



# Caln Township Comprehensive Plan

2017



A Comprehensive Plan for the Development and  
Conservation of Caln Township

**ACKNOWLEDGMENTS & CREDITS**

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Prepared by  
Urban Research & Development Corporation  
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Bethlehem, Pennsylvania

Adopted by the Caln Township Board of Commissioners on  
this 25th day of May, 2017.

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## **INTRODUCTION**

### **What is the Comprehensive Plan?**

This Comprehensive Plan provides an overall set of policies and recommendations for the future development, redevelopment and conservation of Caln Township over the next 15 years.



This Plan helps to ensure that Caln Township retains the qualities that make people want to live, work and enjoy recreational activities within the Township. This Plan is not a regulation, but instead provides the basis for suggested changes and associated strategies related to the Township's development regulations.

### **How Was This Plan Prepared?**

This Plan was developed in draft form during monthly meetings of the Township Planning Commission and a Comprehensive Plan Committee, with members appointed by the Board of Commissioners. First, maps showing existing conditions were prepared, as well as summaries of previous plans and reports. Information was collected on existing conditions.

A Vision Statement, Mission Statement and a set of Goals were then prepared to provide overall direction for the Plan. A public meeting was then held to discuss the initial set of overall recommendations. The Plan document was then prepared.

Next, public meetings were held by the Township Planning Commission and Board of Commissioners to obtain public input on the Plan, prior to adoption.

### **Major Benefits of the Comprehensive Plan**

The Comprehensive Plan offers many benefits, including the following:

- Addressing land uses in coordination with transportation issues, to avoid future traffic problems;
- Avoiding conflicts between different types of development, such as not allowing intense business uses adjacent to a residential neighborhood;
- Considering development policies in a comprehensive and coordinated manner for an entire area, as opposed to piecemeal review of individual parcels or lots;
- Recommending ways that natural features should be preserved and conserved, and so that storm water management may be turned into a resource, and
- Encouraging the setting aside and preservation of open spaces in the Township and along the streams.

NOTE - The intent of this Comprehensive Plan Update is to incorporate by reference other past plans that the Township has prepared and/or been a participant in preparing. The Township may also consider implementing the recommendations in those past plan as they may be appropriate and remain relevant.

**MAJOR FINDINGS:  
EXISTING CONDITIONS**

The Appendices include information about existing conditions and trends in Caln Township. The following are highlights of those findings:



- Caln Township is located 28 miles west of Center City Philadelphia, along the Route 30 corridor in central Chester County. While most of the Township is residential in nature, there are business uses concentrated along the Lincoln Highway in the village of Thorndale and near interchanges of Route 30.
- The Chester County's Landscapes 2 Plan seeks to direct most growth to locations in designated growth areas, such as Caln Township, that have public water and sewage services and highway access. By making the best use of these areas that are suitable for development, it will be possible to minimize sprawl in outlying areas that consumes excessive amounts of farmland or forest land per house.
- The US Census estimated that the 2013 population of Caln Township was 14,104, which was an 18 percent increase from 2000 of 11,916. Caln Township has been experiencing steady increases of population, while Chester County has been one of Pennsylvania's fastest growing counties. In 2010, 79 percent of occupied housing units were owner-occupied, which was slightly higher than the 76 percent average owner-occupied rate for Chester County. The Township's rental housing permits indicate that the rental rate has increased in recent years. It is desirable to have a higher owner-occupied rate in order to promote neighborhood stability.
- The largest area of flood-prone lands are along Beaver Creek (including areas east of Bondsville Road), along Valley Run (which runs parallel to G. O. Carlson Boulevard) and along the East Branch of the Brandywine Creek (which runs along Creek Road).
- Almost all intensely developed areas of Caln Township are served by the Pennsylvania American Water or Aqua America Companies. Caln Township is served by two wastewater treatment plants—the Coatesville plant that is operated by the Pennsylvania American Water Company and the Downingtown plant that is operated as a regional authority representing five municipalities. Each wastewater treatment plant has capacity for future growth.
- The Caln Township Police Department currently includes 20 sworn officers as of 2016. The Thorndale Volunteer Fire Company is currently comprised of approximately 59 personnel, including emergency medical staff and fire police.
- Several bus routes serve Caln Township, including routes connecting to Coatesville, West Chester and Exton.
- The Thorndale area, along Lincoln Highway, and the nearby Downingtown commuter rail stations serve the area. A new rail station is being constructed in Coatesville, and new station may be constructed in Downingtown. The Thorndale station may or may not receive more frequent commuter rail service once switching improvements are completed along the line, due to the proposed addition of the Coatesville station. In addition, the possibility of new Parkesburg and Atglen stations would also encourage commuters to use the nearest station.
- The outdated designs of certain ramps along the Route 30 Bypass have created safety and congestion concerns. A Route 30 By-Pass Multi-Modal Corridor Study, May, 2016, was recently completed that includes recommendations for interchange improvements, among other matters. The PennDOT 12 Year Transportation Plan proposes to allocate substantial funds to improve the Route 30 Bypass over the next decade.

## THE OVERALL DIRECTION OF THIS PLAN

The following Vision Statement, Mission Statement and Goals provide overall direction for this Comprehensive Plan. The objectives provide more specific intent.



### **Vision Statement**

Caln Township will continue to provide a variety of highly livable neighborhoods, vibrant business areas, high quality community services and activities for its residents and visitors. The Township desires to balance the opportunities for growth with the need for safe vehicular flow and pedestrian mobility. It is envisioned that there will be increased use of public transit and expanded opportunities for bicycling and walking. Future growth will conserve the natural resources and open space while promoting environmental sustainability. The vision will be implemented by involving residents and businesses in future planning and prioritizing community needs.

### **Mission Statement**

Caln Township is a center for businesses, health care, numerous residential neighborhoods and related community facilities. Caln promotes economic vitality through well-planned growth, in a manner that maintains a high quality of life for residents, preserves the natural environment, and supports business activity.

The Township will continue to diversify the local economy by strengthening Thorndale as a mixed use center, enhancing existing businesses, expanding our network of parks and trails, and completing needed transportation improvements, while preserving historic buildings, promoting energy conservation and ensuring the wise use of the Township's natural resources.

The Township will promote high-quality public education, and establish special events that will build a stronger sense of community among residents and businesses.

### **Major Goals and Objectives**

The following are the major goals and objectives of this Plan:

#### Land Use and Housing Plan

GOAL L.1. Provide for orderly patterns of development that provide compatibility between land uses, particularly to protect the livability of residential areas.

Objective: Provide areas for a range of housing types and densities, to meet needs of various types of households.

Objective: Offer density incentives for development of housing for older persons.

Objective: Encourage clustered development while preserving adjacent open space.

Objective: Strengthen and protect older residential neighborhoods, with an emphasis on encouraging home-ownership, rehabilitating older buildings, and avoiding incompatible development.

*Caln Township Comprehensive Plan - 2017*

Objective: Promote the permanent preservation of common open space as part of new residential development, to preserve natural areas, provide for recreation, and to allow the maintenance or planting of landscape wooded buffers alongside highways, intense business uses and creeks.

GOAL L.2. Promote various ranges of types of business development in different areas, to increase tax revenues and employment opportunities, while promoting entrepreneurship.

Objective: Seek a full range of business, retail and service opportunities that are conveniently available for residents.

Objective: Use landscaping, street trees, crosswalks, streetscape improvements and other methods to improve the appearance of the Lincoln Highway corridor, in order to promote new investment in the Township.

Objective: Use a full range of methods to promote desirable types of business investment, including flexible zoning, tax incentives, marketing, and coordination with the Chester County Economic Development Council.

Objective: Examine ways to streamline development regulations to offer an inviting business climate, to reduce uncertainty for applicants and to avoid unnecessary delays, while targeting regulations to address important public concerns.

GOAL L.3. Encourage compatible mixes of land uses, in a way that reduces dependence upon motor vehicles for everyday needs and to promote a more enjoyable and healthy lifestyle.

Objective: Strengthen Thorndale as a mixed use village center that serves the region with a mix of office, retail, service, civic, arts, cultural, institutional and residential uses. Provide opportunities to convert existing older houses along the Lincoln Highway into business uses.

Objective: Direct most new multi-family development to the Thorndale area as a part of selected mixed commercial and residential development in Thorndale, in order to promote transit-oriented development and to spur commercial re-development.

Natural Resources Conservation Plan

GOAL N.1. Protect important natural features, including creek valleys, wetlands, steeply sloped woodlands along with groundwater and surface water supplies.

Objective: Improve the quality of storm water runoff by managing it at its source, allowing it to infiltrate into the ground (while using great care in areas of Carbonate Geology), and slowing it down.

Objective: Continue to use development regulations to conserve important natural features. Encourage cluster / open space development incentives to maintain sensitive natural areas in permanent open space.

Objective: Continue to update flood plain ordinance to ensure the implementation of adequate FEMA flood plain measures, while continuing to allow conditional approval of development in the flood plan fringe as allowed by current zoning.

Historic Preservation Plan

GOAL H.1. Work to preserve important historic buildings and promote suitable adaptive reuses within these buildings.

Objective: Consider using the Zoning Ordinance to require Township pre-approval before an important historic building can be demolished.

Objective: Promote greater interest in Caln's historic buildings and heritage, and incorporate these characteristics in the rehabilitation of older buildings.

Objective: Consider the creation of an historic architectural review board that will review and encourage preservation of Caln's heritage.

Community Facilities and Services Plan

GOAL C.1. Provide high-quality community facilities and services in the most cost-efficient manner.

Objective: Ensure that adequate public water supplies, sewage treatment allocations and transmission capacities continue to be available.

Objective: Emphasize coordination of municipal and emergency services across municipal borders, and that the services be expanded consistent with the needs of the community.

Objective: Consider updating the King's Highway Park master plan and implementing logical phases of construction, while making other park and recreation area improvements where appropriate and as funding allows.

Objective: Consider undertaking a feasibility study of the entire municipal and maintenance facilities to determine how to either expand, upgrade and / or create a new complex that will adequately serve the Township needs.

Transportation Plan

GOAL T.1. Make well-targeted cost-effective improvements along congested road segments, while improving safety, in cooperation with PennDOT, adjacent landowners and developers.

Objective: Complete short-term improvements (such as improving sight distances) while seeking funding to complete longer-range improvements.

Objective: Where practical, consider retrofitting streets to incorporate "complete streets" principles that place a priority on pedestrian and bicycle travel, and traffic calming, while encouraging safe traffic flow and the relationship to the allowed traffic speeds.

Objective: Address roadside storm water management needs while providing room for street lighting and street trees.

GOAL T.2. Make Caln more bicycle and pedestrian-friendly, including offering safe connections between residential areas and stores, schools, parks and trails within Caln and neighboring municipalities.

Objective: Implement a program of sidewalk / pedestrian linkage program where the existing walkway system can be inter-connected in a systematic way.

*Caln Township Comprehensive Plan - 2017*

Objective: Consider expanding the east-west trail system between Coatesville and Downingtown, to link into other regional trails. This system would tie into extensions of the G. O. Carlson Boulevard pathway, and consider where appropriate where additional sidewalks may be installed along the Lincoln Highway and the intersecting streets.

GOAL T.3. Promote expanded use, availability and frequency of service of public transit, while also promoting greater use of car-pooling.

Objective: Work with PennDOT and other providers to increase understanding of the availability of transit services and the park and ride lot on Route 322.

Objective: Support increased usage of the SEPTA rail and bus service to Thorndale and add bus shelters along Lincoln highway where appropriate and encourage employers and residential developments to offer peak-hour shuttle services to the station.

Objective: Promote transit-oriented mixed use development in proximity to the Thorndale station, while enhancing pedestrian circulation in the Thorndale corridor.

Energy Conservation Plan

GOAL E.1. Encourage modes of transportation, patterns of land uses and designs of sites and other actions that conserve energy.

Objective: Increase public awareness of energy conservation methods.

Objective: Promote building orientations and designs and landscaping that maximizes access to solar heating in the winter and provides shading in the summer.

Putting This Plan Into Action

GOAL A.1. Promote citizen input, including making sure residents are well-informed about community issues and have adequate opportunities to provide their opinions on Township matters.

GOAL A.2. Coordinate transportation, development and infrastructure across municipal borders, and seek opportunities for additional shared municipal services.

GOAL A.3 Consider undertaking an annual review of the Comprehensive Plan by the Township staff, Planning Commission and Board of Commissioners prior to annual budget planning so that any desired actions in the Plan can be implemented.

GOAL A.4. Continually work to put this Plan into action through a program of updated planning and short-term actions in accordance with a long-range perspective oriented to implementing the strategies of the Plan.

## EXECUTIVE SUMMARY

The following are highlights of major recommendations and strategies in this Plan.



### Promote Economic Development and Compatible Land Uses

- Update the Township's development regulations to carry out the Future Land Use and Housing Plan.
- Strengthen Thorndale as a mixed use village, including residential development that encourages use of the Thorndale train station and bus service.
- Improve the appearance of the Lincoln Highway corridor through redevelopment and the addition of street trees, other landscaping, decorative lighting, and highly visible crosswalks.
- Promote additional investment in business areas, including through streamlining of development regulations and procedures and through well-targeted tax incentives.

### Improve Sustainability

- Carry out a full set of efforts to improve sustainability, including promoting renewable energy (including solar energy, such as over vehicle parking), seeking additional carpool parking areas in the region, providing zoning incentives for green roofs, improving the quality of stormwater runoff, promoting groundwater recharge, improving the creeks as scenic and possible recreational assets, and emphasizing tree planting.

### Update Community Facilities and Services

- Continue to make needed improvements to Township Parks and seek locations for additional indoor public recreation programs (such as through partnerships with the schools).
- Select a long-range alternative for improving municipal buildings complex for administration and operations, and then carry it out in phases.

### Improve Transportation Safety, Reduce Congestion and Expand Transportation Choices

- Seek more frequent rail and inter-connecting bus services to Thorndale.
- Improve the Lincoln Highway corridor, including improvements for pedestrian safety and to reduce congestion, in cooperation with adjacent property owners and PennDOT.
- Seek that PennDOT complete improvements to the Route 30 Bypass, including improved interchanges.
- Make the Caln Township area safer and more convenient for bicyclists and pedestrians along with traffic calming where appropriate. Add additional bus passenger shelters and complete missing links of sidewalks along higher traffic streets.

## LAND USE AND HOUSING PLAN

### Land Use and Housing Plan

GOAL L.1. Provide for orderly patterns of development that provide compatibility between land uses, particularly to protect the livability of residential areas.



Objective: Provide areas for a range of housing types and densities, to meet needs of various types of households.

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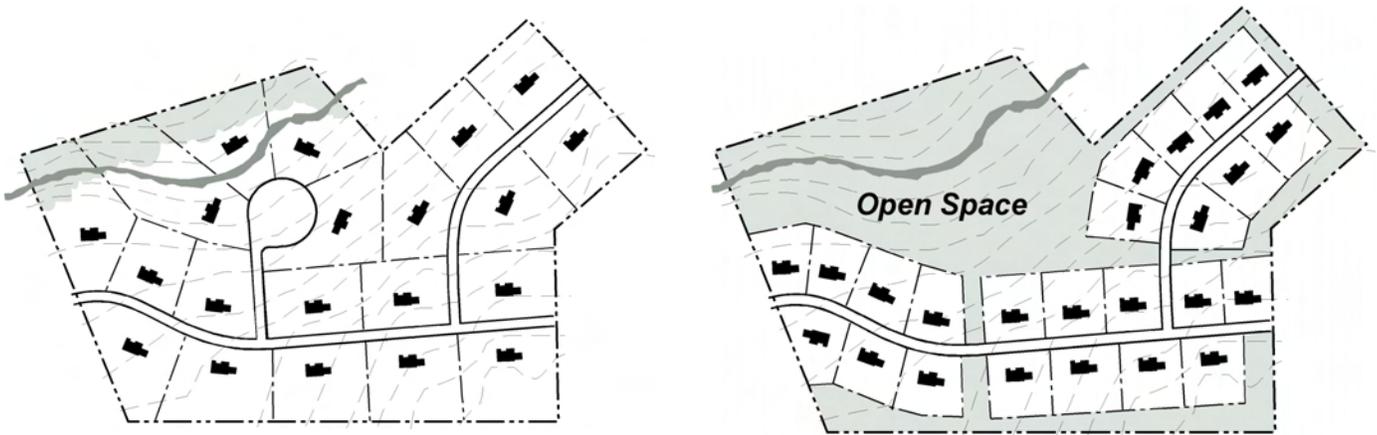
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Objective: Direct most new multi-family development to the Thorndale area as a part of selected mixed commercial and residential development in Thorndale, in order to promote transit-oriented development and to spur commercial re-development.

Chester County's Landscapes 2 Plan (as discussed in the Appendices) emphasizes directing most development to designated growth areas. Most of Caln Township is classified as a "Suburban Landscape," except Thorndale is planned as a "Suburban Center." This will reduce the amount of farmland and forested land consumed by development throughout the County, because less land on average will be required by each new home or business in Caln Township compared to the land consumed for development for sprawled suburban and rural development.

**Strategy L.1. – Promote Use of the Open Space Development Option.**

Open Space Development (which is also known as conservation or cluster development) involves allowing homes on smaller lots in return for permanent preservation of a substantial percentage of the tract of land in some form of open space. The use of Open Space Development should be strongly encouraged, including strong incentives to promote the permanent preservation of substantial portions of a tract in open space. Homes should be clustered on the most suitable portions of a site.



Example of Conventional Development

Example of Open Space Development

Many Open Space Developments are designed with 30 to 50 percent of the total land area of a development preserved in some form of open space. Open Space Development typically allows smaller lots and smaller setbacks than would be allowed under conventional development without open space.

Proper standards are also needed to make sure that the open space serves a public purpose, as opposed to simply being fragments of "leftover" lands with little development or recreation value. The areas of the tract that are to be preserved as open space should be determined very early in the site design process, and not as an afterthought. Narrow and unusable lands should not count towards the required open space. Conservation easements are a legal tool that would be used to make sure the open space could never be subdivided or developed in buildings.

To provide an incentive, the overall number of homes possible on a tract is intended to be slightly higher (such as 20 percent higher) in an Open Space Development than what is possible under conventional development.

To make sure that Open Space Development is not mis-used to result in a dramatic increase in the number of homes allowed on a tract, a "Yield Plan" could be used. This involves requiring a developer to submit an accurate sketch plan showing the number of homes that would be possible under conventional development. The accuracy of this Plan would be subject to acceptance by the municipality. Once the Yield Plan was accepted, then the developer would be allowed to build a certain percent increase in density - such as 20 percent higher than was possible under the conventional development.

Advantages of Open Space Developments - The following are some of the major advantages of Open Space Developments:

- On larger tracts, land can also be preserved for uses such as horse farms, plant nurseries, or Christmas tree farms.
- Houses can be located further away from highways, industrial uses, and pipelines. This is because a developer will not lose any housing units if they move the houses further away from those facilities.
- Important natural features can be preserved, particularly along creek and river valleys. Open Space Developments should include standards that direct buildings away from steep slopes, wetlands, waterways and other important natural features. As a result, homes are placed on portions of the tract that are most environmentally suitable for development—as opposed to being evenly spread across the land. Large contiguous areas can remain in woods. Thick natural vegetation can be preserved along creeks—which is essential to filter out eroded soil and other pollutants from runoff before it enters the creek.
- With open space preservation, stormwater runoff can be managed in a more natural and attractive manner that encourages recharge into the groundwater.
- Scenic features can be preserved. Open Space Developments can place homes on less visible portions of a tract, while maintaining scenic views. For example, many open space subdivisions setback homes from main through-roads and limit placement of homes on major ridgelines. As a result, the main angle of vision along major roads involves green space.
- Recreational opportunities can be increased. Open Space Developments can include attractive areas for walking, jogging, bicycling, cross-country skiing and nature study.
- Developers can achieve lower costs for grading, lengths of roads, lengths of utilities and other improvements. Developers may also be able to save time and money by avoiding wetland alterations and waterway crossings. Open Space Developments can provide the flexibility in layout to move homes off of steep slopes, which are more expensive to build upon.
- The Township and utilities can save on maintenance costs, because there are shorter lengths of roads, utilities, curbing and other improvements.
- Developers can often achieve higher sales prices. More and more developments are stressing in their advertising that homes are adjacent to preserved open spaces.

In the future, the Township may want to consider whether the existing acreage required for cluster/ open space development should remain the same or be reduced to allow smaller tracts of land to take advantage of cluster development regulations.

The Chester County Planning Commission has prepared the Cluster Subdivision Design Guide. That publication (which is available for free on the CCPC website), includes many examples of successful cluster housing developments in Chester County. It also describes lessons that have been learned from various projects. The following are illustrations from that report of three successful cluster housing developments in Chester County.

The Design Guide reported that there have been disappointments with clustered housing developments that included open space that was too fragmented or that was located where it was not highly visible to the public. The most successful projects often preserve an aspect of community character, such as a historic house, a farmstead, scenic views or mature woods.

The Design Guide also describes how cluster ordinance provisions can be written to assist in preserving historic buildings, and to provide context around a preserved building. For example, a farmstead with a barn can be preserved with sufficient land around it to make it practical to allow new uses of the barn.

The Reserve at Chadds Ford in Birmingham Township was designed to preserve substantial areas of mature woodlands, in addition to smaller meadows. The majority of homes look out onto the preserved open space, including an area of open space within the loop road. The project consists entirely of single family detached houses. Stormwater management facilities are well-landscaped and blend with the adjacent open spaces.



Pickering Glen is located in Schuylkill Township and was developed on farmland. The majority of the open space is maintained as meadow, which provides attractive views from the rear windows of most of the houses. The historic farmstead was also preserved. The boulevard-style entrance was designed to preserve existing trees. A perimeter trail is also provided.



Sagamore is located on 18 acres of land in East Bradford Township. Townhouses were clustered together, allowing 79 percent of the tract to be preserved as open space. The open space also functions to buffer the homes from Route 52.

All of the homes have rear views onto open space, including open space preserved within the center of the loop road. A trail connects the development to sidewalks in adjacent developments.



**Strategy L.2. – Base land use policies upon the Land Use and Housing Plan Map and the following categories, and update development regulations to carry it out.**

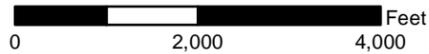
The map on the following page shows the existing uses of land throughout the Township. That map is followed by a map showing lands that remain available for development. Then, a map is provided that shows the main zoning districts of the Township, as of 2016. The following sections describe the Land Use and Housing Plan categories, as are shown on the Land Use and Housing Plan Map on a following page.

# Caln Township

C H E S T E R C O U N T Y



**Urban Research & Development Corporation**  
28 West Broad Street Bethlehem, PA. 18018 610-865-0701

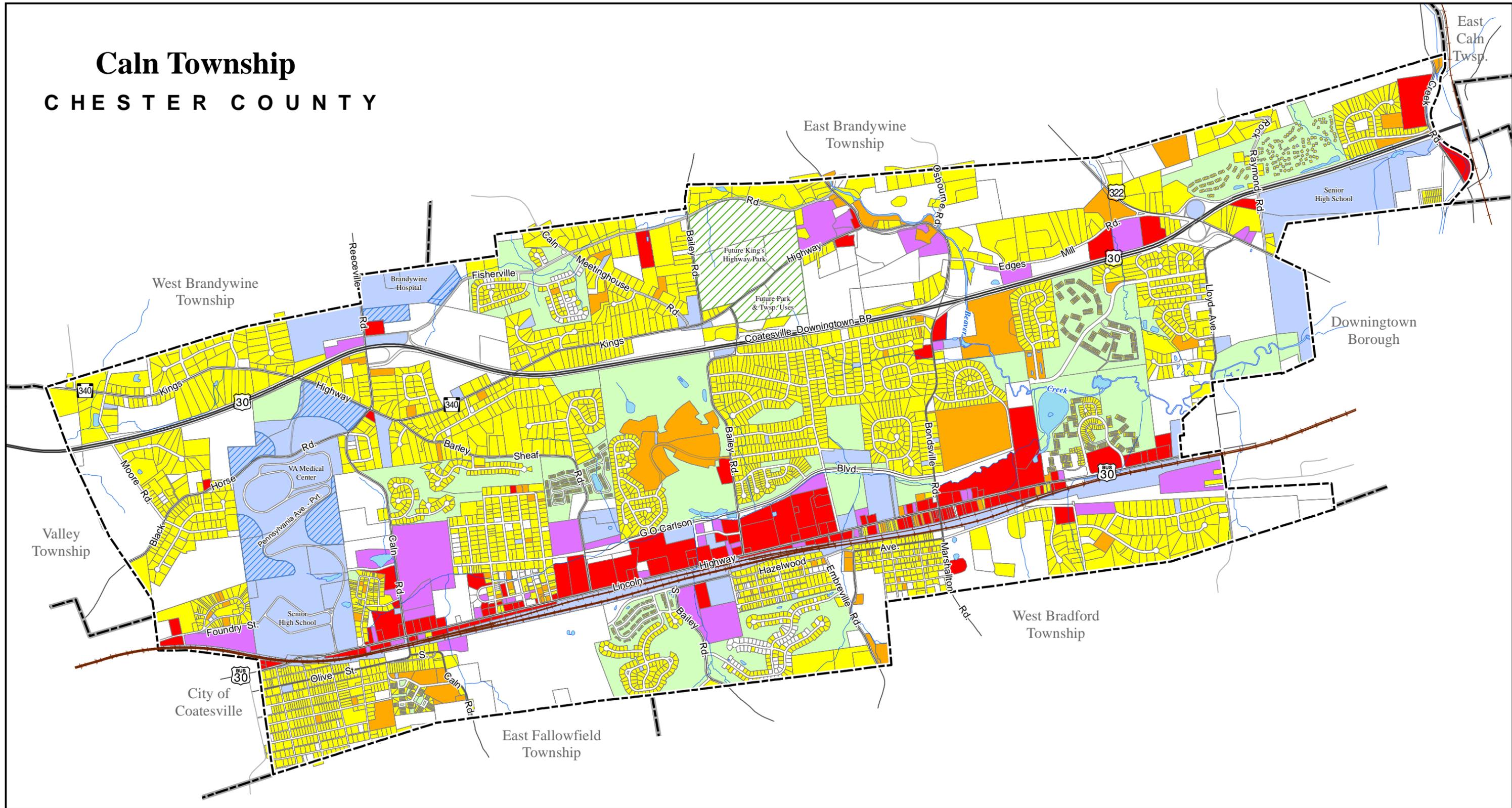


SOURCE OF BASE INFORMATION: Chester County GIS, 2015.

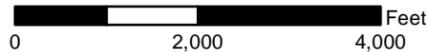
## AERIAL BASE MAP

# Caln Township

## CHESTER COUNTY



**Urban Research & Development Corporation**  
 28 West Broad Street Bethlehem, PA. 18018 610-865-0701



- |   |                                      |
|---|--------------------------------------|
| Agricultural & Undeveloped                                  | Commercial                           |
| Single Family Residential & Townhouses                      | Industrial                           |
| Multi-Family Residential                                    | Recreation & Preserved Open Space    |
| Public, Institutional, Municipal, and Railroad Right-of-Way | Currently Unimproved Recreation Land |
| Currently Unimproved Institutional Land                     |                                      |

SOURCE OF BASE INFORMATION: Chester County GIS, 2015.

# EXISTING LAND USE

# Caln Township

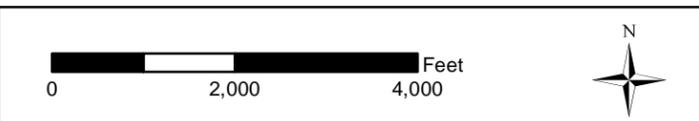
## CHESTER COUNTY




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 28 West Broad Street Bethlehem, PA. 18018 610-865-0701

- Developable Lands
- Slopes 15-25% (suitable for only limited development)

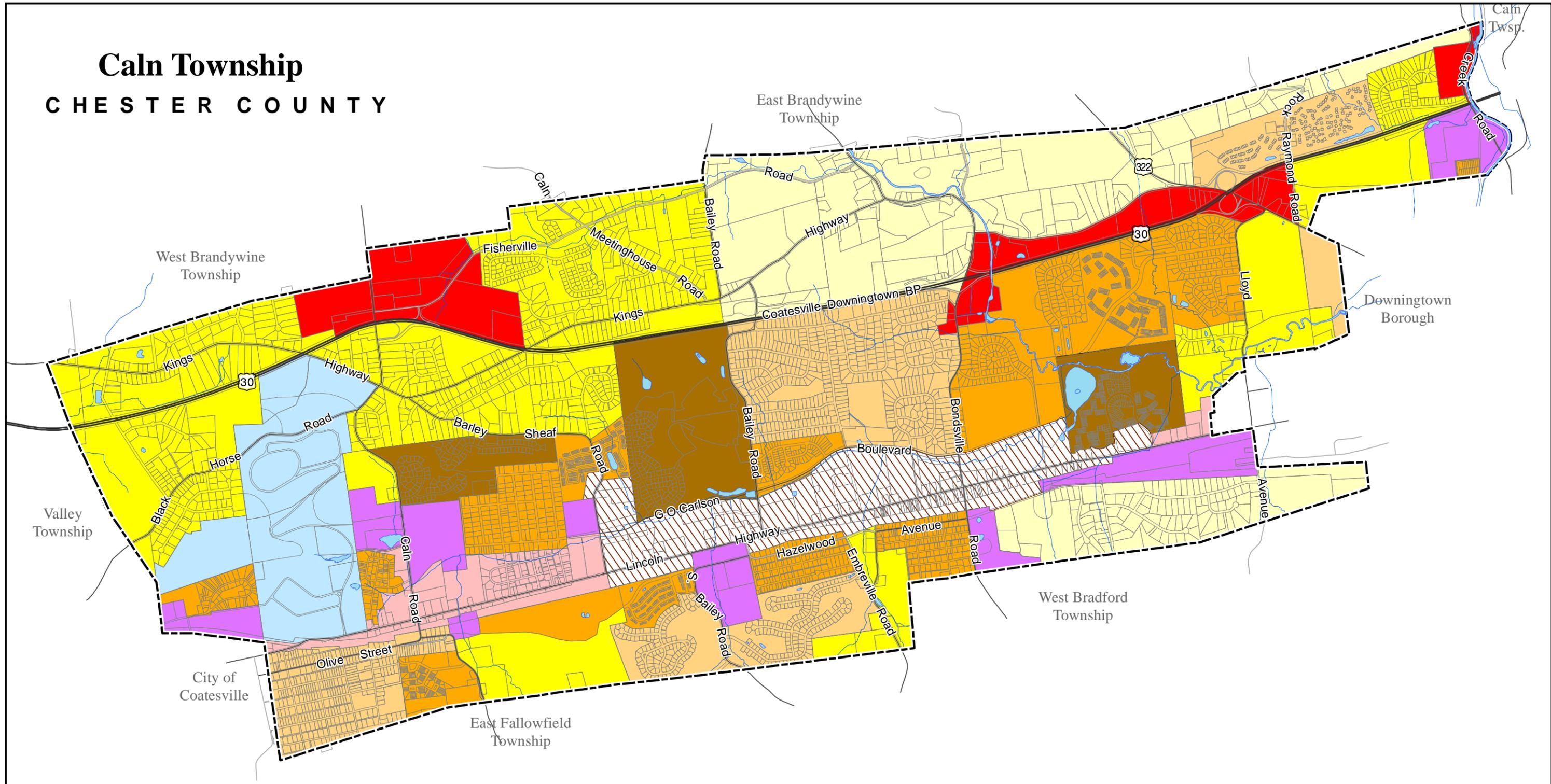
# Developable Lands



SOURCE OF BASE INFORMATION: Chester County GIS, 2015.

# Caln Township

## CHESTER COUNTY



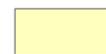
SOURCE OF BASE INFORMATION: Chester County GIS, 2015.



**Urban Research & Development Corporation**  
 28 West Broad Street Bethlehem, PA. 18018 610-865-0701

0 2,000 4,000 Feet

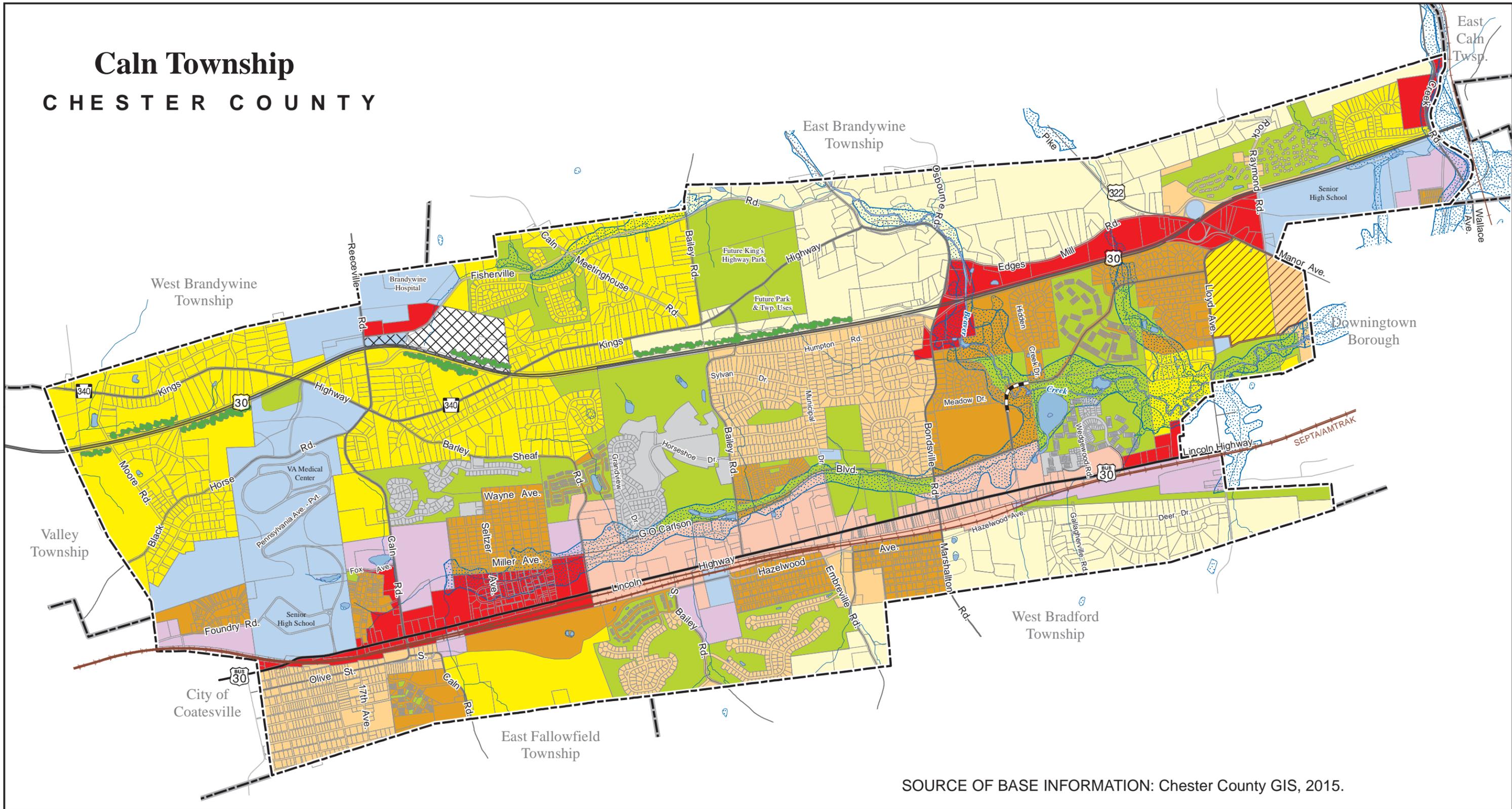


- |  |   |
|--|---|
|  Low Density Residential            |  Planned Residential Community |
|  Low to Medium Density Residential  |  Institutional                 |
|  Medium Density Residential         |  Regional Commercial           |
|  Medium to High Density Residential |  Highway Commercial            |
|  Thorndale Village                  |  Industrial                    |

# ZONING

# Caln Township

## CHESTER COUNTY



SOURCE OF BASE INFORMATION: Chester County GIS, 2015.



