and the appearance of a residential community, should remain along Route 202.



Three Retirement Communities exist in the Township.

separation at Welsh Rd. The details and traffic consequences of this project are explained in the Circulation Plan. Because more traffic, and faster moving traffic, both projected for the area within the Township, the existing residential properties must be carefully considered. The residential fabric of the entire Township is precious to the community; and most of the homes are set back from the roadway already. Therefore it is recommended that these two options are essential to preserve that fabric:

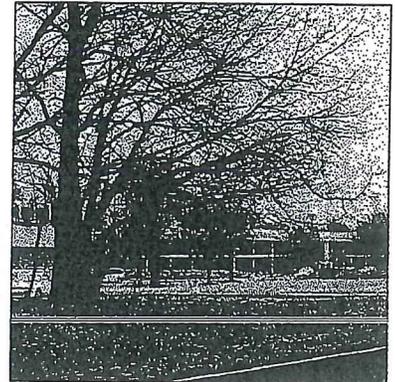
- All necessary steps to preserve and protect the existing homes should be taken. This can include landscaping to shield the view of the traffic, and the creation of new access ways to each residential property that does not require the use of Route 202. For example, a new residential scale road parallel to Route 202 and along the frontages of the homes on the western side might be appropriate to permit attractive, controlled access to these properties.
- The Township should consider zoning regulations, in the form of an Overlay District, that would permit institutional or office-type uses (which are less threatened by the higher traffic conditions), but only if they meet these criteria: that they take place within the existing residential structures; that any additions to those structure are designed to be compatible with the existing buildings; that their parking areas are small, heavily landscaped, and carefully lighted; and that only small business signs are visible from the road or the adjacent neighbors. Wherever office or institutional uses are permitted, the appearance of the residential neighborhood must be preserved, both along Route 202 and at the adjacent residential properties in the rear.

Special Residential Uses: Retirement Communities

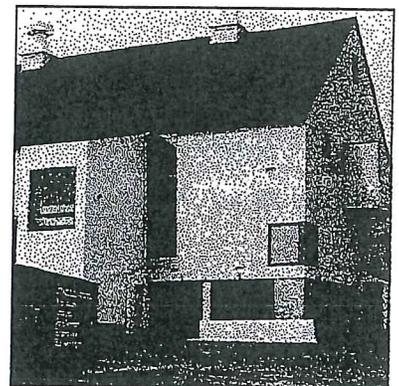
Three communities for retired and elderly people now exist in the Township: Spring House Estates, Foulkeways, and Gwynedd Estates. The total number of residences in these three communities is 731 with a total population of about 1,040. This number of dwellings and people adds a diversity and richness to Township life. However, these communities are significant contributors to the fact that 24% of the population is 65 or older. A well-balanced and vital community is one with significant numbers of people in all age groups. Any significant addition to the totals of dwellings in retirement communities would, of course, tilt the numbers of older residents beyond the balance that exists now. Lower Gwynedd serves this age group well, and serves the region well in providing these facilities. Although the modest requirements of the existing communities to grow are recognized, the Township does not need, and cannot support, more housing of this type.

EMPLOYMENT : OFFICE/INDUSTRY/MANUFACTURING:

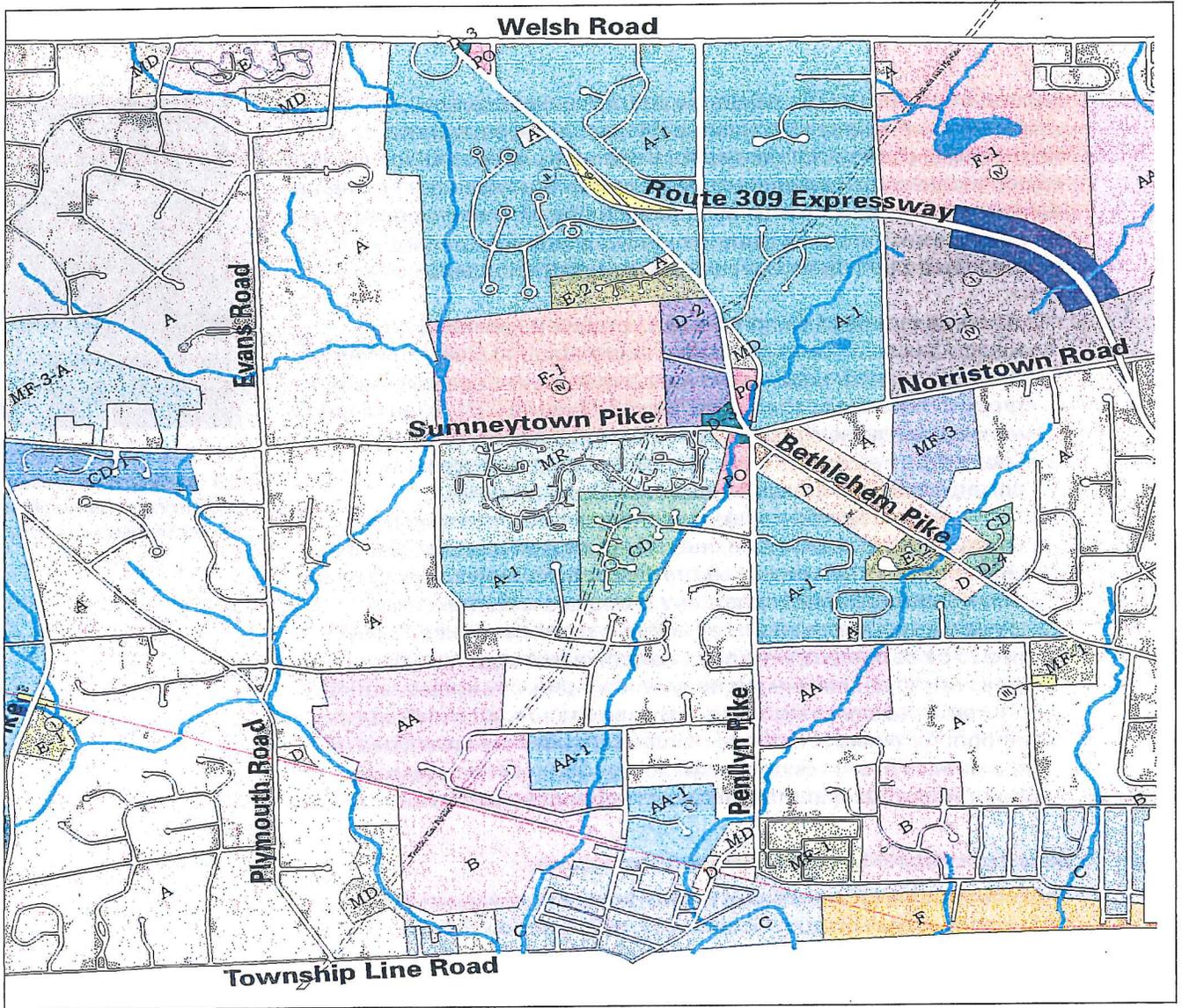
The major employers in Lower Gwynedd Township are located in two general areas in the Township. Moore Products is located at the center of the Township on Sumneytown Pike, while most of the others (Rohm & Haas, McNeil Pharmaceuticals, Advanta Corp., Spring House Corporate Center) are located along McKean Rd. and Norristown Road, near Route



The offices/Research/Industrial facilities of the Township serve both Lower Gwynedd and the region.



Several offices are located in the smaller (in this case a former barn) buildings of Spring House Village Center



Zoning Map: Except for the transformation of Bethlehem Pike into Town Center, and the consideration of a few alternate uses along Route 202, the existing zoning will remain in place.

Communication Facilities Overlay District

Structure Zone

- I 150' @ SIDE OF C OF RT. 309
- II 150' x 250' @ RT. 202 & R.R.

Attachment Zone

- I RAILROAD PARCEL @ RT. 202 & 202 R/W SOUTH OF R.R.
- II INSIDE ON AND OFF RAMPS TO RT. 309
- III WATER TOWER PARCEL
- IV ENTIRE F-1 AND D-1 DISTRICTS ARE ATTACHMENT ZONE OVERLAY DISTRICTS

Township Zoning

Single Family Residential District:

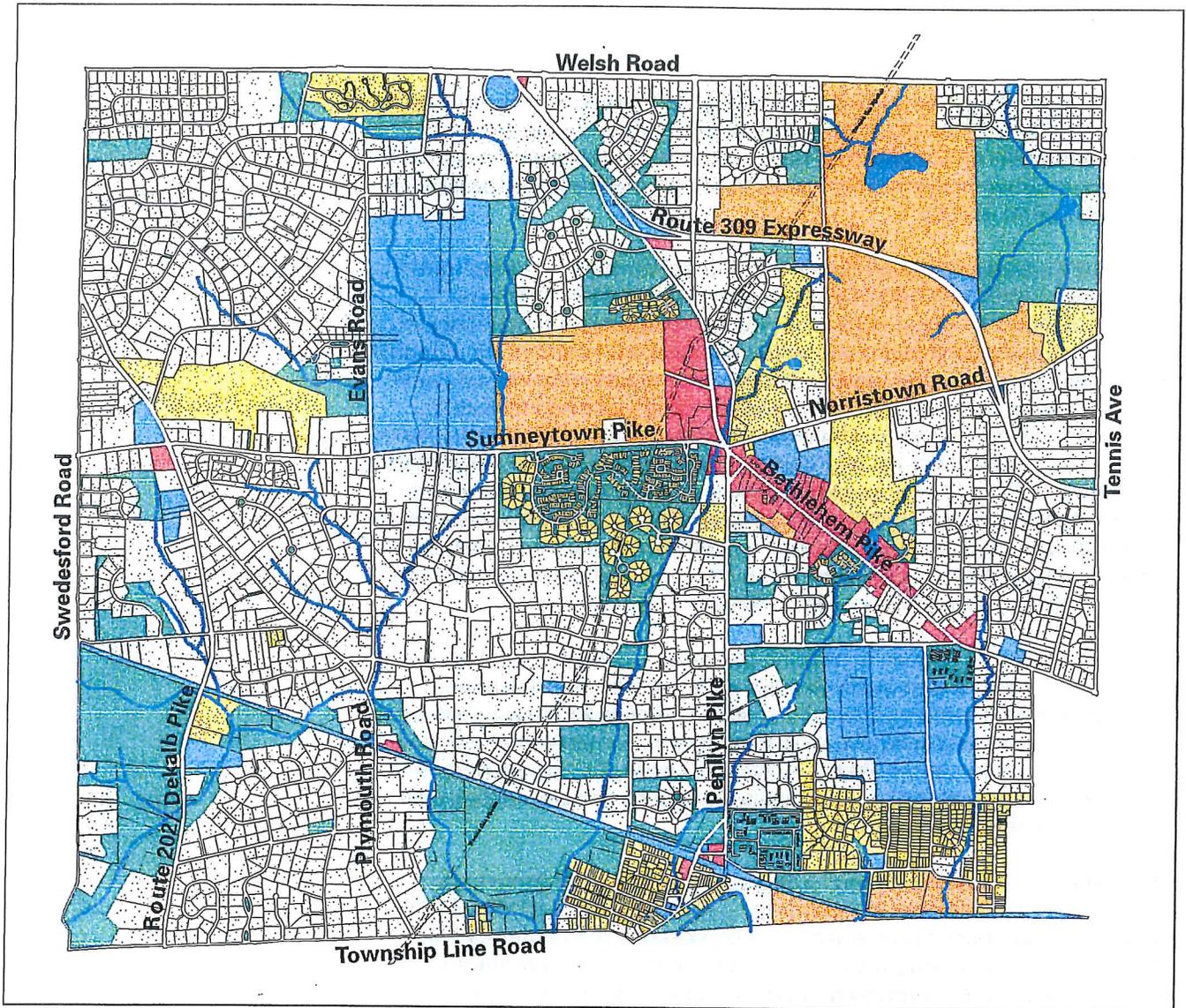
- AA - Residential District
- AA-1 - Residential District
- A - Residential District
- A-1 - Residential District
- B - Residential District
- C - Residential District
- CD - Cluster Development Residential District
- CD-1 - Cluster Development Residential District

Multi-Family Residential Districts:

- E - Residential District
- E-1 - Residential District
- E-2 - Residential District
- MF-1 - Multifamily Residential District
- MF-2 - Multifamily Residential District
- MF-3 - Multifamily Residential District
- MP-3-A - Multifamily Residential District
- MR - Mixed Residential Development District

Non-Residential District:

- MD - Municipal District
- C - Business District
- D-1 - Special Use District
- D-2 - Planned Business District
- D-3 - Special Business District
- D-4 - Special Business District
- F - Industrial District
- F-1 - Limited Industrial District
- PO - Professional Office District



The existing pattern of Land Uses should remain, except, as in Zoning, for the areas along Bethlehem Pike and Route 202.



309. Cognis is located near the Ambler border on PenAmbler Road, and a large number of smaller businesses are located in the Spring House Corporate Center. As stated in the recommendations regarding regional shopping, they are assets that serve the entire Delaware Valley region, as well as Lower Gwynedd.

The larger businesses appear stable in the short term. As a result, they provide a significant contribution to Lower Gwynedd's physical and economic health. Their substantial ratables help maintain the balance between the residential and commercial tax base, and they provide good, well-paying, jobs to the region's residents. Their physical layouts have given the community large vistas of green open spaces and forests, which are important parts of the visual character of the Township. However, their locations are such that employees cannot walk to the shops of Bethlehem Pike; if the auto movements and parking were clearer and more attractive, these people could be considered as a real market for a re-configured town center. In addition, appropriate and well-planned trail development might, in good weather, also be a viable way to link these employment centers with the new "Village of Spring House."

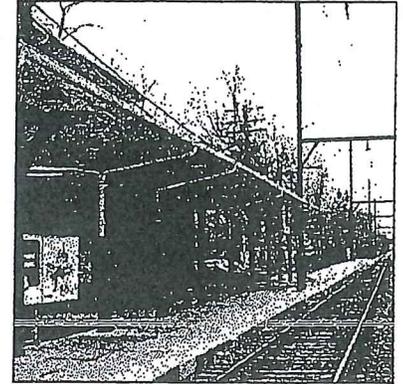
These businesses, however, also bring Lower Gwynedd face-to-face with the uncertainties of the global economy. It must be recognized that decisions made far from Lower Gwynedd can change existing uses and property conditions here. Mergers, acquisitions, international competition, bankruptcies, technological advances, and other systemic factors could cause their particular businesses to downsize or even close their Lower Gwynedd operations.

Fortunately for Lower Gwynedd, strength of location is likely to help mitigate any unanticipated economic (or use change) shock. The office/research/manufacturing properties in Lower Gwynedd generally benefit from on-site and infrastructure amenities. Most of these properties are well-configured, comparatively large campuses with immediate access to arterial roadways of adequate capacity. In the large view, the regional access provided by Route 309, the quality of the surrounding labor pool, and the positive perception of this portion of Montgomery County as a business location, all suggest that, if any office/research/manufacturing property becomes available, it will readily find a valuable reuse.

Planning for the future, however, must anticipate the potential need for on-site rebuilding and/or reconfiguration to assure that these properties maintain their underlying economic value in potentially changed business circumstances, and that they can continue to make a significant contribution to the Lower Gwynedd tax base. Of significant importance to this issue is the fact that the Siemens-Moore property has been evaluated for further development. It has been determined that about 500,000 additional square feet could be developed there, which could require space for 2,000 more cars. Clearly, if this were to happen on what is now a large green area, the surrounding roadways would be dramatically and negatively affected, and would represent a significant planning challenge

Under these conditions, it is in the interest of Lower Gwynedd that similar types of companies remain located in the Township, and that their open and green development pattern is preserved. However, because of the possibility of unpredictable change, the Township must establish development and design principles that will apply, no matter what external changes are imposed. These principles must address the following issues:

- The zoning setbacks that have created the open green vistas must be preserved.
- A cooperative working arrangement must be preserved between the corporations and the Township, to assist in their efforts to remain and expand.
- The existing zoning for office, laboratory, and manufacturing uses must remain in place.
- If the existing developments need to change as the companies policies change (e.g., departments are reduced in size or are closed), revisions to the complexes of buildings must follow basic design guidelines, so that the "campus-like" feeling that now exists is preserved. Part of these guidelines must include the ability to include smaller businesses, as well as large, and to adapt to high quality, low office population, multi-tenanting of existing single tenant buildings.



