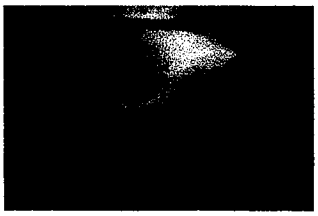
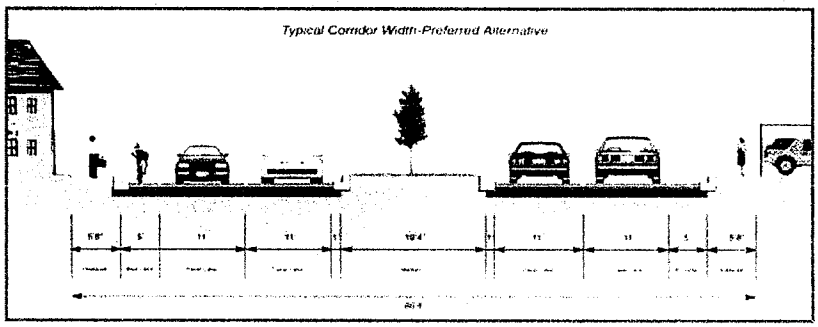
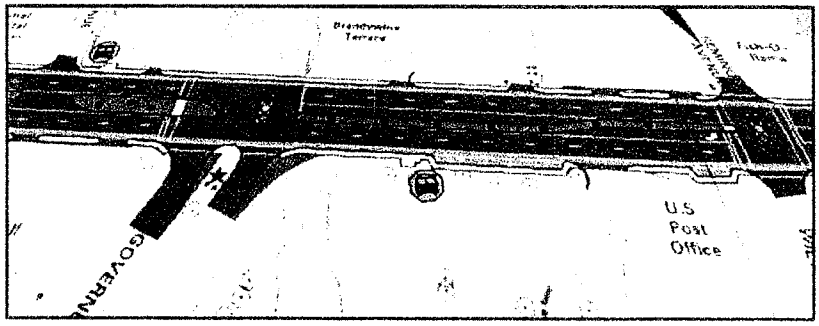
Claymont Transportation Plan Report







WR&A

DelDOT

Claymont Transportation Plan Report

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I. Project Background

A. Impetus for the Plan

In 2001 through the Highway Safety Improvement Program (HSIP) DelDOT had identified the intersection of Harvey Road and Philadelphia Pike in Claymont as in need of safety improvements. In addition to addressing that safety project, DelDOT worked with the community to develop a broader approach for a transportation plan to support the Claymont Renaissance initiative. The Claymont Transportation Plan was developed to address the transportation issues and respond to the community needs.

DelDOT applied for and received funding for the Claymont Transportation Plan under a TEA 21 grant program administered by the FHWA. The Transportation and Community and System Preservation Pilot Program (TCSP) is intended to fund projects that will improve the efficiency of the transportation system and link land use and transportation by improving transit, pedestrian and bicycle facilities.