**Urban Research & Development Corporation**  
 28 West Broad Street Bethlehem, PA. 18018 610-865-0701

- New Road Links
- 100 Year Flood Plains & Wetlands
- Water Bodies
- Streams
- Thick Buffer of Preserved or Planted Trees if developed residentially.
- Low Density Residential
- Medium Low Density Residential
- Medium Density Residential
- Medium High Density Residential
- Older Adult Residential Option
- Planned Residential Community (under previous standards)
- Thorndale Village/Mixed-Use
- Public Parks, Golf Course or Homeowners Association Open Space
- Major Community Facilities & Institutional Uses
- Highway Commercial
- Mixed Use - Business/Residential Options
- Light Industrial



# Land Use & Housing Plan

The Comprehensive Plan is not a regulation. However, the Township's development regulations are anticipated to be updated to carry out this Plan. Zoning is the most valuable tool available to the Township to carry out land use and housing policies. In most cases, the land use and housing categories in this Plan relate to an existing or proposed zoning district.

The Township Zoning Ordinance primarily regulates: a) the uses of land and buildings, and b) the densities of development. Different types of land uses and different densities are allowed in various zoning districts that are shown on the Zoning Map. Some districts are primarily residential, some are primarily commercial and some are primarily industrial. Other districts promote a mix of uses.

Zoning is primarily intended to protect existing residential neighborhoods from incompatible development. However, it also can be used to avoid traffic problems, improve the appearance of new development, preserve historic buildings, and protect important natural features.

Caln Township has conventional zoning districts, in addition to overlay zoning districts. The overlay districts provide provisions that are more permissive or more restrictive than the regular zoning districts in various land areas. Care is needed to not overuse the overlay zoning map process, because the complexity can be confusing to users of a zoning ordinance, and may cause conflicts between various sections. An applicant may believe that a certain type of development is allowed, without realizing it is prohibited by another overlay district. Overlays may also create unintended conflicts between various provisions of a zoning ordinance. The complexity and conflicts can particularly become a problem when multiple overlay districts apply to the same land.

This Plan recommends streamlining the Zoning Ordinance by converting some of the overlay zoning districts into provisions within the regular zoning districts. For example, provisions regarding proximity to a highway interchange can be added as provisions within the Highway Commercial zoning district, without needing a separate overlay district around the interchanges. The natural features (other than Carbonate Geology) can simply be addressed based upon the actual features present on each site, without needing overlay districts.

#### Low Density Residential (relates to the current R-1 Low Density Residential district)

This category mainly includes land north of the Route 30 Bypass, east of Bailey Road, including land on both sides of Route 322 north of Edges Mill Road. Most of this land does not currently have access to public sewage and water services. It includes some of the largest areas of undeveloped land and farmland in Caln Township, including lands along Kings Highway / Bondsville Road. This category also includes an area that is mostly developed in homes in the southeastern part of the Township, including along Deer Drive and Gallagherville Road.

This category should continue to allow for agricultural uses, as well as single family detached houses. Throughout the Township the R-1 Low Density Residential district allows for a one acre (43,560 square feet) minimum lot size if on-lot well and on-lot septic system is used. If a single family home is served by both public water and public sewage services, then approximately one-half acre (25,000 square feet) minimum lot is appropriate.

An Open Space Development housing cluster option is allowed on tracts of 25 acres or more for single family homes on 8,000 square foot lots with served by both public water and sewage systems at a maximum density of 1.5 dwellings per acre. In addition a qualified retirement community of single family homes is also allowed under the same requirements, but the maximum density is increased to 1.75 dwellings per acre. A minimum of 50 percent of the total land area is required to be preserved as common open space for both options. Density bonuses should continue to be offered for certain public improvements, such as the development of active recreation facilities. The Township may desire to consider reducing the tract size required.

The Open Space Development option would be particularly valuable to provide space to maintain or plant substantial numbers of trees along Route 30. A much larger setback for new homes from the highway can be achieved through Open Space Development. This buffer area would not only be

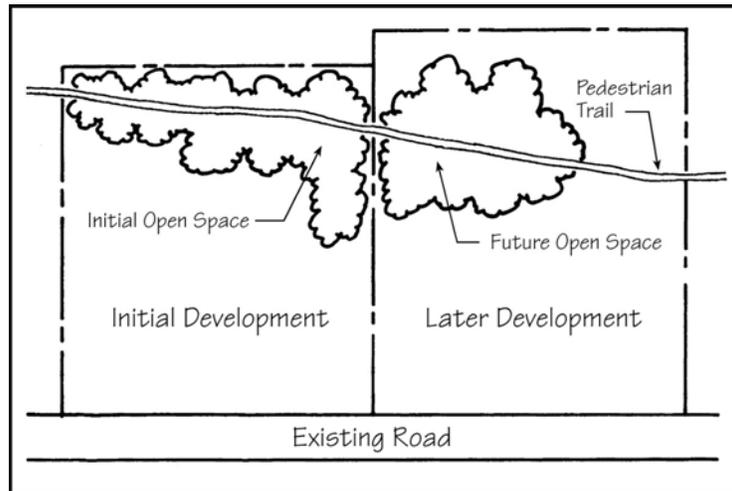
valuable to preserve woodlands and make the corridor more attractive, but it also would increase the livability and market values of homes by avoiding noise conflicts.

Medium Low Density Residential (relates to the current R-2 Medium Low Density Residential district)

This category includes most of the residential land in the northwestern part of the Township, including land west, north and east of the VA Medical Center. This category also includes several areas of mostly undeveloped land in the south-central and north-eastern parts of the Township, including land east of Lloyd Avenue, south of Route 322. The R-2 Medium Low Density Residential district for single family home development allows for 15,000 square foot lots when served with both public water and sewage services.

An Open Space Development housing cluster option is allowed on tracts of 25 acres or more for single family homes on 8,000 square foot lots with served by both public water and sewage systems at a maximum density of 1.75 dwellings per acre. In addition a retired development of single family homes is also allowed under the same requirements, but the maximum density is increased to 2.00 dwellings per acre. A minimum of 50 percent of the total land area is required to be preserved as common open space for both options. Density bonuses should continue to be offered for certain public improvements, such as the development of active recreation facilities.

The Township may desire to consider allowing the Open Space Development option in selected and/or all residential districts to be offered tracts smaller than the current 25 acre minimum requirement, particularly where new open space could be linked to adjacent trails or parks, or where the open space of preserve woods or areas newly planted with trees would serve as a valuable buffer adjacent to Route 30, other major roads, or an intensive business zoning district.



The sketch above shows how preserved open space from one development can be placed along the edge of an undeveloped lot so that it can eventually be interconnected with future open space when the adjacent lot is developed.

Medium Density Residential (relates to the current R-3 Medium Density Residential district)

This category includes areas of older homes adjacent to Coatesville that are south of Lincoln Highway and mostly west of 17<sup>th</sup> Avenue. It also includes most of the residential development north of G. O. Carlson Boulevard, east of Bailey Road and south of the Route 30 Bypass. It also includes residential development north of the Route 30 Bypass east of Route 322. Land on both sides of Bailey Road south of the railroad was also developed under this R-3 zoning.

The R-3 Medium Density Residential areas allow single family homes on 15,000 square feet with public water and sewage services. The Township may want to consider allowing single family detached

houses on 12,000 square foot lots in these areas. The Medium Density Residential areas also allow for single family detached (twin) homes on 8,000 square foot lots. The Township may want to consider allowing twin homes on a reduced lot size.

An Open Space Development housing cluster option is currently allowed on tracts of 25 acres or more for single family and twin homes on 8,000 square foot lots with served by both public water and sewage systems at a maximum density of 2.00 dwellings per acre. In addition, an age-qualified development of single family homes is also allowed under the same requirements, but the maximum density is increased to 2.25 dwellings per acre. A minimum of 50 percent of the total land area is required to be preserved as common open space for both options. Density bonuses should continue to be offered for certain public improvements, such as the development of active recreation facilities. The Township may wish to consider allowing cluster development on tracts smaller than the required 25 acres, allowing twin homes on a smaller lot size and reducing the required amount of common open space. If this change is undertaken, then the Township should consider increasing the allowed dwelling units per acre to a range of 2.5 to 3.5 units per acre.

Medium High Density Residential (relates to the current R-4 Medium High Density Residential district)

This category includes an older neighborhood along Miller Road at the west end of G. O. Carlson Boulevard. It also includes: a) land west of Caln Road, south of the railroad; b) several developments south of Route 30 east of Bondsville Road and west of Lloyd Avenue; and c) an undeveloped area east of Caln Road, south of the railroad.

The Medium Density Residential areas allow single family lots of 10,000 square feet when provided with public water and sewage service. The Medium High Density Residential areas also allow for single family semi-detached (twins) on 7,000 square foot lots. The Township may want to consider reducing the single family and semi-detached (twin) lot sizes in these designated residential areas.

The Open Space Cluster Development option allows for single family homes on 8,000 square foot lots with 50% minimum open space, single family semi-detached (twins) at 7,000 square foot lots with 40% minimum open space and a maximum density of 2.25 dwellings per acre. Townhomes are allowed with a minimum of 40% open space and at a maximum density of 4.0 dwellings per acre. Multi-family apartments are allowed on 4 acre sites with a 40% minimum open space and at a maximum density of 14.5 units per acre. The Township, in the Medium High Density residential designated areas, may desire to consider reducing the open space requirements for the single family, semi-detached single family (twin) homes and townhome developments and proportionately increasing the allowed density. In residential areas of this character, a requirement of approximately 30 percent common open space may be appropriate.

Planned Residential Community (relates to the current R-5 zoning district)

This category applies to three main existing developments: a) the Barley Sheaf Farms development east of N. Caln Road and south of Barley Sheaf Road; b) the Fairways development that is integrated with the Ingleside Golf Course west of Bailey Road; and c) the Wedgewood Estates development along Wedgewood Road north of Lincoln Highway.

The main purpose of this category is to allow previously approved developments to remain conforming according to the standards that were in place when they were approved.

Active Adult Residential Option

On land east of Lloyd Avenue and south of Route 322, the Township, may consider, if appropriate, an option to develop a community designed for active older adults. This option would exist in addition to the current option to develop under the regular Medium Density Residential category.

A density incentive and flexibility in dimensional standards should be offered if housing is limited to at least one resident age 55 or older, with no permanent residents under age 18. For example, the

Township may consider that an average of up to 4 or 5 housing units per acre could be appropriate, if 15 percent or more of the land was provided as recreation areas for the residents.

Thorndale Village (relates to the current TV-1 zoning district)

The Thorndale Village land use category includes almost all of the land on both sides of Lincoln Highway from Barley Sheaf Road east past the Caln Village Shopping Center and Park Drive (west of the Wedgewood development). These are the areas of Thorndale that are currently primarily commercial in nature. (Note - There are also adjacent residential areas that are popularly known as being within Thorndale, but they are in residential land use categories.)

The intent is to strengthen Thorndale as a mixed use village center that serves the region with a mix of office, retail, service, financial, civic, arts, cultural, entertainment, institutional and residential uses.

In these areas, mixed use developments should be promoted, including a mix of commercial uses (but not including new highly intensive commercial uses such as large truck repair or junkyards) and townhouses. Apartments should be an option within walking distance of the train station. Any apartments or townhouses should be required to be combined with compatible business uses within the same development tract. The apartments may be a part of mixed commercial/service uses in the same building and/or separate buildings. The Township may want to consider eliminating apartments in the Highway Commercial district if apartments are allowed in the center of Thorndale as a more suitable location near the train station. Street-level business uses should be required in areas that are close to Lincoln Highway. Upper story offices and apartments should also be considered.

The Township should also offer reasonable flexibility to convert existing older houses along the Lincoln Highway into business uses, but with incentives to merge together smaller lots to minimize the numbers of driveways.

The concept sketch to the right illustrates how apartments could be incorporated into a mixed light commercial-residential community if the current K-Mart site would ever become available for redevelopment. That site is within walking distance of the Thorndale SEPTA station, and could become the focus of a renewed village of Thorndale.



**Thorndale Redevelopment Concept Sketch**

Most newly-developed vehicle sales, gas stations and vehicle repair uses should be directed to locate in the Highway Commercial areas instead of the Thorndale Village area. However, existing auto-related commercial uses must be allowed to continue, and should be provided with flexibility for expansions and improvements.

Parking should be encouraged to be shared among different uses, which will reduce the total amount of parking that is needed. In particular, office and residential uses can usually share a portion of their parking, because they have different peak times of parking demand.

Ideally, new development would be designed to create more of a village-type of character. This should include street trees, sidewalks, buildings placed close to the street, parking located to the rear or side of buildings, use of rear access alleys for any new townhouses, and promotion of front porches.

Sidewalks need to be completed along the Lincoln Highway, and decorative streetscape features should be incorporated into new developments. Improved sidewalks and pathways are needed to connect Thorndale to adjacent neighborhoods.

The following photos illustrate the type of mixed commercial-residential building that might be encouraged as part of the potential redevelopment of the current K-Mart site. Those photos are of a successful development named Birkdale Village in Huntersville, North Carolina.



Many uses in Caln's current commercial zoning districts now need conditional and special exception use approvals under the zoning ordinance. A conditional use needs a special hearing and approval by the Board of Commissioners, while a special exception use needs the same type of approval from the Zoning Hearing Board.

Existing provisions should be continued that allow more permissive dimensional requirements on small existing lots in Highway Commercial and the Thorndale Village areas, particularly for lots that have limited depth south of the Lincoln Highway adjacent to the railroad.

Highway Commercial (relates to the current C-1 and C-2 districts)

This category mainly includes:

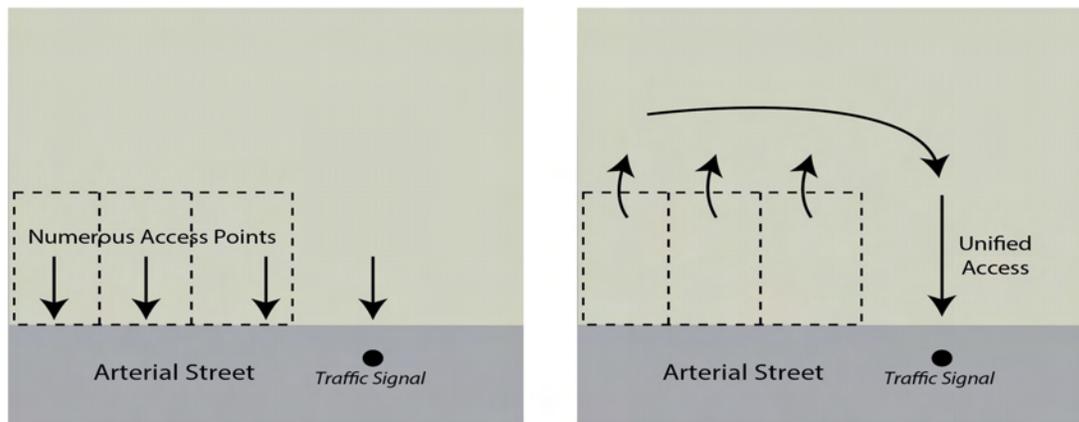
- a) commercial areas east and west of Caln Road and west of Barley Sheaf Road along the Lincoln Highway,
- b) some commercial lots immediately west of Downingtown along the Lincoln Highway,
- c) areas along the west side of Route 282/Wallace Avenue/Creek Road, north of Route 30,
- d) areas south of Edges Mill Road, north of Route 30,
- e) areas southeast of the Bondsville Road/Route 30 interchange, and
- f) land east of the Route 30/Reeceville Road interchange (which is proposed to be reduced in size from the current zoning).

This category is intended to allow for a wide range of commercial uses. Areas closer to Route 30 should also continue to provide for flex-space buildings that include a mix of service, sales and warehousing spaces. Because these areas are intended to provide for intensive business uses, new housing would not be appropriate. Instead, most new multi-family units as a part of mixed use developments should be directed to the Thorndale Village area.

The photo illustration on the following page shows how areas along the western portion of the Lincoln Highway could be improved with the addition of sidewalks and street trees, and by requiring new buildings to be placed relatively close to the road. Most parking should be placed to the rear or side of buildings. The presence of overhead utilities requires careful selection of the species of trees of trees that can be planted in some areas (particularly along the south side of the Lincoln Highway).

Ideally, adjacent commercial uses along a major road would be designed so that they have coordinated access (such as using a rear local street) so that all of the traffic can access a traffic signal for left-hand turns. Right-hand turns may still be appropriate from each lot.

Shared access in Commercial Areas



Adjacent commercial developments should allow shared access to a well-located traffic signal

# Western Lincoln Highway Streetscape Improvements



Before



After

New development along major roads should be coordinated to minimize the number of new driveways that directly enter onto the major road. Commercial developments should be designed so that a motorist can visit more than one adjacent business without having to re-enter and exit along a major road.

Access should be maximized to any traffic signals, or to a future location where a traffic signal would be desirable. New internal roads should be developed to minimize the number of driveways onto the major road.

#### Mixed Use - Business/Residential Options

The intent in this area south of Fisherville Road, east of Reeceville Road and north of Route 30 is to allow the private market to work to decide on the best mix of uses, while avoiding missed opportunities. The land should allow various land use options, such as one or more of the following options:

- Health care uses that build upon the proximity of the Brandywine Hospital, such as medical offices, a surgery center, medical testing facilities and skilled nursing homes.
- Senior housing facilities, which could serve persons with a range of needs, from independent living unit apartments to personal care or assisting living facilities to nursing facilities. For example, this site is approximately equal in size to the Freedom Village development.
- A business park, which could include a mix of offices, hotels, banks, exercise clubs and flex space buildings. However, these lands should not be allowed to include industrial uses or warehouse facilities that would generate substantial amounts of tractor-trailer traffic. While the present office market is not strong, this site could also potentially accommodate the headquarters or back office operations of a large company.
- Some retail development could be appropriate, provided it does not exceed a total of 25 percent of the tract, including parking.
- Housing at a “Medium Low Density” similar to residential developments to the east could be appropriate. The emphasis should be placed upon Open Space Development (as described above) that would allow homes to be clustered in locations that are setback from Route 30. A thick planted buffer (possibly including a landscaped earth berm) should be used to reduce noise conflicts from Route 30. To promote additional business development near the interchange, it may be logical to limit this type of residential development to a maximum of 50 percent of the entire tract.

This area could be addressed through a regular or an “overlay” zoning district. Zoning provisions should require that any proposed residential uses border existing residential uses to the east. An example of zoning requirements that might be established would involve: a) a maximum of 70% of the tract may be used for commercial, retail and service uses and b) a maximum of 70% of the tract may be used for a variety of types of residential uses.

An applicant should be required to show that any proposed mixtures of uses would be compatible within the tract and with adjacent uses. Proper buffers, setbacks, circulation designs, use controls and limits on late night hours of operation can be used as needed to provide compatibility. New residential uses or a wide thick landscaped buffer should be placed adjacent to pre-existing homes.

The Route 30 interchange at Fisherville Road is expected to be rebuilt. Once a preferred alignment is selected by PennDOT, land should be set aside to allow that improvement to be completed. The completion of that improvement could increase the value of the adjacent land and would improve access to the Hospital and the Schools. Funding for the interchange improvements is likely to receive a higher priority for State funding if one or more major employers would be attracted to the tract and/or if right-of-way for the ramp improvements would be donated to the State.

The adjacent tract that includes the Brandywine Hospital and medical offices should continue to allow for a wide range of health care uses, in addition to medical and business offices, as described under Institutional Uses below.

Light Industrial (relates to the current I-1 district)

This category includes: a) land along Wallace Avenue south of Route 30, b) land south of the Lincoln Highway west of Downingtown, c) land east of Bailey Road south of the Lincoln Highway and south of the railroad, and d) land on both sides of Caln Road around the PECO facility.

This category is intended to allow for most types of industrial uses, except the most intensive industrial uses that would only be allowed within the General Industrial areas. The Light Industrial areas should also provide for offices, banks, hotels and selected other types of commercial uses that are compatible with light industrial development. Routine types of business uses should no longer need conditional use or special exception approval.

General Industrial

Every municipality with open land is generally required under State law to provide at least one area where it is possible to develop intensive general industrial uses. It is suggested that a General Industrial area be designated at some location within the Township. One alternative is evaluating the Light Industrial land use to determine if a portion of this area could be designated as General Industrial. By allowing for the most intensive types of industrial uses at some location it may possible to not allow these intensive use in the entire designated industrial areas of the Township.

A substantial setback should be required around these industrial uses. To the maximum extent feasible, existing woods around the perimeter should be required to be maintained, and new trees planted as necessary to maintain a substantial buffer alongside roads and adjacent properties.

Major Community Facilities and Institutional Uses (relates to the current I district)

This category mainly includes the VA Medical Center, schools, the Township Buildings, and the Fire Company. The Township may want to consider that the existing public school properties and the Brandywine Hospital property might also be added to the Institutional zoning district.

This category is intended to mainly provide for educational, religious, governmental, office, and health care uses. Some limited commercial uses on the Brandywine Hospital land could also be appropriate to serve employees, patients and visitors.

Adjacent land that is south of Fisherville Road and north of Route 30 (which is currently controlled by the Brandywine Health Foundation) is described under the "Mixed Use - Business/Residential Options," on the previous page.

Floodplain Areas

As addressed further in the Natural Features Conservation Plan, the 100 year FEMA flood plain includes the area expected to be flooded during the worst storm in an average 100 year period or at a 1% per year potential frequency. The Township may continue to allow conditional approval of development within the 100 year flood plain area. These uses could include commercial related buildings that have their useable areas above the flood plain elevation. Parking areas may also be placed in areas that are subject to flooding.

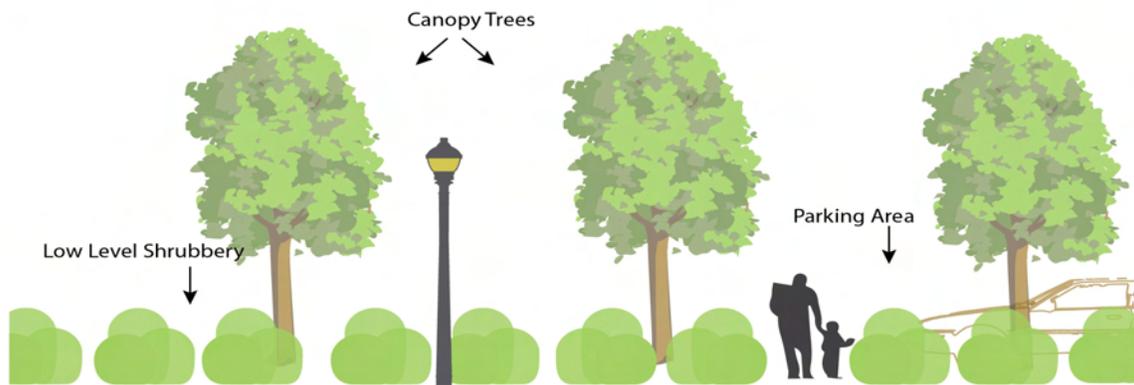
**Strategy L.3. - Along appropriate segments of the Lincoln Highway (Business Route 30), consider promoting more of a village character.**

The Lincoln Highway corridor should continue to be improved in appearance, pedestrian and transit accessibility, transit services and economic vitality. This includes establishing more of a “village” character, especially in the Thorndale area, as described above under the “Thorndale Village” land use category.

- There should be an orientation that encourages pedestrians, with an ability to walk or bicycle to stores, schools and parks. Sidewalks should be required along both sides of all streets as part of new construction. Overly wide intersections should be avoided to discourage speeding and to make it easier for pedestrians to cross the street.
- Street trees should be planted, with reasonable flexibility on their location. New street lights should be required to meet a design standard with a limited height that is similar to older styles of street lights.
- There should be better plant buffering or architectural walls to separate existing parking lots from the street. However, these buffers should be designed to still allow sight lines into parking areas from the street, for security purposes, as illustrated below.

**Strategy L.4. – Promote additional business investment, particularly in underused areas.**

Safety in Parking Areas



To allow visibility into parking areas and to avoid crime, use a mix of low level shrubs and canopy trees with the lowest branches removed. This allows clear views at eye level.

The Township currently offers real estate tax abatements within targeted geographic areas that began with LERTA in 2013. These tax abatements help reduce the costs of new business development. These abatements reduce the real estate taxes that would otherwise apply to new construction and improvements. The increases in real estate taxes are typically phased in over a ten year period. For example, in the first year, a property owner is often only required to pay 10 percent of the increase in real estate taxes that would result from the project. This percentage usually increases 10 percent per year, until the full real estate taxes must be paid after ten years.

A set of three state laws (which include “LERTA”) authorize these tax abatements for various types of development, such as new construction or improvements to existing buildings. These tax abatements are most effective when the School District and the County also agree to offer similar real estate tax benefits.

Tax increment financing (TIF) can also be used to provide financing for infrastructure to support new business development. Under TIF, new real estate tax revenues from a new development are allowed to be used to pay for street improvements, sidewalks, public recreation areas and public parking facilities that are needed to support a new development. Typically, a bond is issued to pay for those public improvements, and then the new real estate tax revenues are diverted to make the bond payments until the bond is paid off. After the bond is paid off, the new real estate taxes flow in a normal fashion to the jurisdictions.

**Strategy L.5. – Build upon the County’s Vista 2025 Economic Development Strategy.**

The Vista 2025 Plan provides guidance for the Chester County Economic Development Council (CCEDC) and other entities to strengthen and diversify the economy. Key recommendations for actions throughout the County include:

- Establish a coordinated countywide calendar of events that utilizes social media and a mobile app.
- Evaluate possible locations and a funding structure for an event venue for Chester County sufficient to handle major events (such as business conferences and technology events).
- Implement a “Main Street” program at the County level.
- Establish a joint private sector and educational institution task force to better align student preparation with industry requirements.
- Develop a joint marketing theme that highlights Chester County’s “quality of place” and distinguishes it as a prime location for employee and business location.
- Create additional apprenticeship and/or internship programs for young adults focused on advanced technology and middle-skill jobs.
- Prepare and administer an annual online “Take the Pulse” business survey as a means for keeping in touch with local businesses and documenting specific needs or expansion plans. Include questions on the survey for employers regarding their attitude toward the business climate, talent availability, and workforce quality in Chester County.
- Formalize CCEDC’s on-site employer visitation program to ensure consistency and build relationships with key employers. Develop a broader, more comprehensive “early warning” and “rapid response” strategy for identifying and responding to potential layoffs or plant closures. Identify “at-risk” companies early on, and develop an aggressive intervention strategy.
- Organize an annual familiarization tour for brokers, developers, and site selectors in the Philadelphia region to showcase prime sites and buildings and to educate them on the advantages of investing in Chester County.
- Actively recruit early stage companies involved in internet security and identity, as well as bioscience and health informatics.
- Build/expand formal economic cluster partnerships around targeted sectors: BioPharma/Life Sciences, Advanced Manufacturing (including Optics/Lasers), and IT/Information Systems (including Medical Information, Individual Data Record Management, Business Services, Software/Technology, Web Design, App Development, and Search Engine Development). Establish specific steps to augment/expand R&D capacity, especially in targeted industry cluster areas.

- Utilize state and federal assistance programs to support critical infrastructure needs in targeted growth corridors. This should include real estate tax abatements for improvements in distressed areas and Tax Increment Financing that commits new tax money from development to fund needed infrastructure.

Local entrepreneurs should be linked to advice that is available at Small Business Centers at the University of Pennsylvania and Temple University and the Chester and Delaware County SCORE Organization, which is based in West Chester.

**Strategy L.6. – Cooperate with other agencies to improve the condition of older housing and to increase home ownership rates.**

Additional outside funding should be sought for rehabilitation of housing units that are owned by persons of limited income, to improve the safety and quality of older housing.

The Housing Partnership of Chester County is the lead organization that provides counseling to prospective homebuyers and that provides assistance to moderate income households in paying for the initial closing costs of a home purchase. These programs should be publicized within the Township. Many households could afford the monthly costs of a mortgage, taxes and insurance if they bought a home, but they cannot save sufficient up-front dollars to pay real estate transfer taxes and other settlement costs.

The Township should also cooperate with local non-profits, such as Habitat for Humanity, so that they can help moderate income households purchase quality housing. Habitat for Humanity emphasizes the use of volunteer labor and requires prospective homebuyers to complete hundreds of hours of “sweat equity.” The Housing Partnership of Chester County also provides housing rehabilitation and weatherization services, particularly for homes owned by low-income senior citizens.

## NATURAL RESOURCES CONSERVATION PLAN

**GOAL N.1.** Protect important natural features, including creek valleys, wetlands, steeply sloped woodlands and groundwater and surface water supplies.



**Objective:** Improve the quality of storm water runoff by managing it at its source, allowing it to infiltrate into the ground (while using great care in areas of Carbonate Geology), and slowing it down.

**Objective:** Continue to use development regulations to conserve important natural features. Encourage cluster / open space development incentives to maintain sensitive natural areas in permanent open space.

**Objective:** Continue to update flood plain ordinance to ensure the implementation of adequate flood plain measures, while considering whether limited development under strict regulations should be allowed in the flood plain fringe.

This section is intended to promote the conservation of natural features. The maps of natural features are included in the Appendices. In addition to standard development regulations, natural features can also be protected through use of Open Space Development options, as described in the Land Use and Housing Plan.

This section also seeks to improve the quality of stormwater runoff by managing it as a resource. This involves allowing it to soak into the ground (while using great care in areas of Carbonate Geology), and slowing it down.

**Strategy N.1. – Carry out a full set of sustainability initiatives, in cooperation with area businesses and other entities.**

Sustainability needs to be promoted through many actions that will conserve energy, reduce air pollution and reduce the consumption of natural resources.

The use of more fuel-efficient or electric vehicles can have the greatest effect in reducing greenhouse gas emissions. Energy efficiency can also be accomplished through more efficient indoor and outdoor lighting (such as LED or solar-power lights), as well as increased insulation and more efficient HVAC systems. Residents and businesses should be encouraged to upgrade to more energy-efficient appliances, lighting, heating and air conditioning systems. Any available State or Federal funding assistance or incentives should be publicized. The Township has been completing a conversion of its outdoor lighting to LED fixtures.

Sustainability also needs to involve promotion of walking and bicycling and use of public transit as alternatives to many types of vehicle trips. Sustainability involves greater use of renewable energy (such as solar, wind and geothermal). It involves increased use of recycling and reducing the amount of waste that is generated, as well as promoting composting. Trees are critical to convert Carbon Dioxide into Oxygen.

These efforts should encourage use of more energy efficient lighting and appliances, promoting green practices in new development (which could include some zoning incentives), purchase by the Township of more fuel efficient vehicles, providing information to residents, businesses and non-profits, and holding energy conservation workshops.

There are several additional actions that could be undertaken at the local level to promote sustainability, including:

- Additional bicycle racks should be installed, which can also be required as part of larger new developments. Residential developments should also be encouraged to provide secure bicycle lockers.
- There should be efforts to promote a greater amount of composting by residents and businesses. This can involve selling composting barrels at wholesale prices, as well as providing educational information about the proper ways to compost in order to avoid odors and vectors. Restaurants should also participate in efforts to collect their food waste for composting or other purposes.
- Solar-powered outdoor lights can be valuable in parks, particularly if they avoid the need for expensive or unattractive electrical wiring.
- Solar canopies can also be encouraged to be placed over parking lots, which helps to keep vehicles cool on hot summer days. Buildings should also be encouraged to install light colored roofs, which in the aggregate can reduce the overall heat in the town on hot summer days.

An example of solar panels installed over a parking area.



- The Township should make sure that development regulations do not unnecessarily interfere with the installation of solar panels on roof tops and over parking. For example, solar panels could be allowed to extend five feet above the height limit on the top of existing flat-roofed buildings. That additional height is often needed to allow panels to be angled for maximum solar exposure. Solar canopies attached to buildings should be allowed to extend into building setbacks. Minimum setbacks should be relaxed as needed to allow solar canopies over parking areas.
- Carpooling is one of the most energy efficient methods of commuting. Carpool matching services of the Delaware Valley Regional Planning Commission should be promoted. If a person participates in that carpool or vanpool service, they may be eligible for an emergency ride home, if needed in the future. Employers could offer preferential or reduced price parking for carpoolers, or could subsidize vanpooling from a transit station. A carpool lot was recently built by PennDOT at the Route 322/30 interchange. Owners of shopping centers with excessive parking should be encouraged to allow use of part of their parking lots for carpooling and for park and ride services for bus riders. In many cases, those drivers will then patronize businesses in the shopping center before or after work, because it will be convenient.

- The Township should consider offering development regulation incentives for buildings that meet LEED certification or for the installation of green vegetated roofs. This type of incentive could include allowing an increased maximum building or impervious coverage if a green roof is installed. In general, a municipality in Pennsylvania cannot add additional requirements to the statewide Construction Codes, but can provide incentives.

**Strategy N.2. – Carefully manage stormwater and other water resources.**

Like many similar municipalities, Caln Township is experiencing substantial new requirements under the federal MS4 (Municipal Separate Storm Sewer System) program.