The SEPTA R-5 line gives connections to the whole region; the businesses that adjoin the two stations take advantage of this location, by having easy access to both commuters and employees.

INSTITUTIONS

The four major institutions in the Township are schools: Gwynedd Mercy College, Gwynedd Mercy High School, Gwynedd Mercy Elementary School and the Wissahickon School District public school complex (consisting of Wissahickon High School, Wissahickon Middle School, Lower Gwynedd Elementary School, and the District administrative offices). All of these institutions contribute several positive characteristics to the life in the community: they provide a quality education for the residents of Lower Gwynedd; they all include large, open, and green sites that are essential parts of the Township (which are often used for community events, such as the 4th of July fireworks); they contribute to the life of the community by allowing or encouraging their personnel to be active in the civic life of the Township; they add employment to the community economy; they have much more modest impacts on the traffic on adjacent roadways than other possible land uses and they are, in general, good neighbors to their adjoining residential communities.

These institutions should therefore be encouraged to remain, and to prosper.

OPEN SPACE / THE GREEN COMMUNITY

The dominant visual characteristic of Lower Gwynedd Township is the green, forested, and open landscape that weaves a pattern of beauty throughout all of the land use areas. These "open spaces" include both private and public lands: public recreation facilities, natural preservation areas, the trail system, the landscaped roadways, open spaces protected

by cluster development, privately preserved lands, institutional open spaces, the open spaces that adjoin the large corporate facilities, the open spaces that are part of the retirement communities, and the lawns and trees of the individual homes and various residential neighborhoods. The preservation and maintenance of all these green places is a fundamental part of this Comprehensive Plan, and is essential in realizing the visions for the various land uses.

OTHER LAND USE AREAS AND TYPES

Commercial developments at the SEPTA train stations

There are modest developments that include both retail and offices adjacent to each of the two train stations. Although the zoning regulations do not provide for these uses, they serve the community, the nearby neighborhoods, and the commuters well. In their current form they do not conflict with the residential neighborhoods nearby, but further expansion of these uses would have negative impacts (traffic, parking, noise, etc.). They should be encouraged to remain, but they should remain only as exceptions to the code.

Route 202: Office Uses

This area has been discussed above, but the issues raised by the rebuilding of the roadway deserve repeating. The increased traffic will make access to the individual properties more difficult. However, since the existing residential properties are often set well back from the road, and since they have existed as homes along a large highway for decades, residential remains the most appropriate use for these properties. An additional use that could be permitted might be offices that fit within the existing homes - many of which are historic - if the office uses are compatible with the adjacent residential properties, and if the existing houses whose uses are to be changed are preserved. Appropriate institutional issues, like houses of worship, might also be considered. In addition, alternate methods of creating vehicular access other than from Route 202 by driveways and residentially scaled frontage road should be explored.

As stated above, the appropriate method for accomplishing these recommendations for the Route 202 area is the establishment of a Highway Overlay Zoning District.

COMPARISON TO THE 1987 PLAN

This 2000 Comprehensive Plan builds on the recommendations of the 1987 Plan, especially including the fact that many of those recommendations have been realized. The development that was anticipated - primarily the residential - has taken place, so that the conditions that the 2000 Plan faced were quite different than those found before 1987. As a result, these are the comparisons between the 2000 and 1987 Plans:

The 1987 Plan was significantly focused on the nature and extent of future growth (indeed, the recommendations were titled the "Development Plan.") Since that development has largely taken place, the focus of the 2000 Plan is for the preservation, enhancement, and improvement of

the community that has been created, and for providing direction for future redevelopment plans.

The 2000 Plan calls for the recognition that Lower Gwynedd should function as a unified community, made up of the various separated neighborhoods, with Spring House as its center. This is a new intention that was not recognized in the 1987 Plan

The 2000 Plan expands on the 1987 Plan recommendations regarding the relationship of Lower Gwynedd to the region and its neighboring Townships. This Plan recognizes the extent and type of regional services (shopping, employment, open spaces, trails, institutions) that are available already in the region, and evaluates those which should be provided by the Township.

The 2000 Plan expands upon the recommendations for the creation and preservation of open spaces, for the stewardship of our natural environments, and for the creation and maintenance of recreational facilities, that were made in the 1987 Plan.

The 2000 Plan adds a special focus on the preservation of historical and cultural resources (both buildings and landscapes), which is an essential part of the "preservation and enhancement" character of this Plan.

Because much of the residential development anticipated by the 1987 Plan has taken place, and because the Township's zoning, subdivision, and land development ordinances substantially address development issues, the 2000 Plan makes no new recommendations for most of the neighborhoods of the Township. The only new residential type that has been added is the inclusion of apartments in mixed-use developments in the new "Village of Spring House."

Changes in the international economies since 1987 could dramatically affect the future of the corporate developments that are now such an integral part of the life of the Township. The 2000 Plan addresses the need of the Township to plan for unknown changes in these developments, and encourage their continued use as office research and manufacturing uses.

Finally, since it is anticipated that further residential growth is quite limited by the availability of developable land, it is predicted that public facilities (especially including the schools) will not need expansion within the time frame of the 2000 Plan.

6. OPEN SPACE AND RECREATION PLAN

Of the five broad Visions established for the future of the Township, two specifically and directly relate to planning for Open Space and Recreation in the community:

Vision 1: "We envision a community where the green, scenic, and peaceful quality of our landscape – both wooded and open – remains preserved and enhanced. We envision a place where the natural environments and habitats are always protected, and are integral with the life of the community...."

The creation and preservation of open space, the stewardship of environmental features, and the development of appropriate recreational facilities is a fundamental part of realizing this vision. The connecting of those spaces to the rest of the community is therefore also part of this vision.

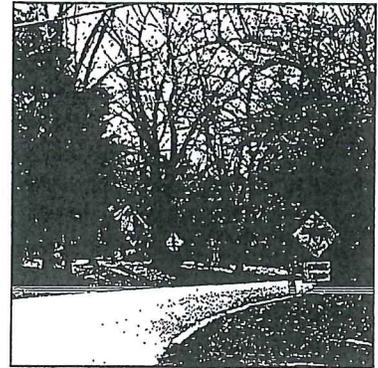
Vision 3: "We envision a place that feels and functions as a unified community, that has a town center, and that has its many separate neighborhoods linked together by all three existing circulation systems: walking, biking, and driving..."

The open spaces and recreation facilities, including all trail systems, are perhaps the most significant method of creating the connections that will make one community out of the many neighborhoods.

INTRODUCTION

The Township's 1996 Open Space Plan shall continue to be the principal policy document for Open Space and Recreation. In this Comprehensive Plan Revision 2000, the desire for trail linkages is added to the 1996 Open Space Plan. Note that there is a clear distinction between the need to link open spaces and recreational facilities with recreational paths, and the need to provide a linkage between neighborhoods and key community destinations.

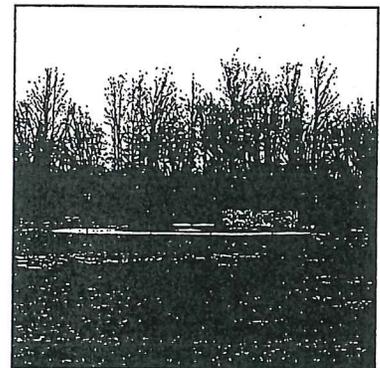
The Circulation Plan identifies the needs and possibilities for trail linkages between key destinations, such as schools, shopping, post offices, trains, bus routes and nearby neighborhoods. The Open Space and Recreation Plan, on the other hand, specifically aims to connect people to the passive and active recreational spaces within the Township. This consists of three primary features: 1) conserve open space that connects to the community and reinforces natural systems, 2) link community destinations and natural areas through a series of trails, sidewalks, bikeways and horse trails, and 3) create active recreational spaces that meet the diverse needs of all age groups and interests in the Township. The Open Space and Recreation Plan therefore is oriented toward the recreational value of land for the entire Township.



The forest-like landscape along a beautiful road in the Township, showing that some of the small and beautiful roads can be used for walking, biking, and riding.



The trail system offers connection to other parts of the Township, as well as recreation

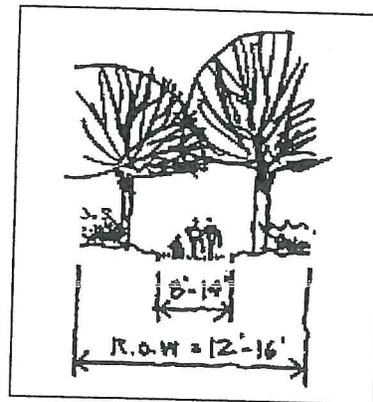


Recreational fields like this one are being built in Penllyn Woods

The Open Space and Recreation Plan is intrinsically related to the Land Use Plan, and is generally related to the Natural Resource Protection Plan. When creating policies for Open Space and Recreation, each of these Plans must be consulted.

With the completion of the Lower Gwynedd Open Space Plan in 1996, the community now has an excellent policy resource to guide in the prioritizing and conservation of open space and recreational land. The five goals established for the 1996 plan remain entirely relevant and are worth reinforcing here:

- Provide a trail system
- Provide adequate recreational facilities
- Provide open space for passive recreation
- Preserve the visual quality of the landscape and protect the environmentally sensitive and ecologically important lands
- Provide connections to adjacent municipalities

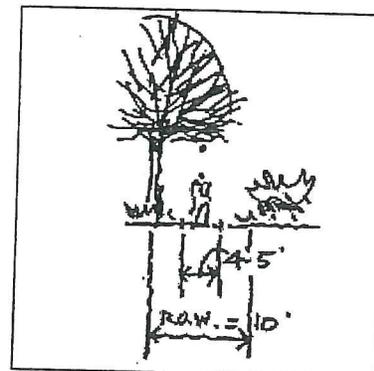


The Recreational Trails for walking and biking should be constructed of gravel, and be wide enough for two bikes to pass.

OPEN SPACE/PROTECTED LANDS

See the Open Space map in Ch. 3, Existing Conditions: Open Space and Recreation. This map should be the basis for future open space planning. Lands that are protected in the ways indicated on that map can, without having any recreational access, be an important part of realizing the two Visions most relevant to Open Space and Recreation planning. The Township is committed to preserving the lands identified in the 1996 Open Space Plan in the most appropriate way. Open space areas are important because they:

- Maintain a sense of place and common identity throughout the Township.
- Maintain the sense of a green and peaceful quality that is so cherished by the community.
- Buffer developments from the surrounding environmental lands and each other.
- Preserve trees, water quality and wildlife habitat diversity.
- Provide landscaped Gateways to identify the community, and its Town Center.

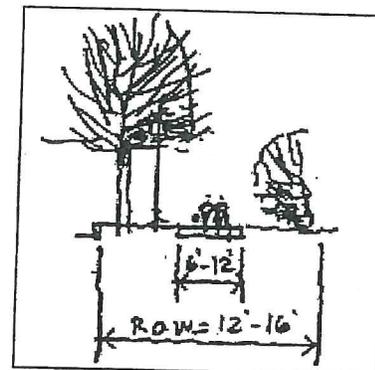


The Recreation Trails for horses can be narrower, and be constructed of softer surfaces.

TRAILS

To better understand the current context of the recreational (as opposed to the access and destination) trail and park network see the Map of Existing Recreational Trails in the Existing Conditions section.

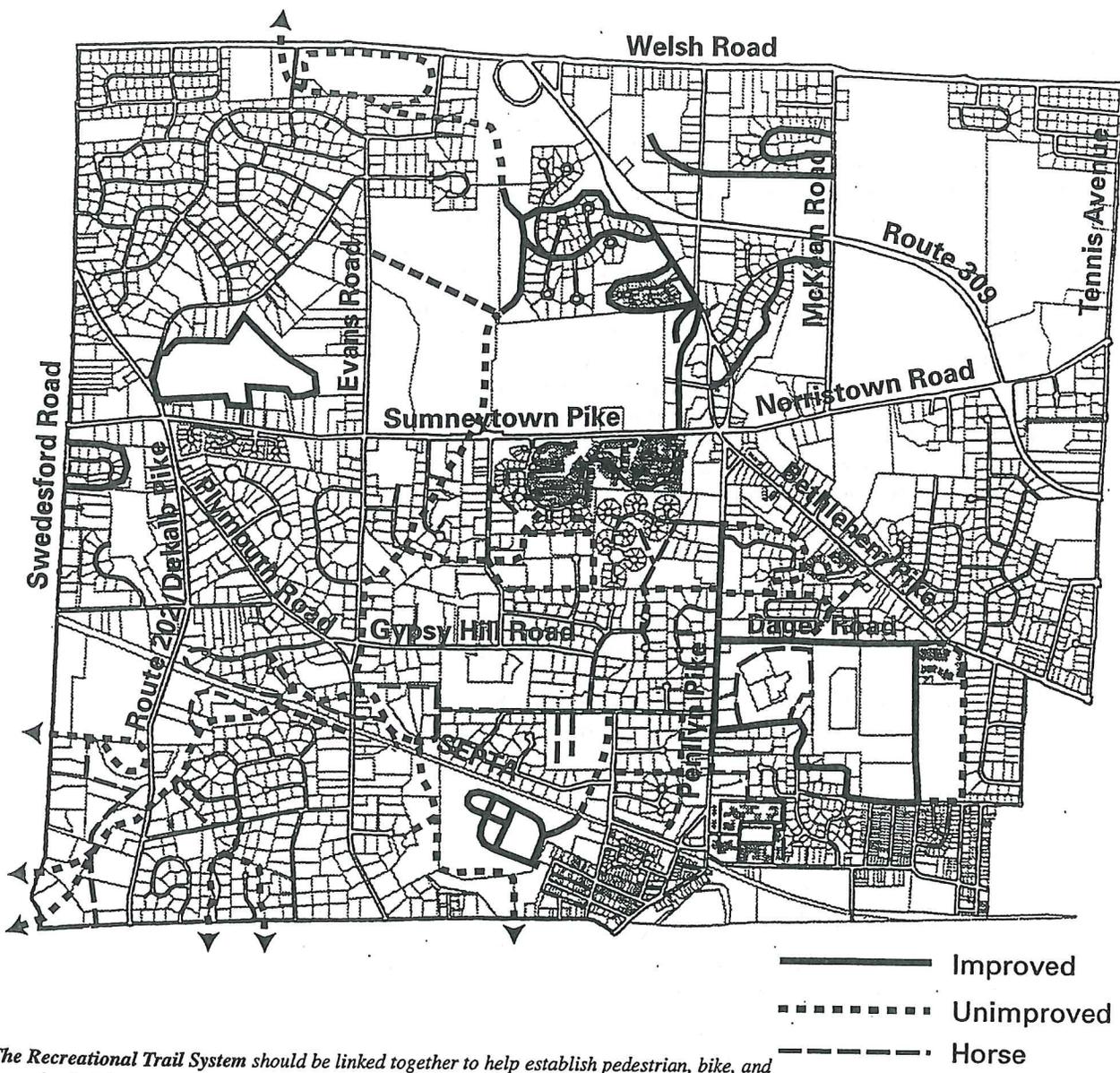
Where possible, horse trails should be separated from pedestrian and bike trails, since they require a smaller dimension, and can have a softer walking surface, both of which can be incompatible with walking or biking. In areas with limited rights-of-way, the pedestrian and bike trails could be built along roadways, in order to complete all of the recreational routes. In addition to these recreational trail systems, another distinct



The Destination Trails (see the Circulation Plan) should be located along roadways, with lights and with a smooth paved surface.

system is recommended, which is established to directly connect key community destinations.

The Map showing the Destination Trails is shown in Ch 9. Circulation Plan. This map highlights the two different, but linked, trail systems: the "Recreation" Trails for pedestrians (and bicycles) and horses that weave among the neighborhoods, and are extensions of the natural environment; and, the "Destination" Trails that have simple, clear, and illuminated routes to key locations in the Township.