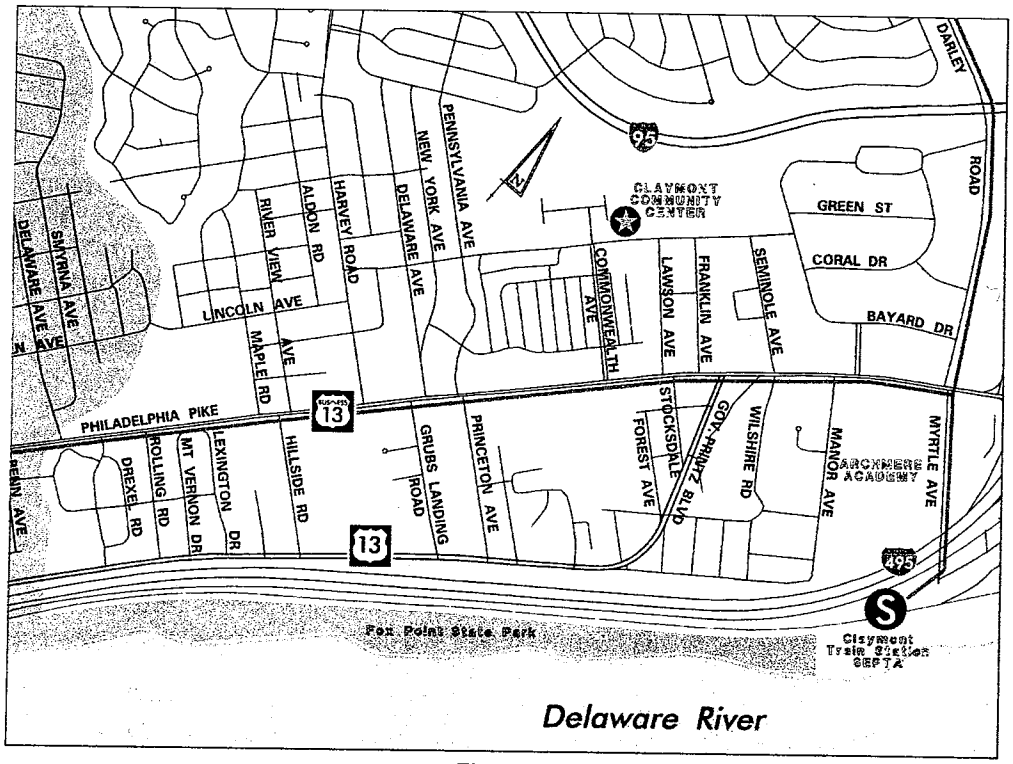


Figure #1
Claymont Study Area

This funding for the Claymont Transportation Plan was reflected in the WILMAPCO TIP for FY 02. This project was consistent with the priorities, policies and strategies of the WILMAPCO long range transportation plan for the region.

The Claymont Renaissance is a redevelopment and revitalization initiative that began in 2000 under the guidance of the Claymont Community Coalition. Participants in the Renaissance include residents and business persons, the New Castle County Department of Land Use and the New Castle County Councilperson for Claymont. At the time the Transportation Plan work was beginning, the Renaissance effort had already produced planning concepts for redevelopment of a portion of the community referred to as Claymont Center.

The scope of work for the Claymont Transportation Plan was developed with a goal to serve as the transportation component of the Master Plan for the Claymont Community. The Scope of Work was discussed with the Claymont Renaissance Committee. The objectives for the Plan were:

- To identify and analyze transportation issues and problems.
- To develop and assess alternative transportation improvements that are consistent with the Claymont Center Revitalization Plan.
- To develop recommendations for traffic operations and safety improvements, parking, walkways, bicycle access, transit stops and roadway signage that enhance the Claymont community.

B. Information Gathered

DelDOT gathered a variety of information as background to initiate the study. A summary of the types of information gathered is noted below.

Existing Transportation System Conditions

The study area includes a segment of Philadelphia Pike (US 13) that is 1.5 miles long from the interchange at I-495 in the north to the crossing of Perkins Run in the south. This segment of the Pike is a 4 lane urban arterial, with 12 foot wide travel lanes and includes shoulders in some areas. Within this portion of the Pike there are 12 intersecting streets and access points for numerous commercial and residential properties.

Average daily traffic volumes (ADT's) along Philadelphia Pike within the study area were:

Location	ADT
Philadelphia Pike near McComb	21,000
Philadelphia Pike near Harvey Road	17,000

A 4 lane urban arterial with similar traffic signal spacing operating at a Level of Service C would typically be expected to carry traffic volume of 21,400. The volumes experienced at McComb are therefore typical for a facility of this type and at Harvey are somewhat lower than typical.

Accident Data

Vehicular accident data covering the years 1997-2000 for the Philadelphia Pike corridor had already been compiled as part of the Highway Safety Improvement Program (HSIP) in 2001. The accident data that was compiled included type and location of accidents and the conditions when the accident occurred.

The intersection of Philadelphia Pike and Harvey Road in the southern portion of the study corridor was identified as having a need for traffic safety improvements due to the frequency of accidents occurring. Through the HSIP, DelDOT proceeded simultaneously with safety improvements to the intersection of Harvey Road and Philadelphia Pike.