The following methods should be used to reduce stormwater runoff and improve the water quality of runoff:

- Infiltration of stormwater into the ground needs to be promoted, such as using porous pavement wherever practical. Porous pavement can involve types of asphalt, concrete or paving blocks. Where materials are regulated, the Township should consider establishing a set of specifications for pervious sidewalks and parking that can receive quick permits. However, care is needed to make sure that infiltration does not result in an increased risk of sinkholes.
- Methods using vegetation to absorb and slow runoff and filter out pollutants and sediment, such as rain gardens that are low-lying areas with plantings above a sand or gravel infiltration bed.
- Methods to capture and reuse runoff, particularly to water plants, such as by using cisterns or water barrels.
- Methods to reduce the amount of stormwater runoff that enters storm sewers, such as installing vegetated green roofs on top of buildings, and disconnecting downspouts from storm sewers and directing the water instead over vegetated areas.

Vegetated curb extensions can be installed where pavement width can be reduced along segments of a street. These curb extensions can be placed where no parking areas already exist, such as near intersections. They can be combined with bulb-out curbs to reduce the width of street that must be crossed by pedestrians.

Streetscape improvements should also be designed with stormwater management in mind. Porous brick pavers are now available. Also, brick pavers can be installed without the use of mortar, which reduces runoff and also allows easier removal and reinstallation when underground utilities need repair. Where the main pedestrian pathway is constructed of concrete, un-mortared pavers can be used between the main sidewalk and the curb.

**Strategy N.3. – Minimize the disturbance of steeply sloped lands.**

It is important to minimize alteration of steeply sloped lands in order to avoid steep driveways that are difficult to use in snow and ice, to avoid stormwater problems and to minimize soil erosion.

In areas with steep slopes, the Township's current zoning ordinance requires that the intensity of development and maximum impervious coverage must be reduced (i.e. steep slopes of 15% to 20%, and very steep slopes of 20% or greater). This relates to the percentage of a lot that can be covered by buildings and paving that does not allow most runoff to soak into the ground. There also are limits on road construction on steeply sloped areas. A larger lot size may also be required if a building is proposed on a steeply sloped area.

It is suggested that the wetland, hydric, steep slope and woodland provisions no longer be called overlay zoning districts, but instead simply be regulated based upon whether the features exist on each area of land.

**Strategy N.4. – Carefully manage flood-prone areas and preserve wetlands.**

The 100-Year Flood plain is the area expected to be flooded during the worst storm in a 100-year period. More recently, this has also been described as having a one percent chance of being flooded each year. However, throughout the region, the frequency and severity of severe storms have been increasing.

The Flood plain is comprised of the Floodway (which is the main flood channel) and the Flood plain-fringe (which typically has more shallow floodwaters).

Caln should consider requiring a higher freeboard for new buildings. This could mean that a new building must be built with its lowest enclosed floor at least 2 or 3 feet above the expected 100 year flood elevation. Caln currently requires a 1.5 feet freeboard. That type of higher freeboard could be used (along with other provisions) to gain a reduction in flood insurance premiums for all properties in the Township, through the Federal Community Rating System.

Hydric soils are indicators of possible wetlands, and help identify areas where a more detailed wetlands delineation is needed. Wetlands are required to be identified as part of development plans for individual sites. A minimum setback (such as 20 feet) should be considered between delineated wetlands and new buildings or parking areas.

**Strategy N.5. – Improve the creeks as scenic and possible recreational assets.**

It is essential to have trees and thick vegetation along the creeks to filter pollutants from runoff, minimize erosion, maintain habitats for aquatic life, and protect water quality. A minimum setback should be established from the top of the primary bank of a perennial creek for buildings, paving and outdoor business storage. If existing vegetation is removed from along a creek, it should be required to be replaced with new vegetation that serves the same or better ecological purpose. Also, if development occurs along a creek, the Township could require the planting of “stream trees” in the same way that street trees are required. Funds can be sought through the County Conservation District or the State TreeVitalize Program for additional plantings along the creek.

**Strategy N.6. – Promote tree plantings.**

Trees improve air quality, add natural beauty, reduce air conditioning costs, and increase property values. With proper selection of species and proper installation, conflicts between trees and sidewalks and utility lines can be avoided.

The more open area that is provided around tree trunks, the less chance there is that the tree roots will damage sidewalks. Un-mortared pervious pavers that resemble brick or tree grates should be used near street trees, where a hard surface is needed. These pavers allow more air and water to reach the tree roots, which reduces the likelihood that the tree roots grow in a manner that heaves the sidewalk. If a tree root heaves these pavers, the pavers can be easily removed, the root can be trimmed, and then the pavers can be laid back into place.

Where there is insufficient room for a street tree within the public right-of-way, street trees should be encouraged to be planted with the trunks immediately outside the right-of-way, where feasible.

**Strategy N.7. – Use great care in developing Carbonate Geology Areas.**

The are current development regulations that apply in areas where there is limestone-based or carbonate geology. These areas are prone to sinkholes, and may include caverns that can worsen groundwater pollution hazards.

The Township should continue to require a professional analysis of hazards on each site, except for an individual single family home. The intent is that stormwater facilities and buildings would be located in areas with lower risks of sinkholes or subsidence.

## HISTORIC PRESERVATION PLAN

**GOAL: Work to preserve important historic buildings and promote suitable adaptive reuses for these buildings.**

Historic preservation is valuable to preserve the attractiveness and character of Caln Township, and to provide links to the area's rich heritage.



**Strategy H.1. – Consider using the Zoning Ordinance to require pre-approval of a proposed demolition of an important historic building.**

There currently are no regulations to control the demolition of the historic buildings and blocks in Caln Township. Even if a building is individually listed on the National Register of Historic Places, it is not protected against demolition by a private property owner.

The Township has a Historic Overlay Zoning District that includes northern portions of the Township. However, those current provisions only require a 50 to 100 feet setback for a new building from a designated historic building, which actually could encourage demolition in order to avoid the setback requirement. The current provisions do include a few design standards.

Caln Township should consider establishing additional historic preservation provisions. Many municipalities in Chester County use a zoning process to require pre-approval of demolition of important historic buildings. The intent is not to stop all demolition of older buildings, but to have a public review and approval process to make sure that important buildings are not lost without careful consideration of alternatives. Proposed demolitions of important historic buildings could be required to be approved by either the Board of Commissioners or the Zoning Hearing Board.

Under State law, the Township officials are provided with reasonable discretion to decide which historic buildings are worthy of protection in a zoning ordinance. The Township may desire to require the pre-approval of demolition of an historic building. The Township may also provide zoning incentives for the rehabilitation and adaptive reuse of historic buildings.

This type of provision can also offer incentives for reuse of historic buildings, such as allowing certain uses that are not normally allowed in the district. For example, a historic house in a residential district could be allowed to be converted into an office or a bed and breakfast inn, even if the use was not allowed in that zoning district. Those conversions could require approval by the Zoning Hearing Board.

Some communities allow a preserved historic building to not count towards allowed density within a development, so that the developer has no incentive to demolish a historic house in order to build a larger and more profitable house.

**Strategy H.2. – Promote public interest and awareness in historic preservation.**

There should be an emphasis on public education to increase appreciation of Caln Township’s historic resources, and to provide information about proper rehabilitation methods.

The Caln Historical Society should take on the assigned role for developing a strategy of promoting public awareness and how the Township might assist in preserving Caln’s historical heritage, structures and properties.

The Township should continue to provide assistance to digitize historic documents and photos held by the Old Caln Historical Society.

Additional historic preservation information and links to informational resources should be added on the Township website. For example, links can be provided to the free online National Park Service preservation reports on various building features and issues. Workshops should also be offered to property owners about historic rehabilitation.

The availability of federal tax credits for historic rehabilitation should be publicized. However, the current federal tax credits are only available for investment properties, and not for owner-occupied homes.

See the Appendices for a detailed listing of historic properties in the Township.

## PARKS, RECREATION, COMMUNITY FACILITIES AND SERVICES PLAN



**GOAL:** Provide high quality community and municipal facilities and services in the most cost-efficient manner.

- Objective: Ensure that adequate public water supplies, sewage treatment allocations and transmission capacities continue to be available.
- Objective: Extend public water and sewage services to designated growth areas, and coordinate street, storm water and utility improvements throughout the Township where appropriate.
- Objective: Emphasize coordination of municipal and emergency services across municipal borders, and that the services be expanded consistent with the needs of the community.
- Objective: Consider updating the King's Highway Park master plan and implementing logical phases of construction, while making other park and recreation area improvements where appropriate and as funding allows.
- Objective: Consider undertaking a feasibility study of the entire municipal and maintenance facilities to determine how to either expand, upgrade and / or create a new complex that will adequately serve the Township needs.

The community facilities background information and a map of the locations of parks, community facilities and historic structures are provided in the Appendices.

**Strategy C.1. – Continue the excellent parks and recreation facilities. Seek funding to improve existing parks to meet a wide variety of recreational needs and to add selected parkland.**

The existing parks and their characteristics are also described in the Appendix of this Plan. Their locations are shown on the Recreation, Township Land and Homeowner Association Lands Map on a following page.

In summary, Caln Township owns five parks and a golf course:

- *Caln Municipal Park:* 20-acre park located off of Municipal Drive, which includes three lighted ball fields, two large pavilions and a small pavilion, restrooms and multiple play areas for small children, two tennis courts, two basketball courts, two volleyball courts, two pedestrian bridges, area for a soccer field, and a roller hockey rink. Behind the Caln Elementary School, there are additional ball fields and walking paths.



- *Lloyd Park*: 30-acre park located off of Lloyd Avenue at Mary Street, which contains a pavilion, restroom building, play equipment, two sand volleyball courts, walking trails, a gazebo structure, and a canine area. See following text for more description.



- *Caln Park West*: 20-acre park located on Route 340 near the VA Medical Center, which includes a stone parking area, and a combination of soccer/baseball fields.
- *Ruth Dawkins Park*: a small neighborhood park in the Brandywine Homes section of the Township, which includes play equipment, two picnic pavilions, and a basketball court.



*Caln Township Comprehensive Plan - 2017*

- *Kings Highway Open Space and Recreation Area*: an undeveloped 125 acres that was the former Griffith farm site that was acquired by the Township. A master site plan was completed in 2008. See following text for more description.
- *Ingleside Golf Club*: an 18 hole golf course and driving range consisting of approximately 117 acres that is open to the public and located at 104 Horseshoe Drive.



The Township strategy is to seek various funding sources to assist in completing these projects, including funding through the State Department of Conservation and Natural Resources, the County Municipal Parks and Open Space Program and the County Preservation Partnerships Program. In addition, the Township requires that new developments include recreation land or pay recreation fees, which are used to fund park improvements.

The Kings Highway Park Master Plan (2007) is a major design report for one of the township's greatest recreational assets: the 91-acre Griffith Farm tract along Kings Highway. The park site consists of three parcels:

- an 11-acre tract with a historical farmhouse, barn, and related structures surrounded by agricultural fields.
- two 40-acre parcels with open agricultural fields and woodlands.

The original planning process included interviews with key stakeholders, public meetings, two alternative conceptual designs, a final master plan, and cost estimates for developing the park. The master plan for the park includes:

- A destination playground.
- Picnic areas.
- A wedding garden.
- A 9-hole disc golf course.
- Informal open lawn areas.
- An amphitheater.
- Five pavilions of various sizes and uses.
- The barn.
- Wetlands boardwalks.
- Entrance/access areas and parking.
- A trail system.
- Natural areas, including woodlands, a riparian corridor.

- A grass/wildflower meadow.
- Site amenities, including landscaping, site furnishings, park architecture.

The plan also examined sustainability and green considerations for the park. The total estimated cost for the recommended park improvements was \$4.8 million. The document also included a phasing plan for construction of the proposed improvements.

Since the 2007 Kings Highway Park Master Plan is dated, it should be reviewed to ensure that the recommendations are current and/or should be modified and updated. The Township may also want to consider in this update and/or its Park and Recreation Plan if a Township Community/ Senior Center is desired in Kings Highway or at any other location in the Township.

The Subdivision and Land Development Ordinance requires that developers provide recreation land and/or fees in-lieu-of land for improvements of existing public parks. These in-lieu-of fees and/or land dedications by developments should also be reviewed and modified if appropriate. The Township should consider applying for State grants to fund any phase of construction that is proposed that could be matched with fees in-lieu-of land from developments.

Lloyd Park: Lloyd Park is 30 acres in size and is located off of Lloyd Avenue at Mary Street. The park is used primarily for passive recreation. The park currently includes lighted 70 space parking area, pavilion, a restroom building, gazebo, children's playground, dog park, volleyball courts, entrance sign, meadow and riparian buffer. The master plan, prepared in 2005, recommends the additional improvements:

- An information kiosk.
- Two horseshoe courts.
- A picnic/performance area.
- A dog beach along Beaver Creek, which runs through the entire length of the park.
- A fitness trail with rest stops.
- A pedestrian bridge over Beaver Creek.
- A stormwater demonstration area.
- Future connection to the Brandywine-Struble Regional Recreation Corridor.
- Link between pedestrian path and school yard.
- Trail link to existing parking and athletic fields.
- Trail link to existing sidewalk system.
- Environmental education area.

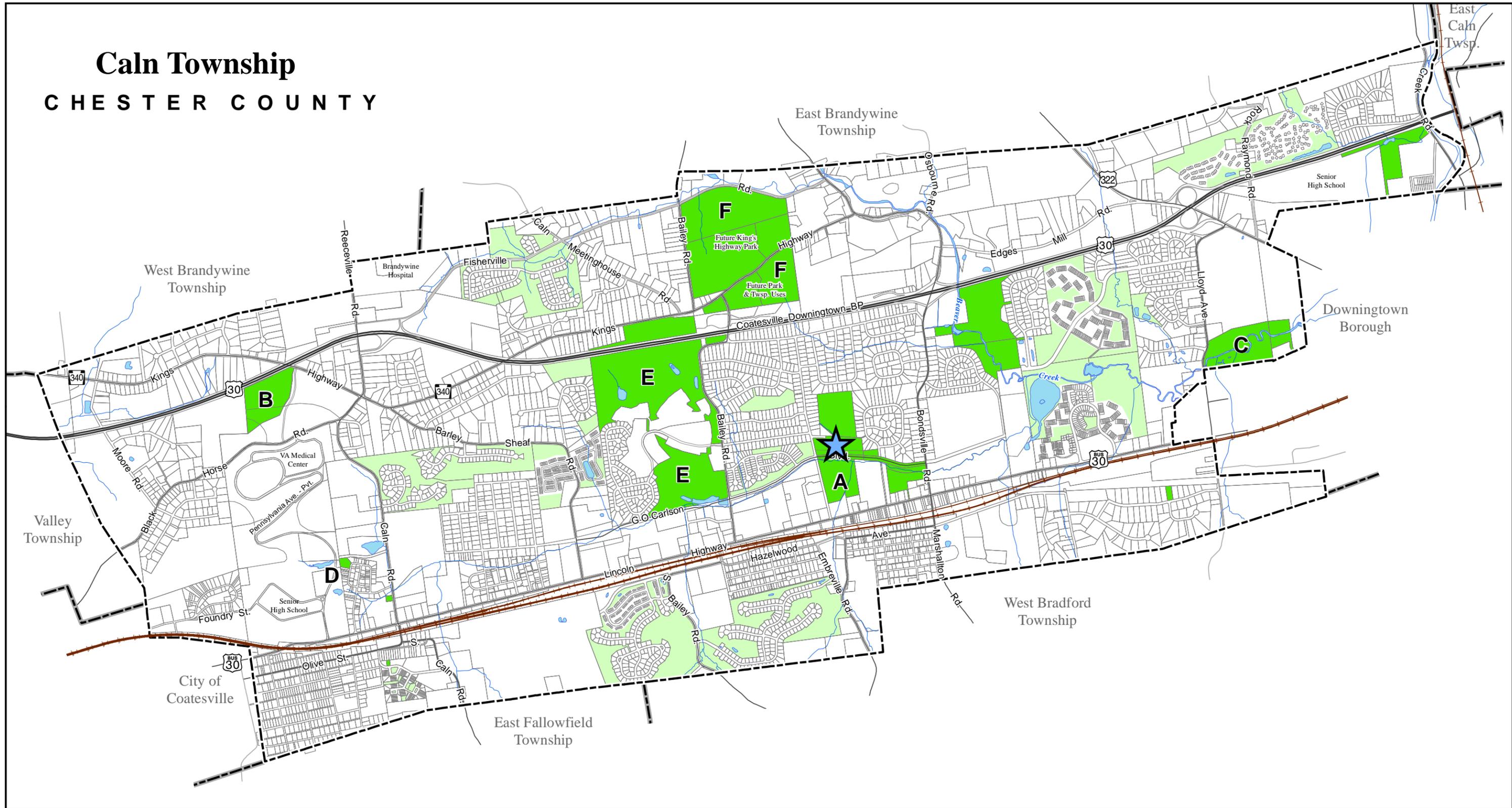
The map on the next page depicts the locations of the Caln Township parks, municipal lands (including the Municipal Complex) and homeowners association open spaces in residential developments.

**Strategy C.2. – Work with the School District to coordinate plans for growth and recreation.**

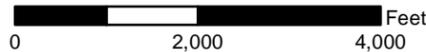
The Township should continue to encourage regular communication with the Coatesville Area School District to make them aware of development proposals that may affect student enrollments. Also, it is recommended that the Township and the School District should work cooperatively to find the most cost-effective ways of meeting the recreation needs of students and community members.

# Caln Township

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Township-Owned Land, Parks or Golf Course

- A - Caln Municipal Park
- B - Caln Park West
- C - Lloyd Park
- D - Dawkins Park
- E - Ingleside Golf Course
- F - Kings Park (future)
- ★ - Municipal Complex and Other Township Land

Homeowners Association Open Space

SOURCE OF BASE INFORMATION: Chester County GIS, 2015.

**RECREATION,  
 TOWNSHIP LAND, &  
 HOMEOWNERS  
 ASSOCIATION  
 OPEN SPACE**

**Strategy C.3. - Decide upon a long-term course of action for the location and design of the Municipal, Police and Public Works facilities.**

The existing facilities have a number of limitations, as described in the Background section of this Plan. Various plans have been considered over the years to expand or relocate the municipal facilities. As a part of this process, there is a need to work with an architect to complete an updated assessment and feasibility study of the Township's future needs and to consider the costs of various alternatives. This assessment should be done in conjunction with any financing determinations related to Strategy C.1, Kings Highway Park Master Plan.

One alternative would be to relocate some or all of the facilities. For example, if a new police station would be built on another site, it could free space for the municipal government, for the public works department and for parking during meetings. Another alternative would be continue to make piecemeal improvements to the existing buildings. The goal is to have a long-range plan that can be carried out in phases, while avoiding making improvements that may later be demolished.

**Strategy C.4. – Continue to provide high-quality police protection services.**

The Police Department as of 2016 included 20 sworn officers. The Township may consider expanding its police force in the future depending upon community needs related to growth, traffic and crime. The Township may want to consider evaluating other strategies for police protection, such as considering joint services and/or regionalization, in light of increasing financial and pension implications.

The Township should continuously evaluate the use of new technologies to expand the efficiency and effectiveness of its police force. One example would be to use electronic license plate readers in police vehicles, which can automatically identify unregistered or stolen vehicles.

**Strategy C.5. – Continue to provide high-quality Fire Protection and Emergency Medical services.**

Continued efforts are needed to attract sufficient numbers of trained volunteers. The loss of the volunteers for the Thorndale Volunteer Fire Station would cause a significant burden to the Township. Some municipalities provide incentives for their municipal workers and others to serve as volunteer firefighters, and provide flexibility for those workers to leave work as needed to respond to emergencies. The Township may also consider, with the School District, participating in an existing training program for high school students to become certified firefighters, utilizing the existing firefighter training center in Coatesville.

**Strategy C.6. – Plan for capital improvement needs.**

The Public Works Department maintains bridges, streets, parks, plows snow, and repairs storm sewers. The Township should prepare a comprehensive capital improvements and maintenance financial plan that will address these needs for the next 10 to 20 years, along with possible funding alternatives. This would serve as the basis for both a five year and an annual budget related to infrastructure improvements. A Capital Improvements Program is also described in the Action section of this Comprehensive Plan.

**Strategy C.7. – Continue to coordinate street, sidewalk and utility improvements.**

Ideally, major street, sidewalk and curbing reconstruction projects should be coordinated with any needed storm drainage, water line, sewage line or other utility projects along the same corridor. This advanced planning and coordination between the Township and utilities reduces the total costs of a project and allows the costs to be distributed among various entities. Also, it avoids the need to later cut into a newly paved street or a sidewalk that is in good condition. If a street or utility project is combined with street tree plantings, pedestrian and other streetscape improvements, it can provide additional benefits to the neighborhood.

**Strategy C.8. – Implement a Storm Water Management Plan.**

As part of the federal National Pollution Detection and Elimination System (NPDES) Phase II Program, the Township is required to put into effect pollution prevention measures. There are six Minimum Control Measures (MCMs) that make up this program: 1) Public Education and Outreach, 2) Public Involvement and Participation, 3) Illicit Discharge Detection and Elimination, 4) Construction Site Runoff Control, 5) Post-construction Stormwater Management in New Development and Redevelopment, and 6) Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance.

In an effort to assist with certain parts of this program, the Board of Commissioners has created a Stormwater Management Advisory Committee (SMAC). The initial emphasis is intended to be to put into place the first two MCMs. The SWAC will be involved with the implementation of MCM1 and MCM2. The SWAC will also provide recommendations to the Board of Commissioners and staff on stormwater management issues that have been raised by residents and/or property owners.

**Strategy C.9. – Evaluate Trash Removal and Recycling Program alternatives.**

The Township should evaluate a variety of policies to increase the rate of recycling to achieve a minimum of 35 percent recycling from the waste stream as a part of collections over the next five years. This is the recycling goal established by Chester County. As a part of these activities, the Township should consider beginning curbside collection by automated pickup for both trash and recycling containers. Consideration should be given to implementing the required enforcement practices and consider the possibility of a “pay as you throw” fee schedule that charges households based upon the amount of trash they generate.

**Strategy C.10. – Construct a new Wastewater Pumping Station.**

The Township Municipal Authority will need to obtain additional wastewater treatment capacity at DARA or transfer flow to PAWC by constructing a wastewater pump station to provide wastewater capacity for the anticipated future development in the Township.

**Strategy C.11. – Implement a Sanitary Sewer Infrastructure Maintenance Program.**

The Township, working, in concert with the Municipal Authority has developed a sanitary sewer long term maintenance plan. This plan also addresses acquiring the associated equipment that may be required.

## TRANSPORTATION PLAN

**GOAL T.1. Make well-targeted cost-effective improvements along congested road segments, while improving safety, in cooperation with PennDOT, adjacent landowners and developers.**

Short-term improvements (such as improving sight distances) should be accomplished while seeking funding to complete longer-range improvements. Where practical, the Township should consider retrofitting streets to incorporate "complete streets" principles that place a priority on pedestrian and bicycle travel, including traffic calming where appropriate, while encouraging safe traffic flow and the relationship to the allowed traffic speeds. Storm water should be carefully managed, while providing space for street lighting and street trees.



**GOAL T.2. Make Caln more bicycle and pedestrian-friendly, including offering safe connections between residential areas and stores, schools, mass transit stops, parks and trails within Caln and neighboring municipalities.**

Implement a program of sidewalk / pedestrian linkage program that systematically interconnects the existing walkway system. Consider expanding the east-west trail system between Coatesville and Downingtown to link into other regional trails. The system would tie into extensions of the G. O. Carlson Boulevard pathway and would consider, where appropriate, additional sidewalks along the Lincoln Highway and the intersecting streets.

**GOAL T.3. Promote expanded use, availability and frequency of service of public transit, while also promoting greater use of car-pooling.**

Work with PennDOT and other providers to increase public understanding of transit services and the park and ride lot on Route 322. Increased usage of the SEPTA rail and bus service to Thorndale should be strongly encouraged, and bus shelters should be added along Lincoln Highway where appropriate. In addition, encourage employers and residential developments to offer peak-hour shuttle services to the station. Transit-oriented mixed use development should be encouraged in proximity to the Thorndale station, while enhancing pedestrian circulation in the Thorndale corridor.

The Plan is intended to allow wider options in mobility by promoting bicycling, walking and public transit in order to make Caln Township more bicycle- and pedestrian-friendly. Improvements should allow safer connections to stores, schools, mass transit stops, parks and trails within Caln Township and neighboring municipalities. The use, availability and frequency of public transit service should be expanded while also promoting greater use of carpooling, in cooperation with regional organizations.

**Strategy T.1. – Manage streets according to their functional classifications.**

Street patterns and access from development should be planned according to the function each streets is intended to serve within the overall network. The Township Subdivision and Land Development Ordinance also includes different standards for different classifications of streets. Streets in Caln

Township are classified by the following major types, which are illustrated on the map on the following page:

Expressways – These highways only have access at interchanges. The Route 30 Bypass is the only expressway within Caln Township.

Major Arterial Streets – These roads provide access between major commercial developments and different towns. Arterials are designed for high volumes of traffic at moderate speeds. These include the Lincoln Highway (Business Rt. 30) and Route 322.

Minor Arterial Streets – These streets are similar to major arterials, except they carry somewhat lower volumes of traffic and are typically only two lanes in width (plus turn lanes). These include Kings Highway east of Reeceville Road and Bondsville Road.

Major Collector Streets – These streets mainly serve trips of moderate length, with speed limits of 35 to 55 mph. They are typically two lanes wide, and connect together various neighborhoods. Examples include G. O. Carlson Boulevard, Barley Sheaf Road, Black Horse Road, Lloyd Avenue, and Creek Road. The Township may consider reducing the speed limits to a range between 25 to 45 mph based on the results of the required PennDOT studies.

Minor Collector Streets – These streets are similar to major collectors, except they typically have lower traffic volumes and usually serve trips of shorter lengths. They connect together traffic from local streets. Examples include Municipal Drive and Humpton Road.

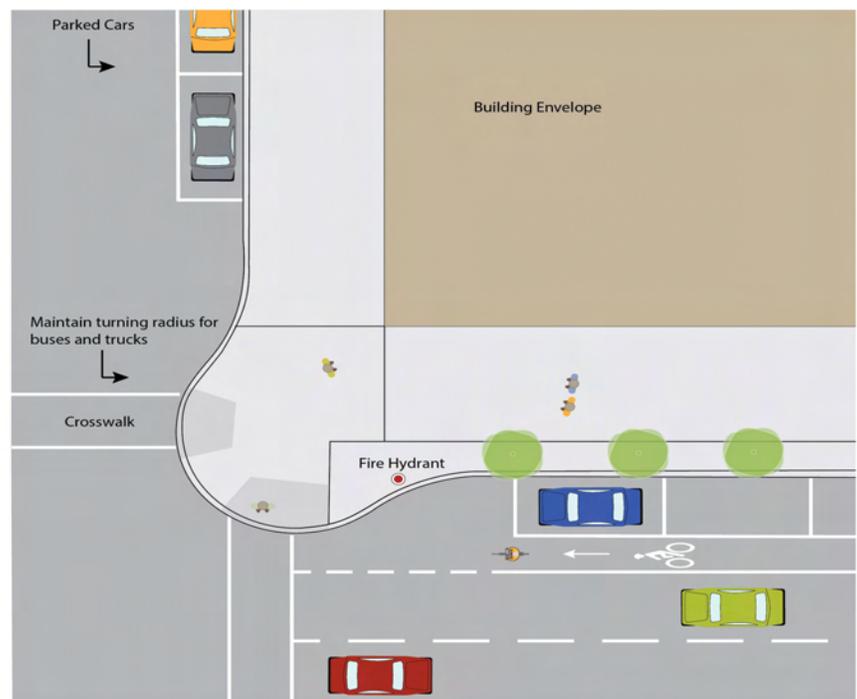
All other streets are local/minor streets, which are designed to connect individual houses to collector streets, and which typically have a speed limit of 35 mph or lower.

**Strategy T.2. – Carry out “Complete Streets” concepts when planning circulation improvements.**

Complete Streets concepts involve considering all of the different users of a public right-of-way, as opposed to placing the priority on motor vehicle movements and speeds. Complete Streets considers the needs of pedestrians, persons in wheelchairs, bicyclists and public transit users.

As seen on the graphic to the right, curb extensions can be used to

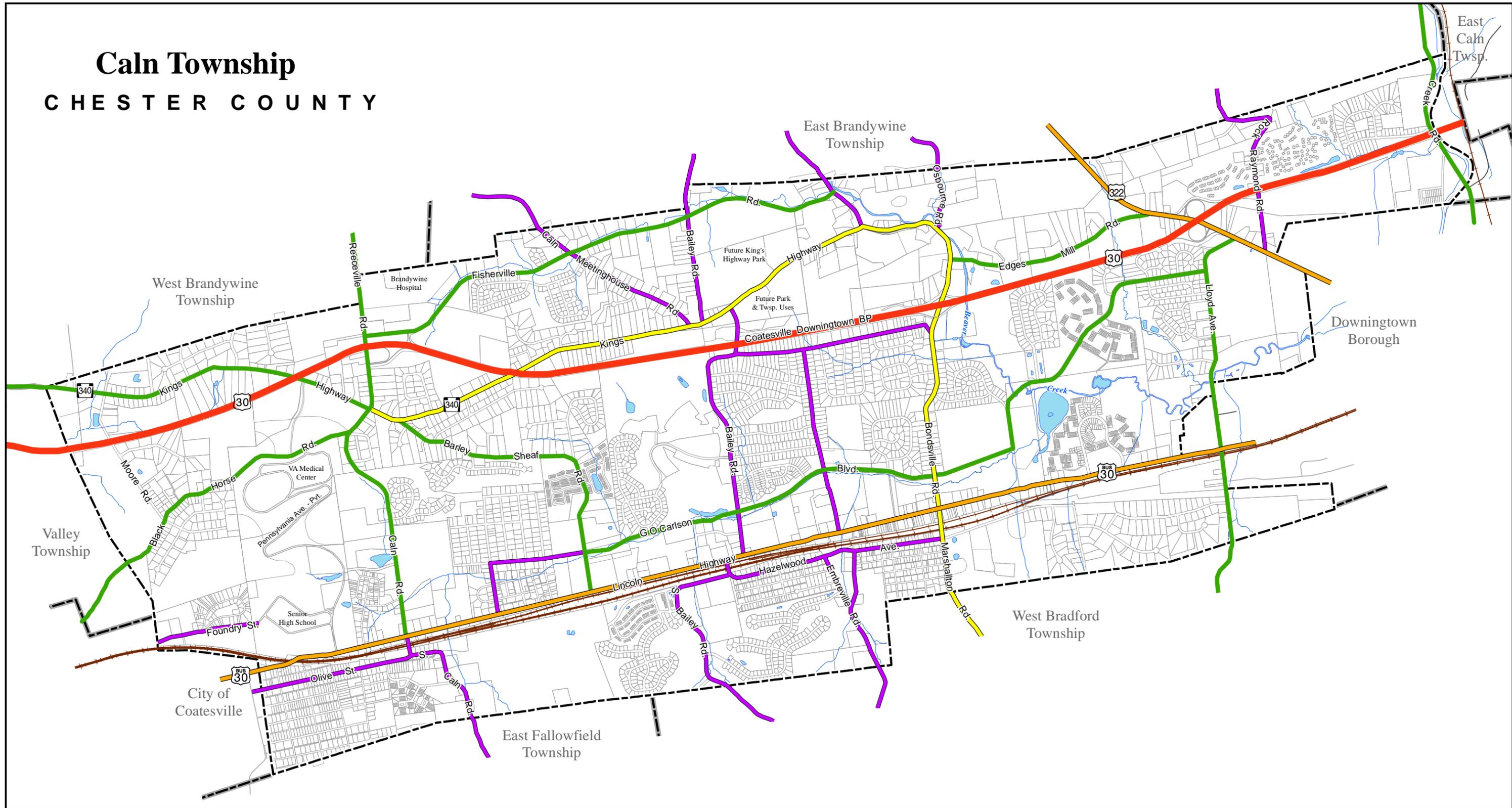
Curb Extensions



Curb extensions reduce the distance of a street that must be crossed by a pedestrian and prevents a right-turning driver from passing on the right along any bikepath. Curb extensions can be designed to avoid the loss of any on-street parking spaces, while also preventing illegal parking near corners and hydrants. Curb extensions also reduce the speeds of turning vehicles which helps avoid hazards to pedestrians.

# Caln Township

## CHESTER COUNTY



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- Expressway
- Major Arterial
- Minor Arterial
- Major Collector

— Minor Collector

All other existing roads are Local/"Minor" Streets/Roads



# STREET CLASSIFICATION

SOURCE OF BASE INFORMATION: Chester County GIS, 2015.

enhance pedestrian crossings at intersections and reduce the distance of street that pedestrians must cross at intersections. They can be used along both commercial and residential streets. This type of design also helps to reduce speeding by vehicles that are turning at intersections. These curb extensions can be designed to not interfere with buses and trucks. Except for Business Route 30, the Township may want to consider curb extensions, if appropriate, on G. O. Carlson Boulevard, Bondsville Road, Barley Sheaf Road, North Caln Road and Kirby extensions.

Highly visible pedestrian crosswalk materials should be used, and sufficient lighting should be provided near major crosswalks. The best locations for public transit stops need to be carefully considered, and shelters, benches and informational signs should be provided for riders.



To calm traffic, a municipality can also install well-marked speed tables on local residential streets where speeding occurs. These speed tables have elongated pavement markings leading up to the softer speed humps. The Township may also want to consider solar powered speed signs that indicate the speed of the motorist as well as “Thank You” and or “Slow Down” text based on the speed of the vehicle.

Many of the complete street concepts and ways to better serve pedestrians and bicyclists are described in the Chester County Planning Commission’s new “Multimodal Handbook.” For example, it addresses different ways of accommodating bicyclists, ways to improve access for persons with disabilities, recommendations for the design of bus shelters, and recommendations that can be incorporated into local development regulations. The Handbook also includes references to PennDOT standards on many matters. The Handbook is available for free on CCPC’s website.

**Strategy T.3. – Work with CCPC, DVRPC, PennDOT and adjacent property-owners to seek funding and rights-of-way to complete cost-effective road improvements.**

Most state and federal funding for major road improvements are allocated through the Transportation Improvement Program (TIP). The TIP is prepared by the Delaware Valley Regional Planning Commission (DVRPC) and PennDOT, with input from the Chester County Planning Commission (CCPC), municipalities and others. It allocates available federal and state transportation funding to various projects, based upon consideration of priorities. Currently, the following projects within Caln Township are proposed for funding in the TIP. The Township should periodically review the list and update this list when and where appropriate:

- Improvements to traffic signal electronics along the Reeceville Road and Route 322 corridors, and installation of new traffic signals at the westbound ramps of Route 322/Route 30 Bypass.
- Design of improvements to the Route 30 Bypass.
- Improvements to Route 30 Bypass from Reeceville Road west to Route 10 (such as reconstruction of bridges and ramps), which are scheduled to start in 2020, and which are estimated to cost \$225 million.
- Improvements to Route 30 Bypass east of Reeceville Road to the Exton Bypass, which are

scheduled to start in 2025, and are estimated to cost \$340 million.