The Recreational Trail System should be linked together to help establish pedestrian, bike, and horse back riding connections between the various neighborhoods. This set of linkages will help make the Township a unified community.

Note that the Recreational Trails can be much longer than the Destination Trails, and that they should link beyond the Township to the neighboring municipalities and the region. The Destination Trails are limited in their lengths by the normal walking patterns of our culture (about 1/4 to 1/2 mile is a normal maximum to walk to work, shop, or the train, for instance). These shorter trails should be paved in a hard (preferably black top) surface, and should be located along roadways so that they are illuminated in the evening. Details of these trails are discussed in the Circulation and Land Use Plans.

RECREATION

In light of the significant past and projected development of new housing throughout the Township, the 1996 Open Space Plan should continue to be a guiding force in the selection, purchase or conservation, and management of recreational spaces. The location and number of recreational spaces should be directly linked to population changes and demographics. By the year 2010 the possible range of an additional 370 to 650 residents in the Township will create an increased need for recreational space, as well as for additional funding to maintain these recreational spaces. The land at Penllyn Woods dedicated to a community park and recreation area has been a high priority for the community. The recent completion of this project, the acquisition and development of the Henkel (Cognis) ballfields on Pen-Ambler Road, in conjunction with Ambler Borough, and the development of a trail system linking the parks to adjacent neighborhoods are Township priorities. Lower Gwynedd also recognized the need to aggressively pursue the acquisition of lands identified in the 1996 Open Space Plan before they are developed and gone forever.

PUBLIC LANDS

The Township has become a large landowner in its own right, possessing many acres in parks or open space scattered throughout the Township. Some of these lands are devoted to active recreation, some are preserved for natural resource protection. Public lands provide the community space where neighbors can meet one another and where community events can be held.

GATEWAYS

The vision for the Township that calls for preserving the green, serene quality of the community suggests the need to create a strong landscape identity for itself. Therefore it is suggested that a coordinated set of landscaped "gateways" be created at the entrances to the Township, at major intersections such as at Sumneytown and Bethlehem Pikes, and at the entrances to residential neighborhoods. These gateways can consist of entrance piers or signs, and special plantings, and can identify the whole Township, the Town Center, and the individual neighborhoods.

7. HISTORIC AND CULTURAL RESOURCES PLAN

The Visions that the community has set for itself are strongly focussed on the preservation of the quality of life, and of the handsome physical environment that now exists. Three of those Visions are directly related to the recommendations of the Historic and Cultural Resources Plan:

Vision 1: *"We envision a community where the green, scenic, and peaceful quality of our landscape – both wooded and open – remains preserved and enhanced. We envision a place where the natural environments and habitats are always protected, and are integral with the life of the community. We also envision a place where the handsome older buildings are cherished, and preserved as an essential part of that beautiful landscape."*

This is the heart of what is intended in this Plan, and guides all of the analyses and thinking here.

Vision 3: *"We envision a place that feels and functions as a unified community, ...and that has its many separate neighborhoods linked together by all three existing circulation systems: walking, biking, and driving. We also envision that this single community is united in the quality of the design of its buildings and landscapes...."*

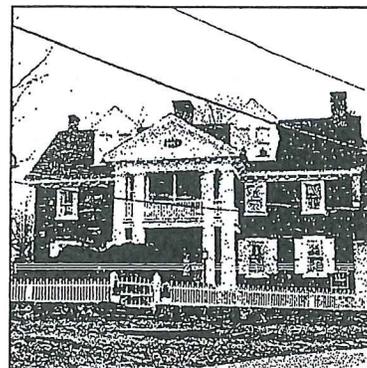
The historic character of both the older buildings and handsome landscapes is at the heart of this vision; it is these qualities that can continue to give Lower Gwynedd its special feeling, and that can make the Township feel like one place.

Vision 5: *"We envision a place where the traffic management is appropriate to our peaceful quality of life..."*

The preservation of historic buildings and landscapes can be dramatically affected by the design (widening, creation of sight distances, etc.) of roadways. The earlier development in the Township took place along narrow, single lane Indian trails or farm roads, many of which have now been substantially widened and are much busier. The historic roadways are therefore threatened by current traffic congestion problems, and by some solutions to those problems. Therefore a very careful coordination must take place between the needs of circulation and of the historic and cultural resources.

INTRODUCTION

As the community feels the future impact of development pressures both large and small, in and out of the Township, and no matter how large or how small, it is important to recognize the great value of its historic resources. These resources maintain the link between the present and the past, they form the major elements that identify the community as a special place, and they



One of the many fine historic buildings in the township, which establish a character and standard for both preservation and new construction.

stand as precedents for the design and review of all subsequent developments.

As stated in the "Land Use in Pennsylvania: Practices and Tools - An Inventory" (prepared by the Governor's Center for Local Government Services, with assistance from the Governor's Sound Land Use Advisory Committee, January 2000): *"Historic preservation provisions can be incorporated by local governments into municipal planning and zoning through the authority of the Municipalities Planning Code. Incorporating preservation initiatives into both the Comprehensive Plan, and into the Zoning Ordinance, of a community is particularly effective for townships where historic resources may be widely scattered."*

This Plan therefore addresses the fine historic buildings that are located throughout the Township, as well as the man-made landscapes such as tree canopies over the beautiful roadways. By protecting and reinforcing these "cultural landscapes" and historic structures, the identity of the community can be strengthened and can avoid becoming lost, either through neglect or inappropriate development.

Note that there are important overlaps between this Plan, the Open Space and Recreation Plan, and the Natural Resource Protection Plan.

PRESERVATION ALTERNATIVES

The pattern of historic development is evident in the historic buildings map: generally the historic homes and buildings are located along the older (historic) roadways, and near the two railroad stations. Most of these structures are quite scattered from each other, but some are also in sufficient proximity that they could be considered as districts. The map of historic roads and corridors indicates those roadways that are already important parts of the Township historic character; it also indicates roadways that deserve special attention so that they, too, can be considered part of the "cultural landscape" of the community.

At the present time the Township has no constraints on the demolition of historic structures, and few incentives - other than cluster zoning provisions - to encourage their preservation. In addition, there are no direct means for protecting or improving the historic roadways and corridors. Therefore a number of preservation alternatives should be considered if the community is to protect its heritage:

- ***Identification of Historic Structures and Corridors***

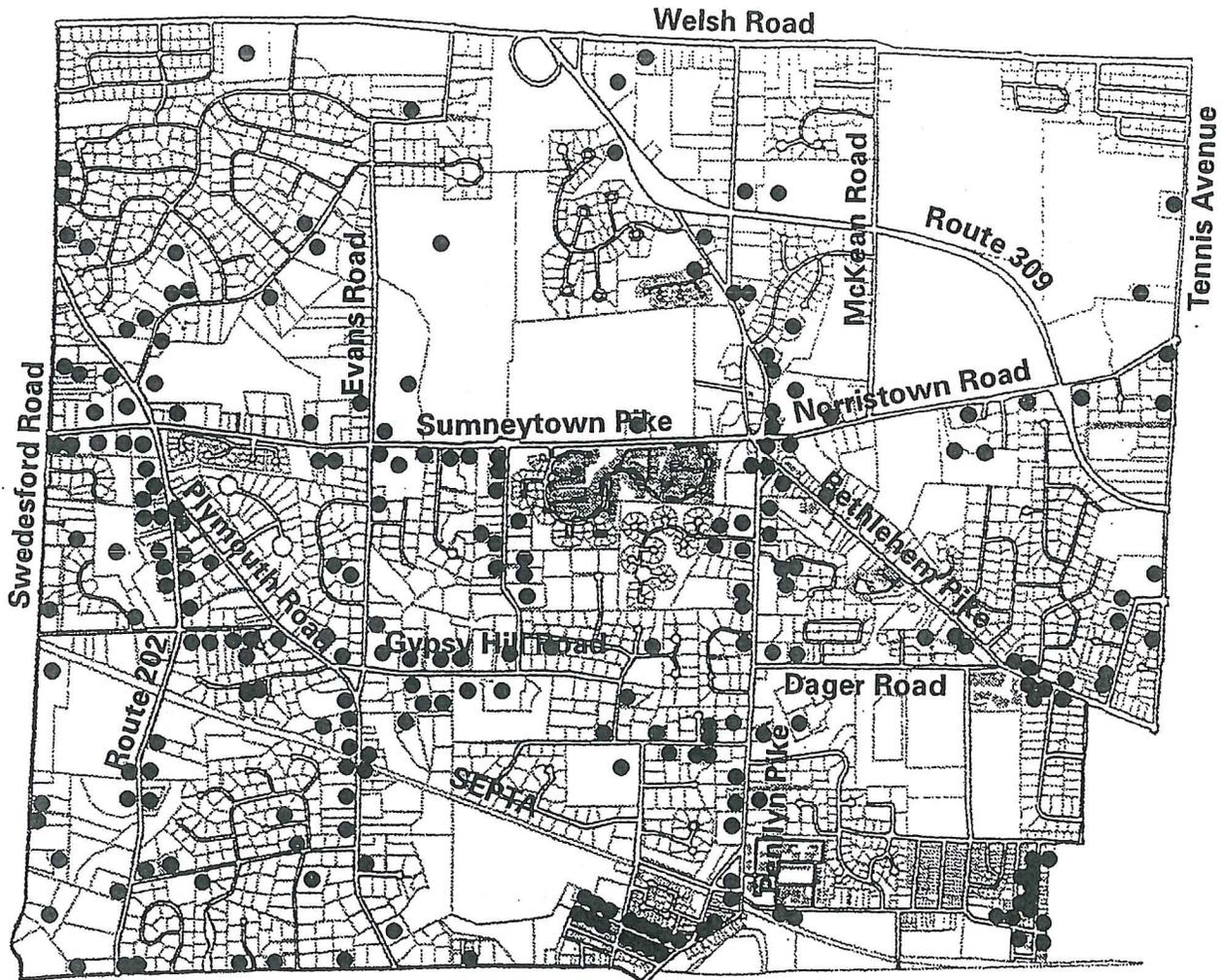
The Township has made an excellent start in this process, by the publication of "A Pictorial Guide to Some of Its Older Buildings," which lists and photographs most of the older and historic buildings in Lower Gwynedd. Apparently it may not be fully complete, so it remains an ongoing effort. This simple step of identification can be very effective in educating the community about the structures that are valued; it can also inform the individual owners about the assets that they have. Such an educational process can be a very useful and effective preservation tool as development and renovation projects

are undertaken, since informed participants are far more likely to make appropriate decisions.

- **Use of Incentives**

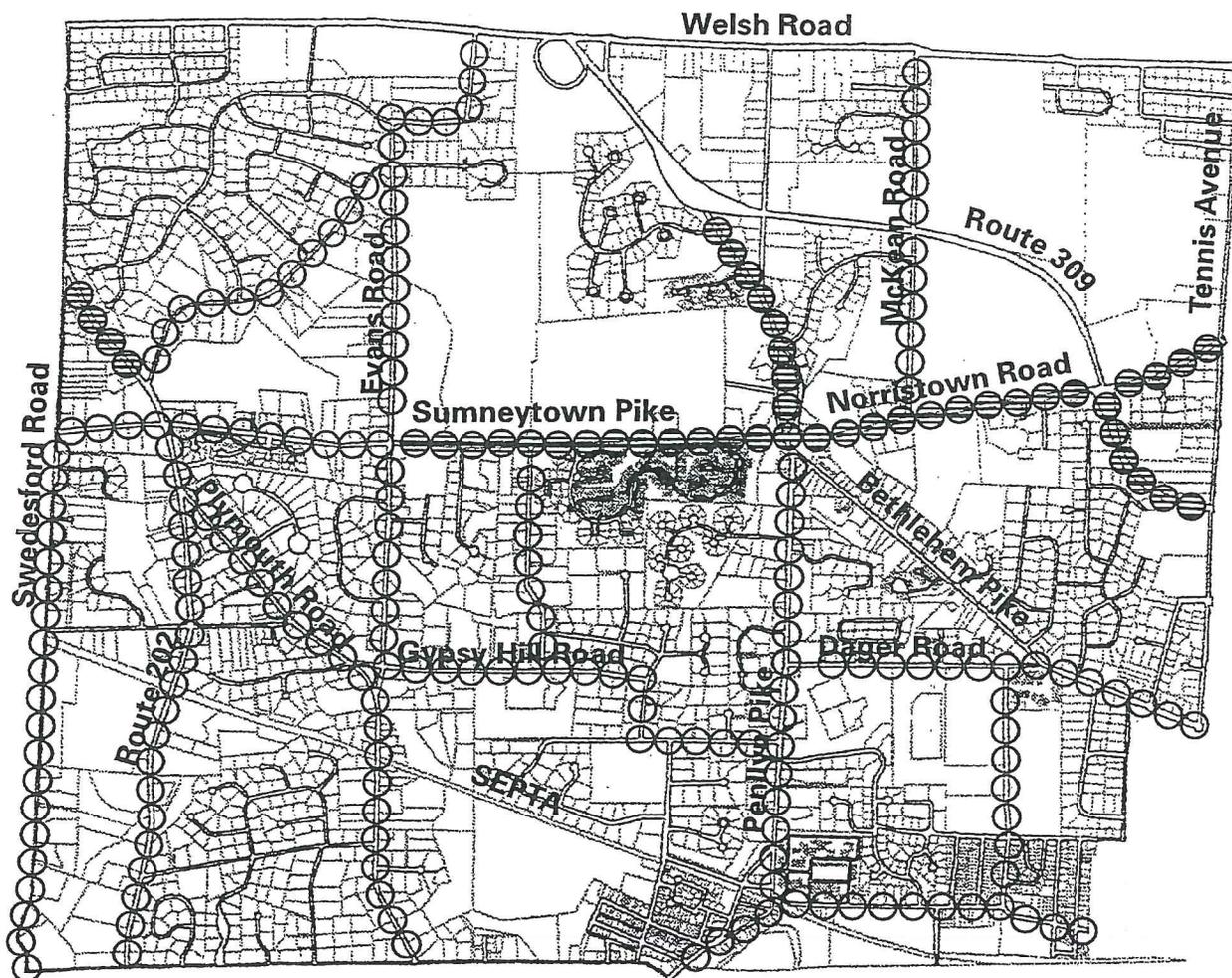
The Township can offer incentives to individual property owners to encourage them to preserve their historic buildings. These incentives could be in the form of additional development options, as permitted in the Zoning regulations. Some of those optional incentives, for example, could be:

1. Permit bed-and-breakfasts within historic residential buildings, if the site (e.g., regarding parking and service) and the road access are appropriate.



The historic buildings in the Township are located in many areas of the community; note that many are grouped along the older, historic, roads and near the two train stations.

2. Permit more than one dwelling unit with individual historic buildings on an existing residential property, but perhaps no more dwelling than would be permitted on the property by existing zoning.
3. Permit professional office uses within historic residential buildings, where the traffic access and parking are appropriate (as has been suggested for the 202 corridor).
4. Permit additional subdivision possibilities on an existing residential property if the historic buildings are preserved. In many cases, the location of the existing buildings is such that the land cannot be subdivided in spite of the fact that the property is large enough to hold more than one dwelling. Zoning and subdivision regulation that require minimum setbacks, minimum road frontage, and minimum lot sizes that now prevent additional development could be relaxed to



- ⊖ New corridors
- Existing corridors

The historic roads of the township are part of the community's historic character, and their wooded landscapes should be protected, and improved, just like the historic buildings

permit a variety of lot arrangements (e.g., larger and smaller lots, smaller setbacks, flag lots, etc.). If this option is considered, the total number of dwellings on any given property probably should not exceed the total permitted (by lot area) in the Zoning regulations. 5. In general, the Supervisors can consider waivers of otherwise applicable land development regulations to facilitate preservation.

- ***Designation of Individual Structures***

It is possible for owners to nominate their individual buildings and structures for placement on the National Register of Historic Places (i.e., "designation"). It is also possible for them to have their structures "determined to be eligible" for such designation. In either case, the community has no power of review or approval over their demolition, addition, or renovation. The only power that comes with these designations relates to actions by Federally funded government projects. Two Lower Gwynedd examples of government action in this regard are the Federal Act 106 reviews for the Route 202 corridor and the Route 309 improvements, where PennDOT was required to develop an assessment of all impacts of the roadway design on the adjacent historic buildings. The designation of the buildings as historic would trigger a formal review process, subject to public comment, when and if any of these areas are to receive any improvements (such as road widenings). The Route 202 corridor is obviously a prime example for the application of this type of protection.