The accident frequency at other locations along the study corridor was not high enough to warrant a separate safety project. The accident data for the entire study corridor over a three year period from 1997-2000 was reviewed to identify the locations where accidents were occurring. In addition to Harvey Road there were 5 intersections within the study area at which > 20 accidents occurred during that 3 year period. These locations are listed below and were identified on a display map at the first Public Information Workshop for the Claymont Transportation Plan.

- Darley Road
- Delaware Avenue
- Commonwealth Avenue
- Manor Avenue
- Governor Printz Boulevard

A breakdown of the major types of accidents occurring at these intersections indicates they were:

44% Angle type
36% Rear end type
27% Left turning type

These are the types of accidents that are typical on urban arterials with no access controls and frequent traffic signals.

New Castle County Land Use Plan

The map from the New Castle County 2002 Comprehensive Development Plan was presented at the first public workshop for the project. Comprehensive Zoning is a tool by which the Plan is implemented. The Zoning Map for the Claymont Area identified apartment, townhouse and suburban residential areas, and Neighborhood Conservation areas intended to promote minor infill development. Additionally the area is zoned for some regional commercial activities.

Renaissance Plan

Information from the Claymont Renaissance initiative was incorporated by reference throughout the transportation plan development process. The concept for the Claymont Center redevelopment shared by Thomas Comitta & Associates, Inc. addressed the area from Darley Road to Manor/McComb Boulevard. The concept proposes replacing the Brookview Garden Apartments and some of the commercial uses along Philadelphia Pike with more compact residential, commercial, office and public space. The intent of the redevelopment is to create a center for Claymont based on new urbanism concepts that promote pedestrian activity. The new buildings would be placed closer to Philadelphia Pike, with parking moved to the rear. The intent of the concept is to promote a more walk able environment and to reduce the impact of vehicular travel along Philadelphia Pike on Claymont.

East Coast Greenway Plan

The East Coast Greenway is intended to be a more urban alternative to the Appalachian Trail. Several routes for the East Coast Greenway through Delaware are being analyzed, and a route through the Claymont area from Pennsylvania to point south is under consideration. The Greenway is planned as a city to city multi-use trail system that connects existing and planned trails with new corridors using waterfronts, park paths abandoned railroads and parkway corridors. It is intended to be 80% off road for cyclist's hikers and other uses in the densely populated Northeast seaboard. The East Coast Greenway Alliance Board will approve the selection of the route.

Contact was made with the East Coast Greenway Alliance and a Map showing the concept for the East Coast Greenway connection To Fox Point State Park was presented at the first workshop for the Claymont Transportation Plan.

II. Development of the Claymont Transportation Plan

A. Field Observations

After review of the most recent traffic volume data and accident statistics the study team made some observations in the field. Field work was conducted to verify existing conditions as well as to collect information on any unusual or undocumented activity patterns. The study team also undertook a field walk with community residents in order to observe areas of concern with them and to develop understanding of the issues.

Vehicular

On-street parking was observed to occur along the shoulders of Philadelphia Pike. In some cases it was observed that cars parked in the shoulder even when off-street parking was available. In some locations, businesses have formally or informally converted paved sidewalk area into off street parking.

Figure # 2

Certain locations along the Pike regularly have cars parked in front of them regularly. The Post Office and the Claymont Liquor Mart have regular short term parking on street. (Insert photo # 548) There is on-street parking in front of the Holy Rosary Church during Sunday services, and at funerals. Through the community input process it was also learned that large trucks sometimes park in the shoulder along Philadelphia Pike. Community residents also commented that Philadelphia Pike shoulders are used as passing lanes when cars are moving slowly.

Figure # 3
Claymont Post Office - Parking

Figure # 4
Truck Parking on Shoulder of Philadelphia Pike

Pedestrian Facilities

There are sidewalks along both sides of Philadelphia Pike in the study area. Certain nodes of pedestrian activity exist within the study area, but overall pedestrian flow along Philadelphia Pike is low. Existing sidewalks range from 3'-5' in width. The following field observations of pedestrian conditions on Philadelphia Pike were noted as were pedestrian conditions along key streets connecting to Philadelphia Pike.

- The areas with deteriorating or missing sidewalks were noted and shown on the study area display map at the first public workshop. Sidewalks are not provided on the north side of Darley Road where the busiest bus stop in the study area exists Sidewalks are not provided along Myrtle Avenue which leads to the rail station. The sidewalk is incomplete along Manor Avenue which leads to the pedestrian bridge to the rail station.