- Replacement of the Osborne Road Bridge over Beaver Creek was completed in 2016.

In addition, a new Coatesville rail station is being built, with a new parking garage.

The many other planned road improvement projects in Caln are not currently programmed for federal or state funding. The Township can assist in seeking state and federal funding for projects by: 1) completing necessary engineering studies to refine a project and to develop an accurate cost estimate, 2) seeking funding contributions towards projects from nearby developers, which can be placed into escrow for future use, and 3) obtaining right-of-way for needed projects through cooperation with adjacent landowners or subdivision dedication requirements, which can greatly simplify the process.

The 2015 Chester County Planning Commission Transportation Improvement Inventory lists projects that have been proposed for federal or state funding, but which may or may not have been programmed for funding. The following, are projects on that list, beyond the projects listed above in the TIP include:

- Lloyd Avenue Bridge over the Beaver Run - rehab or replace.
- New G. O. Carlson Boulevard Bridge over Beaver Run, which is estimated to cost \$5.3 million.
- G. O. Carlson Boulevard Extension, which is estimated to cost \$3.8 million.
- Intersection improvements Business Rt. 30/Route 340 (Bondsville Rd.).
- Intersection improvements Reeceville Rd./Route 340 (Kings Highway).
- Intersection improvements Business Rt. 30/N. Caln Rd./Olive St., which could include a realignment and additional turn lanes.
- Fisherville Road Bridge over Beaver Run Tributary - rehab or replace.
- Extension of commuter rail service from Thorndale to Coatesville, Parkesburg and possibly Atglen.
- Relocated SEPTA station in Downingtown.
- Additional improvements to the train station in Coatesville to accommodate SEPTA service.

The Plan recommends that the Township continue to review and identify any appropriate items in the County's Transportation Improvements List for staged implementation.

A goal of the Township includes coordination and cooperating with PennDOT in PennDOT's Agility Program. The Agility Program authorizes PennDOT and municipalities to trade services or arrange to mutually beneficial agreements.

**Strategy T.4. – Review and carry out selected implementation of the recommendations, where appropriate, in the Caln Township Mobility and Connectivity Study and the Preliminary Assessment for Transportation Capital Improvements Projects.**

The Mobility and Connectivity Study was completed in 2010. It is recommended that the Township should review the plans and identify any appropriate recommendations that may be selected, then determine priority phasing and implementation that may be appropriate. The project was designed to:

- Link current and projected land use to transportation improvements;
- Identify and document the needs for specific transportation improvements; and
- Improve the overall mobility via walking, biking, transit, and vehicular modes.

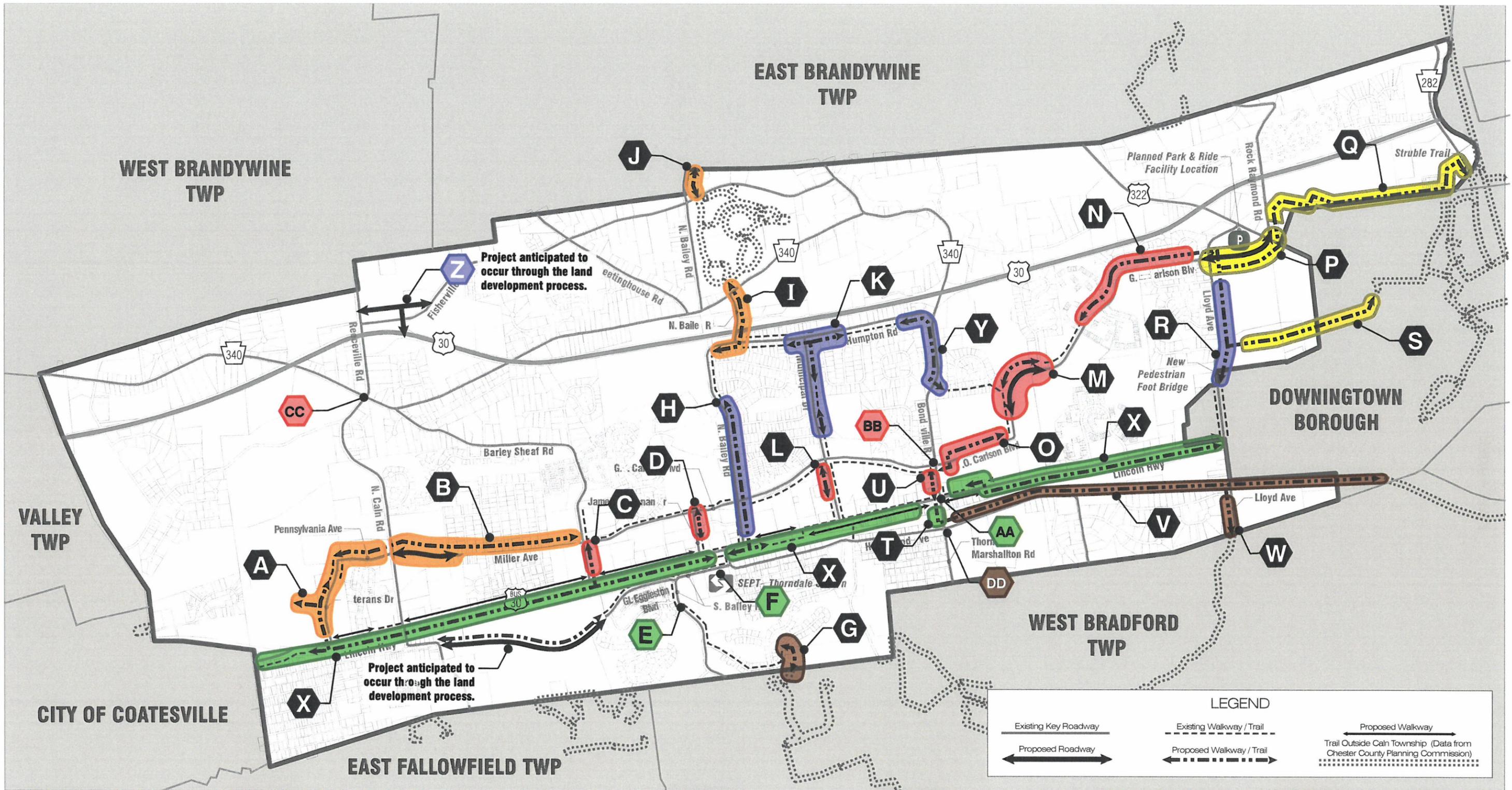
The Preliminary Assessment for Transportation Capital Improvements Projects (“CIP Study”) was completed in 2013 was a follow-up to the Mobility and Connectivity Study. That project emphasized the Lincoln Highway and a few nearby intersections.

The transportation and trail improvements proposed on the Mobility and Connectivity Study are highlighted on the following maps. The action plan is composed of 30 specific recommendations in six priority levels, as shown on the plan map.

The major recommendations of these two studies are summarized below, with additional detail provided in the reports:

- As an immediate step, adopt an “Official Map” showing proposed road connections and trail improvements, to seek to reserve land needed for future improvements. An Official Map can delay permits for certain improvements for up to a year. This time period is intended to allow time for a municipality to purchase land for an improvement, or to convince an applicant to incorporate a needed right-of-way into a development plan.
- Support and encourage PennDOT in the rebuilding of the ramps of Route 30 to improve safety and capacity. This is part of a major project that is proposed for funding in future years on the regional Transportation Improvements Program. The Township may be of assistance in requiring future development adjacent to the ramps with requirements that would prevent the future land needed for ramp improvements.
- Improve, where possible and feasible, Bondsville Road between Humpton Road and Route 30 Bypass. The Route 30 interchanges are proposed to eventually be reconfigured by PennDOT as part of the regional Route 30 improvement projects. The CIP Study said one alternative at Bondsville Road would be to widen the off-ramp to two left-turn lanes. However, that would require widening of southbound Bondsville Road, which is constrained by the width of the underpass under Route 30.
- As part of adjacent development, realign Fisherville Road to intersect with Reeceville Road at a point further north. This has been considered in the past and the right-of-way has already been deeded and placed in escrow.
- Add a southbound left-turn lane from Bondsville Road onto G. O. Carlson Boulevard as a high priority, and also consider adding a southbound right-turn lane.
- Consider extending G. O. Carlson Boulevard west to Caln Road, but because this will involve using Miller Avenue, a residential street, and it would require traffic calming measures to reduce speeds.
- Increase capacity at the intersection of Reeceville Road/Caln Road/Kings Highway. This may include turn lanes, and/or a possible roundabout.
- Improve sight distance at the intersection of Marshallton-Thorndale Road and Hazelwood Avenue. If sight distance cannot be improved, determine if PennDOT will approve the concept of either a four-way stop. As development occurs and traffic increases, a traffic signal may be warranted.

- Consider the need for an investigation and determination regarding the desirability of a raised pedestrian walkway through the underpass on the Marshallton-Thorndale Road similar to that on South Bailey at the train station underpass.
- Install a more prominent crosswalk between the parking lots and the Thorndale station.
- Consider a three-way stop at the intersection of S. Bailey Road and Hazelwood Avenue, east of the Thorndale station. The CIP Study recommended that this intersection for a high priority for additional study. This intersection warrants further evaluation and study to determine possible alternatives to improve traffic flow.
- The completion of the segment of G. O. Carlson Boulevard from east of Bondsville Road to Hidden Creek Drive should remain a priority and the Township should continue to investigate funding sources to achieve it. This will require a bridge over Beaver Creek that was estimated to cost approximately \$6 million.
- The Township should continue to coordinate with PennDOT and nearby business, residential and/or mixed used developments and the Route 30 Multi Modal Study Plan to develop optimum improvements to the Route 30 Bypass exit ramps with Manor Avenue and the Lloyd Avenue traffic flows.
- Realign the intersections along Lincoln Highway of Bondsville Road and Marshallton Road. The CIP Study noted that this project would need additional right-of-way and easements. The most likely scenario was projected to involve shifting the Bondsville Road intersection to the east, which may allow adding a southbound right-turn lane. This realignment would allow more efficient traffic signal timing. The proposed Wawa at the southwest corner includes plans for such a realignment.
- Realign the intersections along the Lincoln Highway of North Caln Road and Olive Street. Preliminarily, the CIP study concluded this would most likely involve shifting North Caln Road to the east. A southbound left-turn lane could then be added on North Caln Road. The CIP study suggested an alternative to these intersection improvements would be to improve Miller Avenue west of G. O. Carlson Boulevard. That improvement would reduce turning movements at Lincoln Highway and North Caln Road, but could have negative impacts along the homes along Miller Avenue.



- |  |   |  |   |   |  |
|--|---|--|---|---|--|
| <p><b>Priority 1 Projects</b></p> <ul style="list-style-type: none"> <li>E South Bailey Rd. / Shelburne Rd. Crosswalk</li> <li>F Thorndale Station Area Improvements</li> <li>T Thorndale - Marshallton Road Pedestrian Underpass</li> <li>X Lincoln Highway Trail</li> <li>AA Intersection: Lincoln Highway &amp; Bondsville Rd.</li> </ul> | <p><b>Priority 2 Projects</b></p> <ul style="list-style-type: none"> <li>C Barley Sheaf Road Walkway</li> <li>D James Buchanan Drive Walkway</li> <li>L Municipal Drive / G.O. Carlson Walkway</li> <li>M G.O. Carlson Blvd - Central Extension</li> <li>N G.O. Carlson Blvd Walkway - Devon Ct. to Lloyd Ave.</li> </ul> | <p><b>Priority 3 Projects</b></p> <ul style="list-style-type: none"> <li>O G.O. Carlson Blvd Walkway - Bondsville Rd. to Park Dr.</li> <li>U Bondsville Rd. Walkway - Lincoln Hwy. to G.O. Carlson Blvd.</li> <li>BB Intersection: Bondsville Rd. &amp; G.O. Carlson Blvd.</li> <li>CC Intersection: PA 340 &amp; Reeceville Road</li> </ul> | <p><b>Priority 4 Projects</b></p> <ul style="list-style-type: none"> <li>H N. Bailey Rd. Walkway - Lincoln Highway to Raye Rd.</li> <li>K Municipal Drive / Humpton Road Walkway</li> <li>R Lloyd Avenue Walkway &amp; Footbridge</li> <li>Y Bondsville Rd. Walkway - Humpton Rd. to Meadow Dr.</li> <li>Z Fishersville Road Realignment</li> </ul> | <p><b>Priority 5 Projects</b></p> <ul style="list-style-type: none"> <li>G Sycamore Trail Connection</li> <li>V Hazelwood Trail - Bondsville Rd. to Downingtown Boro.</li> <li>W Lloyd Avenue Walkway to Hazelwood Trail</li> <li>DD Intersection: Thorndale-Marshallton Rd &amp; Hazelwood Ave.</li> </ul> | <p><b>Priority 6 Projects</b></p> <ul style="list-style-type: none"> <li>P G.O. Carlson Blvd - Eastern Extension</li> <li>Q Walkway from Route 322 to Struble Trail</li> <li>S Walkway from Lloyd Park to Route 322</li> <li>A Veterans Drive / Pennsylvania Avenue Walkway</li> <li>B G.O. Carlson Blvd - Western Extension &amp; Streetscape</li> <li>I N. Bailey Rd. Walkway - Humpton Rd. to Kings Hwy. O.S.</li> <li>J N. Bailey Rd. Walkway - Kings Hwy. O.S. to E. Brandywine Twp.</li> </ul> |
|--|---|--|---|---|--|

# Action Plan

## Caln Township Mobility & Connectivity Study



- The CIP study recommended preparing more detailed plans along the Lincoln Highway to manage traffic access along the road to improve pedestrian access. In particular, there is uncontrolled access onto the western part of the Lincoln Highway from some businesses. The Township does not feel it should encourage bicycling along Lincoln Highway, but should encourage improved pedestrian safety at crossings.
- Upgrade the traffic signal system along the Lincoln Highway and nearby major intersections to an adaptive system. That type of system uses video cameras to automatically adjust traffic signal timing in response to traffic patterns during various times of the day.
- The intersections of Lincoln Highway with North Bailey Road and South Bailey Road were addressed in the CIP Study. North Bailey Road intersects the Lincoln Highway 380 feet from South Bailey Road. The railroad underpass limits the ability to widen South Bailey Road, which becomes congested. The study recommended increasing the curb radii to facilitate turning movements.

Previous studies and plans recommended extending G. O. Carlson Boulevard east of Lloyd Avenue to the intersection of Route 322 with Rock Raymond Road. That option might allow an existing portion of Lloyd Avenue south of Route 322 to be closed to through-traffic. However, that option could limit development options on the undeveloped land east of Lloyd Avenue. The pros and cons of the various options should continue to be seriously examined as the adjacent land is proposed for development. An alternative may be to emphasize the improvement of the Route 322 intersection with Lloyd Avenue, and not extend G. O. Carlson Boulevard further east.

The CIP Study provided rough cost estimates for many of these improvements. The most expensive location for improvements was estimated to be at Lincoln Highway and Bondsville Road, with \$2.24 million of costs. The second most expensive location was estimated to be G. O. Carlson Blvd. and Bondsville Road, at \$1.46 million. The third most expensive location was estimated to be a demand-responsive traffic signal system along the Lincoln Highway and adjacent intersections, with an estimated cost of \$0.85 million. The CIP Study did not provide a cost estimate for completing G. O. Carlson Boulevard, which would need a bridge with an estimated cost of at least \$6.0 million over Beaver Creek.

Transportation goals for the Township should include the implementation of the 2015 study completed by Tavani and Associates of 21 intersections in Caln Township, where feasible. This study emphasized a number of intersections that had not been recently studied. The emphasis was upon relatively low-cost solutions that could be implemented to improve traffic safety. The vast majority of the recommended improvements involved ways to improve sight distances of on-coming traffic at specific locations, such as through cutting back vegetation or regrading, restricting on-street or off-street parking near intersections, or adjusting pavement markings. Substantial realignments were recommended at two intersections: a) at Kings Highway and Barley Sheaf Road, to make the northbound lane of Barley Sheaf more perpendicular, and b) N. Caln Road and Black Horse Road, which is an extremely awkward alignment near a hill, and where a left-turn northbound lane may be appropriate. The Township should consider implementing those recommendations that it finds feasible and appropriate and encourage PennDOT implementation where appropriate.

**Strategy T.5. – Improve pedestrian and bicycle access.**

The Township has been working on a series of sidewalk and other pedestrian improvements in the Thorndale area, including considering pedestrian improvements to the rail underpasses. A pedestrian and bicycle bridge is being proposed over Valley Run along Bondsville Road, south of G. O. Carlson Boulevard.

At a minimum, any new development within the Thorndale area or near parks, schools and commercial areas should be required to include sidewalks or bituminous pathways. If wide enough, bituminous pathways can be designed to serve both pedestrians and bicyclists. Where sidewalks or pathways cannot be justified, then an area along each road within the right-of-way should be graded and maintained in grass that is suitable for walking, unless it is physically infeasible. The Township should develop a program to identify and prioritize those streets without sidewalks and pathway connections and develop a plan of staged construction/ implementation for 10 year time periods. The Township will work with Chester County, developers and local businesses to assist in the implementation of trail extension that would pass through Caln Township. The Township will seek funding for trail alignment and connection feasibility studies.

The Mobility and Connectivity Study recommended considering the installation of bicycle lanes along the shoulders of the Lincoln Highway. The Township is not in favor of installing bicycle lanes along Lincoln Highway. Even if formal bicycle lanes are not installed with signs, there still can be improvements to make the shoulders smooth enough for bicyclists, but bicyclists are not encouraged along Lincoln Highway. Also, there should be regular street sweeping of shoulders intended for bicycle use, particularly after cinders and other materials accumulate during the winter. Street sweeping is also valuable to help meet requirements of the Federal MS4 stormwater regulations, by removing oils and other potential pollutants to creeks. If bicyclists are ever encouraged to use Lincoln Highway, well-marked white lines along shoulders of roads are valuable to separate vehicle traffic from bicyclists, where room allows for it.

The pathway along G. O. Carlson Boulevard is heavily used. However, there are two points where the pathway becomes narrow because of adjacent waterways and guide-rails. As funds allow, these choke points should be widened for multiple use and to accommodate wheelchairs.

A set of major trail projects were proposed in the Connectivity and Mobility Study. A more recent study has examined alternatives for trails in the eastern part of the Township along the Beaver Run corridor. These trail projects should include:

- Provide a pathway along the proposed extension of G. O. Carlson Boulevard. If G. O. Carlson Boulevard is not able to be extended in the near-term, then the Beaver Run Trail study proposes an alternative alignment, if permission can be obtained from the various homeowner associations who control the routes through open spaces.
- From Route 322 at Rock Raymond Road, provide an east-west pathway to connect with the Struble Trail, passing through the Downingtown Area School District campus.

*Caln Township Comprehensive Plan - 2017*

- Construct a pedestrian bridge across the Beaver Creek at Lloyd Avenue, because the existing historic bridge is too narrow for pedestrians.
- Construct an east-west pathway along the south side of the Beaver Creek from Lloyd Avenue into Downingtown.
- Investigate whether a sidewalk is feasible along Thorndale-Marshallton Road within the underpass of the railroad.
- Consider improving the abandoned east-west railroad right-of-way that exists east of Thorndale-Marshallton Road (south of the main line railroad) into the Hazelwood Trail. This right-of-way connects to the south border of Downingtown, and could potentially connect to the Chester Valley Trail.
- Complete walkways along several existing roads, as shown on the Connectivity and Mobility Study Map, such as North Bailey Road and Miller Avenue, as may be feasible or appropriate and based on available funding.

The Central Chester County Bicycle and Pedestrian Circulation Plan does not directly include Caln Township, but includes many useful overall recommendations for ways to promote safe bicycle and pedestrian travel. That Plan includes Downingtown. When trails are to be built within or next to a new housing development, that Plan recommends that the trail be built before the homes are occupied. The Township should continue to determine the feasibility and funding for selected segments that are appropriate.

The Chester Valley Trail is being completed from King of Prussia to Exton. It is designed to be extended west to Downingtown, and east to Norristown. The most likely scenario is to complete trails from the north side of Downingtown, along the G. O. Carlson Boulevard (including widening the few segments that are narrow for wheelchairs) and completing trails along the Boulevard when the missing road link is completed. A trail link would also connect from Downingtown to Lloyd Park to Thorndale. Towards the west end of G. O. Carlson Boulevard, the trail would likely connect to sidewalk improvements along the north side of the Lincoln Highway and then connect to the bike lanes and sidewalks in Coatesville.

There is also an abandoned railroad right-of-way with bridges that runs parallel to the SEPTA rail line in the southeast part of Caln. If ownership could be obtained, it is possible that could be part of another trail link around the south side of Downingtown. However, that link is not part of the present plans.

The Struble Trail exists north of Downingtown, parallel to Route 282, immediately east of the Caln border, and connects to trails to the north and northeast. The East Branch Brandywine Trail exists south of Downingtown. The trails are intended to eventually connect within Downingtown.



# Road Network / Connectivity Plan

## Caln Township Mobility & Connectivity Study

**LEGEND**

Existing Key Roadway	Existing Walkway / Trail	Proposed Walkway	School
Proposed Roadway	Proposed Walkway / Trail	Trail Outside Caln Township (Data from Chester County Planning Commission)	Park



**Strategy T.6. – Provide additional locations for bicycle parking.**

The Township should encourage major new developments to provide bike racks or other suitable facilities for the parking and locking of bicycles. In addition, enclosed bike lockers are desirable for persons with expensive bicycles. If there is sufficient demand, these lockers can be made available for rent.

**Strategy T.7. – Improve sidewalks, particularly along the Lincoln Highway and around Thorndale.**

The Township may require the installation of sidewalks along certain existing properties where feasible and appropriate, or determine that an existing sidewalk needs to be replaced. After bids, many municipalities enter into a master contract with one contractor that agrees to be available as needed to install sidewalks. If a property-owner is ordered to install or replace their sidewalk, that property-owner could be given the option of paying that contractor to do the work at a set rate, or hiring their own contractor. The costs are typically lower if the property-owner chooses to hire the contractor with the master contract.

A high priority under the law must be placed upon curb ramps with limited slopes that are well-designed for wheelchairs, and for warning strips for persons with limited eyesight.

In Thorndale Village, it would be desirable to encourage new sidewalks to include concrete along the main pedestrian walkway, and then pervious brick or grass between the curb and the main walkway. Concrete walkways are easiest for snow shoveling and safer for wheelchairs and persons wearing high heels. Using un-mortared pervious pavers or grass along the curb would also allow easier access to any underground utilities, because the pavers can be set back in place after the work is done. Also, these pavers allow water and air to reach the roots of street trees, and reduce problems from tree roots damaging sidewalks.

**Strategy T.8. – Assist in carrying out the Chester County Public Transportation Plan.**

This 2014 Plan is available on the Chester County Planning Commission website. The Plan analyzes the existing routes and frequencies of transit service throughout the County. The Township supports efforts, as may be appropriate, by Chester County to implement the recommendations of the Public Transportation Plan.

The Plan includes maps of existing service. Some of the bus routes are operated by private companies under contract. The Coatesville Link bus route serves the YMCA, the VA Medical Center, Brandywine Hospital, Coatesville and Parkesburg. Kraft Route A serves Coatesville, Thorndale, Downingtown and Exton Square Mall, traveling along the Lincoln Highway. From Exton Square Mall, a rider can transfer to SEPTA bus routes that serve the West Chester area, the Great Valley Corporate Center/Malvern area or the Eagleview area. Flexible para-transit services are also provided for persons who have disabilities that make it difficult for them to use the bus system. Over the long-run, the Plan recommends adding a new bus route along the Route 322 corridor from Honey Brook to Downingtown to West Chester.

The Plan also envisions establishing some express bus service, with faster service between major destinations and with fewer stops. This may include updated traffic signals that give preference to oncoming buses (and emergency vehicles when needed).

The Thorndale station is one of the newest stations in the SEPTA system, and includes the second highest number of parking spaces (447) of any of the train stations in Chester County. As of 2014, an average of 72 percent of the Thorndale parking spaces were used. The station also includes bicycle parking.

SEPTA's passenger rail service currently ends at Thorndale. The goal is to extend commuter rail service to Coatesville, and eventually to Parkesburg and possibly Atglen. The station in Downingtown may also be relocated to a location closer to the Downtown.

There also have been plans over the long-run to possibly connect the Thorndale and Exton SEPTA stations to a new west-east passenger rail service that would connect to King of Prussia and Trenton. This was known as the Cross-County Metro. However, no funding is available for that service, and it may have conflicts with freight rail service.

Once switching improvements are made, it will be easier to increase the frequency of passenger rail service on the western part of the SEPTA rail line. The intent is to improve service so that trains serve the Thorndale station an average of once every 30 minutes. Currently, the Malvern station has twice as many trains as the Exton station. The Exton station is also planned for tens of millions of dollars of improvements, including an eventual parking garage.

There is also Amtrak service between 30<sup>th</sup> Street Station and Harrisburg along the Main Line, with stops in Coatesville and Downingtown.

The Plan notes that in Chester County, there are often difficulties in addressing "the first mile" and "the last mile" of travel. This is because many persons need to walk or bicycle at least a mile from their home to a transit stop, and from their transit stop to their job or other destination. These distances can be particularly burdensome in bad or cold weather, or for people with limited mobility. The time to walk to and from a station can also discourage use of public transit, particularly early in the morning. Some Transportation Management Associations help address this issue by providing shuttle-van services from train stations to nearby employers.

The Plan emphasizes providing better, safer and more direct pedestrian connections to reach transit stops, as well as improved bicycle parking. The Plan also seeks to have better coordination between bus and rail services.

As employment and housing increase in the area, it would be desirable to have a peak hour shuttle running between various parts of the Lincoln Highway corridor and the Thorndale Train Station.

**Strategy T.9. – Seek additional bus passenger shelters.**

Additional bus shelters are needed, with benches, security lighting, informational signs and trash receptacles. If the Township allows an off-premises advertising sign on a shelter, a private company is typically willing to pay to install and maintain it. The intensity of lighting of any sign should be carefully controlled, and electronically changing advertising signs should not be allowed. However, in other locations that are more residential in nature, an off-premises sign may not be appropriate, which would require another source of funding. In some cases, an adjacent building owner may be willing to install and maintain an attractive bus shelter if it helps to serve their customers. Better sidewalk connections are needed to reach transit stops, and a hard ADA-accessible surface is needed between the shelter and the bus stop.

SEPTA has prepared Bus Stop Design Guidelines which are available online and which should be considered. When a major new development is proposed along a bus route, SEPTA should be given an opportunity to comment on the design as it affects a bus stop and pedestrian access to the bus stop.

**Strategy T.10. – Seek additional park and ride parking areas, preferably in locations served by buses.**

The provision of park and ride lots can reduce traffic, travel expenses and air pollution by encouraging persons to share rides, and/or to use public transit. A park and ride lot was recently opened near the Routes 30/322 interchange off of Lloyd Avenue. However, it only includes 32 spaces. As demand for the spaces increases, opportunities should be sought to increase its size. It may be possible to work out agreements to use less used portions of parking lots of large commercial centers for park and ride parking. The Township will cooperate with public transit and PennDOT where appropriate to expand the park and ride facilities that may be expanded and/or needed.

**Strategy T.11. – Assist in Implementing the Route 30 Multi-modal Transportation Study**

Caln Township recognizes the Route 30 Multi-modal Transportation Study prepared under the guidance of the Chester County Planning Commission and the other five participating municipalities that included the Townships of Sadsbury, Valley, West Caln, West Sadsbury and the City of Coatesville.

Caln Township may use this document as guidance in the implementation of the Township related recommendations that are outlined. Caln Township intends to assist in carrying out the policies of the study as it may be appropriate and as funding becomes available, within the Township. The Township will also coordinate any implementation activities with the adjacent municipalities. Caln Township will also cooperate with PennDOT in the implementation of PennDOT improvements to the Route 30 Bypass, Business Route 30 (Lincoln Highway) and any related PennDOT roadways.

## ENERGY CONSERVATION PLAN



This Energy Conservation chapter offers ideas about how the Township can encourage conservation of various forms of energy. Additional energy conservation recommendations are also presented in the Natural Resources Conservation Plan, including ways to promote use of renewable energy.

### **GOAL E.1: Encourage modes of transportation, patterns of land uses and designs of sites and other actions that conserve energy.**

Objective: Increase public awareness of energy conservation methods.

Objective: Promote building orientations and designs and landscaping that maximizes access to solar heating in the winter and provides shading in the summer.

The increasing costs of energy, concerns about air pollution and the desire to reduce American dependence on foreign fuel sources generates the need for energy conservation. Energy costs are also a major part of the Township's annual expenses, including to heat buildings, light streets and operate vehicles.

Opportunities should continue to be considered to reduce energy consumption in each Township-owned building. Improvements should be carried out that are shown to be cost-effective over the long run. Any new building should be designed to minimize its energy consumption, including making use of passive solar technology and making maximum use of natural light.

The Township should also evaluate current street lighting and other outdoor lighting to determine the possibilities of using more energy-efficient methods. New street lights should only be installed where there is a clear need. In some cases, reflective devices can be used to identify hazards to motorists at a much lower cost than a street light.

The Township should also promote land use patterns that are energy-efficient. This includes encouraging opportunities for close-to-home shopping, employment and recreation. Bicycling and walking opportunities should be emphasized, as well as use of transit services to reduce dependence on individual motor vehicles. Car-pooling should be promoted, particularly through the provision and publicizing of lots that are open to car-poolers or bus riders.

The zoning ordinance should continue to provide opportunities for attached housing. Attached housing (such as townhouses) typically require substantially less energy for heat than single-family detached houses, because they are less exposed on the sides to the elements. The zoning ordinance should also allow wind turbines on larger lots and height modifications, if needed, for solar energy devices.

New buildings should be oriented to take maximum advantage of a southern orientation. The Township's development regulations could also allow some flexibility in setbacks so that new buildings can maximize their access to southern sunlight. Evergreen landscaping should be emphasized on the northern side of buildings to provide protection against Winter winds. Deciduous trees should be emphasized on the southern side of buildings to allow the sun to provide warmth during the Winter, while providing shade during the Summer.

**Strategy E-1: Work to make residents, property owners, builders and developers more aware of energy conservation methods.**

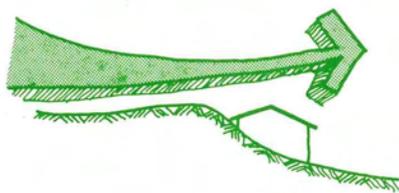
The Township should provide information on energy conservation and water conservation methods, including through the Township newsletter and website. This should emphasize simple and low-cost ways of conserving energy and links to reliable sources of information.

The Township should publicize programs that are available to reduce the costs of energy conservation methods, such as rebates from energy suppliers and any Federal or State tax incentives. Lower income homeowners should be encouraged to take advantage of Federally-funded programs to weatherize their homes to reduce home heating costs.

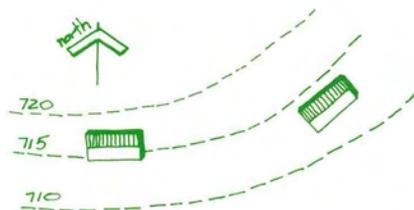
**Strategy E.2: Encourage developers and builders to fully consider sun angles, prevailing winds and landforms and to use vegetation to reduce heating and cooling costs.**

The term "solar access," refers to the availability of sunlight, considering the angles of the sun. It is also important to minimize shading by obstructions, including future tree growth. A general southern exposure is essential for solar systems to be effective. An exposure within the range of 20 degrees east to 20 degrees west of south is generally acceptable for most solar applications. This orientation can work most efficiently if most streets are in a general east-west direction.

1. Siting

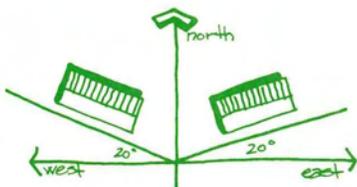


Use Landform to Deflect Winter Winds



Use South and Southeast Facing Slopes as Much as Possible

2. Building Orientation



Orient Buildings on an East-West Axis to Maximize Solar Access and Minimize Overheating



Orient Unheated Buildings to Buffer Heated Buildings from Winter Winds

3. Building Design and Construction



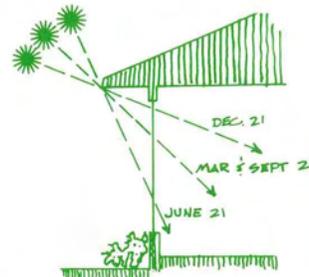
Flat or Shallow Pitched Roofs Hold Snow for Added Insulation



Buildings Built into Hillside or Partially Covered with Earth and Planting are Naturally Insulated

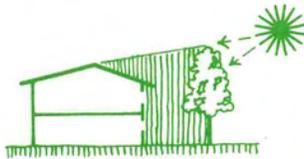


Darker Colors Absorb More Radiant Energy from the Sun

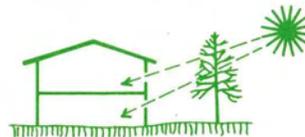


Overhangs Can Control the Sun's Rays

4. Landscaping



Deciduous Trees Provide Shade in Summer



Deciduous Trees Allow Sun in Winter



Evergreens Buffer Winter Winds



Deflect Rather than Dam Winds

If two or more of homes are being developed that are intended to use solar energy, the developer should be encouraged to place deed restrictions on the lots to prevent the construction of obstructions or the planting of trees where they would obstruct the solar access for the neighboring property.

## PUTTING THIS PLAN INTO ACTION

- GOAL A.1.** Promote substantial citizen input, including making sure residents are well-informed about community issues and have plentiful opportunities to provide their opinions on Township matters.
- GOAL A.2.** Coordinate transportation, development and infrastructure across municipal borders, and seek opportunities for additional shared municipal services.
- GOAL A.3.** Continually work to put this Plan into action—through a program of updated planning and many short-term actions within a long-range perspective.

This section describes methods that should be considered to implement this Plan. This Plan will need to be reviewed periodically and, if necessary, updated to reflect changing trends.

Caln Township has been working to maximize use of the interest to regularly update residents with information that will help spur public interest, enthusiasm and involvement. Opportunities for citizen involvement should also be highlighted through newspaper, social media, email lists, newsletters, posters and other media.

### **Strategy A.1. – Update the Zoning Ordinance to carry out this Plan.**

The Zoning Ordinance is the primary legal tool to regulate the uses of land and buildings. The Zoning Ordinance and Map should be updated to be generally consistent with this Comprehensive Plan, to modernize standards and to address public concerns. The Zoning Ordinance includes a Zoning Map that divides the Township into different zoning districts. Each district permits a set of activities and establishes a maximum density of development. Zoning also controls the following:

- the heights of buildings,
- the percentage of a lot that may be covered by buildings and paving,
- the minimum distances that buildings may be placed from streets and property lines,
- the minimum size of lots,
- the maximum sizes and heights of signs, and
- the protection of important natural features, such as setbacks from creeks.