Such designations presently enables commercial properties along these routes to participate in tax credits as a method of encouraging the historic preservation of a property. Congress is presently considering the extension of similar credits to noncommercial owners/users, also. This could be of great value to Routes 202 and 309 through the Township, since historic properties are often neglected along major highways. Often they become speculative properties due to increased traffic, which can make them unattractive as owner-occupied residential properties. Yet, such properties could be excellent candidates for adaptive reuse for other uses (e.g., small offices or institutional organizations), if they are done in a manner that is in keeping with their preservation.

Under present conditions, the only action that can be taken by the community (other than the review of a government agency impact assessment) is a non-binding review. If the Township makes such a request for a review, it need only be accepted by the property owner as a courtesy. These reviews can only offer advice, and can not in any way require specific actions. It is the experience of some communities that this act of courtesy can help educate owners and the rest of the community about the values of their older buildings, and can in some circumstances be a moderately effective preservation tool.

- ***Designation of Historic Districts***

In some locations, enough designated buildings may be grouped in a way that can be designated as an Historic District, and so be placed

on the National Register of Historic Places. Under these circumstances, communities are able to inform everyone involved that these buildings are valued as a group, and not only as individual buildings. As with the designation of individual buildings, however, the community has no review power, other than as a courtesy in a non-binding review by a local board. Again, the only real power that a community can have is when government agencies are taking federally funded action in areas determined to have historic character. Note that Pennsylvania Law requires that at least fifty percent of the property owners in the area must agree in order to establish a district.

- ***Identification of Historic Roadways and Corridors***

In Lower Gwynedd - as in many older communities - the roadways themselves can be considered historic. Since many of the roads in the Township began as Indian trails, and have many older buildings and handsome shade trees along them, they too should be the subject of community preservation efforts. The Township can establish criteria for the designation of these roads, and can identify those which meet that set of criteria. The attached map indicates a preliminary identification of the existing historic roads, and a suggestion for those roads that could, with appropriate landscaping, be added to the community's list.

The essential purpose of making these identifications and recommendations is to inform private property owners, developers, and government agencies (especially the variously involved departments of transportation) of the community's desire to protect these roads. For some reasons, owners or developers can occasionally wish to remove large trees which arch over the roads; PennDOT can also plan to remove these trees for various traffic "improvement" considerations. Since it is this quality of rural-like tree line roadways that contribute so much to the green and historic quality of Lower Gwynedd, the first step in their preservation should be their clear identification.

As with the identification of historic buildings and districts, the community has no power or control over the character of these roadways. The Township can request that owners and agencies make a presentation of their landscape plans, as a courtesy, to a local review board. This board can give advice, but it cannot legally prevent removal of the trees and landscapes, or the planting of inappropriate new landscapes, that could significantly change the historic quality of a road.

- ***Creation of a Local Review Board or Committee, and supporting Local Ordinances and Controls***

As noted above, presently the community has little control. Should it decide that stronger control is necessary, it can establish various historic preservation standards and criteria, and can create a local board or committee to review and enforce those standards. As permitted by state law, the powers of such a board and the specific

nature of the standards can be established by local ordinance. The criteria for membership on the board, and the appointment of the members, would also be established by the Township government. Every policy that is created in this regard is therefore based on community agreement. The amount and extent of control, the nature of the review process, the specific powers of the review board can all be determined by the Township. While the most control is obviously given when powers and standards are enacted into law, it is also possible to create a review committee that does not have those powers. This type of committee (or, board) can undertake the non-binding reviews described above, regarding the preservation of buildings, districts, and roadways that have been designated as historic.

Note that any standards that are created must be generally (or even specifically) based on following The Secretary of Interior's Standards. This action is important in many ways, since not only are the Federal Standards nationally accepted, but they also have tax consequences under Federal and State laws..

A local review board can have the power to oversee designated historic districts as well as individual buildings. It is important to note that, when historic districts are designated by local ordinances, it has been found the they have almost universally contributed to increased property values for all the parcels within them. Such designations encourage individual property owners to make the commitment for proper restoration, especially since these owners know they are protected from improper additions and changes being made on adjacent properties - additions and changes that would actually diminish the value of their property.

- ***Establishment of a Shade Tree Commission***

In some cases, it may be inappropriate for an historic review board to oversee the preservation of the landscape. Some citizens have knowledge of buildings, while others have knowledge of trees and the landscape. In addition, The Secretary of Interior's Standards only apply to buildings and structures. Therefore, if more community control is desired regarding the preservation and creation of roadway landscapes, a shade tree commission can be created, with its members appointed by the Township government.

At present, while the Township strictly enforces tree preservation and replacement in conjunction with new development, it has no regulations preventing individual home owners or government agencies from removing street trees from along the various roadways that can be considered historic. A shade tree commission could assume that kind of control.

Therefore - like a review board that oversees historic buildings - a shade tree commission can have the powers that the community chooses to give it. For example, zoning and subdivision ordinances

can be created to give such a commission review and approval powers over the street trees and other landscapes in new subdivisions. It can also oversee the removal, planting, and maintenance of street trees in established neighborhoods. On the other hand, it can merely have the ability to give the same kind of non-binding reviews that are described regarding buildings. In this circumstance, it can educate and try to persuade, but it would have to power to control decisions.

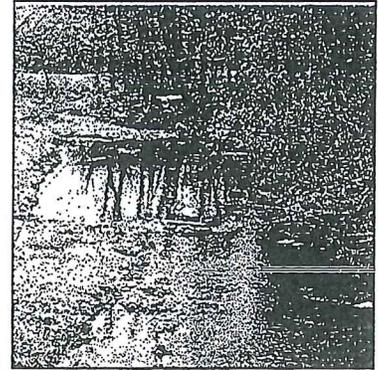
CONCLUSION

Historic preservation can be what the Township makes of it. Lower Gwynedd has a long history, and many of its historic qualities remains. Since many of the Visions state in this Plan call for the preservation of the character and history of the Township, considerable thought is essential to determine the best course of preservation action. A great variety of options exist for the preservation of buildings, structures, roadways, and landscapes. In some, the community may rely on education and good citizenship; in others the community would take more direct control. It is the strong recommendation of this Plan that action be taken now, to preserve the heritage of Lower Gwynedd, and that the community consider very carefully just what those steps are.

8. NATURAL RESOURCE PROTECTION PLAN

As is stated in the Constitution of the Commonwealth of Pennsylvania, Article 1, Declaration of Right:

"The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic, and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."



View of one of the beautiful stream corridors in the township

Therefore, it is the vision of this community that its natural resources and ecosystems are protected, so that it can preserve a sense of balance between human development and the natural assets in this Township. Specifically, Vision 1 says that *"We envision a community where the green, scenic, and peaceful quality of our landscape – both wooded and open – remains preserved and enhanced. We envision a place where the natural environments and habitats are always protected, and are integral with the life of the community..."*

The preservation of the natural resources must be linked to the entire Township, especially so that they can help serve the passive recreational needs of the community. The plants, animals, waterways, topographic and geologic features that make up the natural environment require that we carefully guide all developments, to protect these precious assets. In most cases, environmentally sensitive lands are inappropriate for development and should be preserved.

Lower Gwynedd Township is very fortunate to have such a rich variety of natural lands. In particular the Wissahickon Creek, and its protected watershed and tributaries, form a remarkable network of natural places that are worth protecting and preserving. In addition to their importance to the ecology of the natural environment, these natural resources are areas for the residents of the Township to educate themselves about these precious resources and to spend time enjoying their presence. For these reasons it remains critical to protect the environmentally sensitive and ecologically important lands within the Township and to guide development around them.

The description of the existing conditions regarding Natural Resource Protection includes information regarding the geology, hydrology and soil characteristics that should form a basis for future zoning or natural areas policies.

RECOMMENDATIONS

Following a review of the present ordinances and environmental protection regulations, it appears as though additional protection efforts should be focused in four areas: 1) identification of natural habitats, and wildlife corridors, 2) protection of areas with steep slopes, 3) protection of riparian buffer zones along streams, and 4) the coordination of safety and convenience needs of roadway designs with the need to protect the habitats and landscape of tree-lined roads. The details of these areas are described below.

NATURAL HABITAT PROTECTION

At present, when prioritizing and selecting land parcels for conservation there are only a limited number of criteria available to locate high priority properties. Although the Open Space Plan identifies most of the known and quantifiable natural resources in the Township, there are still many other aspects of this evaluation to better focus in the selection of natural areas.

As stated in Ch. 3, Existing Conditions (P), the Township has identified several major properties that could be preserved either completely or partially. If these lands were preserved, they would be part of a program of natural resource conservation. Because of their sizes, they are especially important natural habitats that deserve protection.

RIPARIAN CORRIDOR PROTECTION

At present, the Township does not adequately protect the landscape buffer zone along a floodplain. The floodplain is currently protected, but not the buffer zone. The Montgomery County Planning Commission recently published a Guidebook for Riparian Corridor Preservation. In it are a range of preservation techniques, a model ordinance for a Riparian Corridor Conservation District and suggested management plans for riparian landscapes, riparian corridors and stream banks. The Township should review this Guidebook and adopt an ordinance that looks holistically at riparian corridors so that they can be protected. Healthy riparian corridors can improve water quality, protect the health of streams, create natural floodplains, control erosion, protect habitats and create climate moderation.

STEEP SLOPES

The Township does not adequately protect development from occurring on those lands that are steeply sloped. An ordinance should be drafted to address this issue. Development on slopes of 20% or greater should be discouraged. This is meant to protect from unnecessary erosion, habitat destruction and unsafe conditions.

COORDINATION WITH CIRCULATION PLAN

The hedgerows and noble trees that line many of the roadways can sometimes be in conflict with road safety and capacity analyses. A

balance therefore must be made between the conflicting community expectations of easy traffic flow and the preservation of the green landscape. If the traffic analyses suggest that road widening is absolutely necessary, a major effort must then be made to reforest the hedgerow with native plants and large spreading shade trees. This action becomes one of the most important aspects in preserving the green leafy rural character of the community, where the traffic needs require roadway widening that removes trees.

9. THE CIRCULATION PLAN

Travel in Lower Gwynedd can be characterized as either regional or local. Regional travel involves longer distances between travelers' origins and destinations and is often concentrated in the morning and afternoon peak commuting time periods. Local travel generally involves shorter trip distances with origins and/or destinations within the same community. In Lower Gwynedd, travel is intended to include methods of public getting around other than driving, including some form of transit and walking (and biking). This is clear in all of the five Visions that the Township has set for its future:

Vision 1: *"We envision a community where the green, scenic, and peaceful quality of our landscape – both treed and open – remains preserved..."*

The nature of the various roadways, and the trails, will have a great impact on the realization of this vision. The specific design of most of the roads must enable the green landscape to remain.

Vision 2: *"We envision a new "town center", which is created by the transformation, stimulation, and growth of the Bethlehem Pike shopping..."*

Encouraging commercial growth in Spring House will require a change in both the automobile and walking patterns that now exist, since the current pattern is confusing for drivers and impossible for pedestrians.

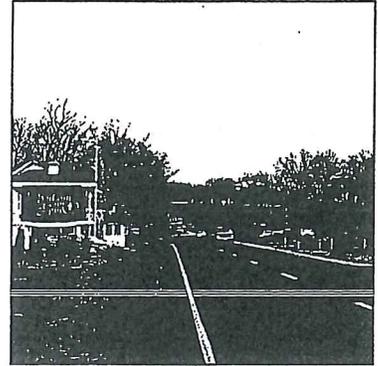
Vision 3: *"We envision a place that feels and functions as a single community, that has a town center, and that has its many separate neighborhoods linked together by all three existing circulation systems: walking, biking, and driving..."*

The three circulation systems must be carefully coordinated, and balanced, so that it is easy for everyone in the Township – both young and old – to move around the Township with ease. A fourth system – public transit – could also be necessary to accomplish this.

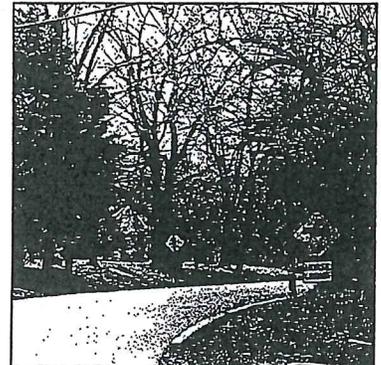
Vision 4: *"We envision a relationship to our neighbors in the surrounding region that is both cultural and functional..."*

Regional traffic generated by regional activities – both within the Township and outside it – must be carefully considered when new developments are planned in the region.

Vision 5: *"We envision a place where the traffic is appropriate to our peaceful quality of life, where it is easy for traffic to move around and to the region, where the through regional traffic does not make our lives stressful or dangerous, and where the auto-*



View of Route 202 - a township Major Arterial Road, with much traffic...



View of a township local road, with little or no traffic.

mobile is complemented by walking and biking in an integrated Township system of circulation."

This is the underlying vision for every recommendation made for circulation in the Township. It therefore directly relates to each of the other four visions. We recognize that transportation is often thought of in terms of capacity and moving people and goods at an increasing faster pace. This plan proposes that capacity is not necessarily the function of speed. A slower design speed can maintain the necessary capacity which also preserves the qualities that make Lower Gwynedd unique.

Under conventional roadway planning, transportation facilities cannot efficiently accommodate both regional and local travel demands simultaneously. Therefore it is necessary to balance the demands of the regional travelers with the needs of the local travelers, and it is especially necessary to develop a thoughtful mix of movement alternatives for the local demand.

A balanced transportation hierarchy requires alternative travel modes. Currently, roadways and private automobiles are the predominant travel mode throughout Lower Gwynedd Township. However, a total dependence on automobiles would require extensive roadway expansions and would be counterproductive to preserving the feeling of a "green country town" that currently exists throughout the Township. Therefore, it is important to acknowledge that a future circulation plan must include various modes of travel, including not only efficient roadways, but also transit services, and trails or sidewalks for pedestrians and bicycles. Fundamentally, this plan should help reduce the Township's current total reliance on the automobile.

Five fundamental recommendations are made to accomplish all of the visions, and to create the necessary balance of movement choices:

- A walking system that links neighborhoods with key community destinations (such as schools, parks, train stations, employment, and shopping) must continue to be developed.
- A new Spring House Town Center, focused along the Bethlehem Pike shopping area must be established in a way that encourages walking – both among the shops, and to the shops from the neighborhoods.
- The regional roadways, such as the PA 309 Expressway, US 202 and Sumneytown Pike/Norristown Road, must be able to accommodate regional travel demands, while also preserving the importance of these historic corridors within the community.
- An integrated transit system, that includes both the existing trains and a new bus system should be developed and expanded.
- Traffic mitigation measures must be instituted to protect the existing neighborhoods.

TRAILS: THE WALKING SYSTEM

As is stated in the Open Space and Land Use elements of this Plan, there should be two, integrated, trail systems: one for recreation (jogging, strolling, biking, horse back riding), and one that links important community destinations - a set of destination trails..

The recreational system is well under way, and has created handsome, meandering paths that travel around and among the various neighborhoods. They are paved in compacted limestone quarry fines, which is appropriate for their recreational purposed.

The second system that must be designed will create linkages between specific destinations. In order to be truly useful, the trails of this system must be easy to walk on by various people (children, older people, people walking to and from work, etc.), must feel safe in the evening as well as the day, and must be provide direct and short routes to their destinations. For these trails, the following criteria must be met:

- Since the residents of Lower Gwynedd are like most Americans, in that they will only walk a certain distance to get to specific places (e.g., work, shop, train), the trails will probably only be effective if they are no longer that 1,500' or 2,000' long. College students may walk further, but some people will walk even less.
- Specific important destinations must be identified, in order to appropriately locate the trails.
- These trails must be paved in a hard surface (black top is usually the best), that permits easy walking in regular shoes, and that can be cleaned and plowed.
- They must be visible from a roadway, which offers a sense of security and illumination. This is especially necessary for walks in the dark (home from work, to a nearby restaurant for dinner, etc.)
- Since the Spring House Town Center is to be made walkable, with its own "shopping trails," this new destination trail system must link into that specific walking area.