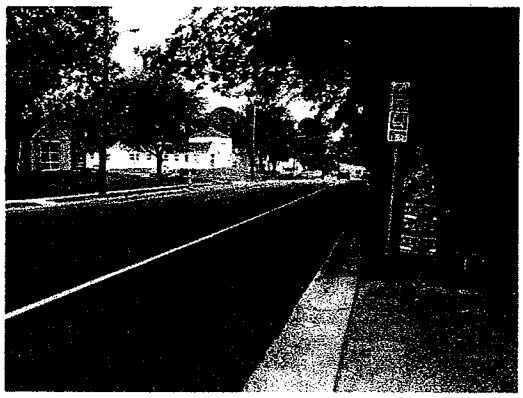


Figure # 5
Bus Stop on Darley Road

- There are 2 pedestrian bridges that link the Claymont Study area to adjacent land uses.

The first is a pedestrian bridge crossing I-495 from the North end of Claymont to the Knollwood community on the other side of I-495. The bridge is accessed by a pedestrian path from Philadelphia Pike (next to the Church of the Ascension) and connects to Everett Avenue in Knollwood. This bridge provides a safer pedestrian alternative to walking through the interchange of I-495 and Philadelphia Pike.

A second pedestrian bridge crosses I-495 near the Claymont Rail Station. It extends from Governor Printz Boulevard extended to the rail station parking area.

- There are numerous commercial and residential driveway access points/entrances along the Pike. The numbers of curb cuts are shown below by section:

West Side	total	51
Darley to Commonwealth		21
Commonwealth to Maple		29
Maple to Delaware		1
East side	total	35
Darley to Commonwealth		14
Commonwealth to Maple		17
Maple to Delaware		4

Some commercial properties have typical width driveways with apron type connection through the sidewalk. Some commercial properties have driveway curb cuts that extend across the entire property frontage. This means the pedestrian walks along a business entrance mixing with vehicular traffic for the entire frontage of the property.

- There is inconsistency in the provision of handicapped accessible ramps at intersections. Some ramps exist, some are missing, some are misplaced and some are not wide enough.

- Pedestrian crosswalks exist at all eight signalized intersections along the Pike but, their placement and the pavement markings are not consistent. A signalized pedestrian crossing exists at the intersection of Philadelphia Pike and Darley Road. This signal provides a pedestrian crossing phase on the south leg of the intersection concurrent with the Green phase for Darley.

Figure # 6
Sidewalk with Fire Hydrant

- There are signs, utility poles and traffic control devices located within the sidewalks along the Pike. Some of these present no real problem but in some locations utilities reduce the usable width of the sidewalk to less than acceptable standards.

Bicycle Facilities

There are no formal bicycle lanes or bike paths along Philadelphia Pike. Bicyclists were observed riding on the sidewalk in the northern end of the corridor. It was noted that there area bike lockers at the Claymont Rail station. It was noted that children on bikes were challenged to cross Darley Road because they could not see whether a car was approaching on Darley west of Philadelphia Pike.

Transit

There are twelve bus stops on each side of Philadelphia Pike within the study corridor. There are no bus pullouts provided along the Pike, consequently buses use the shoulder or stop in the travel lane. Transit riders were observed at various times waiting for or alighting from a DART buses. Average bus stop spacing is 650 feet along this 1.5 mile corridor. There are some free standing bus stop signs, but most are placed on shared sign poles or utility poles.

Access to the Train Station

Vehicular access to the Claymont Station is from Myrtle Avenue, a two lane residential street intersecting with Philadelphia Pike at Darley Road. DTC busses follow Myrtle Ave to reach the train station.

Pedestrian access to the train station is poor. There are no sidewalks along Myrtle Avenue. Manor Ave connects to Governor Printz Boulevard Ext. where there is a pedestrian bridge crossing over I-495 to link the rail station.