### **Strategy A.2. – Update the Subdivision and Land Development Ordinance (SALDO).**

The SALDO mainly regulates the creation of new lots, the construction of new streets by developers, and the site engineering of new multi-family, commercial, industrial and institutional buildings.

### **Strategy A.3. – Continue to emphasize the Property Maintenance Code, and consider revisions.**

The Township's Property Maintenance Code is a valuable tool to make sure that buildings are maintained to a minimum level and to address problem properties before they become blighted. The Township also requires the licensing and inspections of housing units that are rented.

The Township should consider customizing the Property Maintenance Code and rental housing inspection requirements as necessary to streamline the process and target matters that affect public health and safety. Customized property maintenance codes and rental housing inspection checklists of other municipalities should be studied. The system of fines could also be written to increase penalties for violations that are not corrected within a reasonable time limit.

**Strategy A.4. – Consider adopting an Official Map.**

The State Municipalities Planning Code grants each municipality with the authority to adopt an “Official Map.” An Official Map can designate proposed locations of new streets, street widenings, intersection improvements, municipal uses and future parks and trails. The Map may cover the entire Township or only certain areas. This process may be particularly useful, for example, to reserve right-of-way for a future intersection widening or trail connection.

Once an Official Map is officially adopted by the Board of Commissioners, then the Township is provided with a limited amount of authority to reserve land for the projects on the Map. If the land affected by a project shown on the Official Map is proposed for development, then the Township would have up to one year to either purchase the land for its fair market value or decide not to go forward with the project. This one year period is intended to provide time to raise funds to acquire the land, and avoid lost opportunities. If this one year period is not in effect, a person could obtain a building permit almost immediately in many cases and construct a building that could obstruct an important project.

An Official Map also serves to provide notice to property owners about the Township’s future plans, which increases the likelihood that a proposed project, such as a trail link, can be incorporated into a developer’s site design, with limited Township expense.

**Strategy A.5. – Plan for major needed capital improvements.**

“Capital” improvements are projects involving a substantial expense for the construction or improvement of major public facilities that have a long life span and that are not annual operating expenses. Examples of capital projects include major street improvements, acquisition of parkland, and construction or expansion of buildings.

The projects discussed in this Plan should be considered in more detail, with more refined cost estimates. Then the high priority projects should be regularly tied into the annual budgets, borrowing plans and grant applications. A Capital Improvements Program (CIP) should prioritize the projects and identify possible funding sources. By establishing a schedule of major street, streetscape and stormwater projects, the Township and the Authority will be able to improve coordination with underground construction projects by utility companies. This coordination minimizes the need to cut into a street after it has been recently re-paved.

Through a CIP, many different projects can be combined into a single bond issue, which avoids the high administrative costs of multiple bond issues. A CIP also can allow the Township to carefully time any bond issues to take advantage of the lowest interest rates.

**Strategy A.6. – Seek additional grants to meet community needs.**

The Township should continue to identify Federal, State and County grant opportunities to address community needs. This should include highlighting grant deadlines for major programs a few months in advance so that there is time to prepare a quality grant application. The Appendix of this Plan lists a large number of federal, state and county funding programs for community and economic development purposes.

**Strategy A.7. – Increase inter-governmental cooperation efforts, including holding periodic discussions with officials of neighboring municipalities.**

Inter-governmental cooperation can decrease the costs of many services, while also improving the quality of services. The Pennsylvania Inter-governmental Cooperation Act provides broad and flexible authority to organize joint efforts as municipalities deem appropriate. In general, the Act allows two or more municipalities to jointly accomplish anything that an individual municipality is allowed to do. In most cases, this grant of authority is carried out through the adoption of an ordinance by each municipality to formalize an agreement. One option involves one municipality providing a service to a second municipality through a contract. These same concepts can also apply between a municipality and a school district. For example, a municipality may agree to plow snow from school parking lots and driveways in return for free municipal use of some school facilities.

Caln Township participates in the Western Chester Council of Governments (COG). A COG can offer joint purchasing among municipalities, which decreases bidding and purchase costs. The COG can provide the foundation for expanded discussion and cooperation among the municipalities on planning and transportation matters.

The toughest issue in joint municipal services is determining a fair allocation of costs. The State Department of Community and Economic Development has several publications that can assist in these issues.

The following types of inter-governmental cooperation efforts should be considered:

- **Shared Services and Shared Staff-persons** – Shared staff-persons can be particularly beneficial for specialized staff, such as different types of construction inspectors. Two or more municipalities could hire the same person to do the same job, with certain hours assigned to each municipality. This allows each municipality to hire a highly qualified person who is working full-time, as opposed to each trying to find a part-time person. This can reduce turnover, which reduces training costs and reduces the potential for mistakes being made by inexperienced staff. In addition, sharing staff makes staff-persons available during more hours of the day, which is beneficial to residents and business-persons. It also provides greater coverage during periods of illness or vacation.
- **Shared Recreation Programs** – When municipalities share and coordinate recreation programs, it greatly increases the types of programs that can be offered. For example, one municipality may offer a gymnastics program, while another municipality offers basketball programs. Residents of each municipality could be allowed to participate in each of those programs at the same cost per person as a municipal resident. There has been great success in parts of Pennsylvania with multi-municipal recreation programs, where each municipality contributes funds towards one set of programs. These programs are often organized in partnership with a school district.
- **Joint Yard Waste Collection and Composting** – This is a very cost-effective way of handling the disposal of yard waste, which requires significant land and expensive equipment.
- **Joint Purchasing** – Joint purchasing can reduce the costs to each municipality of preparing bid documents and legal ads. It also can result in lower costs because larger volumes are being purchased, or a larger service area is being bid. The State also has arrangements that allow municipalities to "piggyback" upon State purchases. State law allows a similar process of

"piggyback" bids between municipalities and a county. The State Intergovernmental Cooperation Act includes rules for joint municipal purchasing. Under State law, one municipality can be the lead municipality in purchases, without requiring multiple municipalities to seek bids.

- **Sharing of Equipment** – This method of sharing is most beneficial for expensive equipment that is needed by each municipality for only portions of the year. The equipment could be jointly owned, or be owned by one municipality and leased to other municipalities. Alternatively, an arrangement could allow trading of equipment.
  
- **Incentives for Intergovernmental Cooperation in Grants** – Many competitive State grant programs provide preference to projects that involve cooperation between more than one municipality. Therefore, if two similar projects are in competition for a grant, and one involves cooperation between two municipalities, the two municipality project is most likely to be funded.

## ACTION PROGRAM

The following table summarizes the major recommendations of this Plan, along with recommended priorities. The timing of each recommendation is listed, as well which agencies should have the primary responsibility to carry out the recommendation. Additional information for each strategy is included in the main body of this Plan. Abbreviations for the Prime Responsibilities for each recommended action are listed as follows:

Abbreviations of Responsible Agencies/Groups:

Adj. Mun.	=	Adjacent Municipalities
B. Comm.	=	Township Board of Commissioners
CCDCD	=	Chester County Department of Community Development
CCEDC	=	Chester County Economic Development Council
CCOSP	=	Chester County Open Space and Preservation
CCPC	=	Chester County Planning Commission Staff
Co. Emerg. Mgt.	=	Chester County Emergency Management
Con. Dis.	=	Chester County Conservation District
DVRPC	=	Delaware Valley Regional Planning Commission
Hist. Com.	=	Caln Township Historical Commission
Hist. Soc.	=	Old Caln Historical Society
Lincoln Hwy. Cmt.	=	Lincoln Highway Committee
PADCNR	=	Pennsylvania Department of Conservation and Natural Resources
PC	=	Township Planning Commission
PennDOT	=	Pennsylvania Department of Transportation
PHFA	=	Pennsylvania Housing Finance Agency
PHMC	=	Pennsylvania Historical and Museum Commission
SEPTA	=	Southeastern Pennsylvania Transportation Authority
Staff	=	Township Staff
TMACC	=	Transportation Management Association of Chester County
ZHB	=	Zoning Hearing Board

In the right-hand column listing responsible entities, the entity that is proposed to have the lead responsibility is boldfaced. High priority strategies are ones that are recommended for the most attention and that should be considered first. Medium priority strategies are moderately important, while low priority strategies are commended to be completed as time and resources become available.

In the “Timing” column, short-range is intended to refer to actions that should be completed within the next two years. Medium-range strategies are intended to be completed within the three to six years, and long-range strategies are envisioned to be completed in seven or more years. Most strategies are listed as continuous, because they should involve many smaller actions that are completed over many different years.

**LAND USE AND HOUSING PLAN**

Recommended Strategy	Priority: H = High M = Medium L = Low	Timing	Prime Responsibilities (see abbreviations)
<p><b>L.1. Promote use of an Open Space Development option</b>, with permanent preservation of open space that serves a valuable public purpose. Update standards to make sure open space serves valuable purpose. Promote open space as buffer along Rt. 30.</p>	<p>H  (p. 9)</p>	<p>Con- tinuous</p>	<p><b>PC, B.</b> Comm., Staff</p>
<p><b>L.2. Base land use policies upon the Land Use and Housing Plan Map and update development regulations to carry out the Land Use and Housing Plan.</b> This should include updating mixed use development standards for Thorndale, providing a location to meet legal obligations for the allowance of heavy industrial uses, providing a senior housing option east of Lloyd Av., and providing a wider choice of uses for undeveloped land north of Rt. 30 along Fisherville Rd.</p>	<p>H  (p. 11)</p>	<p>Contin- uous</p>	<p><b>PC, B.</b> Comm., Staff</p>
<p><b>L.3. Promote more of a village character along appropriate segments of the Lincoln Highway.</b> Consider building placement as maybe appropriate for creating village character. Emphasize mixed use redevelopment of the center of Thorndale. Improve the attractiveness and the pedestrian and bicycle and bicycle accessibility along the Lincoln Highway corridor.</p>	<p>H  (p. 26)</p>	<p>Con- tinuous</p>	<p><b>PC, B.</b> Comm., Staff, Lincoln Hwy. Cmt.</p>
<p><b>L.4. Promote additional business investment, particularly in under-used areas</b>, such as lands near Caln Rd. and the Lincoln Highway. Streamline zoning regulations for desirable types of businesses in business districts. Consider offering tax incentives and utilize government financing tools in targeted areas for new investments in buildings, and publicize their availability, and consider the use of tax increment financing to fund infrastructure needed to support new businesses.</p>	<p>H  (p. 26)</p>	<p>Con- tinuous</p>	<p><b>PC, B.</b> Comm., Staff, Lincoln Hwy. Cmt., CCEDC</p>
<p><b>L.5. Build upon the County’s Vista 2025 Economic Development Strategy.</b> Help link businesses with available resources.</p>	<p>H  (p. 27)</p>	<p>Con- tinuous</p>	<p><b>Staff, B.</b> Comm., CCEDC, CCPC</p>
<p><b>L.6. Cooperate with other agencies to improve the condition of older housing and to increase home ownership rates.</b></p>	<p>M  (p. 28)</p>	<p>Con- tinuous</p>	<p><b>B. Comm.,</b> PC, Staff, Chester Col Housing Partnership</p>

## NATURAL FEATURES CONSERVATION PLAN

Recommended Strategy	Priority. H = High M = Medium L = Low	Timing	Prime Respon- sibilities
<b>N.1. Carry out a full range of sustainability initiatives, in cooperation with area businesses and other entities</b> , including installing bicycle racks, promoting composting, increasing use of solar energy, and making sure Township ordinances are streamlined in allowing solar energy use.	M  (p. 29)	Contin- uous	<b>Staff, B.</b> Comm., PC, Property owners
<b>N.2. Carefully manage stormwater and other water resources</b> to improve water quality, promote groundwater recharge, and comply with Federal MS4 requirements.	H  (p. 31)	Con- tinuous	<b>Staff, B.</b> Comm., PC, Con. Dis., property owners
<b>N.3. Minimize the disturbance of steeply sloped lands</b> , including reviewing development regulations that protect them.	M (p. 31)	Con- tinuous	<b>PC, B.</b> Comm., Staff
<b>N.4. Carefully manage floodprone areas and preserve wetlands.</b>	M  (p. 32)	Con- tinuous	<b>Staff, B.</b> Comm., PC, Con. Dis., property owners
<b>N.5. Improve the creeks as scenic and possible recreational assets.</b> Require building and paving setbacks from streams to protect water quality and fishing habitats. Encourage landowners to plant and maintain native vegetation and native trees along creeks.	M  (p. 32)	Short- range	<b>Staff, B.</b> Comm., PC
<b>N.6. Promote additional tree plantings.</b> Minimize unnecessary removal of trees during construction.	M (p. 32)	Con- tinuous	<b>PC, B,</b> Comm., Staff
<b>N.7. Use great care developing in Carbonate Geology Areas.</b>	M (p. 32)	Con- tinuous	<b>PC, B.</b> Comm., Staff

## HISTORIC PRESERVATION PLAN

Recommended Strategy.	Priority: H = High M = Medium L = Low	Timing	Prime Respon- sibilities (see abbrevi- ations above)
<b>H.1. Consider using the Zoning Ordinance to require pre-approval of a proposed demolition of an important historic building.</b> The Board of Commissioners have the authority under State law to determine which buildings are worthy of this approval process.	H  (p. 33)	Short- range	<b>PC, B.</b> Comm., Staff, Hist. Com.

Recommended Strategy.	Priority: H = High M = Medium L = Low	Timing	Prime Respon- sibilities (see abbrevi- ations above)
<b>H.2. Promote public interest and awareness in historic preservation.</b> Encourage sensitive rehabilitation to preserve character	L (p. 34)	Con- tinuous	<b>Hist. Com.,</b> Staff, Hist. Soc.

**PARKS, RECREATION, COMMUNITY FACILITIES AND SERVICES PLAN**

Recommended Strategy	Priority. H = High M = Medium L = Low	Timing	Prime Respon- sibilities (see abbrevi- ations)
<b>C.1. Continue the excellent parks and recreation facilities. Seek funding to improve existing parks to meet a wide variety of recreational needs and to add selected parkland.</b>	H  (p. 35)	Con- tinuous	<b>Parks &amp; Recreation,</b> B. Comm., School Dis- trict, Donors, CCOSP, PADCNR
<b>C.2. Work with the School District to coordinate plans for growth and recreation.</b>	M (p. 38)	Con- tinuous	<b>Staff, School</b> District
<b>C.3. Decide upon a long-term course of action for the location and design of the Municipal, Police and Public Works facilities.</b>	M  (p. 40)	Con- tinuous	<b>Staff,</b> B.Comm., Police, School District
<b>C.4. Continue to provide high-quality police protection services.</b>	H (p. 40)	Mid- range	<b>B. Comm.,</b> Staff., Police
<b>C.5. Continue to provide high-quality fire protection and emergency medical services (EMS).</b>	H  (p. 40)	Con- tinuous	<b>Fire and EMS providers,</b> B. Comm., Staff, Co. Emerg. Mgt.
<b>C.6. Plan for capital improvement needs,</b> including establishing a Capital Improvements Program.	M (p. 40)	Mid- range	<b>B. Comm.,</b> Staff, Public Works
<b>C.7. Continue to coordinate street, sidewalk and utility improvements.</b>	H (p. 41)	Con- tinuous	<b>Public Works, B.</b> Comm., Staff

Recommended Strategy	Priority. H = High M = Medium L = Low	Timing	Prime Responsibilities (see abbreviations)
<b>C.8. Implement a storm water management plan.</b>	H (p. 41)	Short-range (2017)	<b>B. Comm.,</b> Staff, Public Works
<b>C.9. Evaluate trash removal and recycling program alternatives.</b>	H (p. 41)	Continuous	<b>B. Comm.,</b> Staff, Public Works
<b>C.10. Construct a new Wastewater Pumping Station.</b>	M (p. 41)	Mid-range	<b>Public Works, B. Comm.,</b> Staff
<b>C.11. Implement a Sanitary Sewer Infrastructure Maintenance Program.</b>	M (p. 42)	Continuous	<b>Public Works, B. Comm.,</b> Staff

### TRANSPORTATION PLAN

Recommended Strategy	Priority. H = High M = Medium L = Low	Timing	Prime Responsibilities (see abbreviations)
<b>T.1. Manage streets according to their functional classifications.</b>	M (p. 43)	Continuous	<b>Staff,</b> PennDOT, Co. PC, DVRPC
<b>T.2. Carry out “Complete Streets” concepts when planning transportation and circulation improvements.</b> Use the methods in the CCPC’s Multi-modal Handbook.	M (p. 44)	Continuous	<b>Staff, PC, B. Comm.,</b> PennDOT, CCPC
<b>T.3. Work with CCPC, DVRPC, PennDOT and adjacent property owners to seek funding and rights-of-way to complete cost-effective road improvements.</b>	H (p. 46)	Continuous	<b>Staff, B. Comm.,</b> PennDOT
<b>T.4. Review and carry out selected implementation of the recommendations in the Caln Township Mobility and Connectivity Study and the Preliminary Assessment for Transportation Capital Improvements Projects.</b>	H (p. 47)	Continuous	<b>Staff,</b> PennDOT, Co. PC, SEPTA, DVRPC
<b>T.5. Improve pedestrian and bicycle access.</b>	H (p. 52)	Continuous	<b>Staff,</b> PennDOT, Co. PC, DVRPC
<b>T.6. Provide additional locations for bicycle parking.</b> Encourage bicycle parking facilities	H (p. 55)	Continuous	<b>B. Comm.,</b> PC, Staff

Recommended Strategy	Priority. H = High M = Medium L = Low	Timing	Prime Responsibilities (see abbreviations)
<b>T.7. Improve sidewalks, particularly along the Lincoln Highway and around Thorndale.</b>	L  (p. 55)	Continuous	<b>B. Comm.,</b> Property-owners, Staff, CCPC, CCDCD
<b>T.8. Assist in carrying out the Chester County Public Transportation Plan.</b>	M  (p. 55)	Continuous	<b>Staff, B. Comm.,</b> SEPTA
<b>T.9. Seek additional bus passenger shelters.</b>	M  (p. 57)	Continuous	<b>Staff,</b> SEPTA, B. Comm., Private companies, CCDC
<b>T.10. Seek additional park and ride parking areas, preferably in locations served by buses.</b>	M  (p. 57)	Continuous	<b>Staff,</b> SEPTA, B. Comm., Private companies, CCDCD
<b>T.11. – Assist in Implementing the Route 30 Multi-modal Transportation Study.</b>	M  (p. 57)	Continuous	<b>PC, Penn-DOT, Staff,</b> CCPC, B. Comm.

### ENERGY CONSERVATION PLAN

Recommended Strategy	Priority. H = High M = Medium L = Low	Timing	Prime Responsibilities (see abbreviations)
<b>E.1. Work to make residents, property owners, builders and developers more aware of energy conservation methods.</b>	L  (p. 59)	Continuous	<b>Staff, CCPC</b>
<b>E.2. Encourage developers and builders to fully consider sun angles, prevailing winds and land forms and to use vegetation to reduce heating and cooling costs.</b>	L  (p. 59)	Continuous	<b>Staff, PC,,</b> CCPC

**PUTTING THIS PLAN INTO ACTION**

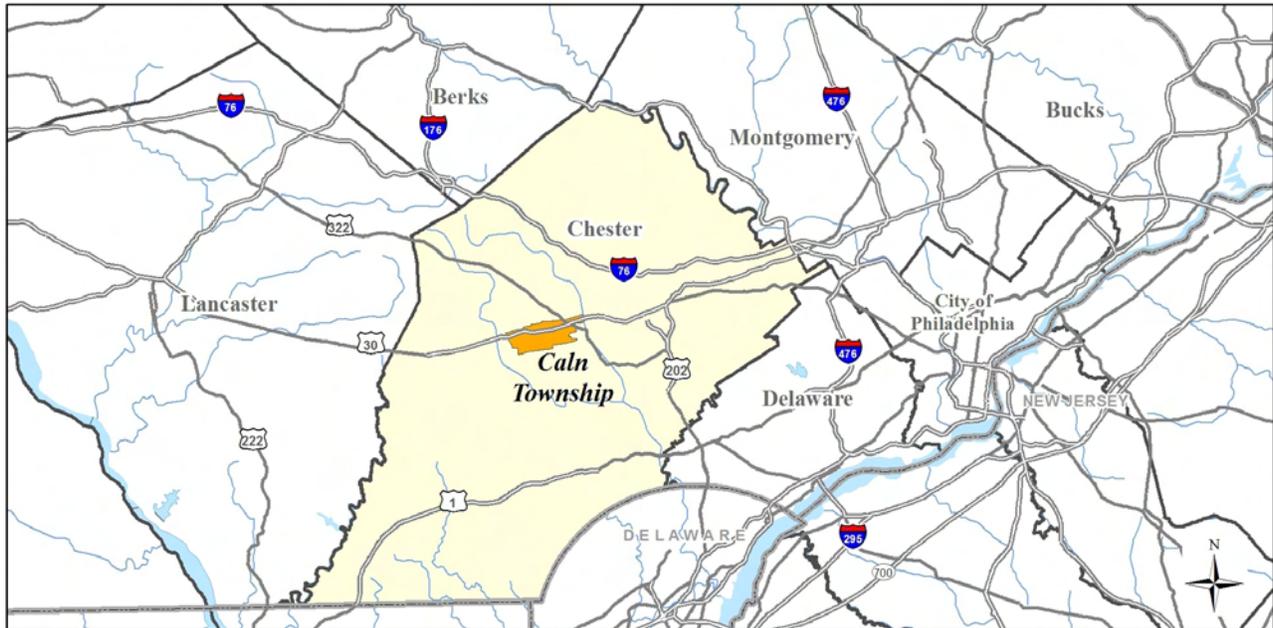
Recommended Strategy	Priority. H = High M = Medium L = Low	Timing	Prime Responsi- bilities (see abbrevi- ations)
<b>A.1. Update the Zoning Ordinance to carry out this Plan.</b>	H (p. 61)	Short- range	<b>PC, B.</b> Comm., Staff
<b>A.2. Update the Subdivision and Land Development Ordinance (SALDO).</b>	M (p. 61)	Short- range	<b>PC, B.</b> Comm., Staff
<b>A.3. Continue to emphasize the Property Maintenance Code.</b>	H (p. 61)	Con- tinuous	<b>Staff</b>
<b>A.4. Consider adopting an "Official Map" to seek to reserve land that is expected to be needed to improve existing intersections or other public improvements.</b>	M (p. 62)	Short- range	<b>PC, B.</b> Comm., Staff
<b>A.5. Plan for major needed capital improvements.</b>	H (p. 62)	Con- tinuous	<b>Staff, B.</b> Comm., CCPC
<b>A.6. Seek additional grants to meet community needs.</b>	H (p. 62)	Con- tinuous	<b>Staff, CCPC,</b> CCDCD, State agencies
<b>A.7. Increase inter-governmental cooperation efforts, including holding periodic joint meetings with other municipalities.</b>	M (p. 63)	Con- tinuous	<b>Staff, B.</b> Comm., PC, Adj. Mun.

## APPENDICES

### A. REGIONAL SETTING, AND REGIONAL AND COUNTY PLANS

#### Caln Township's Regional Setting

Caln Township is located 28 miles west of Center City Philadelphia along the Route 30 corridor in central Chester County. The city of Coatesville is adjacent to Caln Township to the west, and the Borough of Downingtown is adjacent to Caln Township to the east, as seen in the Regional Map below.



#### Delaware Valley Regional Planning Commission (DVRPC)

DVRPC is the regional organization that directs planning throughout southeastern Pennsylvania and southern New Jersey. In 2013, DVRPC adopted its Connections 2040 Plan for Greater Philadelphia. The Plan emphasizes: 1) managing growth while protecting the environment, 2) improving the economy, 3) creating livable communities, and 4) establishing a modern multi-model transportation system. The Plan designates Caln Township as a “Growing Suburb.” Growing suburbs are considered areas that are expected to continue to experience significant population and employment growth. In these areas, the Plan recommends an emphasis upon clustering, compatible mixtures of uses and transit-oriented development. Downingtown and Coatesville are each categorized as “Town Centers.”

#### Chester County Landscapes 2 Plan

This Plan is intended to assist in carrying out Chester County's Landscapes 2 Plan. The County Plan seeks to direct most growth to locations in the City of Coatesville, the boroughs and adjacent suburban areas that have public water and sewage services.

Most of Caln Township is categorized by the County Plan as a “Suburban Landscape,” except that Thorndale is classified as a “Suburban Center.” Suburban Landscapes are intended to provide for a lower average density than the Urban Center. The Urban and Suburban Landscapes are both considered to be Growth Areas. The Plan recommends emphasizing compact development in designated Growth Areas, so that the total amount of farmland and forest land that is consumed by development can be minimized, and sprawl can be avoided.

Coatesville and Downingtown are considered to be within an Urban Landscape that is intended to be a core center for population, employment, commerce, institutions and culture. In these areas, the Plan emphasizes revitalization, compatible mixtures of land uses, a walkable environment, and investments in infrastructure to support redevelopment.

The Landscapes 2 Plan also emphasizes preservation of flood-prone areas and other important natural features.

The major relevant recommendations of several other county, regional and local plans have been incorporated into this Plan.

**B. POPULATION AND HOUSING OF CALN TOWNSHIP**

The following section contains data regarding population, housing, income, education, and selected economic data for Caln Township residents. Unless otherwise indicated, all data is from the U.S. Census.

**Population**

The US Census estimated that the 2013 population of Caln Township was 14,104, which was a 2.0 percent increase (287 persons) from the 2010 census population of 13,817. From 2010 to 2013 the population increase in Caln Township was 18.4%. The Township and the entire Chester County grew at similar rates from 2010 to 2013 (Table A-1).

Table A-1  
**Total Population, 2010–2013**  
**Caln Township and Chester County**

	Total Population			Change, 2010-2013	
	2000	2010	2013	Number	Percent
Caln Township	11,916	13,817	14,104	287	2.0%
Chester County	433,501	498,886	509,468	10,582	2.1%

The U. S. Census defines “institutional group quarters” as “facilities that house those who are primarily ineligible, unable, or unlikely to participate in the labor force while a resident.” The Caln Township population in institutional group quarters represents 1.4 percent of the total population compared to 0.8 percent for the entirety of Chester County.

As of 2010, the US Census reported that 12.3 percent of Caln residents were age 65 or older, compared to 11.6 percent for Chester County (Table A-2). In both 2010 and 2013, Caln had a younger population than

Chester County, based on median age. Furthermore, the Township’s population grew younger from 2010 to 2013, again based on median age, while the County’s population remained at a median age of 39.3 years.

Table A-2  
**Population Age 65+ and Median Age, 2010–2013**  
**Caln Township and Chester County**

	Population, Age 65+		Change, 2010–2013		Median Age (Years)		Change, 2010–2013	
	2010	2013	Number	Percent	2010	2013	Number	Percent
Caln Township	1,571	1,791	220	12.3%	38.5	38.0	(0.5)	(1.3)%
Chester County	63,875	72,260	8,385	11.6%	39.3	39.3	0.0	0.0%

Note: The source for the 2010 populations in Table A–2 is the decennial census. For the 2013 figures, the source for Caln Township is the 2009–2013 American Community Survey, and the source for Chester County is the U. S. Census Annual Population Estimates.

From 2010 to 2013, the census bureau estimated that the populations of white and African-American race increased in Caln Township, as did the population of Hispanic or Latino ethnicity (Table A–3). Throughout Chester County, the African-American population decreased. In both Caln Township and Chester County, the population of African-Americans and races other than white or African-American decreased from 2010 to 2013.

Table A-3  
**Population by Race and Ethnicity, 2013**  
**Caln Township and Chester County**

	White				African-American				Other				Hispanic or Latino			
	Number		Change, 2010–2013		Number		Change, 2010–2013		Number		Change, 2010–2013		Number		Change, 2010–2013	
	2010	2013	No.	Pct.	2010	2013	No.	Pct.	2010	2013	No.	Pct.	2010	2013	No.	Pct.
Caln Twp.	10,460	10,947	487	4.4%	2,239	2,422	183	7.6%	1,118	577	(541)	(48.4)%	761	811	50	6.6%
Chester Co.	426,707	438,698	11,991	2.7%	30,623	29,898	(725)	(2.4)%	41,556	34,479	(7,077)	(17.0)%	32,503	33,473	970	3.0%

**Population and Income by Geographic Areas**

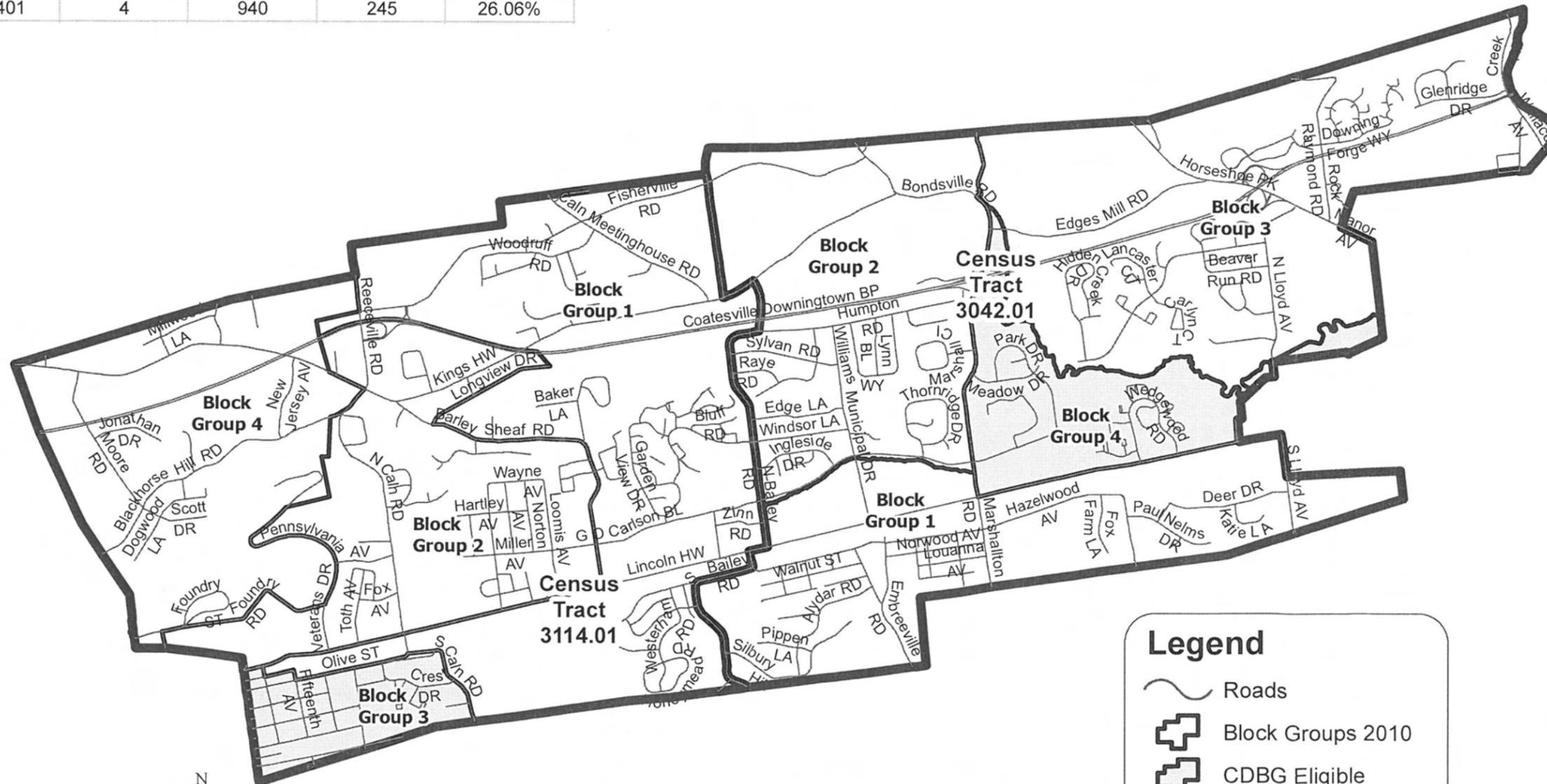
The map on the following page shows the distribution of income among various census block groups in the Township. The accompanying table also shows the percentage of residents in each area of the Township that are estimated to live in households with low or moderate incomes, according to Federal standards.

**Travel to Work**

Data from the 2009-2013 American Community Survey 5-year estimates report that, of the 251,735 workers age 16 and over, 81.0 percent drove to work alone. In comparison, 82.0 percent of the 7,549 workers in Caln Township age 16 and over drove to work alone. The mean (average) travel time to work in 2013 was 27.4 minutes for Chester County workers and 25.6 minutes for Caln Township workers.

# Cain Township Population and Income by Geographic Area

Census Tract	Block Group	# Persons	# Low/Mod	% Low/Mod
304201	1	1,325	365	27.55%
304201	2	1,570	335	21.34%
304201	3	2,410	555	23.03%
304201	4	1,455	840	57.73%
311401	1	3,410	920	26.98%
311401	2	1,310	275	20.99%
311401	3	780	320	41.03%
311401	4	940	245	26.06%



Prepared by the Chester County Department of Community Development.

## Legend

- Roads
- Block Groups 2010
- CDBG Eligible
- Census Tracts 2010



Source: 2014 HUD Low/Moderate Income Summary Data.

**Housing**

The US Census reported an increase of 101 total housing units in Caln Township from 2010 to 2013 (Table A-4). While the number of housing units increased by 1.8 percent in Caln, the total number of housing units in all of Chester County decreased by 0.3 percent during the same time period.<sup>1</sup>

Table A-4  
**Total Housing Units, 2010–2013**  
**Caln Township, Chester County, Pennsylvania**

	Total Housing Units		Change, 2010–2013	
	2013	2010	Number	Percent
Caln Township	5,713	5,612	101	1.8%
Chester County	192,462	193,086	(624)	(0.3)%

From 2010 to 2013, the number of occupied housing units, or households, increased in both Caln Township and Chester County (Table A–5). Households in Caln Township increased at more than four times the rate of increase in Chester County.

Table A-5  
**Occupied Housing Units (Households), 2010–2013**  
**Caln Township and Chester County**

	Occupied Housing Units		Change, 2010–2013	
	2013	2010	Number	Percent
Caln Township	5,474	5,239	235	4.5%
Chester County	184,788	182,900	1,888	1.0%

Household size decreased from 2010 to 2013 in both Caln Township and Chester County. Caln Township has a smaller household size than Chester County (Table A-6).