Note the remarkable consequence of building these Destination Trails: they are located so that they will complete the existing Recreation Trail System into a set of loops that connect many of the Township neighborhoods to each other. They will therefore give more recreational opportunities, and will be an essential part of realizing the Vision for a unified community. All of this can be seen on the Destination Trails Map on P 9-5.

RECOMMENDATIONS FOR THE DESTINATION TRAILS

The specific destinations that should linked by trails are:

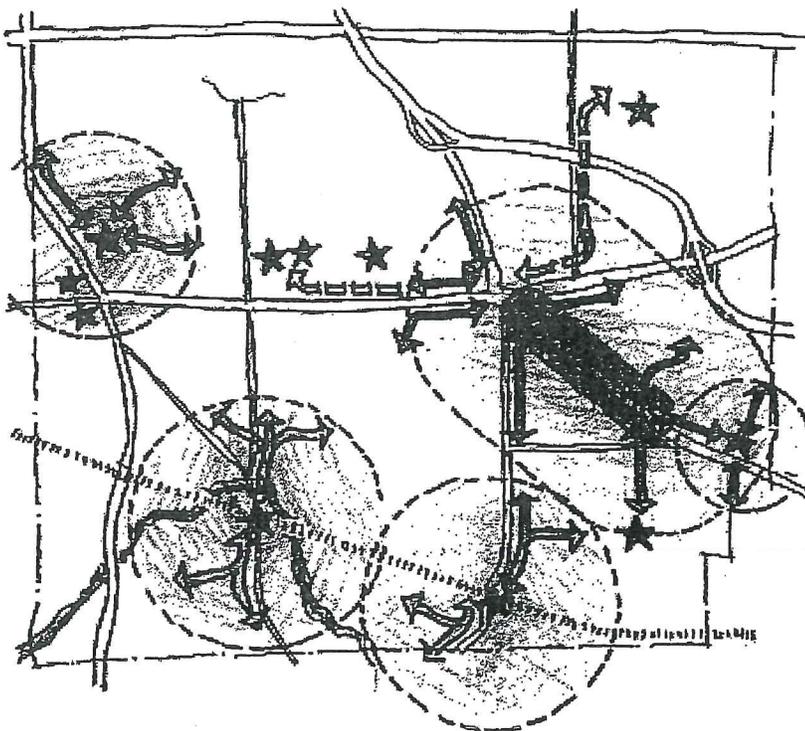
- The Spring House Town Center shopping area (which includes, in particular, the daily movements to the Post Office) should be made walkable from the nearby residential neighborhoods. Note that this includes Spring House Estates, as well as the townhouse and single family house neighborhoods.
- The Spring House Village Center I and II should be walkable from nearby neighborhoods, from Gwynedd Mercy College and High School, and from Moore Products. (Note that the existing recreation-focused trail system already connects the neighborhoods on Bethlehem Pike to the Genuardi's part of the shopping center.)
- The College, High School, and Siemens-Moore - all of which are employment centers - should be linked to the Spring House Town Center and to public transit. This connection should be part of the same trail that links to the shopping centers.

- The Wissahickon High School, Middle School, and the Lower Gwynedd Elementary School should be linked to the Spring House Town Center. The entire school complex should have walking connections to the nearby neighborhoods. This walking link could reduce rush hour traffic in the neighborhoods, and reduce school bus needs.
- The two train stations should be linked to their adjoining neighborhoods. This will have the secondary effect of reducing rush hour traffic in those areas, and of possibly reducing parking needs.
- It should be possible to walk to the YMCA and to convenience stores along Bethlehem Pike from the nearby neighborhoods.
- The (relocated) Post Office on Meetinghouse Rd. should be made walkable from the adjacent neighborhoods. Note that some of this could be constructed as part of the US 202 reconstruction.

ROADWAYS: REGIONAL AND LOCAL

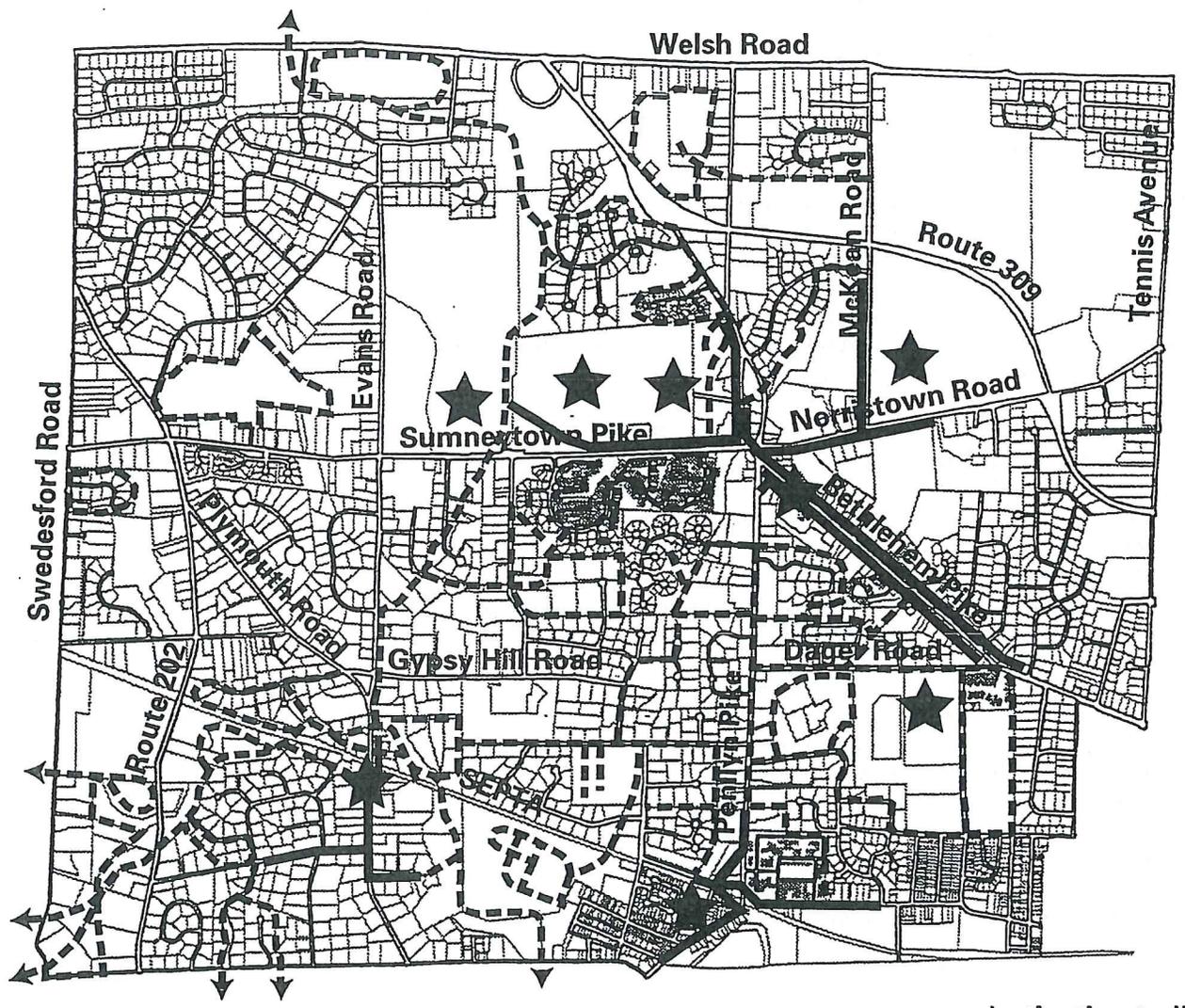
Regional traffic is often called "through traffic" because the origin of the trip and the ultimate destination may be several communities apart. The communities in the middle of the trip are simply space that must be traversed on the way from here to there. "Through traffic" generally desires the most direct route possible and the fastest travel speeds.

Local traffic on the other hand, can take a more leisurely pace as residents visit, run errands, go to school, etc. within their own communities. These two types of travel needs, regional and local, are not compatible with each other.



As this diagram demonstrates, a Destination Trail System is necessary as a complement to the Recreational Trail System, in order to link the various parts of the township together for pedestrians, and especially to link the new Town Center to the community.

The transportation hierarchy therefore refers to a network of regional and local facilities that serve each type of trip with specific types of road designs. Arterial roadways, expressways and regional rail lines are designed to serve regional travel. Local roads serve shorter local trips within a single community. They are designed to have slower travel speeds and to allow many interim stops along the route. Collector roads serve to connect the local and regional travel networks.



- destination trail
- - - recreation trail
- ★ destination

The addition of a series of Destination Trails will complete the entire township-wide trail system. It will be possible to not only walk or bike to the center of town, or to a train station or the college, but also to walk and bike (and, in some cases, ride horses) in long complete loops that link many community neighborhoods.

When the transportation hierarchy does not appropriately support travel demands, the network begins to fail. As congestion occurs on regional facilities, travelers begin to seek shortcuts, usually on collector or local roads that appear to provide a more direct route or less congestion. As regional traffic shifts to collector and local roadways in an attempt to bypass arterial roadway congestion, other conflicts arise. To avoid these conflicts, the vehicular transportation hierarchy must be well-balanced and maintained over time. When regional facilities can accommodate heavy travel demands, there is less pressure to look for local shortcuts.

In addition to supporting the community's Visions, it must be clear that the Circulation Plan will also specifically provide a safe, efficient and pleasant roadway system that serves the regional travel needs of the commercial and employment communities, the local educational institutions, and the commuting residents, and yet maintains the residential "green and peaceful" character of the Township.

Note that an important part of this system should be that local roadways provide for safe and convenient connections between the various residential neighborhoods and community activity destinations. Local roadways should also, however minimize regional cut-through traffic in residential neighborhoods. It should be possible, for instance, for children and others to move between neighborhoods and friends, without using the high speed regional roadways.

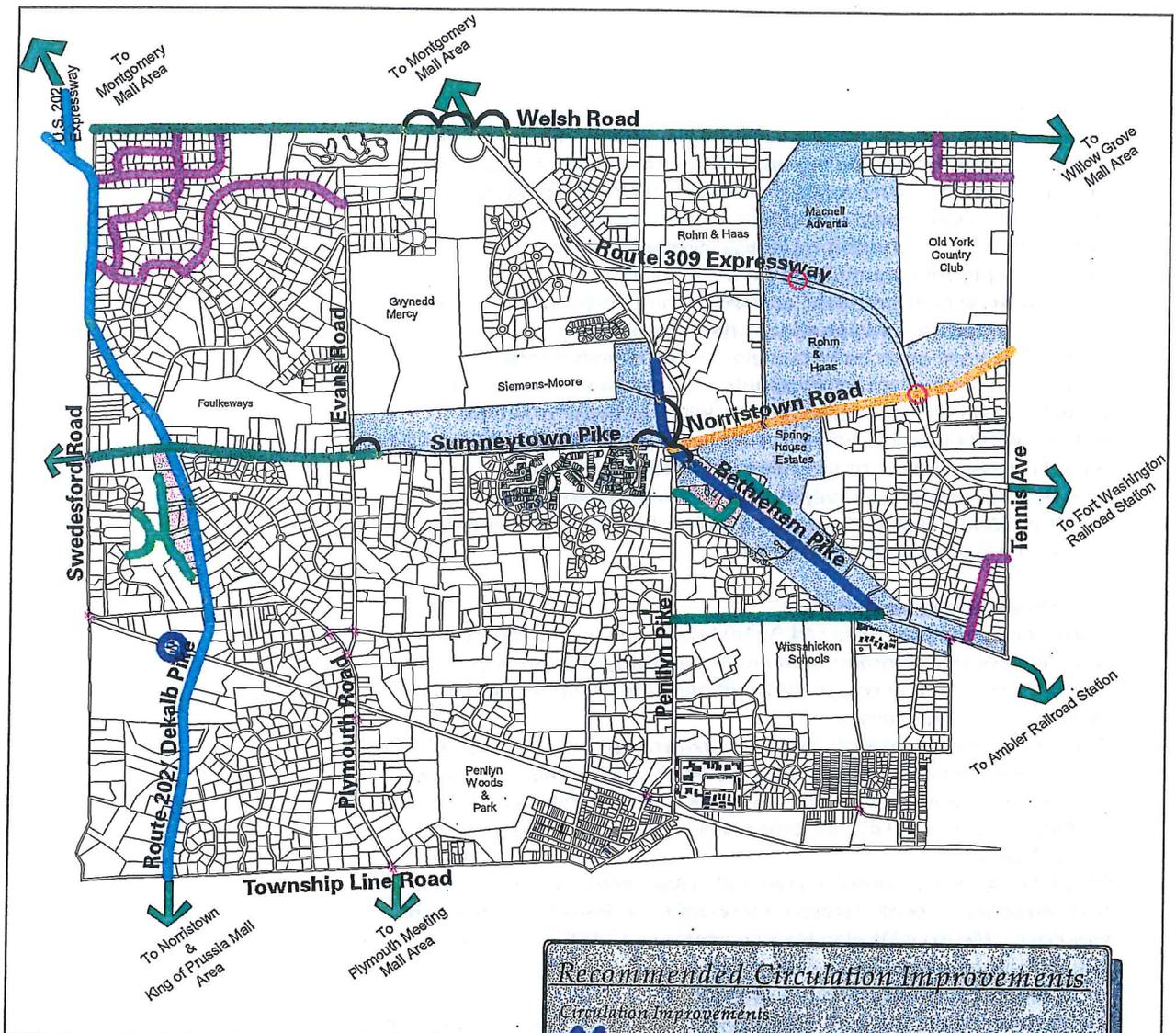
OVERALL ROADWAY DESIGN RECOMMENDATIONS

- The Township's roadway classification should coincide with the functional classification designated by PennDOT and the Federal Highway Administration (Roadway classifications are shown on Page 3-27).
- All intersection and driveway sight distances should, to greatest extent possible, conform to PennDOT recommended safe stopping sight distances for the 85th percentile travel speed, to the greatest extent possible.
- Major roadways should provide for safe multi-modal transportation opportunities, through a design that encourages both sufficient capacity and safe speeds, but does not unnecessarily undermine the Township's desire to preserve shade trees.
- The Township must work very closely with the PennDOT design team for the U.S. 202 reconstruction, in order to insure that the "green" character of this corridor is not lost and to minimize negative impacts to historic structures and districts. This is a very important task, that will affect the design of a significant portion of the community.