Figure # 7
Pedestrian Overpass to Claymont Rail Station (@ Rail Station)

Figure # 8
Pedestrian Overpass to Claymont Rail Station (@ Governor Printz Boulevard)

Signage

- Designation signs identifying the limits of Business Route 13 are unclear.
- On street parking regulations are not clearly posted. Signs prohibiting on street parking are inconsistent. For example: there are no signs to prohibit parking in bus stop areas.
- Signage to identify bus stop locations is placed inconsistently (on utility poles, on other sign poles and free standing.)
- Signs prohibiting right turn on red are located at several intersections and may contribute to traffic flow problems along the Pike.
- Posted Speeds

  40 mph south of Pennsylvania Ave
  35 mph north of Pennsylvania Ave

A complete inventory of all traffic control signs was not conducted as part of this study.

Activity Centers (schools, post office, retail locations)

There is no central activity center within the1.5 mile study corridor. There are small centers of activity where the following observations were made:

- From Manor Ave to Seminole Ave commercial activities are clustered close to the Pike creating a more urban environment. Elsewhere along the Pike, commercial businesses are generally set back further from the Pike with parking lots in front of buildings along the street.
- There are two school campuses along the Pike. The Archmere Academy is located in the north end of the study area and is a self contained campus style complex. There is an increase in morning and afternoon traffic associated with the start and end of the Archmere school day.
- The Holy Rosary School and church complex is located in the middle of the study area at Commonwealth Ave. This complex extends over several blocks and generates a high level of vehicular and pedestrian activity at the start and end of the school day. Police and crossing guards assist children walking to school and crossing Philadelphia Pike as well as directing parent in their cars as they drop off and pick up children for school each day.
- The Claymont Community Center is located on Green Street, a few blocks west of Philadelphia Pike and is an important activity center for the community with a library, head start program and meeting facilities among other things.
- The Claymont Fire Company is located in the middle of the study corridor along the south west side of Philadelphia Pike.