Table A-6  
**Average Household Size, 2010–2013**  
**Caln Township and Chester County**

	Occupied Housing Units		Change, 2010–2013	
	2013	2010	Number	Percent
Caln Township	2.46	2.51	(0.05)	(2.0)%
Chester County	2.64	2.65	(0.01)	(0.4)%

The census reported that the average 2013 household size in Caln was 2.46 persons compared to 2.64 for Chester County. Likewise, the 2010 census recorded average household sizes of 2.51 persons for Caln and 2.65 persons for Chester County.

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<sup>1</sup> 2013 information is an estimate, as reported from the American Community Survey, 2009-2013 5-Year Estimates.

The number of housing units in multiple-unit structures decreased from 2010 to 2013 in both Caln Township and Chester County (Table A-7). Multiple units in Chester County decreased at a faster rate than in Caln.

Table A-7  
**Multiple-Unit Structures, 2010–2013**  
**Caln Township and Chester County**

	Multiple-Unit Structures		Change, 2010–2013	
	2013	2010	Number	Percent
Caln Township	1,017	1,037	(20)	(1.9)%
Chester County	33,974	34,869	(895)	(2.6)%

Regarding home ownership and rental units, data from the American Community Survey appear to have a discrepancy. Therefore, data on housing tenure compares the 2000 and 2010 decennial censuses (Table A-8).

Home ownership in Caln Township grew significantly from 2000 to 2010. The 10-year period saw a two-thirds increase in the number of homes owned by the occupant, both with and without a mortgage. The rate of increase in home ownership in Caln was more than the rate of home ownership increase in Chester County during the decade (Table A-8). The rate of increase in Caln Township rental occupancy from 2000 to 2010 was slightly higher than that of Chester County.

Table A-8  
**Housing Ownership, 2000–2010**  
**Caln Township and Chester County**

	Housing Units					
	Owner-Occupied			Renter-Occupied		
	Number		Change	Number		Change
	2010	2000		2010	2000	
Caln Township	3,837	3,154	21.7%	1,422	1,209	17.6%
Chester County	139,328	120,428	15.7%	43,572	37,477	16.3%

**Education**

The typical measure of education in a community is the percentage of people who have attained a given level of education. According to the American Community Survey, 2009–2013, Caln Township residents of ages 18–24 had a higher percentage of high school graduates and a lower percentage of residents with some college or an associate’s degree (Table A- 9) than the County and the State as whole. Caln’s population, age 25 and older, had:

- a lower percentage of residents (compared to the County and State averages) with less than a 9<sup>th</sup> grade education,
- a lower percentage completing 9<sup>th</sup>–12<sup>th</sup> grade without a diploma,
- a higher percentage with some college but no degree,
- a higher percentage with an associate’s degree, and
- a lower percentage with a graduate or professional degree.

Table A-9  
**Percent of Population by Educational Attainment, 2009–2013**  
**Caln Township, Chester County, Pennsylvania**

	Caln Township	Chester County	Pennsylvania
<i>Population, age 18–24</i>	1,034	45,257	1,258,259
Less than high school graduate	12.9%	12.2%	13.1%
High school graduate (incl. equivalency)	32.4%	29.2%	31.3%
Some college or associate’s degree	40.7%	43.4%	44.1%
Bachelor’s degree or higher	14.0%	15.2%	11.5%
<i>Population, 25 years and older</i>	10,190	335,250	8,712,762
Less than 9 <sup>th</sup> grade	1.7%	3.0%	3.7%
9 <sup>th</sup> to 12 <sup>th</sup> grade, no diploma	3.5%	4.2%	7.7%
High school graduate (incl. equivalency)	34.2%	23.7%	37.0%
Some college, no degree	19.3%	14.6%	16.5%
Associate’s degree	8.5%	6.1%	7.6%
Bachelor’s degree	23.6%	29.3%	16.9%
Graduate or professional degree	9.4%	19.1%	10.7%

**Income**

The most common measure of income is the median<sup>2</sup>. From 1999 through 2013, income in Caln Township was markedly lower than in Chester County but higher than in Pennsylvania (Table A-10). In 2013, median household income (MHI) was \$17,439 (more than 25 percent) lower in the Township than in the County. Household income in the Township grew much slower between 1999 and 2013 than household income in either the County or the State.

Table A-10  
**Median Household Income, 1999–2013**  
**Caln Township, Chester County, Pennsylvania**

	Est. Median Household Income		Change, 1999–2012	
	2013	1999	Number	Percent
Caln Township	\$68,611	\$60,198	\$8,413	14.0%
Chester County	\$86,050	\$65,295	\$20,755	31.8%
Pennsylvania	\$52,548	\$40,106	\$12,442	31.0%

Note: Questions about income were not asked in the 2010 census. The American Community Survey (ACS) of the Census asks questions based on sampling, some of which relate to income. Most nationwide data shows a decrease in median household income before and after the Great Recession, particularly after considering inflation.

Sources: U. S. Census, including American Community Survey (ACS), 5-year estimates, 2009–2013

<sup>2</sup> By definition, half of residents/households earn an annual income above the median, and half earn below the median.

The 2009–2013 American Community Survey estimates that 2.8 percent of Caln Township families lived with incomes below the poverty level compared to 5.9 percent of families statewide. Within Chester County, 3.0 percent of families live below the poverty level.

**Economic Data**

In addition to income, the Census Bureau collects economic data on topics such as jobs by industry, jobs by occupation and business establishments. Census data are not available for establishments at the Township level. As of 2012, Chester County had a total of 13,862 establishments. A comparison of the number of establishments in the County to the number of establishments in the State economy (Table A-11) indicates that the County has a markedly greater share (1.5% or more) of the following businesses:

- Wholesale Trade (county share of 1.7% more than state share)
- Professional, scientific, technical services (6.3%)
- Administrative / support, and waste management / remediation services (1.5%)

Chester County had a markedly smaller share of the following businesses:

- Manufacturing (county share of 3.9% less than state share)
- Health care, social assistance (1.9%)
- Accommodation / food services (2.6%)
- Other services, except public administration (2.2%)

Table A–11  
**Number of Establishments, 2012**  
**Chester County and Pennsylvania**

Economic Sector	Chester County		Pennsylvania	
	Number	Percent	Number	Percent
<i>Total of all sectors</i>	13,862	100.0%	296,872	100.0%
Agriculture, forestry, fishing, hunting	42	0.3%	486	0.2%
Mining, quarrying, oil / gas extraction	10	0.1%	1,149	0.4%
Utilities	25	0.2%	789	0.3%
Construction	1,342	9.7%	26,139	8.8%
Manufacturing	531	3.8%	13,995	4.7%
Wholesale trade	947	6.8%	15,097	5.1%
Retail trade	1,511	10.9%	44,046	14.8%
Transportation / warehousing	231	1.7%	8,210	2.8%
Information	292	2.1%	4,985	1.7%
Finance and insurance	1,013	7.3%	17,846	6.0%
Real estate / rental and leasing	444	3.2%	9,243	3.1%
Professional, scientific, technical services	2,252	16.2%	29,396	9.9%
Management of companies / enterprises	155	1.1%	2,308	0.8%
Administrative / support, and waste	915	6.6%	15,002	5.1%
Educational services	210	1.5%	3,661	1.2%
Health care / social assistance	1,438	10.4%	36,578	12.3%

Economic Sector	Chester County		Pennsylvania	
	Number	Percent	Number	Percent
Arts, entertainment, recreation	208	1.5%	4,444	1.5%
Accommodation / food services	929	6.7%	27,667	9.3%
Other services, except public administration	1,362	9.8%	35,737	12.0%
Industries not classified	5	0.0%	124	0.0%

Source: U.S. Census, 2012 County Business Patterns

Another economic measure in the census data is the occupation of residents (Table A–12). Compared to Chester County and Pennsylvania, Caln Township has the lowest share of jobs in sales and office occupations. In management/business/science/arts, the Township has a smaller share of occupations than the County but a larger share than in the State. In service occupations, the Township share is lower than the State but larger than the County. In production/ transportation/ material moving, the share of the Township’s occupations is higher than the County but lower than the State. Finally, the Township has a higher share of occupations in natural resources/construction/maintenance than either the County or the State.

Table A–12  
**Occupations, 2009–2013**  
**Caln Township, Chester County, and Pennsylvania**

Occupation	Caln Township		Chester County		Pennsylvania	
	Number	Percent	Number	Percent	Number	Percent
Civilian employed population, age 16 and over	7,669	100.0%	256,131	100.0%	5,914,876	100.0%
- Management, business, science, arts	3,143	41.0%	121,985	47.6%	2,143,993	36.2%
- Service	1,279	16.7%	33,820	13.2%	1,029,157	17.4%
- Sales and office	1,809	23.6%	61,328	23.9%	1,451,596	24.5%
- Natural resources, construction, maintenance	741	9.7%	18,657	7.3%	493,001	8.3%
- Production, transportation, material moving	697	9.1%	20,341	7.9%	797,129	13.5%

Source: U. S. Census, ACS, 2009–2013 five-year estimates

A third measure of economic composition is the number of workers, or jobs, by industry (Table A–13). Compared to Chester County and the State as a whole, Caln Township has the lowest share of workers in the following industries:

- Agriculture, forestry, fishing, hunting, and mining
- Manufacturing
- Wholesale trade
- Transportation, warehousing, utilities
- Information
- Other services, except public administration

On the other hand, Caln Township has a higher share of workers than both Chester County and Pennsylvania in the following industries:

- Construction
- Retail trade
- Arts, entertainment, recreation, accommodation, food services

Table A-13  
**Number of Workers by Industry, 2009–2013**  
**Caln Township, Chester County, and Pennsylvania**

Economic Sector	Caln Township		Chester County		Pennsylvania	
	Number	Percent	Number	Percent	Number	Percent
Civilian employed population, age 16 and over	7,669	100.0%	256,131	100.0%	5,914,876	100.0%
Agriculture, forestry, fishing, hunting, and mining	6	0.1%	6,476	2.5%	81,562	1.4%
Construction	618	8.1%	13,295	5.2%	339,203	5.7%
Manufacturing	812	10.6%	32,110	12.5%	732,754	12.4%
Wholesale trade	206	2.7%	8,066	3.1%	166,569	2.8%
Retail trade	1,228	16.0%	27,454	10.7%	696,381	11.8%
Transportation, warehousing, utilities	213	2.8%	8,874	3.5%	300,135	5.1%
Information	117	1.5%	5,359	2.1%	105,649	1.8%
Finance, insurance, real estate, rental, leasing	599	7.8%	25,184	9.8%	381,895	6.5%
Professional, scientific, management, administration, waste management services	1,009	13.2%	36,248	14.2%	573,861	9.7%
Educational services, health care, social assistance	1,717	22.4%	58,555	22.9%	1,531,907	25.9%
Arts, entertainment, recreation, accommodation, food services	682	8.9%	17,049	6.7%	482,168	8.2%
Other services, except public administration	256	3.3%	11,497	4.5%	276,018	4.7%
Public administration	206	2.7%	5,964	2.3%	246,774	4.2%

Source: U.S. Census, *ACS, 2009–2013, five-year estimates*

### **C. CONSISTENCY WITH ADJACENT ZONING**

In order to identify and minimize potential land use conflicts with adjacent municipalities, it is necessary to compare Caln Township's land use categories with the development policies of neighboring municipalities. In "clockwise order" beginning at the northwest corner of Caln Township, the adjacent municipalities include: West Brandywine Township, East Brandywine Township, East Caln Township, Downingtown Borough, West Bradford Township, East Fallowfield Township, City of Coatesville and Valley Township.

#### **West Brandywine Township - Consistent**

The land uses allowed by zoning regulations in West Brandywine Township reflect the same types as are existing and proposed in adjacent portions of Caln Township. The western-most area of West Brandywine abutting Caln is designated as R-2 Rural Residential, which is consistent with the Caln designation of R-1 Low Density Residential. The eastern area of West Brandywine adjacent to Caln Township is designated as MSI - Medical / Service Institutional, which is similar to the existing developed use of the Brandywine Hospital/ Medical Complex, even though the area is currently zoned as C-2 Regional Commercial designation.

#### **East Brandywine Township - Consistent**

The land uses allowed by zoning regulations in East Brandywine Township reflect the same types as are abutting in Caln Township. The entire border of East Brandywine abutting Caln is designated as R-2 Residential, which is consistent with the Caln designation of R-1 Low Density Residential.

#### **East Caln Township - Generally Compatible due to separation created by Natural Features**

The land uses allowed by zoning in East Caln Township reflect compatible types with those uses abutting in Caln Township. An important characteristic dividing the two municipalities is the East Branch of the Brandywine Creek, which is a significant flood plain area. Creek Road also functions to provide a separation between uses in the two townships. In East Caln Township, much of this land is preserved as recreation areas. The northern portion of Caln Township abutting Creek Road is designated C-2 Regional Commercial and on the other side of the creek, beyond the flood plain and park in East Caln it is a R-1 Residential district. The southern portion of Caln Township along Creek Road is a I-1 Industrial. Opposite and beyond the Brandywine Creek, flood plain and park is a R-4 Higher Density Residential area.

#### **Downingtown Borough - Consistent for nearly the entire municipal boundary**

Nearly the entire municipal border between Downingtown Borough and Caln Township is represented by residentially developed and residentially-zoned areas abutting areas planned for residential development in Caln. In Downingtown Borough, R-1, R-2, R-3 and R-4 Residential designations border similar R-1, R-2, and R-3 designated Residential areas in Caln. The only inconsistencies are: a) north of Lincoln Highway and west of Lloyd Street, where a small existing residential area in Downingtown Borough abuts a I-1 Industrial area and b) on the south side of the Lincoln Highway, where there is an I-1 Industrial area in Caln that mainly includes the railroad right-of-way and limited uses.

**West Bradford Township** - Consistent for nearly the entire municipal boundary

Nearly the entire municipal border between West Bradford Township and Caln Township is represented by residential designations. The entire border of West Bradford Township is a R-2 Residential designation, while the Caln Township area is represented by a variety of residential designations, including R-1, R-2, R-3 and R-4. The only inconsistent area is a small area in Caln Township that is undeveloped and currently has an I-1 Industrial designation. The Comprehensive Plan is proposing that this area be re-designated as a R-3 Residential area. If this change is implemented, the entire border between the municipalities would include residential designations.

**East Fallowfield Township** - Consistent

The entire municipal border between East Fallow Township and Caln Township is represented by residential designations and one public facility designation. The entire border of East Fallowfield Township is either a R-1 or R-3 Residential designation and a small public facility designation, while the Caln Township area is represented by a variety of residential designations including R-1, R-2, R-3 and R-4, depending on the location and topography. The most dense residential designations in both townships abut one another.

**City of Coatesville** - Generally Consistent

For the most part, the designations in both the City of Coatesville and Caln Township are generally consistent with a designation of R-1, R-2, RN-2 Residential designations in Coatesville bordering the R-3 Residential designation in Caln Township. In addition, in Coatesville I-1 Industrial zoning also abut the Caln Township I-1 Industrial designations.

**Valley Township** - Consistent

In Valley Township the border abutting Caln Township is quite consistent. In Valley Township, the bordering areas are designated as R-1, R-2 Residential and C-Conservation. These designations abut Caln Township's steep sloped and wooded undeveloped R-1 Residential area and a small steep sloped and wooded area that is unlikely to be developed that is designated R-4 Residential and I-Institutional.

**D. NATURAL FEATURES BACKGROUND SECTION**

Natural features include geology, soils, wetlands, flood-prone areas, groundwater, surface areas and topography.

**Carbonate Geology**

The Carbonate Geology Map shows areas of Caln Township that are underlain with limestone or carbonate geology. These lands include the central valley through the Township, between the steeper lands south of the Lincoln Highway Corridor and the steeper and higher elevation lands along the northern part of the Township.

Great care needs to be used in stormwater management in these carbonate areas to prevent sinkholes. Caverns can also develop in this area that can allow pollutants to rapidly reach groundwater.

Caln Township has a comprehensive set of zoning regulations in these areas that require major developments to include a professional assessment of the risks on each site. There also are regulations on the location of stormwater basins and other features in relation to areas deemed to be the most vulnerable to sinkholes.

## **Soils**

Soils types are important to identify land areas that have varied suitability for on-lot septic systems, agriculture, basement construction and other development.

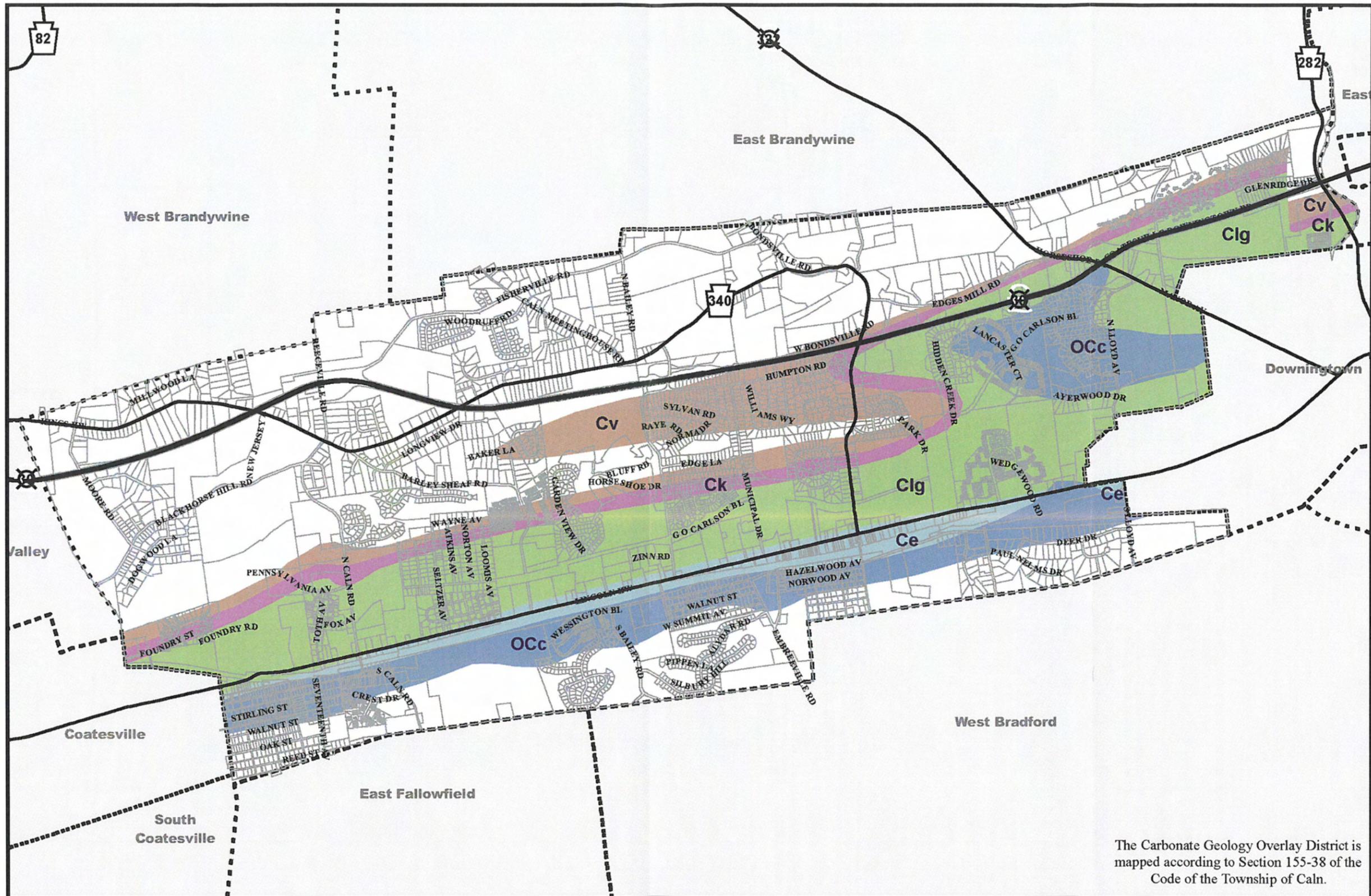
Most undeveloped areas of Caln Township that do not have access to the public wastewater systems have severe limitations for on-lot septic systems. This finding is based upon soil type analysis by the U.S. Natural Resources Conservation Service. These limitations include high water table, steep slopes and a shallow depth to bedrock. The land areas that are rated as having only moderate limitations for on-lot septic systems mainly include the remaining farmlands in Caln. Areas that are suitable for crop farming typically have deep well-drained soils that are also most suitable for septic drain fields.

While some sites may have such severe limitations that they cannot meet State requirements for any type of septic system, most other areas with limitations can be approved for an elevated mound septic system.

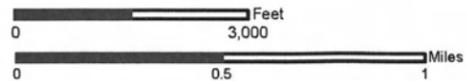
Soil features can limit suitability for construction of buildings, particularly when a building is proposed with a basement. For example, a shallow depth to water table can result in a flooded basement, and a shallow depth to bedrock can require expensive blasting for new construction.

The conditions that make land most suitable for crop production also make the land easiest to build upon. Most of the prime agricultural soils in Caln Township have been built upon, except for a few tracts, such as land east of Bailey Road north of King's Highway, land east of the Route 30 / Reeceville Road interchange, and land east of Lloyd Road southwest of Route 322.

The U.S. National Resource Conservation Service (NRCS) rates the agricultural capabilities of soils based upon classes I through VIII. Classes I through III are considered to be "prime" agricultural soils, with the lowest numbers having the highest productivity for crops.



The Carbonate Geology Overlay District is mapped according to Section 155-38 of the Code of the Township of Caln.



# CALN TOWNSHIP

Figure 2: Carbonate Geology Overlay District

LEGEND			
	Major Roads		Clg
	Parcel Boundaries		Cv
	Municipalities		Ck
			Ce
			OCC

Date Mapped: March 24, 2008

## **Agricultural Security Districts**

Local governments may create Agricultural Security Areas (ASA), in response to a petition by interested landowners. Once an ASA is established, it entitles the participating landowners to certain protections against government condemnation. An ASA also provides added protection for a farmer against municipal regulations or nuisance lawsuits that would unreasonably restrict normal farming practices. The establishment of an ASA that meets a minimum total acreage also gives each property owner within the ASA the option of seeking purchase by the County of the right to develop the land. In that case, the land remains privately-owned and privately maintained, but a permanent easement is placed on the land that prevents further development for non-agricultural purposes.

Currently, there are no agricultural security areas or farmland that has been permanently preserved by easements within Caln Township.

## **Watersheds and Stream Corridors**

Proper management of our water resources is vital to meet growing demands, while protecting water quality and quantity from degradation and depletion.

A drainage basin or watershed is a regional area that drains into a particular watercourse. The boundaries of a drainage basin are defined by natural ridge lines, which separate one drainage basin from another. As seen on the Hydrology Map on the following page, there are four major basins within Caln Township, which all ultimately discharge to the Brandywine Creek. Each major drainage basin contains several minor tributaries.

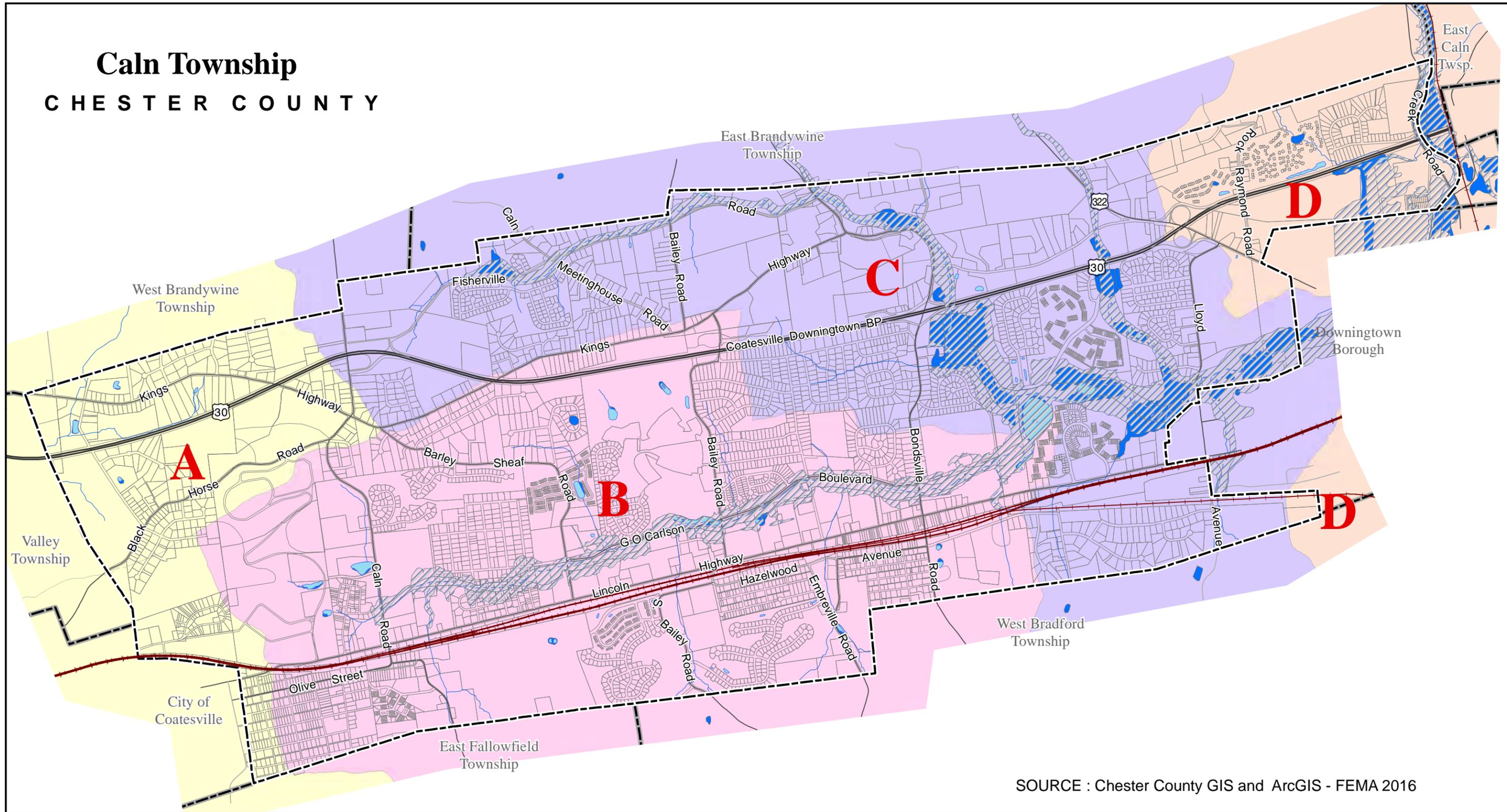
The Pennsylvania Department of Environmental Protection (DEP) has developed water quality standards for all surface waters. They are designated for the intended ability to support aquatic life, as well as a number of water supply and recreational uses. Streams with excellent water quality may be designated High Quality Waters (HQ) or Exceptional Value Waters (EV). There currently are no HQ or EV watersheds in Caln Township. The nearest HQ watersheds are immediately northwest of Caln in West Brandywine Township and south of Caln in West Bradford Township. The water quality in an HQ stream can be lowered only if a project has special social or economic justification, the water quality criteria are met, and all existing uses of the stream are protected. The EV waters are to be protected at their existing quality, with no lowering of water quality. A HQ designation would also cause state requirements to come into place for wide vegetated buffers along each side of a creek as part of new development.

**Beaver Creek Basin:** This drainage basin is located in the north-central and southeastern portion of the planning area, encompassing 37 percent of Caln Township. Beaver Creek travels in a north to southeast direction. The DEP has classified the Beaver Creek Basin as a Trout Stocking Fishery (TSF) and Migratory Fishery (MF).

**Valley Run Basin:** This drainage basin is located within the south-central portion of the Township, occupying 43 percent of Caln Township. Valley Run travels in an east to west direction. Some segments are underground, and it is a tributary to Beaver Creek. The DEP has classified the Valley Run Creek as a Trout Stocking Fishery (TSF) and Migratory Fishery (MF).

# Caln Township

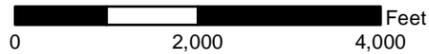
## CHESTER COUNTY



SOURCE : Chester County GIS and ArcGIS - FEMA 2016



**Urban Research & Development Corporation**  
 28 West Broad Street Bethlehem, PA. 18018 610-865-0701



-  Streams
-  Water Bodies
-  Wetlands
-  100 Year Floodplains

- Watersheds**
-  **A** West Branch Brandywine Creek
  -  **B** Valley Run
  -  **C** Beaver Creek
  -  **D** East Branch Brandywine Creek

# Hydrology

**East Branch of the Brandywine Creek Basin:** This drainage basin is located in the northeastern and southeastern portions of the Township, encompassing 7 percent of the Township. The DEP has classified this segment of East Brandywine Creek as a Warm Water Fishery (WWF) and Migratory Fishery (MF).

**West Branch of the Brandywine Creek Basin:** This drainage basin is located in the northwestern and southwestern portions of the Township, encompassing 12 percent of the Township. The DEP has classified the northwestern segment in Caln Township as a High Quality, Trout Stocking Fishery (TSF) and Migratory Fishery (MF). The DEP has also classified the southwestern segment in Caln Township as a Warm Water Fishery (WWF) and Migratory Fishery (MF).

Chester County developed its Watersheds Plan to analyze hydrological conditions and to recommend policies to protect water supplies and water quality.

### **Floodplains**

Floodplains provide ecological, aesthetic and recreational benefits, while at the same time imposing constraints to development. The primary function of a floodplain is to provide an area that will accommodate the floodwaters of a given storm. Intrusions into the floodplain or constricted openings under bridges or within drainage pipes can increase flooding on upstream properties. The Federal Emergency Management Agency (FEMA) has delineated the 100 year floodplain, which has a one percent chance of being equaled or exceeded in a given year. The 100 year floodplains are shown on the Hydrology Map on the previous page.

To meet Federal and State requirements, Caln Township has regulations that prohibit most new construction within the main flood channel for a 100 year storm, and that requires elevation and flood-proofing of most new construction within the entire 100 year floodplain. Those regulations also control substantial improvements to existing structures and placement of fill or encroachments within the floodplain. Those regulations also control storage of hazardous materials within the floodplain, which can become a serious source of water pollution.

### **Wetlands**

Wetlands are highly productive ecosystems that provide critical wildlife and aquatic habitats and important storage areas for surface water and groundwater. Wetlands are areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated conditions. The three major characteristics of wetlands include vegetation, soil and hydrology. The Township is currently in the process of identifying potential wetlands.

The Hydrology Map shows known wetlands that have been identified by the U.S. Fish and Wildlife Service. However, this mapping is not all-inclusive. The Township requires developers to submit professional delineations where wetlands are suspected of being present on a site. Hydric soils are areas where there are indications that wetlands may be present.

## **Steep Slopes**

A 15 percent slope has a rise of 15 feet for every 100 feet of horizontal distance. Moderately steeply sloped lands (15 to 25 percent) are generally only suitable for low intensity development. Very steep lands (over 25 percent) are generally not suitable for any development. It is important to limit development on steep slopes to avoid the following: erosion problems, high-speed storm water problems, overly steep roads and driveways, excessive costs to construct and maintain roads and utilities, and destruction of scenic natural resources.

The Steep Slopes Map on a following page shows areas, based on the Chester County GIS system, that have steep slopes of 15 to 25 percent, and slopes of 25 percent or greater. The steep slopes are clustered: a) in the northwest corner of the Township, north of Black Horse Road, b) in a band running across the length of the Township, from north of the High School, and then running parallel to Route 30, and then running along the northeast border of the Township, and c) in a band running along the southern border of the Township, with the largest concentrations near Bailey Road and Embreville Road. The Township Zoning Ordinance restricts the magnitude of development on steep slope areas of 15% to 20% and on very steep slopes of 20% or greater.

## **Woodlands**

The majority of Caln Township that is not developed or actively farmed is wooded. The aerial photo on a following page provides the best information on the location of the woodland areas. The largest concentrations of woodlands are on steeply sloped areas that were unsuitable for farming and that were difficult to develop. The largest areas of woodlands are located: a) along Caln Township's northeast border, b) between Kings Highway and Route 30, c) on the grounds of the VA Medical Center, southeast of the main hospital complex, d) in the western part of the Township, north and south of Black Horse Road, and e) south of the railroad, east of Caln Road.

Woodlands add character to the landscape and market value to homes. Woodlands also help to preserve the water quality of creeks and provide important wildlife habitats. Trees also are important to purify the air and control erosion. Forestry must be allowed under State law. However, clear-cutting of woods and excessive removal of trees as part of development are currently controlled by the Township.

# Caln Township

## CHESTER COUNTY



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— 5' Contours

0 2,000 4,000 Feet

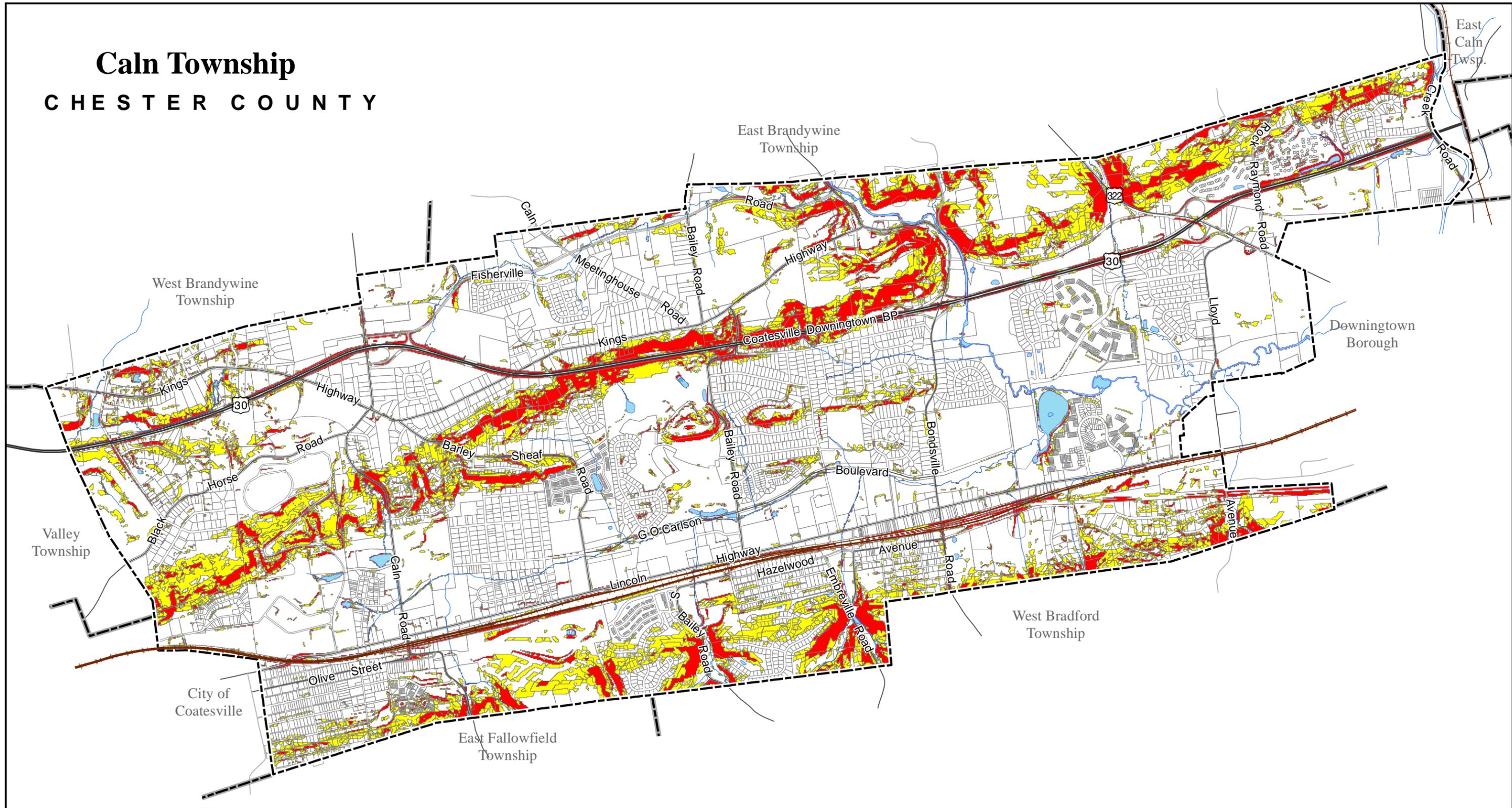


# Topography

SOURCE OF BASE INFORMATION: Chester County GIS, 2015.