PRINCIPAL ARTERIAL ROADWAYS

General Design Recommendations:

- The cross-section of principal arterial roadways should include 12' travel lanes, ' dedicated left turn lanes at intersections and minimum 6 foot shoulders. Right turn deceleration lanes should be provided at major intersections. A center two-way left turn lane should be consid-



Recommended Circulation Improvements

Circulation Improvements

- Bethlehem Pike Reconstruction Project
- PennDOT Reconstruction Projects
- Widened Road to Provide Shoulders and Left Turn Lanes as Necessary
- Revise Pavement Markings to Provide Left Turn Lanes as Necessary
- Possible Traffic Calming Measures

Intersection Improvements

- Coordinated Signal Systems
- Expanded Access to 309 Expressway
- Potential New Traffic Signal
- Reconstruct Intersection to Provide Right Angle Approaches
- Safe Stopping Sight Distance Improvements
- Proposed New Septa Station
- Parcels Where Reverse Access is Possible
- Expanded Transit Service Areas

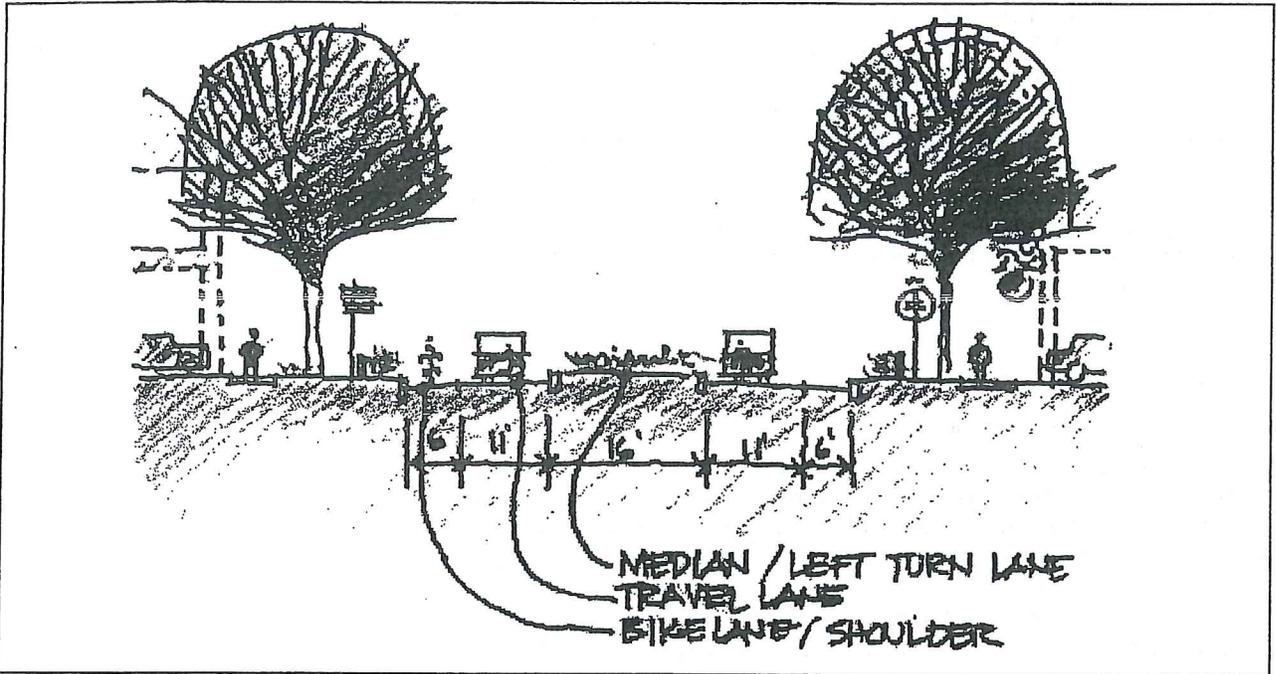
Various improvements to the roadway Circulation System are recommended, in order to improve traffic flow without changing the beautiful historic character of the Township's roads.

traffic volumes.

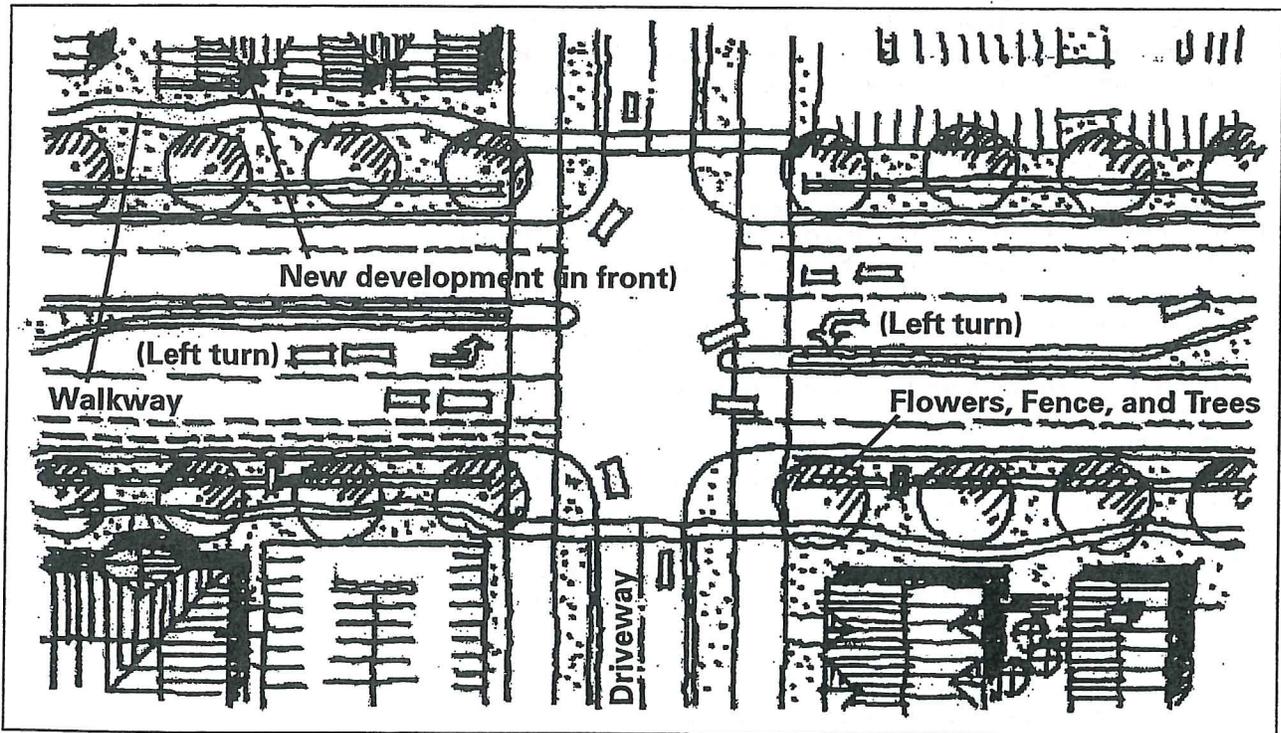
- Wherever possible, traffic signals should be interconnected to support a Township-wide traffic signal coordination program, to help control the traffic at safe speeds. (To the greatest extent possible, particularly along regional corridors, the signal equipment should be compatible with neighboring municipalities and where appropriately linked to neighboring municipalities' systems.)
- To the greatest extent possible, access to principal arterial roadways should be limited. Driveways should be consolidated to serve several parcels rather than each individual parcel. Reverse access and/or access to a secondary street should be provided whenever possible.
- PennDOT will be reconstructing the PA 309 Expressway ramps between 1999 and 2002 and reconstructing U.S. 202 to provide a 4 or 5 lane cross-section from Norristown to Montgomeryville. The Township should make every effort to work closely with PennDOT and their design teams to insure that local interests are considered during the design of these projects.

Specific Design Recommendations

- Consider expanded access to PA 309 Expressway, in order to more directly serve the employment centers in that area. An access location study should be conducted to determine the most appropriate location for a new access.
- Pursue common residential driveways (front or back) along US 202, DeKalb Pike, as part of the proposed PennDOT reconstruction. Specific opportunities exist for these common driveways exist along the southbound side of US 202 between Sumneytown Pike and School House Road.
- PA 63, Welsh Road, should have a 48' cross-section, one travel lane in each direction, a center left turn lane and 6' minimum (8' desirable) shoulders. (Much of Welsh Road currently has a 30' cross-section.) The traffic signals between Evans Road and Lower State Road should be coordinated to improve the progression.
- Sumneytown Pike, between Swedesford Road and the Spring House intersection, should have a two lane cross section with minimum 6' (8' desirable) shoulders, wherever possible. Left turn lanes should be provided at cross streets and entrances to residential communities. Specifically, a left turn lane should be provided at Evans Rd. The traffic signals at the Gwynedd Mercy College entrance and at Evans Rd. should be coordinated.
- The Spring House intersection of Bethlehem Pike, Norristown Road and Sumneytown Pike should be expanded to include opposing left turn lanes on all approaches and 2 through lanes, if possible. The signal timing should be revised and the four traffic signals in the vicinity of the Spring House intersection should be interconnected. This improvement would require additional right-of-way, and a culvert extension.
- Norristown Road should be re-configured to include designated left



A rebuilt Bethlehem Pike will have a planted center island that includes dedicated left turn lanes, shoulders for biking (and emergency passing), and a continuous landscape made of flowers, shrubs, fences, and tall open shade trees - all of which enhance the retail businesses in the new Town Center.



The center island and the dedicated left turn lanes create easy-to-negotiate left turns, make access to all of the shops far easier, and makes it possible to walk across the street!

- Norristown Road should be re-configured to include designated left turn lanes at McKean Road, the PA 309 Expressway ramps, Tennis Avenue and all major driveways.
- Work closely with the PennDOT design team during the engineering of the US 202 reconstruction project to insure that the intersections at Swedesford Road, Meeting House Road, and Plymouth Rd. form right angles with the new 202 roadway. Be certain that the improvements incorporate the preservation of historic structures and preserve the cultural landscapes which are critical to the character of this historic post road.

MINOR ARTERIAL ROADWAYS

Specific Design Recommendations:

Bethlehem Pike is the only minor arterial in the Township. Since it is recommended that the Central area become transformed into the focus of new Town Center for the Township, changes recommended for the roadway are the only changes to be made to a Minor Arterial in the Township.

The existing pattern of development and traffic in the area of retail shopping (from the Spring House intersection to Springwood lane) prevents the area from growing and thriving. As stated in the Land Use Plan, the open, paved-over appearance of this area, and its lack of a pedestrian scale (especially in the design of the roads, driveways, and parking lots) makes it feel hostile to pedestrians and unfriendly to drivers. Since the Visions for the future call for a place that is the Town Center, and since Bethlehem Pike shopping area is recommended to be the Spring House Town Center, several very important changes must take place.

The Land Use and Open Space Plans describe the nature of the design of buildings and the landscape that is recommended for this portion of Bethlehem Pike. The Land Use Plan also describes the general nature of the roadways and parking lots. From the point of view of Circulation, certain movement characteristics must be addressed for any of the uses, new developments, or building or landscape designs to be changed:

- The existing three lane cross-section of Bethlehem Pike in the central shopping area, when coupled with the many (closely spaced) driveways, creates a confusing and dangerous traffic condition. The many turns in and out of the driveways, the unpredictable movement in the center left turn lane, and the lack of visibility caused by two rises in the roadway, have created far too many points of conflict in a very short distance. The result not only causes accidents, but distracts the motorists from seeing the shops and signs of the various businesses, and discourages them from shopping in more than one establishment.
- The current regulations require that each business provide a minimum amount of parking. The pattern has been to provide those required spaces on each separate business property. The result of this parking pattern has been the creation of the multiple driveways,

has created more parking spaces than are needed for the shopping area as a whole, and has increased costs for the individual businesses.

- It is generally not possible to walk between the various businesses, since the driveways and various landscape barriers (dense shrubbery, rock walls, grade changes) have been created to prevent that movement.
- The confusing multiple movements of the traffic, the landscape barriers, the width of the roadway, and the general speed of the traffic makes it virtually impossible to walk across Bethlehem Pike between the businesses (shoppers can't visit two shops, employees can't walk to lunch, etc.).

In order to change this unsatisfactory circulation condition, some very important steps must be taken to change this area of the roadway. These changes will create safer turning movements throughout the length of the "Town Center" shopping area, will make it possible for drivers to actually read the business signs, will make it safe and possible to walk between the various shops, and will dramatically change the "paved over" appearance to one that is green and prosperous looking:

- The proposed cross-section of Bethlehem Pike in the central commercial area should be redesigned to include a green planted center island that has dedicated left turn pull-off lanes. The result is a roadway cross-section that has one 11' travel lane in each direction, a 16' wide landscaped median with designated left turn lanes located about every 300', and a 6' (or wider) shoulder designated as a bicycle lane. The total width of these dimensions is 50', but the individual dimensions noted here are tentative. It is especially important to note that the final design of the roadway must include sufficient lane and shoulder widths to permit motorists to move out of the way of emergency vehicles/responders.
- The left turn lanes must be designed to align with driveways on both sides of the road. In the area to be so designed, the average property width is about 150', so the location of the left turn lanes at 300' on center will permit access to every existing business and parking lot. (See the detail and overall plans of the area)
- In order to create this safe and easy turning movement, shared access driveways between two adjacent businesses must be created. Studies of the area have shown that this is possible with only modest changes to the existing paving and planting in front of the various properties.
- Two new traffic signals should be considered, at the Spring House Post Office/Gwynedd Mercy entrance, and at Sheble Lane. Both of these signals depend on some reconfiguration of the driveways that are across the street from each other. A significant, noncommercial, virtue of this recommendation is that far safer movements will be made for the school buses and cars that are entering and leaving the Gwynedd Mercy Elementary School driveway. Currently all left turns at that driveway must be made through and across a confusing and dangerous set of vehicular movements that are being made by other traffic in the area; the signalized intersection will resolve this problem.

- The requirements for individual parking areas should be changed, to permit sharing. The number of spaces required should be studied for reduction to account for this far more efficient use of the land. The individual property owners should be encouraged to take advantage of this recommendation, now.
- Studies should be undertaken to determine if a shared driveway that links the parking lots in the rear of the businesses could be created. Such a driveway not only would help facilitate shared parking, it would give easier connections to the recommended traffic signals for all of the linked businesses.
- Two walkways, that connect the front doors of the businesses on both sides of Bethlehem Pike, should be created. When the turning movements and driveways are simplified, and when the parking is shared, the creation of these walkways will permit and encourage shoppers to park once, and walk easily from shop to shop and, indeed, to shop longer. This is the model of standard shopping centers; it is a model that will work here just as well.
- As part of the walking circulation system, create crosswalks at the left turn intersections. It will now be possible to walk across Bethlehem Pike, since only one lane needs to be crossed at a time, and since there will be an area of pedestrian refuge on the island at the middle of the road.

The remaining areas of Bethlehem Pike, as areas with less commercial activity, and with a more green landscaped appearance, have different traffic circulation needs:

- The cross-section of Bethlehem Pike north of Sumneytown Pike should include 12 foot travel lanes with designated left turn lanes at major intersections and minimum 6 foot shoulders. Right turn deceleration lanes should be provided at intersections and major driveways. (Total width = 48 feet)
- The cross-section of Bethlehem Pike south of the commercial area to Ambler Borough, should include 11 foot travel lanes, a 12 foot center left turn lane and 6' shoulders designated as a bicycle lane (Total width = 46'). (Note that the center island could be evaluated for this area of Town Center, also)

COLLECTOR ROADWAYS

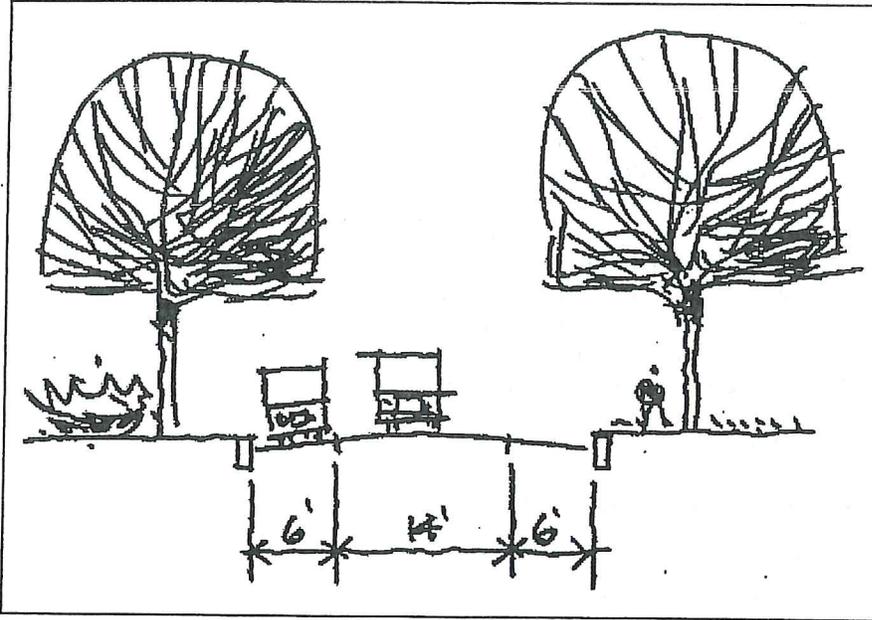
General Design Recommendations:

- Ideally, all collector roads should be 24 feet wide with designated 10 foot travel lanes and 2 foot shoulders.