# Caln Township

## CHESTER COUNTY




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- Moderate Slopes (15-25%)
- Very Steep Slopes (25%+)

# STEEP SLOPES



SOURCE OF BASE INFORMATION: Chester County GIS, 2015.

## **E. HISTORIC RESOURCES**

Caln Township has a rich and diverse heritage that is reflected in its historic buildings. The preservation of these historic and cultural resources is valuable to establish a community bond from past generations to future generations.

### **A Historical Overview of Caln Township**

In 1681, Chester County was established as one of the original counties by William Penn. In 1702, the first settlers, mostly of English decent, begin to occupy parts of Caln and the surrounding communities. David Settler names the unincorporated area “Caln” after his hometown of Calne, located in Wiltshire, a section of England 90 miles west of London.

In 1726, Caln Meetinghouse was constructed as a place of worship and assembly. In 1794 the Philadelphia-Lancaster Turnpike Road (now known as the Lincoln Highway) was constructed through the center of Chester County. The road was one of the first graded and paved roads within Pennsylvania. In 1804, a Stage Coach route was established along this road.

In 1826, construction commenced on the “Mainline,” which was the Pennsylvania Railroad system connecting Philadelphia with Pittsburgh. The segment through Caln to the Susquehanna River was completed in 1834.

Two Quakers, Richard and Mary Edge Pim, constructed a stone hexagonal schoolhouse to support the education of their nine children. The building was located along Edge Lane until it was relocated to Municipal Drive.

In 1847, the Thorndale Iron Works was established as a manufacturer of iron plates and other metals. In 1849, the Village of Thorndale was founded and named by developers James and John Forsythe. They erected a rolling mill and 16 homes.

Downingtown Borough was established as a municipality in 1859. Coatesville was established as a municipality in 1867.

The present Caln Township was officially established in 1868, after multiple boundary and name changes. A train station was constructed in Thorndale in 1875. By 1900, the population of Caln Township had reached 917 residents.

The first public water supply distribution system was established in 1925 in Caln to serve customers in the south central portion of the Township.

The Caln Elementary School was constructed in 1928, which consolidated together classes from several one-room school houses.

The first patients were moved into the new Veterans Administration Hospital in 1930. The Thorndale Volunteer Fire Company was organized in 1939.

The Caln Township Planning Commission was established in 1954. In 1958, the Board of Commissioners purchased a 14-acre parcel of land for a new Municipal Building and a 20-acre tract of land for the Caln Municipal Park.

The population of Caln Township reached 6,685 residents by 1960. The Route 30 Bypass was completed in 1963, which spurred growth in Caln. The Coatesville Area School District was created in 1964.

By 1970, the population of Caln Township reached 6,689 residents. By 1980, the population of Caln Township reached 9,639 residents. By 1990, the population reached 11,997 residents. By 2000, the Township included 11,916 residents. In 2013 population was estimated to be 14,104.

### Historic Structures

The following table provides a brief description of many of the most historically significant sites within Caln Township. The map numbers relate to locations shown on the Community Facilities Map at the end of this section.

One notable property that is not on this list is the Gardner-Beale House, which includes portions built in the 1700s and is located on the High School Campus. Another notable set of historic buildings involves the older buildings on the Veterans Administration Hospital complex. The first buildings were constructed in 1930.

The Pennsylvania Historical and Museum Commission has identified 140 older structures within Caln Township on its Cultural Resources GIS website. However, many of those structures have limited historical or architectural significance, and none have been officially determined to be eligible for the National Register of Historic Places. PHMC also studied houses built along Foundry Street for defense industry workers.

Table A-14

<b>HISTORICALLY SIGNIFICANT STRUCTURES</b>	
<b>Map #</b>	<b>Description</b>
<b>H-1</b>	Hexagonal School House: A unique 6 sided stone structure constructed by Quakers Richard and Mary Edge Pim in 1837 to begin the early education of their 9 children.
<b>H-2</b>	Caln Friends Meetinghouse: The 1.5 story stone structure was built in 1726 as place of worship and assembly by the Religious Society of Friends (Quakers). The original building was expanded in 1800 and 1850. The building is listed on the National Register of Historic Places.
<b>H-3</b>	Taylor House: A 2 story stone structure constructed around 1750. The building was refurbished by the Brandywine Hospital.
<b>H-4</b>	Isaac Coates House: This stone house was built by Isaac Coates in 1779. The home was originally part of a 492 acre tract of land purchased by the Coates family from William Penn in 1728.
<b>H-5</b>	Hanscom House (aka Seltzer Homestead): This farmhouse was constructed by Thomas Seltzer in 1741 and expanded in 1845. The home was originally part of a 246-acre tract of land purchased by the Seltzer family from Moses Coates in 1743.

<b>HISTORICALLY SIGNIFICANT STRUCTURES</b>	
<b>Map #</b>	<b>Description</b>
<b>H-6</b>	Ingleside Manor (aka James Buchanan House): The land and mansion was originally owned by President James Buchanan in 1862. Although President Buchanan did not occupy this house, he did occasionally visit friends and advisors.
<b>H-7</b>	Greenwood Manor (aka Joseph Edge House): This 2 story stone farmhouse was constructed in 1841 by Richard and Mary Edge Pim.
<b>H-8</b>	G.O. Carlson House: This farmhouse was originally constructed in the 1700's and later occupied by well-known industrialist and humanitarian Gunard O. Carlson. Prior to the Civil War, the home was utilized as part of the Underground Railroad to hide slaves fleeing the South.
<b>H-9</b>	Edge House and Edge's Mill: This stone home was originally built by Robert Valentine in 1715. The home was enlarged in 1768 and 1800. A large grist mill was built near the home in 1784. The property was also rumored to be part of the Underground Railroad to hide slaves fleeing the South.
<b>H-10</b>	Miles of Mills (aka the Dye Works): This row of 8 homes was constructed in 1859 to house workers at the local mills. The original row of 8 homes as been converted to a row of 4 homes.
<b>H-11</b>	Spackman Farm (aka Davis Farm): The original stone house was constructed around 1776 by Isaac and Mary Spackman. In 1804, a large stone and frame barn was constructed as well as a small embankment building, which was utilized as a 1-room school, spring house and smoke house.
<b>H-12</b>	Perry House (aka Hoopes Currying Shop): This stone structure was constructed by John Hoopes in 1795. The property was the site of a currying shop, bark mill and saw mill.
<b>H-13</b>	Springhouse Hill (aka Hickman House): The original house and spring house were constructed out of field stone in 1793.
<b>H-14</b>	Edge's Mill Bridge (aka Chester County Bridge 124): This stone arched bridge was constructed in 1916 on Edge's Mill Road. The structure is listed on the National Register of Historic Places.
<b>H-15</b>	River Mill Run (aka Spangenberg House): This house was built in 1890 by Jarvis Ellis, the owner of the Beaver Valley Woolen Mills.
<b>H-16</b>	Uhler Tract (aka Corey Farm): This farmhouse was originally constructed as a Quaker Meeting House in the early 1700's by James Reed. The farmhouse has been restored and is located within the Thornridge development.
<i>Source: Caln Township Historical Commission, 2003</i>	

The Caln Township Historical Commission continues its dedicated research of historic structures in the Township.

The following seven (7) pages represent an updated list of historically significant properties that was completed in June, 2016 and updated in February, 2017.

**Historically Significant Properties in Caln Township - June 2016 & February, 2017**

Appleton Bluff School, 4505 Edge's Mill Road. Circa 1862. One room schoolhouse on the Hoopes property. Now a residence.

Beaver Creek Tavern, 1350 Sandsville Road. Circa 1844. Known for many years as the King's Highway Inn. Part of the Valentine-Guie properties along Rt. 340.

Baker Farm, 324 Barley Sheaf Rd. Only the springhouse remains. Former site of the Wheat Sheaf Tavern. Nathan Baker and heirs held property from 1871 to 1963. Reportedly an outbuilding was used for the Underground Railroad.

Black Horse Inn, 6 ReeceviHe Road. Circa 1802. Early tavern along Rt. 340, enlarged and currently a residence.

G. O. Carlson House, 350 Thorndale-Marshallton Road. Circa 1811. Formerly known as "Louanna Springs." Purchased in 1936 by G. O. & Margaret Carlson.

Chestnut Dell School, 3622 & 2634 King's Hwy. Circa 1863. One room schoolhouse. Amanda Spackman and Elizabeth Edge were well-known teachers in this school.

Chestnut Grove School, 1798 Black Horse Hill Rd. Circa 1864. The land was sold to Valley Township School District in 1864, who constructed the one room schoolhouse. When the school districts consolidated, the smaller older schools were closed, and most sold as residences.

Davis-Spackman Farm, 3401 King's Hwy. Circa 1809. Originally a log house, the stone house was built in 1809, and the barn in 1804. The Spackmans were the first family to live here, arriving from England. The Spackmans and their heirs held the property for 220 years.

Dougherty House, 2637 King's Hwy. Circa 1844-56. Although a log addition was later added, the original house was the first schoolhouse in Caln Township. The schoolmaster's name was Robert Plumley. This is a frame/stucco home, not stone as most would suspect.

Dougherty - Ensmenger House, 4809 Horseshoe Pike. Circa 1758. This may have been the first tollhouse for the Horseshoe Turnpike. This house was held in the Parke Family for over 110 years. James Morrow was the "toll-gatherer," followed by Robert and Rita Dougherty for over 50 years.

Edge's House and Edge's Mill - The Edge House, 931 Edge Road was originally built in 1715 by Robert Valentine and was enlarged in 1768 and again in 1790. It was rumored to be part of the Underground Railroad to hide slaves fleeing the South. The Mill originally built with logs by the Valentine Family in 1721. In 1784 a larger grist mill built of stone was erected by Robert and An Bond Valentine.

Jacob V. Edge House (corner house) 4002 Edge's Mill road.  
Edge Property House, 890 Bondsville Road

Gardner-Beale House, on the High School Campus, north of Lincoln Highway. Circa 1811. A French trader, Peter (Pierre) Bizailon and wife Martha bought this property in 1731. It was later purchased by

Dr. Francis Gardner in the mid-1790s. This property is believed to have been part of the Underground Railroad, with a tunnel that helped escapees get to the base of the VA hill unseen.

Glen Isle, 130 S. Lloyd Ave. Circa 1752 (Today known as The Orangery Restaurant). It was formerly known as "The Ship Tavern," and claims to have been visited by George Washington. It was part of the Thomas Parke/John Edge legacy.

Granger Farm, 1012 Caln Meetinghouse Road. Circa 1846. Was controlled by many prominent Caln landowners, including the Pikes, Millers, Mendenhalls, Pims, Stalkers, Coates and Downings. This small farm was occupied by the Granger family for nearly 100 years.

James Guie House, 1002 Bondsville Road. Circa 1848. Part of the James Guie "Eagle Paper Mill" property. This house is pictured in Futhey & Cape's 1881 History of Chester County.

Hickman's "Springhouse Hill", 3511 Humpton Road. Circa 1829. This land was part of the Valentine and Mendenhall family holdings. Notable residents included Thomas and Ann Pim. In 1921, the property was sold to the Humptons, for whom Humpton Road was named.

Irwin-Moore House, 2305 E. King's Hwy. Circa 1799. The site was originally occupied by an older log home. This house was constructed by John Foreman, a chairmaker and farmer. The George Irwin family lived here for almost 100 years.

Gravner & Hannah Marsh House, 2009 E. King's Hwy. Circa 1847. A well-known place on the Underground Railroad, this house was written about in R.C. Smedley's "The History of the Underground Railroad in Chester and the Neighboring Counties of Pennsylvania."

McGuigan House - Demolished. Granger Lane. Circa 1840. Formerly a log house that might have been built by Cookson Mendenhall, a neighboring carpenter. Prominent residents were Miriam Swayne for 23 years, the Mendenhalls for 66 years and McGuigans for 75 years.

James Mendenhall House, 700 W. Bondsville Road. Circa 1739. Portions of the home have a data stone of 1739, but the majority of the home was apparently built in 1884.

Seltzer Farm -360 Seltzer Ave. Circa 1843. This stone home was occupied by J. Andrew Seltzer and his heirs for 97 years.

Nelms Mansion, 201 Embreeville Road. Circa 1850. This house was part of the history of the Thorndale Iron Works. It was owned by James Forsythe, an iron manufacturer who built the Triadelphia Iron Works in Coatesville, before building a new iron works at Thorndale.

Hoopes-Baugh Farm, 4701 Edge's Mill Road. Circa 1784. Also known as Edge's Mill Bed & Breakfast. Houses a cooking fireplace with a bake oven. Was owned by John Hoopes and Maria Hoopes Baugh heirs from 1784 to 1921.

Pim-Fellenbaum House, 1620 E. King's Hwy. Circa 1809. Built on land belonging to the Pike family. This house was first owned by Mary Pim, widow of William Pim, and the daughter of Thomas Stalker. Sarah Jane Timbier lived in the house from 1872 until 1912.

Brandywine Veterans of Foreign Wars, 4601 W. Lincoln Hwy. Circa 1816. Was owned by multiple members of the Edge family (after the land was purchased by John Edge in 1792), until it became the VFW in 1947.

Buchanan House "Ingleside" -300 N. Bailey Road. Circa 1826. President James Buchanan was an investor in this property, along with Colonel Joseph Boyd Baker. It is currently known as The Craft House. Among its owners was John W. Bausman, who operated it as a farm and orchard. Later it was sold to Christian G. & Margaret Zinn and became "Ingleside Farm". Christian Zinn was a prominent business owner in Thorndale, who also owned the original Ingleside Diner. Today this property adjoins the Ingleside Golf Course.

Williamson-Dunlap Farm, 203 S. Caln Road. Circa 1884. A lovely example of a Victorian house built on a farm once owned by James Williamson. James' son, Seymour, was described by a period newspaper as a "rampant abolitionist."

"Greenwood Manor", Edge Lane. Circa 1841. This farmhouse was most notably owned by Richard & Mary Pim and sits in a prominent position in the middle of the Ingleside housing development of the late 1960s. The one-room schoolhouse that was relocated from this farm is now used as a Caln Township symbol.

Hatfield Tea Room, Route 30 & N. Caln Road. Circa 1867. Part of the Isaac Coates property, it was purchased by Samuel Hatfield in 1831. The house was most likely built for his grandson, J. Gilbert Hatfield, whose family later operated a Tea Room on the property. It is currently occupied as apartments.

Pim-Uhler Farm, 3605 Homestead Lane. Circa 1730. This grand charming house is in the middle of the Thornridge Development. It was bought by William Pim in 1730 and stayed in the Pim family until 1863, when James Buchanan purchased it. James held it for three years before selling it to his brother Rev. Edward Buchanan. By 1907, it was purchased by Adaline Corey and it remained in that family for 90 years.

Potter's Glen, 525 Barley Sheaf Road. Circa 1728. This land straddled the Conestoga Road, an important artery between Philadelphia and Lancaster. By 1776 it was sold to Thomas Vickers, and it received its name because Vickers was a potter. After various owners, it was sold to James Grier Maitland in 1841, who held it until 1892.

Robert Pyle Farm, 1501 Fisherville Road. Circa 1750. This farmhouse was originally owned by John Mendenhall. In 1929, the house burned, leaving nothing but stone walls. His father, Ernest, rebuilt the house, giving it a more modern appearance. The Pyle family lived here for many years, before the property was sold to the Brandywine Hospital in 1987.

Isaac Coates House, 505 N. Caln Road. Circa 1779. Built by a carpenter, and the house still includes excellent examples of the carpentry of the day. The house was reportedly used as a Friends Meeting House. For 120 years it was the home of Samuel Hatfield, an ironmaster and his descendents.

Blacksmith Shop 4020 Edge Mill Road and the Sarkissian House 4019 Edge's Mill Road. Circa 1762. This land was divided from the Aaron Mendenhall holdings. It included a blacksmith's shop. This property was listed as a Sadler's shop on the "Chester County Architectural Inventory." Aaron's son, Griffith, inherited the property and in his will he left his tools to his son John. In 1864, George

Washington White purchased the property. In 1887, the shop went for sale listed as "a stone blacksmith and wheelwright shop, comfortable dwelling, and a frame stable." It is near the Beaver Creek.

Seltzer-Woodruff Farm, Caln Meetinghouse Road. Circa 1790. Was demolished for the King's Grant housing development. This property began under ownership of Warwick Miller in 1765, who purchased it from Richard Pike, whose forebears bought the land in 1703. It was a loghouse that was expanded in 1805. There also was a barn. It was held by the Woodruff family for 63 years.

Spackman Farm Tenant House, 3201 E. King's Hwy. Circa 1833. This was a tenant house for a larger farm operation. It was built in two parts. There is also evidence of an old porch on the south side.

Spackman House / Farm, 303 Moore Road, was built in 1850, with the original structure from 1790.

Thorndale Inn, 430 Bondsville Road. Circa 1872. Portions of this house were probably built much earlier than 1872. In 1938, this house functioned as a restaurant called the Dutch Cupboard, and was later renamed the Dutch Arms, and then the Thorndale Inn.

Umstead-Shearer House, 828 Barley Sheaf Road. Circa late 1700s. After 1887, this house was the home of several generations of the Umstead family and their descendants. Local lore claims that James Fitzpatrick (Sandy Flash) a local outlaw may have spent much time at this property when it was known as the Wild Cat Inn.

Toomey Farm, 1500 & 1501E. King's Hwy. Circa 1749. This farm extends across Caln and West Brandywine Township, and includes two historical houses. #1500 is a small tenant house in the meadow, with a hand dug well. #1501 is a large farm house that was the home of the Toomey family from 1907 to 1991.

Valentine's House, 1101 Bondsville Road. Circa 1883. This property was originally part of Robert Valentine Sr.'s purchase of land from James Mendenhall in 1762. In the 19th century, this area was developed by Caln entrepreneur James Guie. His son, James Jr. inherited a "new stone dwelling and lot of about two acres." This house appears to have been erected on part of an older dwelling, because the cellar has an 18th-century-style fireplace.

Wiggins Property, 4207 E. Lincoln Hwy. Date unknown. Locals often thought it was the toll gate on the Lincoln Highway, one of two in Caln Township. Once part of Gallagherville Village, this tiny residence was listed as part of the George Fox estate in 1908. George Fox purchased the dilapidated Gallagherville Village and tore down most of its buildings in 1897.

Tri-corner Farm or Robert Valentine II House, 4020 Edge's Mill Road. Circa 1804. This land was originally associated with the Edge Mill property, but was then separated and became a blacksmith shop in the late 1830s. It has been locally known as the "Blacksmith's House". Some of its owners were James Mendenhall, Robert Valentine, Thomas & Joseph Downing, George Washington White, and James Hurtt.

218 Embreeville Road. Circa 1758. Settled as part of John Mendenhall's "valley land" it was a working farm for members of the Pim family from 1731 to 1835. It eventually was owned by William Bailey by 1868, and then was owned by the Thorndale Iron Works from 1879 to 1911.

2909 Fisherville Road. Circa 1710. This lovely log cabin house sits along Spackman's Run. Once a small subsistence farm, it is now a charming home on 1.7 acres. This land, patented to Joseph Pike in 1703, passed through the hands of the Stalker, Downing, and Guie families, before becoming the home of the Mendenhall from 1847 to 1940. The 72 acre farm was then sold to Real Estate Developers, Beryl & Frank Breuninger. At that time housing lots all along N. Bailey Road, Fisherville Road, and Caln Meetinghouse Road were divided up for individual sale. These lots contained restrictions, such as requiring that new houses had indoor plumbing and a minimum house value of \$5000.

1114 Osborne Road, Downingtown, PA. Circa 1871. From 1712 to 1804 this land was owned by Aaron Mendenhall and family heirs. The property changed ownership frequently. Then, Phoebe Prime owned it between 1828 and 1961. The sheepskin deed has been passed down to the current owners and is signed by William Penn from his 1689 original land grant to Thomas Read.

4413 Edge's Mill Road. Circa 1924. While it appears to be an old stone home with stucco covering, this is really a frame house. It was most likely a tenant house for the Joseph/John Hoopes farm further down Edge's Mill Road near Rt. 322.

3328 Hazelwood Avenue. Circa 1835. Known locally as Price's Lawn, this grand old place is now divided into four apartments. Once part of John Mendenhall's "valley land," it has been through several ownerships, one of the longest by Charles & William Bailey, 1882-1911, then to Isaachar Price and his daughter's family; and N. Hayes Jones 1911-1981.

5030 Horseshoe Pike. Circa 1841. In 1681, William Penn sold parcels of 500 acres each to four local owners, including this land. The Thomas Parke family and heirs owned the property from 1744 to 1841. By 1841, a house was described as having a 92 acre parcel. In 1907, it was purchased by Ruth A. Lloyd, and remained the Lloyd Farm for decades until 1973, when the estate of William Lloyd transferred it to St. Joseph's Hospital. It was held by the hospital until 1990, and is now owned by the Archdiocese of Philadelphia.

## **F. COMMUNITY FACILITIES & SERVICES BACKGROUND INFORMATION**

Community facilities include parks, municipal buildings, fire stations, libraries, schools and related facilities. Community services include fire protection, police protection, recreation programs and many other services.

### **Township Government**

Caln Township operates under the State's First-Class Township Code, and is governed by an elected five member board of commissioners. The Township's government is organized into the following components:

- Administration
- Buildings & Life Safety
- Finance
- Engineering
- Police
- Public works
- Wastewater operations

The Township Planning Commission is composed of five members, and an ex-officio member, who are appointed by Board of Commissioners. The Planning Commission reviews proposed subdivisions and land developments, and has a key role in updating this Comprehensive Plan and the Township's development regulations. The Commissioners also appoint three residents and two alternates to the

Zoning Hearing Board, which has quasi-judicial authority to make decisions regarding zoning variances and special exception applications.

Among other boards, there is a Township Park and Recreation Board, a Storm Water Management Advisory Committee and the Township participates as a member of the Western Chester County UCC Appeals Board.

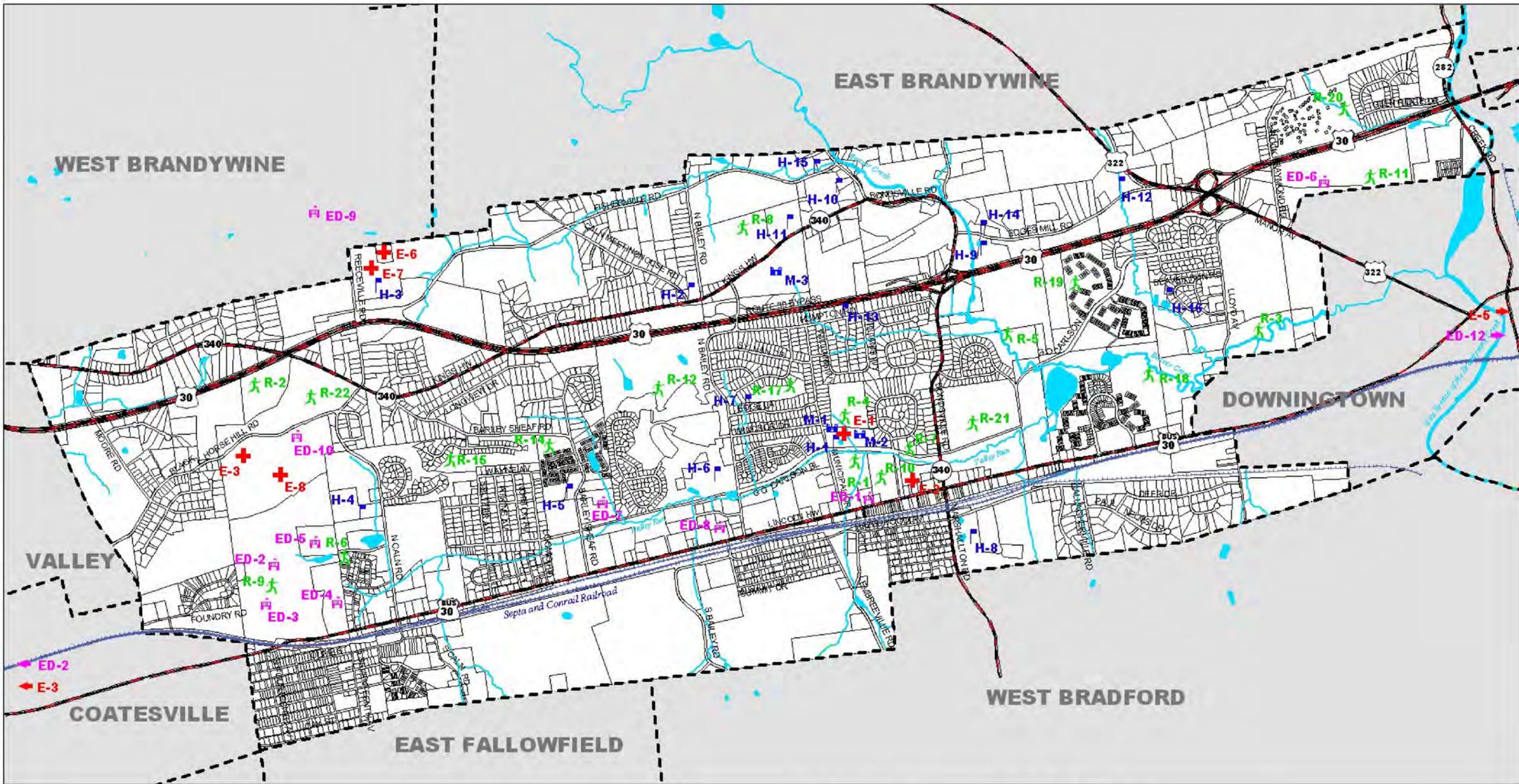
The Caln Township Municipal Building was built in 1962 and is located at 253 Municipal Drive. The building consists of 7,500 square feet of township offices and meeting space. Adjacent to the Township building is the Police Station, which is described below.

There has been periodic discussions in recent years about alternatives to renovate or replace these buildings. Options include a new building on the existing parcel, a new building on a Township-owned parcel on Kings Highway, and the purchase of a building at another site that could be converted to municipal use. Reportedly, the Township-owned land northeast of the existing Township Building is legally limited to open space purposes.

While some improvements have been made to the existing structures (such as HVAC improvements, carpeting, and roof repairs), there still are on-going concerns over the long-term need to develop a municipal complex that will provide for the municipal operational needs. The issues include:

- Need for additional parking.
- Need for modern smoke alarms and security systems.
- Americans With Disabilities Act compliance
- Computer/phone/lighting/technology changes.
- Additional space for meeting rooms, storage and future office needs.
- Need to upgrade doors and windows.
- Public works facility improvements needed to comply with Federal MS4 water quality requirements.

The Township Public Works Facilities are located next to the Township Building.



- Legend**
- Railroads
  - Major Roads
  - Municipalities
  - Surface Water
  - Parcels

- Services and Uses**
- Municipal Services
  - Emergency Services
  - Educational Facilities
  - Recreational Facilities
  - Historical Sites



2000 0 2000 Feet



**Figure 8**  
**Caln Township**  
**Comprehensive Plan**  
**Community Facilities**  
**and Services**

**EXISTING PARKS, COMMUNITY FACILITIES AND HISTORIC BUILDINGS**

Map Listing Designations for the previous map of Parks, Community Facilities and Historic Buildings

<u>Map #</u>	<u>Facility Name</u>	<u>Size</u>	<u>Type of Park</u>	<u>Ownership &amp; Maintenance</u>
R-1	Caln Municipal Park	20.00 ac.	Community	Caln Township
R-2	Caln Park West	20.06 ac.	Community	Caln Township
R-3	Lloyd Park	30.09 ac.	Conservation Area & Open Space	Caln Township
R-4	Uhler Tract	15.00 ac.	Conservation Area & Open Space	Caln Township
R-5	Brookfield Open Space	13.40 ac.	Conservation Area & Open Space	Caln Township
R-6	Dawkins Park	1.00 ac.	Mini-Park & Playground	Caln Township
R-7	G. O. Carlson Blvd.	6.20 ac.	Linear Park & Open Space	Caln Township
R-8	Kings Highway Property (aka Griffith Property)	125 ac.	Conservation Area & Open Space	Caln Township
R-9	Coatesville High School and CCIU	118.7 ac.	Quasi-Public	Coatesville Area School District
R-10	Caln Elementary School	5.47 ac.	Quasi-Public	Coatesville Area School District
R-11	Downingtown High School	57.00 ac.	Quasi-Public	Downingtown Area School District
R-12	Ingleside Golf Course	166.2 ac.	Quasi-Public	Ingleside Village & Golf Course
R-13	Ingleside Village	9.70 ac.	Private	Ingleside Village
R-14	Barley Sheaf Farms	31.00 ac.	Private	Barley Sheaf Farms
R-15	Hidden Forest	42.10 ac.	Private	Hidden Forest
R-16	Hillside Apartments	8.60 ac.	Private	Stratford Income Properties
R-17	Inglewood Park	8.10 ac.	Private	Inglewood Development
R-18	Wedgewood Estates	77.10 ac.	Private	Wedgewood Estates
R-19	Beaver Run	48.06 ac.	Private	Beaver Run
R-20	Downing Ridge	3.60 ac.	Private	Downing Ridge
R-21	Meadow Lake	11.38 ac.	Private	Meadow Lake
R-22	VA Medical Center	24.14 ac.	Private	VA Medical Center

**Municipal Finances and Budget**

The following information is provided to highlight the main sources of revenues and main categories of expenses in operating the Township Government in a typical year. The 2015 budget for Caln Township estimated revenues at \$9.77 million and expenses of \$11.79 million, as seen in the table below. The difference between revenues and expenditures is mainly explained by payments on capital bonds. Separate accounts are used for various categories of revenues and expenditures. The account for the golf course is intended to break even over the course of the year. The street light account is funded by assessments on residents near street lights, and is intended to break even. The solid waste account is also intended to come close to breaking even during the course of the year.

Table A-15  
**Caln Township Municipal Budget, 2016**

Category	2015 Ending Fund Balance	2016 Proposed Revenue	2016 Proposed Expenditures	2016 Ending Fund Balance
General	\$1,222,660	\$6,793,973	\$6,590,670	\$1,425,963
Street Light	\$6,809	\$53,065	\$47,000	\$12,874
Golf	(\$91,715)	\$664,075	\$736,525	(\$164,165)
Escrow	\$235,865	\$0	\$0	\$235,865
Self Insurance	\$151,911	\$13,400	\$23,000	\$142,311
Capital Bond	\$511,418	\$51,916	\$453,378	\$109,956
Capital Reserve	\$267,132	\$1,599,373	\$1,823,939	\$42,566
Solid Waste & Equipment	\$365,598	\$1,308,747	\$1,184,434	\$489,911
Sewer Capital	\$140,691	\$450	\$0	\$141,141
Fire & Equipment	\$12,338	\$434,453	\$310,918	\$135,873
Open Space	\$87,969	\$79,003	\$25,000	\$141,972
Equipment	\$272,611	\$186,984	\$88,753	\$370,842
Liquid Fuels	\$5,477	\$415,678	\$302,780	\$118,375
<b>Total</b>	<b>\$3,188,764</b>	<b>\$11,601,117</b>	<b>\$11,586,397</b>	<b>\$3,203,484</b>

Source: Caln Township

**Police Protection**

The Department is headquartered in a 5,000 square foot building adjacent to the Township Building on Municipal Drive. The facility is adequate, although additional file storage space and showers in the men’s and women’s locker rooms would be beneficial. According to the Police Chief, the building is old and would be designed very differently if re-built under current standards.

The Department participates with County-wide teams that address accident reconstruction and major incident response.

As of 2016, the Department employed a total of 20 personnel. Eighteen are sworn officers (including two criminal investigators) and there are two civilian employees - one full-time and one part-time. The Department operates 11 vehicles. On average, the Department's vehicles are scheduled for replacement every 4–5 years old. Department vehicles included:

- Six patrol cars
- One mid-size SUV
- One administrative vehicle for the chief
- One administrative vehicle for the lieutenant
- Two compact SUVs for the criminal investigators

Bulletproof vests, which have a maximum 5-year shelf life, are on a regular replacement plan. All mobile data computers and portable radios were replaced in 2016 as part of a countywide project.

Most equipment purchases/repairs unique to the Police Department are processed through the Township's annual budgetary process. Large-scale projects—such as extensive roof repair/replacement, exterior paint for the entire building, or parking lot repaving—are funded through the township capital improvement process.

### **Fire Protection/Emergency Medical Services**

Fire protection and emergency medical services are provided by the Thorndale Volunteer Fire Company (TVFC). The original station was built along the Lincoln Highway in 1949 and is rented out. The current fire station is located at 3611 East Lincoln Highway and was built in 1992. The facility includes a club room, banquet hall, three drive-thru bays, a meeting room, and offices.

As of 2016, TVFC has the following equipment:

- 2015 pumper, with 1,500 gallon/minute (gpm) pump, 750 gallons of water, light tower;
- 1995 Pumper, with 1,500 gpm pump and 750 gallons of water;
- 2003 Rescue-Pumper, with 1,500 gpm and 650 gallons of water;
- 2006 SUV for Quick Response Service for Advanced Life Support;
- 2003 traffic control truck;
- 2013 traffic control truck;
- Traffic Sign Board Custom Trailer;
- Enclosed Utility Trailer, to carry traffic cones and portable barricades; and
- 2006 Chief's Vehicle.