Specific Design Recommendations:

- Due to the high number of accidents at the Plymouth Road and US 202 intersection, it should be re-configured to form a right angle intersection, opposite the existing church driveway on Route 202.
- The appropriate safe stopping sight distances should be provided at the intersections of Plymouth Road, Evans Road and Gypsy Hill Road.
- The sight distances at the Wistar Avenue approach to Penllyn Pike should be increased or a three-way STOP condition should be installed.

- Dager Road should be widened to provide 10' travel lanes and minimum 6' shoulders, between Penllyn-Blue Bell Pike and Bethlehem Pike.
- The intersection of Pen Ambler Road, Houston Road, and Spring Garden Street should be realigned to improve sight distances for the Houston Road approach.



Local roads can be made smaller because of the very light traffic; this design gives ample room for movement and parking, yet will act as a "traffic calming" device in the residential neighborhoods.

LOCAL ROADWAYS

Specific Design Recommendations:

The new local roadways that have been built in recent years - especially those in the single house subdivisions - have followed road design standards that have encouraged the building of roads wider than is needed for the traffic demands, and have therefore created an appearance of a road designed for high speeds. These characteristics dramatically contradict the vision that calls for "preserving the green, scenic, and peaceful landscape" of the Township. Therefore new standards are strongly recommended:

- Local neighborhood streets can be 26 feet wide. This assumes that parking can occur on both sides of the road while retaining two 14' travel lanes. Since most of these neighborhoods have houses with long driveways, there is little on-street parking at any time; this road will use less green land, will encourage cars to drive more slowly, and will still permit emergency access. It has been widely tested throughout the country, and is absolutely appropriate for the vision of the Township.
- Local roads with little or no residential frontage can be 18' - 20' wide. Pavement markings should be used to designate 2' wide shoulders on each side.

- Standard safe stopping sight distances should be provided at cross streets and driveways. Obstacles such as vegetation, sign posts and utility poles should generally be changed or removed. Note that this must be studied very carefully, to assure that the preservation of the Township's green landscaped character is acknowledged at the same time that traffic safety is considered. The Township does not want unsafe intersections any more than it wants "blown out" landscapes at those intersections.
- Cul-de-sacs should be discouraged whenever residential areas can be connected. This is an important issue: one of the causes of traffic congestion and traffic hazards on the regional roadways is the fact that so many of the new single access (with additional emergency access) communities have been built. Therefore all local traffic from those communities must use the most heavily travelled roads, and must make those difficult turns. There can be a way, with thoughtful and imaginative design, to permit neighborhood residents to have choices of driving routes, but to prevent others from using the residential streets as fast short cuts off the busy highways. The cul-de-sac is not the only way to maintain a quiet and safe street; it is the way, however, to create more driving, and more hazardous driving, throughout the community.
- Encourage all land developments, both residential and commercial, to have access from more than one public street.
- Traffic calming measures should be employed in new developments to maintain residential speed limits.
- The Township should consider retrofitting existing neighborhoods to provide sidewalks and traffic calming measures

TRANSIT

Specific Design Recommendations

The only transit in the Township now are two SEPTA bus routes, and the SEPTA R-5 line, which includes two stations here. The locations and frequency of these transit offerings are such that institutions, businesses, and individual residents can have difficulty in getting certain employees (who don't have access to cars, for instance) to come to work. Students have no way of using the offerings of the region unless they have a car. Certain people in the community who can't drive (for instance, the able elderly) can't leave their homes. Therefore, these two important recommendations must be considered:

- Localized transit services should be pursued, that connects employment centers, schools, the Bethlehem Pike commercial center, neighboring communities and transit stations. This action may require coordination with Ambler Borough and Upper Dublin Township in order to include the Ambler or Fort Washington stations.
- Consider the ramifications of a regional rail station at SEPTA's R-5 crossing of DeKalb Pike, which would give good regional traffic access and, if well-designed, could still offer walking access to the nearby neighborhoods in Lower Gwynedd. This change would remove much commuter traffic from key local residential roads, and make walking to the station that much safer.

10. HOUSING PLAN

All of the five Visions expressed in this Plan, in many basic ways, guide the recommendations for Housing in the Township. However, three of those Visions have very direct impacts on the recommendations made here:

Vision 1: *"We envision a community where the green, scenic, and peaceful quality...remains preserved... We also envision a place where the handsome older buildings are cherished, and preserved..."*

The great variety of housing types - and their lawns and yards - are an essential part of the quality of life in the Township. Many of the individual homes are older and historic. All of these residential types and all of their green areas should be preserved to fulfill this vision. As the community grows, within the limits of development opportunities that have been identified, the existing pattern of a variety of residences should be retained, and the new green areas that accompany them should be integral with the green quality of the Township.

Vision 3: *"We envision a place that feels and functions as a unified community..."*

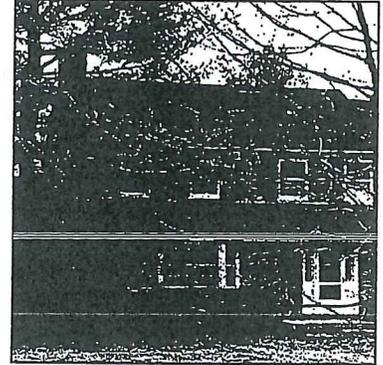
The layout of developments, roads, lots, and trails is an essential part of this Vision, especially since experience in the recent past is that some new residential developments seem to be isolated from the rest of the Township. Some older neighborhoods may therefore need to be retrofitted with trees and pedestrian walkways.

Vision 5: *"We envision a place where the traffic management is appropriate to our peaceful quality of life..."*

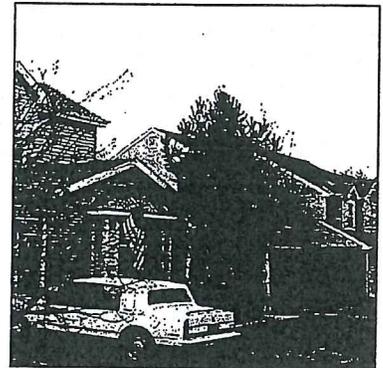
Again, the layout of residential streets affects not only traffic flow, but the "peaceful quality" in the neighborhoods, and in the wider community. They also affect the flow of traffic on regional roadways, and can be planned to make that movement easier, and more peaceful. It will obviously be a challenge to meet the conflicting demands of congestion management, traffic calming, and the provision of quiet residential streets.

RESIDENTIAL TYPES

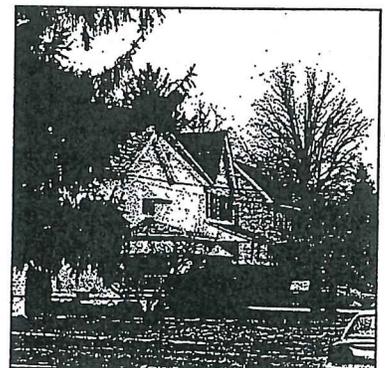
There are four basic types of residences now in the Township: single family detached (on various lot sizes), single family attached (townhouses), multifamily, and retirement communities. Since they represent a wide variety of options for living, and since they all continue to maintain and increase in value, they are likely to remain. In addition, since - as indicated in the Existing Conditions: Housing and Population - there are far fewer opportunities for residential development than in the past, the current pattern of all of the density types will likely remain in their current configurations.



A typical, handsome, older single family detached house in the Township that demonstrates the design character that is typical of the Township.



One of the new town houses that has fit well into the fabric of the Township.



There are many smaller homes in neighborhoods throughout the Township.

This is especially true of retirement communities, since Lower Gwynedd is one of the major providers of elderly housing in the region. The Township has responded to an increasing demand for these housing units by permitting expansions of the existing retirement communities, but has discouraged the development of any new facilities. Despite the relatively high percentage of the Township's residents who are over 64 (24% in 1998), remember that 76% are therefore younger than 64, and that 40% are single (or are single parents, or have no children).

The Township has a wide variety of housing stock in various arrangements, and has very little open land left for development. Recent zoning changes have increased the availability of townhouses, resulting in a development of larger attached houses, often called "carriage houses."

Existing Residences / A Summary

- Single Family Detached / (on large and small lots): 2,532 du
- Single Family Attached: 405 du
- Retirement Communities: 631 du

- Total: 3,568 du



Garden apartments are handsome additions to the community, and add another residential choice for the residents.

It is also recommended, as described in the Land Use Plan, that apartments be permitted and encouraged as part of mixed-use developments in the Bethlehem Pike Town Center area. This additional residential type will not only add to the mix of housing in the community, it will serve those individuals and families who want to live in the center of things, and need or prefer to walk instead of drive. They will also add activity to the "Town Center" area in the evenings and on weekends – which will make Bethlehem Pike feel more like the center of town, and will at the same time help improve business.

OPPORTUNITIES FOR RESIDENTIAL GROWTH

The Existing Housing and Population Conditions chapter of this Plan indicates that there are several smaller parcels (e.g., less than 10 acres) located throughout the Township, that could be further subdivided according to zoning regulations. There is also the ongoing experience of developers assembling two or three houses on large lots, demolishing them, and building five or six houses on the assembled parcel. In addition, the Existing Conditions chapter noted that a few large parcels are zoned residential, but remain used for other purposes. If all of those parcels and lots were so developed, it is estimated that about 185 to 310 new houses could be built. This represents about 370 to 650 additional residents, an increase in population of about 5 to 8%.

At this time, the development of some of the larger parcels could take place, but is not anticipated on others; for example:

- A reasonable assumption about the future disposition of the College properties is that the open lands appear to be fully utilized for campus and outdoor athletic activities.
- The Rohm & Haas research facility (the "farm" property) on McKean Rd. is zoned Residential. Inasmuch as the company has a significant investment in this property, the likelihood of its complete residential development is unlikely. Nevertheless, the large open vista that now exists there is an important part of the Township landscape.

- The Old York Road Country Club property now appears to be flourishing as a golf course, so the likelihood of its immediate change should be small. However, if that were to happen, a total of 45 houses could be built, on two acre lots.
- The property at the corner of Bethlehem Pike and Welsh Road is zoned for single family residential development, and could be so developed. If this were to occur, approximately 33 houses could be built on one acre lots.

RECOMMENDATIONS: SUMMARY

Single Family Detached Developments

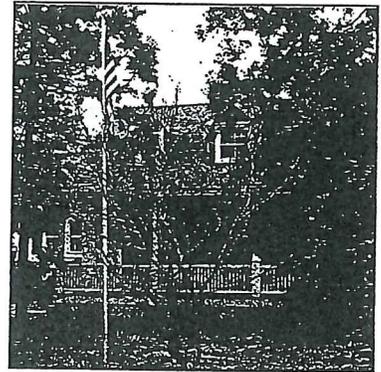
The Township should encourage three of the large land owners (the College, Rohm & Haas, and the Country Club) listed on P. 10-2 to take steps to assure that the land that now exists continue to be used in their current form, including the preservation of their open spaces. The fourth - the Bethlehem Pike / Welsh Rd. property - is zoned A-1 residential, and should be encouraged to develop in that way when the market is right for that action. The uses on the three larger parcels, and their accompanying open spaces are integral parts of the life of the community. They add vitality to the economy and to the cultural life of the Township, and are important parts of the visual character that is envisioned to be preserved.

The development of new homes, and groups of homes, on any of the residential parcels - whether large or small - must be done in a way that is in keeping with the visual character of the older homes and beautiful landscapes in the existing neighborhoods. Careful attention to zoning and planning details permits the design of new neighborhoods to protect natural resources, extend the trail network and fit in a seamless way into the community. More specifically, the handsome older - some of which are historic - buildings must be preserved as new developments take place. Details of this recommendation are explained in the Historic and Cultural Resources chapter of this Plan.

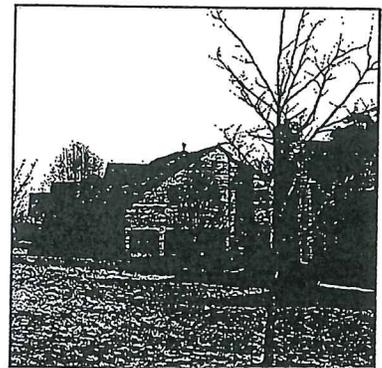
Infill Developments in Single Family Detached Areas

As stated above, a certain amount of new development in small numbers has already taken place in the Township, and can be predicted to take place in the future. Generally, these developments will occur on larger parcels with only one existing residence; however, some developments have taken place by the acquisition and demolition of a few (often three or four) existing homes, and the construction of twice that many on the larger parcel that is created. Three recommendations are important if the handsome and historic quality of the residential neighborhoods is to be preserved:

- Every effort must be made to preserve the best of the older buildings; they need not be historic, since many contribute to the community's historic fabric without being unique in themselves.
- New homes should be designed to be in keeping with the older homes of the Township. Developer-standard designs that partially mimic history generally do not do this. In order to accomplish this design expectation, a design review process (a voluntary process that would be a courtesy to owners or builders) could be considered.
- The fine landscapes - shade trees, ornamental trees, shrubs, sweeping lawns, and so on - should also be preserved or recreated in the



The smaller houses of the Township add a fine, human scale to the fabric of the community.



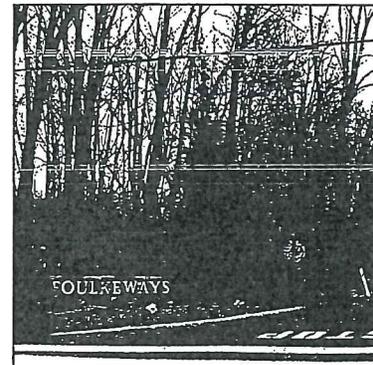
One of the several residential developments built in a Cluster pattern.

design of any new subdivision. The Township wishes to maintain its "green and peaceful" quality; these residential landscapes are essential in realizing that gentle vision.

Cluster Developments

The existing cluster ordinances have been very effective in preserving the, out open space in the community. In the last few years, for instance, over 100 acres have been protected by this method. Therefore, it is recommended that the community continue to urge developers to use this pattern of planning, even in the smaller parcels that remain available for residential development.

One issue that cluster developments raise is the need to plan to make individual homes and development communities feel linked to the entire Township. The cluster should not allow a "gated" community to occur, and should include trail connections to the rest of Lower Gwynedd. Therefore, private roads should be discouraged. In addition, where possible, roadway connections should be included, to give the neighborhood's residents (and emergency vehicles) more than one choice for entering and leaving by car. As stated in other chapters of this Plan, this step should help to reduce the traffic on the main roads, and make entering and leaving the neighborhood easier. And, it should be able to be accomplished without permitting "shortcuts" through the neighborhood by other drivers.



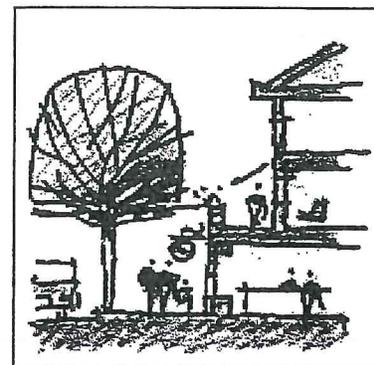
The entrance to one of the three retirement communities in the Township.

The development entranceway that is often desired by developers at the entrances to these neighborhoods can greatly add to the feeling of separateness. On the other hand, if all the gates of this kind in the Township were based on a similar design (same bricks, similar shapes, similar sign and lighting types, etc.), a common Township-wide design theme would be created. This design theme would therefore establish a subtle but important visual characteristic that would help realize the Vision of a unified community.

Retirement Community Developments

The three retirement communities that now exist in Lower Gwynedd are an important part of community life. However, in the interest of keeping a community of varied age groups and interest, the number of these communities is now striking an appropriate balance. Additional developments of this kind would affect that balance, and probably should not be encouraged in the absence of extraordinary justification.

It is also important that the existing retirement communities become part of the "single community" that is the vision of the Township. This effort must be accomplished by all effective means: not only the inclusion of the residents in Township activities, but the completion of the trail system to permit walking to Township destinations (such as shopping, the bank, restaurants, etc.).



Apartments over the retail developments in the Spring House Town Center area will offer new residential opportunities to the community, and a liveliness to the central shopping area.