The TVFC has 59 personnel, as follows:

- 21 firefighters
- 5 engineers
- 2 paramedics
- 8 emergency medical technicians (EMTs)
- 7 emergency medical responders (EMRs)
- 11 fire police officers
- 1 photographer
- 1 fire prevention officer
- 2 junior firefighters
- 1 township-paid firefighter

The TVFC serves all of Caln Township. In addition, TVFC has mutual aid agreements with the surrounding municipalities.

The U. S. Veterans Administration Medical Center has an internal fire department (VAFD) that provides mutual aid support to area fire departments, as requested. The VAFD is staffed 24 hours per day and has a total of 16 personnel. The VAFD has a 2009 pumper and a 2006 mini-pumper.

The TVFC has prepared a proposed comprehensive apparatus replacement plan for 2012–2040, which proposes a schedule to replace each vehicle. Some vehicles have been funded by Caln Township.

According to representatives of the TVFC, water pressure in the majority of the Township is adequate for firefighting operations, where there are hydrants. Several areas in the Township do not have hydrants or a public water supply, including:

- North Bailey Road (portion)
- South Bailey Road (portion)
- Bondsville Road (portion)
- West Bondsville Road
- Caln Meeting House Road
- Colonial Gardens
- Edges Mill Road
- Fishville Road
- Granger Lane
- Moore Woods
- Osborne Road
- Reeceville Road
- School House Lane
- portions of Thorndale Heights
- Wood View
- Woodhill Estates

TVFC raised the following issues:

- It is important that apparatus be funded and replaced on a timely basis, to avoid problems with unreliability.
- It would be desirable if the Township would consider the enactment of a dedicated real estate tax for fire services. This funding source could not only supplement existing fundraising by the Fire Company, but also could free up some general funds that the Township currently provides to TVFC.
- TVFC would like to continue to be involved in reviewing proposed developments and building projects at an early stage in their design. In addition to making sure there is adequate access for emergencies, it also would help TVFC plan for future needs.
- It is important to supplement daytime staffing with Township employees who are trained as firefighters. It also is important to allow those employees flexibility in their schedules to complete training.

### **Water Service**

Central water service in the vast majority of Caln Township is provided by the Pennsylvania-American Water Company. A small area in the northern part of the Township is served by Aqua America, Inc. In addition, scattered properties have on-site wells.

According to Pennsylvania-American officials, the company would like to provide service to homes with on-site wells where it is cost-effective to extend lines. Central water extensions also provide water supplies for firefighting. Reportedly, streets in Caln Township within the Pennsylvania-American service area that do not have central water include:

- Jewel Ave.
- Edgemont Ave.
- Oak Ln.
- Bungalow Glade
- Norwood Ave.
- Warren Ave.
- Ambrose Ave.
- Broad St.
- Fulton St.
- Watson Ave.
- Hartley Ave.
- Atkins Ave.
- Norton Ave.

- Wayne Ave.
- Miller Ave.
- Seltzer Ave. north of Whissell Dr.
- Loomis Ave.
- Kingsway Dr.
- Ridgeview Dr.
- Longview Dr.
- Dana Dr.
- Dogwood Dr.
- Scott Dr.
- Moore Rd.

As required to be stated under State law, this Plan recognizes that: (1) lawful activities such as extraction of minerals impact water supply sources and such activities are governed by statutes regulating mineral extraction that specify replacement and restoration of water supplies affected by such activities; and (2) commercial agriculture production impact water supply sources.

### **Wastewater Service**

The Caln Township Municipal Authority (CTMA) provides central sewage service to a great majority of the Township. Sewage effluent from the eastern half of the Township is gravity flow to the Downingtown Area Regional Authority (DARA) treatment plan. Sewage effluent from the western half of the Township is pumped to the Coatesville Regional Wastewater Treatment Facility operated by the Pennsylvania American Water Company (PAWC).

The Township system consists of approximately 51 miles of sanitary sewer pipes ranging in size from 8" to 24". Pipes are upgraded based on calculation evaluations performed by the developer and the CTMA engineer when a development comes on-line. The Township has a continuous repair and maintenance program for the system.

The western part of the system (served by PAWC in Coatesville) is allocated 800,000 gallons per day (gpd) and currently uses an average of 182,465 gpd, or approximately 23 percent of the Township's allocation. The eastern part of the system (served by DARA in Downingtown) is allocated 1,387,500 gpd and currently uses 1,236,041 gpd, or approximately 89 percent of the Township's allocation.

The CTMA is not aware of any sewers within the current DARA or PAWC service areas within Caln Township that are projected to be overloaded within the next five years. No overflows or surcharges were experienced by any portion of the system in 2014.

The CTMA authorized the design and permitting of a new municipal pump station. The project will consist of:

- Eliminating the existing North Caln Road Pump Station, with all current flows being conveyed by gravity into the Caln Interceptor.
- Constructing a new pump station near the intersection of Municipal Drive and G.O. Carlson Boulevard along the Caln Interceptor.
- Conveying flows from the Caln Interceptor via the new Municipal Drive Pump Station (which will have a pumping capacity 772,000 gpd), to the PAWC gravity conveyance system via a new 8-inch diameter force main approximately 14,000 feet in length.
- Conveying flows in the Caln Interceptor not pumped to PAWC from the Caln Interceptor to DARA in the Caln Interceptor.

- Conveying flows west of 16<sup>th</sup> Avenue and west of the VA Hospital into the PAWC system via gravity sewers.

Based on projections by CTMA and assuming current zoning remaining in place, these projects and new development are expected to result in flows of 800,000 gpd to the PAWC system and 1,387,500 gpd to the DAWA system by 2024. At that point, each system is projected to be using 100 percent of the wastewater allocations for each plant.

### **Solid Waste Management (Trash / Recycling)**

In accordance with State law (Act 101), Chester County has an adopted solid waste management plan. There are no solid waste disposal facilities (landfills, resource recovery facilities, or transfer stations) in Caln Township.

Caln Township contracts with a company to provide once per week trash pick-up to residential properties. Residents are issued a trash cart and a recycling cart. The Township also collects and recycles yard waste and small tree branches for residents who are part of the Township trash program. The Township also offers a chipping service for large branches and leaf collection.

### **Educational Facilities and Services**

Public education in Caln is provided by the Coatesville Area School District (CASD), which serves nine municipalities:

- |                             |                             |                            |
|-----------------------------|-----------------------------|----------------------------|
| • Caln Township             | • Modena Borough            | • Valley Township          |
| • City of Coatesville       | • Sadsbury Township         | • West Brandywine Township |
| • East Fallowfield Township | • South Coatesville Borough | • West Caln Township       |

The elementary schools serve grades K through 5, the middle schools include grades 6 through 8, and the high school houses grades 9 through 12. Students in Caln Township attend three elementary schools (Caln, Reeceville, and East Fallowfield), the Scott and North Brandywine Middle Schools, and the Coatesville Area High School.

As of April 2016, the total enrollment for the Coatesville Area School District was 6,621 students. Enrollments for the schools within or immediately adjacent to Caln Township were:

- Caln Elementary School - 556 students (which is in Caln Township, at 3609 E. Lincoln Highway)
- Reeceville Elementary School - 480 students (which is in Caln Township, at 248 Reeceville Road)
- North Brandywine Middle School - 450 students (which is immediately north of Caln Township along Reeceville Road)
- Coatesville Ares Senior High School (includes Intermediate High School) - 2,025 students (which is in Caln Township, at 1445 E. Lincoln Highway).

Other schools in the District (with April 2016 enrollments) include:

- East Fallowfield Elementary School - 332 students
- Friendship Elementary School - 371 students
- Kings Highway Elementary School - 518 students
- Rainbow Elementary School - 807 students
- Scott Middle School - 462 students
- South Brandywine Middle School - 620 students

Over the years, the school district discussed various plans to replace schools, including a scenario that would have closed Caln Elementary School. However, financial limitations have caused the district to emphasize renovation and repair of existing buildings, including Caln and North Brandywine. The Pennsylvania Department of Education projects that total enrollment in the CASD will increase from 7,361 in 2014-2015 to 8,110 in 2021–2022, an increase of 749 students, or an increase of 10.2 percent.

The Chester County Intermediate Unit (CCIU) operates the four campuses of the Chester County Technical College High School. Caln Township students attend the Brandywine Campus. CCIU also operates the Child and Career Development Center, a comprehensive K-12 school for students with severe disabilities.

## **Parks and Recreation**

Caln Township owns five parks and a golf course:

- *Caln Municipal Park*: 20-acre park located off of Municipal Drive, which includes lighted ball fields, two large pavilions, restrooms and play areas for small children, new tennis courts, a new picnic pavilion, a roller hockey rink, and a large play structure.
- *Lloyd Park*: 30-acre park located off of Lloyd Avenue at Mary Street, which contains some play equipment, two sand volleyball courts, walking trails, a gazebo structure, and a canine area.
- *Caln Park West*: 20-acre park located on Route 340 near the VA Medical Center, which includes a combination soccer/baseball field.
- *Dawkins Park*: small neighborhood park in the Brandywine Homes section of the Township, which includes play equipment, a picnic pavilion, and a basketball court.
- *Kings Highway Open Space and Recreation Area*: 125 acres of the Griffith farm site was acquired by the Township. A master site plan was completed in 2008.
- *Ingleside Golf Club*: open to the public, 104 Horseshoe Drive.

The Master Plans for Lloyd Park and King’s Highway are summarized in the Community Facilities and Services Plan section.

The Township also owns several other open space properties and has created an open space fund to secure donations and grants to acquire additional open space and park properties.

## **Library Services**

The Chester County library system is a federated system composed of a eighteen libraries and a bookmobile. The system is overseen by a board appointed by the County Commissioners.

The central Chester County Library in Exton is a County-owned institution that serves as the system headquarters. Member libraries maintain their own governance and receive support from the state, municipalities and donors. The closest public libraries to Caln Township are the Coatesville Area Public Library and the Downingtown Library.

## **G. TIMING & AMOUNT OF DEVELOPMENT**

The timing and amount of development in Caln Township will be greatly affected by the Township's zoning policies, as well as by the region's economy. Growth pressures will also be impacted by employment levels at major employers in the region.

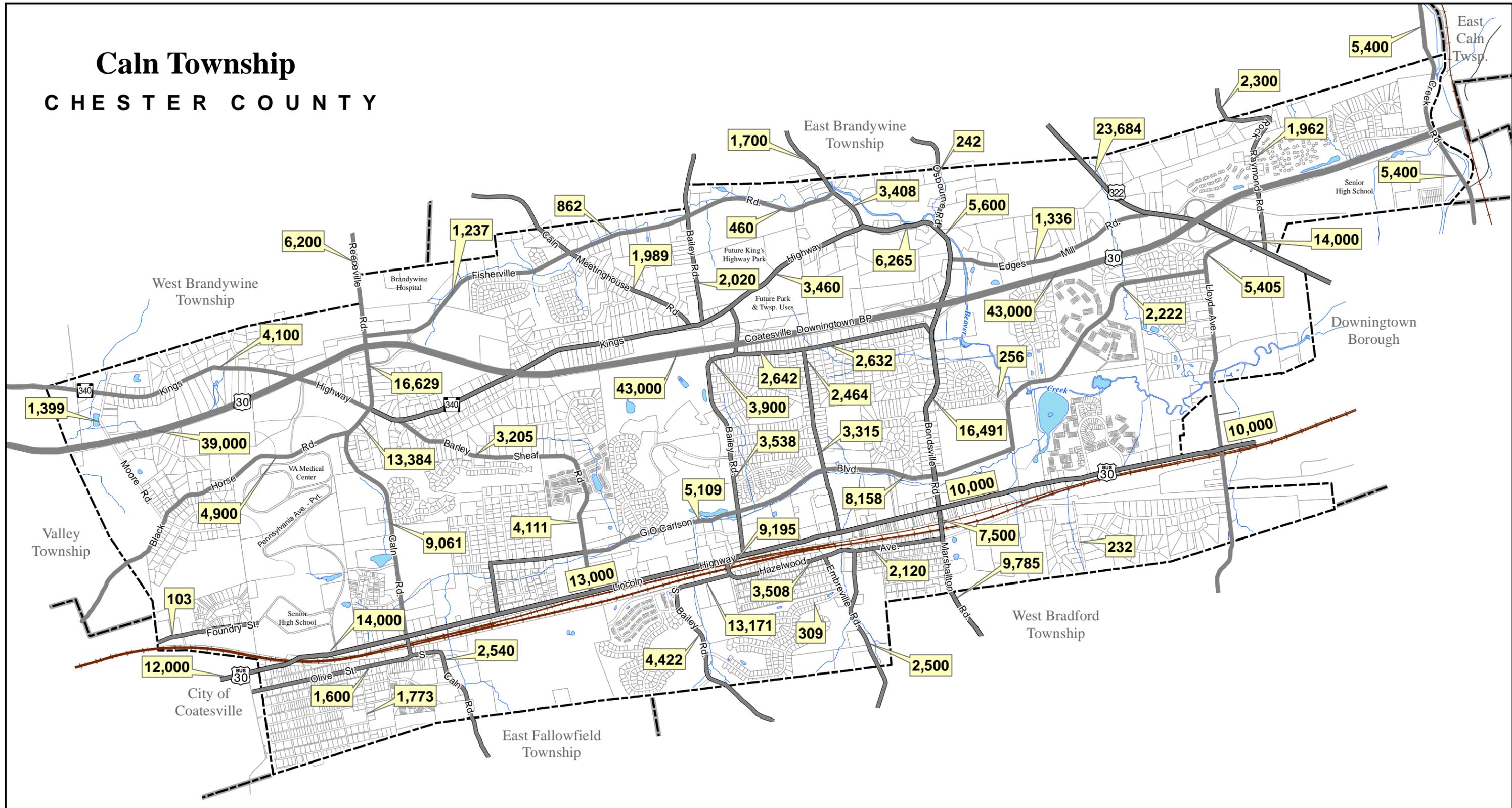
## **H. TRANSPORTATION BACKGROUND INFORMATION**

Most of the transportation background information has been incorporated into the Transportation Plan section, including descriptions of current traffic problems and current public transportation services.

The map on the following page shows estimated traffic volumes along major roads in the Township.

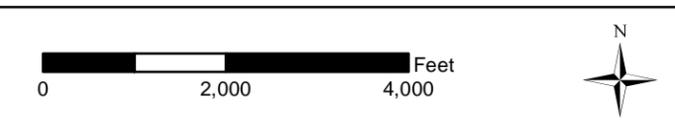
# Caln Township

## CHESTER COUNTY



 **Urban Research & Development Corporation**  
 28 West Broad Street Bethlehem, PA. 18018 610-865-0701

#### Traffic Count



SOURCE : 2012 Caln Township Counts and 2013 PennDOT Estimates.

# 2012 and 2013 Traffic Volumes

**I. SUMMARY OF POTENTIAL FUNDING SOURCES**

The following table lists various State and federal grant programs that can be used for revitalization, economic development and community development purposes. Funding sources are always changing, with new programs being added and older programs being revised or deleted. Therefore, it is important to keep up-to-date with current funding opportunities, the amount of funding available and competitiveness in each program, and the likelihood that a program would fund a particular project.

While most programs are administered through departments of the Pennsylvania state government, some others are administered by the Commonwealth Financing Authority (CFA).

Potential applicants should always contact the regional or central office of the funding source to discuss a project and to fully understand the program requirements.

The websites of the primary funding programs are:

PA Department of Community and Economic Development (DCED):

<http://www.newpa.com/find-and-apply-for-funding/>

PA Department of Conservation and Natural Resources (DCNR):

<http://www.dcnr.state.pa.us/>

PA Department of Environmental Resources (DEP):

<http://www.dep.state.pa.us/>

PA Historical and Museum Commission (PHMC):

<http://www.portal.state.pa.us/>

Table A-16  
**Funding Programs for Community and Economic Development**

<b>Program Name</b>	<b>Program Type</b>	<b>Overview of Program</b>	<b>Administering Agency(ies)</b>
1. Alternative and Clean Energy Program (ACE) and Alternative Fuels Incentive Grant (AFIG)	Grants, Loans & Loan Guarantees	Provides financial assistance to utilize, develop, and construct alternative and clean energy projects in the state. A funding match is required.	DCED and DEP
2. Alternative Fuel Vehicle Rebate Program (AFVRP)	Grants	Provides rebates for the purchase of new, non-leased, plug-in hybrid, plug-in electric, natural gas, propane and hydrogen fuel cell vehicles.	DEP
3. Automated Red Light Enforcement Grant Program	Grants	Offers grants to improve traffic signals and related electronic systems, to update signal timing, to add turn lanes at intersections to increase capacity, to improve traffic signs and pavement markets (including around school zones), to make pedestrian safety improvements along a road, to install guiderails, and to make drainage improvements that are directly related to a road improvement.	PennDOT

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<b>Program Name</b>	<b>Program Type</b>	<b>Overview of Program</b>	<b>Administering Agency(ies)</b>
5. Building PA	Loans	Provides mezzanine capital for developers for real estate assets in small to mid-sized Pennsylvania communities.	DCED
6. Business in Our Sites	Grants and Loans	Provides grants and low interest loans to improve ready-to-build business sites. Funds can be used to acquire land, conduct environmental assessment and remediation, perform demolition, install infrastructure, and construct on-site and off-site transportation improvements.	DCED
7. Business Opportunities Fund (BOF)	Loans	Installment loans, lines of credit and technical assistance for minority business enterprises, women-owned business enterprises and small businesses.	DCED
9. Circuit Rider Program (Part of the Community Conservation Partnerships Program - C2P2)	Grants (match required)	Grants to initiate new programs and services for a county, Council of Government, and/or multi-municipal entity that individually does not have the financial resources to hire a professional full-time staff person. The Circuit Rider's purpose is to initiate new programs to more efficiently and effectively meet recreation, park, or open space needs. The grantee will be responsible for any funding of the position after the State funding expires.	DCNR
10. Community Development Block Grant (CDBG)	Grants, Technical Assistance	Provides funding for projects that serve households or geographic areas with low to moderate incomes, or that eliminate blight, or that improve access for persons with disabilities. Typical projects include housing rehabilitation, stormwater improvements or construction of ADA ramps at curbs.	DCED and Chester Co. Dept. Of Community Development
12. Community Recreation and Conservation Program (Part of C2P2).	Grants (match required)	Grants are awarded to municipalities and authorized nonprofit organizations for: <ul style="list-style-type: none"> <li>• Planning for feasibility studies, trail studies, conservation plans</li> <li>• Master site development plans</li> <li>• Comprehensive recreation, park, open space, and greenway plans</li> <li>• Land acquisition for active or passive parks, trails, and conservation purposes</li> <li>• New development and rehabilitation of parks, trails and recreation facilities</li> </ul>	DCNR
15. Greenways, Trails and Recreation Program (GTRP)	Grant (match required)	Allocates funds via the CFA from the Marcellus Legacy Fund to plan, acquire, develop, rehabilitate, and repair greenways, recreational trails, open space, parks and beautification projects.	DCED

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<b>Program Name</b>	<b>Program Type</b>	<b>Overview of Program</b>	<b>Administering Agency(ies)</b>
16. High Performance Building Program (HPB)	Grants Loans Guarantees	Underwrites the cost premiums associated with the design and construction or major renovation of high performance buildings in the state.	DCED and DEP
17. Historic Marker Nomination Program	Grants	Nominations for state historic markets must be submitted by January 5 <sup>th</sup> of each year.	PHMC
18. Historic Preservation Tax Credit (HPTC)	Tax Credits	Offers tax credits to qualified taxpayers who restore a qualified historic structure into an income-producing property. All projects must include a qualified rehabilitation plan approved by the Pennsylvania Historical and Museum Commission (PHMC).	DCED
19. HOME	Grants Loans Tech. Asst.	Provides federal grant, loan, and technical assistance to municipalities to expand the supply of decent and affordable housing for low- and very low-income Pennsylvanians.	DCED and Chester Co. Dept. of Community Dev.
20. Housing Rehabilitation and Home Buyer's Programs	Grants and Loans	Provides financing to rehabilitate existing housing, and to assist households in purchasing housing.	Chester Co. Dept. Of Community Dev.
21. Industrial Sites Reuse Program (ISRP)	Grants Loans (match required)	Supports performing environmental site assessment and remediation work at former industrial sites.	DCED
22. Job Creation Tax Credits (JCTC)	Tax Credits	A \$1,000-per-job tax credit to approved businesses that create new jobs in the state within 3 years.	DCED
23. Joint Opportunity Business Partnership Fund (JOB Partnership Fund)	Loans	Provides loans to private equity partnerships for investment in Pennsylvania companies.	DCED
24. Keystone Communities Program (KCP)  (The Elm Street Program is currently not separately funded, but that could change in future years).	Grants	Promotes revitalization by designating and funding communities that are implementing Main Street, Elm Street, Enterprise Zone efforts or other community development efforts by supporting physical improvements to designated and/or other communities that are undertaking revitalization activities. Also, provides accessible modifications for the homes of persons with physical disabilities. Components include: <ul style="list-style-type: none"> <li>• PA. Accessible Housing</li> <li>• Housing and Redevelopment Assistance</li> <li>• Keystone Main Streets</li> <li>• Keystone Elm Streets</li> <li>• Keystone Enterprise Zones</li> <li>• Keystone Communities</li> <li>• Keystone Communities Development Projects</li> </ul>	DCED

*Caln Township Comprehensive Plan - 2017*

<b>Program Name</b>	<b>Program Type</b>	<b>Overview of Program</b>	<b>Administering Agency(ies)</b>
25. Keystone HELP Energy Efficiency Program	Loans	Provides low-interest loans to residents for energy efficiency improvements to homes, including the installation of energy-efficient heating and air conditioning systems, geothermal systems, insulation and air sealing, and more.	DEP (partnered with PA Treasury Dept., PHFA, and AFC First Financial)
26. Keystone Historic Preservation Grant Program	Grants	Funding for historic preservation projects.	PHMC
29. Local Government Capital Project Loan Program (LGCPLP)	Loans	Low-interest loans to local government for equipment and facility needs.	DCED
30. Machinery and Equipment Loan Fund (MELF)	Loans	Low-interest loans for businesses to acquire and install new or used machinery and equipment or to upgrade existing machinery and equipment	DCED
33. Multi-modal Transportation Fund (MTF)	Grants (match required)	Provides grants to encourage economic development and ensure that a safe and reliable system of transportation is available to the residents of the commonwealth.	DCED and PennDOT
34. Municipal Assistance Program (MAP)	Grants (match required)	Provides funding to assist local governments to plan for and efficiently implement services and improvements, and manage development, with an emphasis on intergovernmental approaches. Funding is available for three groups of activities: shared services, community planning and floodplain management.	DCED
35. Municipal Recycling Program (MRP)	Grants	Grants to assist municipalities and counties in developing and implementing recycling programs.	DEP
36. Municipal Signal Partnership Program (also known as the "Green Light-Go" Program)	Grants (50% match required)	Grants to improve safety and mobility by reducing congestion and improving efficiency of existing traffic signals on state highways. The program is comprised of the Local Grant Element (Designated only Corridors) and the PennDOT Project Element (Critical Corridors).	PennDOT
38. Neighborhood Assistance/ Enterprise Zone Tax Credit (NAP/EZP)	Tax credits	Incentive program for private companies investing in rehabilitating, expanding, or improving buildings or land located within designated enterprise zones.	DCED
40. New Markets Tax Credits (NMTC)	Tax credits	Federal tax credits administered by the PA Housing Finance Agency (PHFA). Individual and corporate taxpayers may receive a credit against federal income taxes for making equity investments in community development projects. The credit provided to the investor totals up to 39 percent of the cost of the investment and is claimed over a seven-year period. Program is competitive.	PHFA

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<b>Program Name</b>	<b>Program Type</b>	<b>Overview of Program</b>	<b>Administering Agency(ies)</b>
41. New PA Venture Capital Investment Program	Loans	Loans to venture capital partnerships to invest in growth-stage PA companies.	DCED
42. New PA Venture Guarantee Program	Loan Guarantees	Guarantees to top-tier venture capital partnerships for investments in growth stage PA companies	DCED
43. Non-point Source Implementation Program (Section 319)	Grants	Provides funding to assist in implementing PA's Non-point Source Management Program, including funds for urban run-off, and natural channel design/streambank stabilization projects.	DEP
44. Non-point Source Pollution Educational Mini-Grants (PACD)	Grants	Helps County Conservation District inform and educate people about the causes, consequences, and clean-up of non-point source water pollution.	DEP
45. PA Housing Finance Agency (PHFA)  More information is available at <a href="http://www.phfa.org">www.phfa.org</a> .	Grants Loans Tax credits	PHFA programs include: <ul style="list-style-type: none"> <li>• Assistance in achieving home ownership.</li> <li>• Homeowners' Emergency Mortgage Assistance Program (HEMAP).</li> <li>• Programs to support rental housing, including: <ul style="list-style-type: none"> <li>– Low-income Housing Tax Credits (LIHTC).</li> <li>– Federal HOME funding.</li> <li>– Allocation of private equity bond cap.</li> <li>– Homeownership Choice Program (HCP).</li> </ul> </li> </ul>	PHFA
46. Peer-to-Peer Program (Part of C2P2)	Grants (match required)	Peer-to Peer grants are awarded to help municipalities improve park, recreation, and conservation services through a collaborative process. Projects are accomplished through contracts with experienced park, recreation, and conservation professionals from nearby communities who will work closely with local leaders. Examples include: <ul style="list-style-type: none"> <li>• Projects that form new intergovernmental recreation and park agencies (which is a high priority for DCNR),</li> <li>• Improving management of a specific facility such as a community center, trail or pool,</li> <li>• Conducting management assessment of services, and</li> <li>• Park and recreation board training.</li> </ul>	DCNR
47. PA Energy Development Authority (PEDA)	Grants Loan guarantees	Provides grants and loan guarantees for alternative energy projects and related research involving: Solar energy, Wind, Low-impact hydropower, Geothermal, Biologically-derived methane gas, Waste coal, Gasification, and demand management measures.	PEDA
48. Pennsylvania Capital Access Program (PennCAP)	Loan guarantees	Through participating banks, to support a wide variety of business purposes.	DCED

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<b>Program Name</b>	<b>Program Type</b>	<b>Overview of Program</b>	<b>Administering Agency(ies)</b>
49. PA Community Development Bank Loan Program (PCD Bank)	Loans	Debt financing for Community Development Financial Institutions (CDFIs)	DCED
50. PA Economic Development Financing Authority (PEDFA) Tax-Exempt Bond Program	Bonds	Tax-exempt bonds to be used to finance land, building, equipment, working capital and refinancings.	
51. PEDFA Taxable Bond Program	Bonds	Taxable bonds to be used to finance land, building, equipment, working capital and refinancings.	DCED
52. Pennsylvania First (PA First)	Grants Loans Loan Guarantees	Funding to facilitate increased investment and job creation.	DCED
53. PA Industrial Development Authority (PIDA)	Loans	Financing through Industrial Development Corporations for land and building acquisition, construction, and renovation resulting in the creation or retention of jobs.	DCED
54. Pennsylvania Infrastructure Bank (PIB)	Loans	For the design, engineering, right-of-way and repair, reconstruction and construction of public highways, bridges, public and private airports and railroads and public transportation systems.	PennDOT
55. PA Infrastructure Investment Auth. (PennVEST)	Low-interest loans, and limited grants	For design, engineering and construction of publicly- and privately-owned drinking water distribution and treatment facilities, storm water conveyance, and wastewater treatment and collection systems.	PennVEST
56. PA Minority Business Devel. Auth. (PMBDA)	Loans	Loans to businesses owned and operated by under-represented minorities	DCED
57. PA Natural Gas Energy Development Program	Grants	Funding purchase and conversion costs of heavy-duty natural gas vehicles.	DEP
58. PA Recreational Trails Program (Part of C2P2)	Grants (match required)	Grants to state agencies, local governments, non-profit and for-profit organizations to assist with the construction, renovation, and maintenance of trails and trail-related facilities for both motorized and non-motorized recreational trail use, and the purchase or lease of equipment for trail maintenance.	DCNR
59. PA Small Business Credit Initiative (SSBCI)	Loans	Increases access to credit for small businesses, through existing DCED programs to partner organizations and the Machinery and Equipment Loan Fund (MELF).	DCED

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<b>Program Name</b>	<b>Program Type</b>	<b>Overview of Program</b>	<b>Administering Agency(ies)</b>
60. Pollution Prevention Assistance Account Program (PPAA)	Loans	Assistance for small businesses to implement pollution prevention and energy-efficiency projects, enabling the businesses to adopt or install equipment or processes that reduce pollution, energy use or raw materials.	DCED
61. Pollution Prevention Reimbursement Grant Program (Pump and Plug Underground Storage Tank)	Grants	Grants for the reimbursement for costs of pumping and plugging underground storage tanks.	DEP
62. Public Disaster Assistance Grant Program	Grants	Provides grants to municipalities to recover from floods, major storms, and other natural disasters to replace destroyed infrastructure.	PA Emergency Mgt. Agency (PEMA)
63. Rail Freight Assistance (RFA)	Grants (match required)	Grants to build or repair rail lines or spurs	PennDOT
64. Rails-to-Trails Program (Part of C2P2)	Grant (match required)	Awarded to county and municipal governments, prequalified land trusts, educational institutions, and non-profit organizations to preserve and protect abandoned railroad corridors as trails. Projects can include: <ul style="list-style-type: none"> <li>• feasibility, master site development, and special purpose studies,</li> <li>• land acquisition, and</li> <li>• development of railroad rights-of-way for trails, including trail heads, access roads, parking areas, interpretive facilities, comfort facilities and signs.</li> </ul>	DCNR
65. Redevelopment Capital Assistance Grant (RCAP)	Grants (50% match required)	Grants for projects with strong economic development benefits, and that are not eligible for primary funding support through other State programs. Project must meet federal eligibility requirements for tax-exempt bonds. Project must first be listed in State Capital Project Itemization legislation. Typical grants include assistance in funding parking decks and building facilities for major downtown employers.	State Office of the Budget, DCED
66. Renewable Energy Program (REP)	Grants Loans Loan Guarantees	Provides financial assistance to promote the use of alternative energy (e.g., geothermal and wind).	DCED and DEP under CFA direction
67. Research and Development (R&D) Tax Credit	Tax credits	Allows companies holding qualifying R&D tax credits to apply for approval to sell those tax credits and assign them to the buyer(s).	PA Dept. of Revenue

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<b>Program Name</b>	<b>Program Type</b>	<b>Overview of Program</b>	<b>Administering Agency(ies)</b>
68. Rivers Conservation Program (Part of C2P2)	Grants (match required)	Grants to municipalities and nonprofit organizations. Funding is to develop or implement watershed/ river-corridor conservation plans. Priority is given to projects that implement plan recommendations in watersheds that are recorded on the PA Rivers Registry. DCNR will consider early implementation development projects for funding in watersheds not linked to a Rivers Conservation Plan if the project presents a significant and/or unique opportunity.	DCNR
69. Second Stage Loan Program	Loan guarantees	For working capital for 2–7 year old manufacturing, biotech, and technology-oriented companies	DCED through CFA
70. Section 108 Program	Loan guarantees	Enables local governments participating in the Community Development Block Grant (CDBG) program to obtain federally guaranteed loans to fund large economic development projects and undertake revitalization activities. The municipality commits the use of future CDBG funds to pay off the loan in case of default.	DCED
71. Small Business Advantage Grant Program (SBAG)	Grants	Provides 50 percent matching grants, up to a maximum of \$9,500, to enable a PA small business to adopt or acquire energy efficient or pollution prevention equipment or processes.	DEP
72. Small Business Pollution Prevention Assistance Account (PPAA) Program	Loans	Provides low interest loans to small businesses in undertaking projects that reduce waste, pollution or energy use. Loans will be used to fund 75 percent of the total eligible project cost, up to a maximum of \$100,000.	DEP
73. Small Business First (SBF)	Loans	Funding for small businesses, including: <ul style="list-style-type: none"> <li>• low-interest loan financing for land &amp; building acquisition and construction,</li> <li>• machinery and equipment purchases, and</li> <li>• working capital</li> </ul>	Local Area Loan Organizations (ALOs)
74. Solar Energy Program (SEP)	Grants Loans Loan Guarantees	Provides financial assistance to promote the use of alternative solar energy.	DCED and DEP under CFA direction
75. Sustainable Energy Fund Program	Loans	Low-interest loans to local governments to complete energy efficiency or renewable energy projects, such as solar photovoltaic and wind energy systems, lighting retrofits, HVAC upgrades, and building envelope enhancements.	Sustainable Energy Fund
76. Tax Increment Financing (TIF) Guarantee Program	Loan guarantees	Promotes development, redevelopment and revitalization of sites in accordance with the TIF	DCED

<b>Program Name</b>	<b>Program Type</b>	<b>Overview of Program</b>	<b>Administering Agency(ies)</b>
		Act. The program provides credit enhancement for TIF projects to improve market access and lower capital costs through the use of guarantees to issuers of bonds or other indebtedness.	
77. Technical Evaluation of HSCA Remedial Response	Grants	A Hazardous Sites Cleanup Act (HSCA) host municipality can receive a grant to conduct an independent technical evaluation of a proposed remedial response at a HSCA site. The grant money is locally administered by and available through the County.	DEP and the County
78. Transportation Alternatives Program (TAP)	Grants (match required)	Provides federal grants to enhance pedestrian and bicycle facilities, improve access to public transportation, create safe routes to schools, preserve historic transportation structures, provide environmental mitigation, create trails that serve a transportation purpose, and promote safety and mobility.	PennDOT
79. TreeVitalize Tree Planting Program	Grants	Provides grants to municipalities and established non-profit organizations to buy and plant trees along public streets and within public parks.	PA. Horticultural Society and PA. DCNR
80. Vision Partnership Program	Grants	Provides funding for comprehensive plans, transportation plans and zoning ordinance updates.	Chester Co. Planning Commission
81. Water Supply and Wastewater Infrastructure Program (PennWorks)	Loans, with some Grants to Distressed Areas	Funding to ensure safe water supply and proper wastewater infrastructure. The program is for: <ul style="list-style-type: none"> <li>• water and sewer projects not used solely for residential purposes,</li> <li>• land and building acquisition,</li> <li>• demolition,</li> <li>• water/sewer project construction costs, and</li> <li>• project engineering and other fees.</li> </ul>	DCED
82. Weatherization Assistance Program (WAP)	Grants	Increases energy efficiency for low-income homeowners, including through installation of insulation.	Housing Partnership of Chester County (DCED funding)

Source: Websites of the various agencies.