Apartment Developments in the Town Center

If the largest of the properties within the new Town Center area - particularly in the center of the Center, among the existing strip of smaller shops - are more fully redeveloped, as many as 50 apartment units might be included. These dwellings, as part of mixed-use buildings and mixed-use

developments, should be designed to have a visual character that is compatible with the intentions for all of Bethlehem Pike, could include dwellings "over the shop", and should be of a size and quality that will be compatible with the businesses that are sought for the area.

The intention is to create a small town "downtown", and not a typical suburban garden apartment complex. The relationship of the apartments, and their buildings to new and existing streets, and to parking areas is of special importance in this regard. Doors and windows can face directly onto the shopping area, balconies can be included which overlook the public places that are created, and so on. The number of these dwellings may be small, but if they are done right, they will make a significant difference in the quality of life in the entire Township as they add vitality to the future Town Center, and as they add a new dimension to residential life in the community.

Preservation of the older and historic homes, historic areas, and historic landscapes

The Township has experienced the loss of a few special homes, structures, and other buildings in recent years, which has been a loss to the whole community, and not just to the adjacent neighborhoods. The Historic and Cultural Resources chapter of this Plan suggests that more strenuous preservation efforts could be undertaken, including the possibilities of establishing an historic review board, historic districts, historic landscapes, and appropriate guidelines and regulations to guide the various design reviews.

Preservation of the residential landscapes and the landscapes of the residential roadways

The preservation of these landscapes - which are not necessarily historic - is not directly related to the quantity and type of residential developments in the Township. However, the fact that front and side yard set backs are required, and that preserved open spaces are part of cluster developments, the design character of these spaces should be considered part of the approval process. The preservation and creation of the green landscape, and of the tree-shaded roadways, are essential parts of this overall Comprehensive Plan.

11. UTILITIES PLAN

There are two sets of utilities that serve Lower Gwynedd Township: public water and sewer. The water is served by two utility companies, while the sewer is provided by the Township Municipal Authority.

PUBLIC WATER

Current and future water and sewer service users in Lower Gwynedd can be assured of: continued service, system improvements/ upgrades, and capacities to meet current needs and future development/ growth, according to the North Wales Water Authority, The Ambler Water Company, and the Township's Municipal Authority.

North Wales Water Company

The new Forest Park Water Treatment Facility, with a current capacity of 30 MGD and potential for expansion to 40 MGD, should be sufficient to satisfy the future demands of its service area, including Lower Gwynedd Township, until 2050, or beyond. A planned transfer facility in the area of Welsh Road and Bethlehem Pike will be capable of allowing the Authority to transfer water from Montgomery Township directly into the eastern section of Lower Gwynedd Township. This facility will help balance the distribution system and enhance water service to residents and customers in that area.

The Ambler Water Company

The Ambler Water Company serves a limited area of the southern portion of the Township. Current demand, of the Ambler Water Company system, by Lower Gwynedd Township is only about 0.4 MGD, well below total system capacity. Planned improvements will ensure that current and future customer demands will be easily met.

SEWER

The Lower Gwynedd Township Sewer Authority regulates and monitors sewer service for almost all of the Township. The Township itself provides the sanitary sewer collection services and is responsible for system maintenance, with treatment occurring at the Ambler Treatment Plant. According to the Authority's maps, areas of the Township that are capable of future development and growth can be connected to the Municipal Sanitary Sewerage collection system and subsequent treatment. The Authority updated its Plan in 1995, and recently the PA DEP has authorized a "scaled down" revision to the Act 537 Plan, which is currently being prepared. The Lower Gwynedd Authority has reserved a significant amount of the expanded capacity of the Ambler Treatment Plant. Collection and capacity for treatment will keep pace with new needs and growth for the foreseeable future.

Lower Gwynedd Township is the single largest contributor of flow to the Ambler Treatment Plant. The Township should work closely with Ambler Borough and all other municipalities to assure adequate sewage treatment at a reasonable price.

RECOMMENDATIONS

As a general policy, the Township should extend its public water and sewer services to those areas of the community that do not have them now. Any such extensions, however, can only be made with the agreement of the property owners involved.

The Township should continue to work with Upper Gwynedd Township to provide sanitary sewer service for the properties on Swedesford Road that are in Lower Gwynedd.

12. PUBLIC FACILITIES PLAN

The basic fact of limited development opportunities affects the analyses and needs of the various public facilities in the Township. Without the prospect of increased population, and with the new condition of most of these facilities, there tends to be little need for larger facilities.

The Township Building, completed in 1988, houses the Public Works and Police Departments, as well as the administrative offices of Lower Gwynedd. A section of the building also houses a substation of the Wissahickon Fire Company. While this building meets existing needs, there is no space available presently for additional staff or storage. If more people or storage facilities are required in the future (the Recreation Department, for example), they would need to be housed off-site, which is not optimal.

The School District anticipates little increase in enrollment over the next ten years. With the enrollments it now has, an elementary school was completed in 1997, and the high school is now undergoing considerable renovation to accommodate its future needs.

The Police Department anticipates little need for expanded facilities or manpower, given the expectation for little residential or retail expansion in the Township.

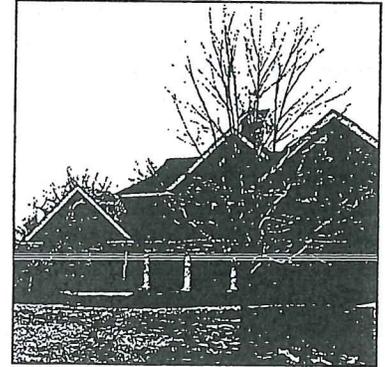
The two Fire Departments (Wissahickon and North Wales) anticipate only one required change: a relocated firehouse on Route 202 for the North Wales Department, which replaces the existing facility at Foulkeways.

VISION

In many ways, all of the five visions stated at the beginning of this Plan apply to the provision of satisfactory public facilities for the Township. The green and peaceful community in many ways relies on effective public services; the Town Center will be designed to accommodate police and fire service access; the making of a single community requires full cooperation of all Township agencies and can affect issues such as school bus and fire equipment movement; the relationship with the region establishes the limits on (for instance) shopping center development, which in turn affects police needs; and, the smooth flow of traffic is directly related to the movement of police vehicles, fire department equipment, and school buses. Many issues are related and affected - some in broad policy issues, and some in the details.

RECOMMENDATIONS

The only significant change that could require recommendations for new facilities could be if a major retail center were to be developed. If this were to occur, the police would need more cars,



The Township Building has set a design standard for other buildings to be built along Bethlehem Pike; it also serves the governmental service needs well.

facilities, and people, since shopping centers demand considerable police attention (caused by shoplifting, burglary, auto theft, ATM card crime, credit card crime, etc.). Note that a new 100,000 sf shopping center (Spring House Village Center 2) was completed and opened in 1999, which is in addition to the existing Spring House Village Center.

Although no actions are recommended at this time, the Township should remain aware of the difficulty that the Fire Department has had in maintaining a sufficient number of volunteers. This is a national trend and, if it continues, the hiring of full-time firefighters could become necessary, which in turn could require additional fire house space facilities, as well as impacting the Township's annual budget. The Township should work with its two volunteer fire companies to attract volunteers to perform this vital public function.

13. IMPLEMENTATION AND CONCLUSION

The community wishes to confront several issues, concerning the pattern of future development, the preservation of historic buildings and landscapes, the linking of the parts of the community, and the creating a focus for community life.

The community is also faced with changes that have already taken place beyond its borders, and with changes now being planned: the locations of large regional shopping centers, the rebuilding of the major highways, the decisions of international corporations who have facilities here, and the general growth in the Lower Gwynedd region.

If the Visions state at the beginning of this Plan are to be realized, all of these issues must be addressed, and a wide range of implementation strategies should be undertaken:

ZONING AND SUBDIVISION ORDINANCES

In creating this Plan a center of the community has been identified, to be called "Spring House Town Center." This Town Center, which lies along Bethlehem Pike, will have three areas: the North area, from Chesterfield Drive to the Spring House intersection; the Center Area, from the Spring House intersection to Penllyn Creek (near Sheble Lane); and the South, from the Creek to Dager Road.

In the Center Area, which is to be the real heart of community, the setbacks and density regulations should be revised to permit more flexible and more contiguous and walkable development. An Overlay District should be established to accommodate these revisions. The regulations and criteria in this Overlay District should permit additional development (beyond that permitted under the existing zoning regulations), smaller front and side setbacks, and the ability to provide somewhat fewer parking spaces in shared lots. In permitting this ability to have a more intensive development, owners and developers should be required to follow established building design guidelines (for both new and renovated structures, and for signs), and to include some of a common landscape along the roadway that is approved by the Township.

In addition, the existing zoning in this Center area of Town Center should be revised to permit residential uses as part of larger mixed-use developments.

The South area of Town Center (between Penllyn Creek and Dager Rd.) should have its permitted uses changed to include offices, as well as residential, to be consistent with the existing uses, and to be an employment extension of the Town Center area.

The cluster ordinances should be changed to accommodate

the recommendations of the "Growing Greener" proposals for development compatible with environmental resources as recommended by the Natural Lands Trust.

Cul-de-sacs should continue to be evaluated very carefully, since they contribute to the traffic congestion on the main roads. In any residential development, especially including cul-de-sacs, the trail system must connect each neighborhood with the rest of the community. If cul-de-sacs are developed however they should have turn arounds at the ends and a minimum 50' radius, or as may be approved by the appropriate governing authorities. As specifically stated in the Township Subdivision Ordinance: "Additional widths (of streets) may be required -- where necessary for public safety and convenience."

Trails that link to other trails, and to schools and shops, should be required in all residential developments. The existing trail system almost does this now; all subsequent development planning should continue to make the effort to connect the existing trails.

The existing ordinance for trees and other landscaping requirements should be revised to specifically require street trees in all residential developments, and in all new landscapes in where renovations of existing buildings takes place. It is important also to assure that street trees and overhead utility wires and poles do not conflict.

Design, detail, and planning criteria for the creation and future use of open spaces that are created by cluster and other similar developments must be enacted, to assure that the open space is of visual and functional value to the community at large.

Permitted land uses along Route 202 should be studied for the inclusion of offices (but no retail or institutional uses) under specific conditions. An Overlay District could be established for this purpose, to assure that office uses retain the residential buildings, and the overall historic residential character of the area. Studies should also be undertaken to determine additional means of auto access to these properties, so that the Route 202 roadway is not the only method.

It is recommended that the Township consider adopting an ordinance that looks holistically at riparian corridors so that they can be protected.

DESIGN GUIDELINES AND HISTORIC PRESERVATION

Various possible steps for historic preservation should be evaluated, including: the completion of the process of the identification of the historic buildings and roadways; the designation of historic buildings; the creation of a review board; the establishment of historic districts; and the establishment of guidelines for the landscape and a shade tree commission. Some of these actions give the community a measure of legal control over the preservation of its heritage; others do not. Therefore careful study must be made of all the options, so that the Township

can take the preservation steps that are appropriate to its Vision for the future.

As stated above, guidelines for the design of new and renovated buildings in the new Spring House Town Center area should be created and adopted, to give direction to entrepreneurs and owners. These guidelines should be part of an Overlay Ordinance, and should include direction about the details, locations, and shapes of buildings, and about the design of the landscapes, signs, lighting, and parking lots.

Guidelines could also be created to give general direction to the design of new houses in the Township. The purpose of these guidelines - which can only be used as a courtesy to owners and developers who voluntarily wish to cooperate with the Township - is to maintain the high quality of home design that now exists. This is a community with many historic precedents, and new buildings should relate to those precedents. As has been stated earlier in this Plan, home designs that are poor imitations of historic buildings, or that try to replicate incompatible design styles, are inconsistent with the history and character of the community.

In addition to the design of buildings, the design of the landscape is also of great importance to the quality of life in the Township. Two sets of landscape design guidelines should be considered:

- The planting and trees along Township roads, and in the front yards of various buildings, should be guided with recommended tree species, spacing, and tree sizes. These landscapes are important, even in areas that are not designated as "historic," or "cultural." One method for implementing this design recommendation, which the Township should consider carefully, is the creation of a shade tree commission.
- The "gateways" at the entrances to residential developments, if they are permitted, should be designed to be part of an overall gateway type that is seen throughout the Township. Brick and mortar colors, trim types, overall forms of walls and piers, signs, lighting, etc. should be determined in a set of Township guidelines, for use by developers.

PUBLIC IMPROVEMENTS, AND OTHER GOVERNMENTAL ACTIONS

The rebuilding of the Center Area of the new Spring House Town Center, as described in the Land Use and Circulation Plans, requires the collaboration and approval by PennDOT, the Township, and the owners of properties along Bethlehem Pike. Discussions with them are necessary as a first step in seeing that the transformation of this area takes place.

The landscaping of the edges of this center part of the Town Center shopping area should be implemented by one of three ways: incrementally as business owners invest in their properties; in one action by the Township (and/or PennDOT) as the road is rebuilt; or in a combination of these two. The one public action is clearly the preferred if the results are going to be

fully coordinated, and are going to be completed in the near future.

The lighting of the roadway along Bethlehem Pike should be made more consistent, and should illuminate the entire road, not just the small patches that are lit now. Elimination of the overhead wires and utility poles would be desirable.

Any other roadway changes (for traffic movement and safety,) that are considered for the Township, must be coordinated with the tree ordinance, and with the general intention of the community to preserve its green historic landscapes.

The Trail System should be extended as recommended in this plan; note that this should include the construction of new sidewalks in some existing residential areas of the Township.

As part of the completion of the Trail System, a set of "destination" trails should be created that connect key parts of the community (shopping, schools, employment centers) to the residential neighborhoods. This system will, in many cases, be located on properties that are already developed (some may even include historic buildings or landscapes). Therefore they will require action by the Township to seek property owner acceptance, to design and engineer, and to fund. The walkways within the Bethlehem Pike Town Center may require a combination of public actions and private actions (by individual property owners).

Partnerships with Ambler should be pursued, to conserve additional open space that will serve the recreational needs of both communities, and to seek other ways to cooperate regionally.

The Township should pursue purchase mechanisms (or other conservation strategies) to dedicate the various parcels that are identified in the Open Space Plan as open space and recreation lands. The existing zoning regulations should be maintained, that call for significant open space set backs in the office / research / industrial areas of the Township. These conditions should be continually monitored to assure that they remain as open and beautiful, and as integral parts of the character of Lower Gwynedd.

The public sewer and water service systems should be extended to those areas of the Township where there are none now, but where it is economically feasible for both the Township and the property owners. In addition, the Township should work with Upper Gwynedd Township to provide sewer service to properties in Lower Gwynedd located on Swedesford Rd.

CONCLUSION

It is essential to understand that the five Visions for the Future of Lower Gwynedd are established for a community that is, essentially, "developed" as opposed to "developing." It is within this framework that the

recommendations of this Plan focus on a few fundamental actions:

- The transformation of key areas of the community, such as the creation of a Spring House Town Center on Bethlehem Pike
- The linking of the community together in many ways, including the completion of the Trail System
- The compatible and thoughtful construction of new buildings and landscapes into the existing community fabric
- And, the preservation of the areas that the community cherishes, such as the many historic buildings and landscapes.

These basic actions include all aspects of this Plan, including the need to improve traffic flow, to preserve natural landscapes, to establish appropriate functional relationships with the surrounding communities and region, and, to provide appropriate public utilities and public services to the entire community. In order to realize the Visions in Lower Gwynedd at this time in its history, each implementation step must therefore be taken very carefully, with a full recognition of what should be changed, what should be improved, and what should be preserved.

Lower Gwynedd Township, by taking these actions, will accomplish what James Howard Kunstler has called for in his book *The Geography of Nowhere*:

“We will have to reacquire the lost art of civic planning and redesign our rules for building. If we can do these things, we may be able to recreate a nation of places worth caring about, places of enduring quality and memorable character.

There is a reason that human beings long for a sense of permanence. This longing is not limited to children, for it touches the profoundest aspects of our existence: that life is short, fraught with uncertainty, and sometimes tragic. We know not where we come from, still less where we are going, and to keep from going crazy while we are here, we want to feel that we truly belong to a specific part of the world.”