B. Data Collection

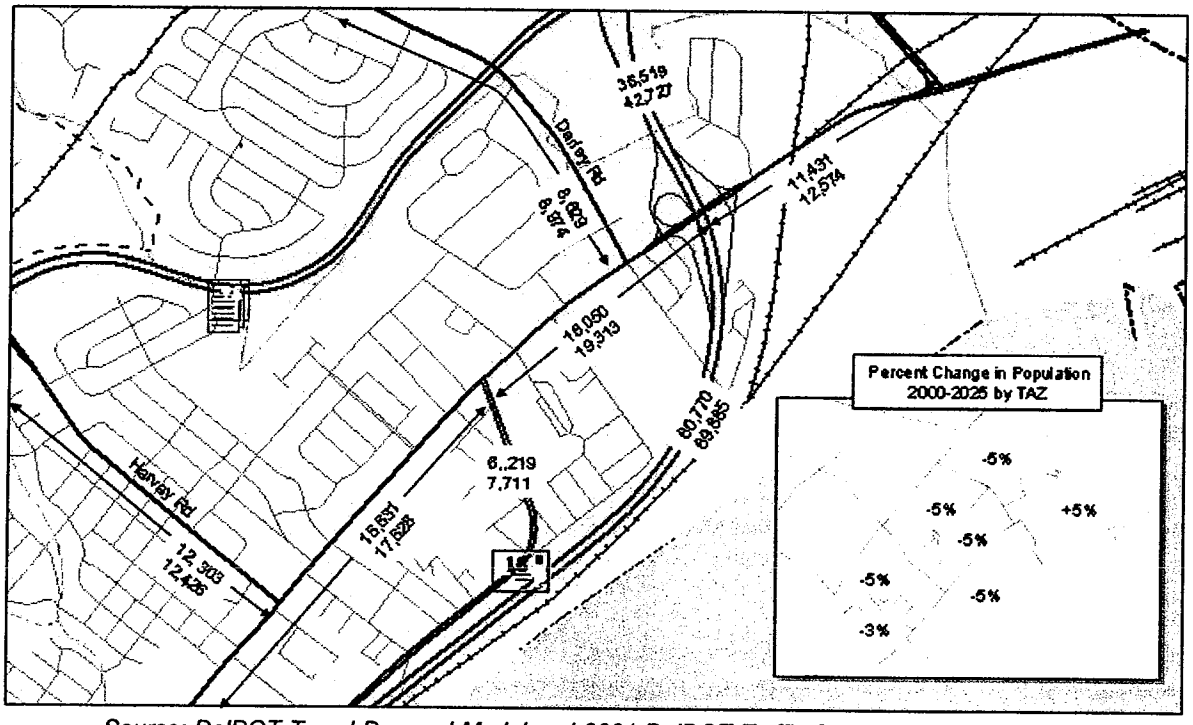
Traffic Data

Traffic data was provided by DelDOT and data was collected at several key intersections- including volumes and turning movement counts. Collected data was used to calibrate the traffic model that would be used to forecast the future traffic under various Philadelphia Pike improvement scenarios. Existing and forecasted ADT's are shown in Figure 9 below.

As part of the study, weeklong full day automatic counts were conducted at the following locations along Philadelphia Pike (US 13)

- Naamans Road
- I-95 northbound exist ramp
- I-95 Southbound exit ramp
- Darley Road /Myrtle Ave
- Governor Printz Boulevard
- Harvey Road

As part of the traffic analysis peak hour (7-9 am 11am -1 pm and 3-6 pm) turning movement counts were made at the intersections listed above.



Source: DelDOT Travel Demand Model and 2001 DelDOT Traffic Summary, October 9, 2002

Figure # 9
Claymont Transportation Study
Existing & 2025 ADT

Through Truck data

The community has a perception that truck volumes are high along Philadelphia Pike through Claymont. In order to address that concern there were field observations conducted and data on through truck volumes was collected (Refer to Appendix # 1 for the Claymont Through-Truck Analysis Report)

Based on data collected for this study, truck volumes on Philadelphia Pike were estimated to be 3.6% north bound and 4%south bound which is comparable to the average truck percentage on Delaware urban arterials of 5.3%

In order to assess the magnitude of the through truck traffic, license plate numbers were collected for an 8 hour period for large trucks entering and exiting Claymont on Philadelphia Pike from the north (at Darley Road) and south (at Harvey Road) as well as from Governor Printz Boulevard. The elapsed time between when the truck entered Claymont and when it exited was recorded. These times were compared to the minimal time it normally takes a vehicle to traverse the corridor without making stops and assuming stopping at traffic signals. Trucks traveling through Claymont in close to the minimal time were assumed to be through trucks.

These data indicated that there were 211 trucks observed at Darley Road and 190 trucks observed at Harvey Road over the eight hour period. These numbers are typical of what occurs on other similar highways in Delaware. Of the total number of trucks, only 26 were assumed to be through trucks. These data do not suggest a major problem with through trucks. More thorough data collection over a three day period should be undertaken to confirm the findings here before any final conclusions should be drawn or any recommendations made regarding trucks.

Transit Data

Claymont Rail Station

SEPTA provides regional rail service to the Claymont Rail Station on the R2 line. The R2 line connects Wilmington and Newark to Philadelphia. Daily SEPTA trains serving Claymont are listed below:

	North to Philadelphia	South to Wilmington
Mon- Fri	18	17
Sat	6	6
Sunday	0	0

There are a total of 501parking spaces available for commuters. 425 of the spaces are provided in the station parking lot and 76 additional spaces are provided along Governor Printz Boulevard. Average parking usage is 56% at this station. SEPTA reports that daily ridership at this station is 856. This is the total of all AM and PM person trips.

Parking at the Claymont Rail station was recently expanded. SEPTA staff advised the study team that the community of Edgemere was interested in the establishment of a station along the rail line. Edgemere is located a few
miles south of Claymont. If such a station were to be established some commuters currently parking at Claymont might shift to the Edgemere station. At the time of the study there were no current plans to expand train service to Claymont.

DART Service

DART Bus service on the # 1 Line is provided in the Claymont community by the Delaware Transit Corporation. The #1 Line provides service from Tri-State Mall to Wilmington, operating mostly along Philadelphia Pike. This bus line also serves the Claymont Rail Station during peak periods. Service is provided throughout the day (5:30 am -10:30 pm) approximately every 20 minutes Monday through Friday and every 40 minutes from 7 am - 7:30 pm on Saturdays. There is no Sunday service.

Stop Locations

There are 12 bus stops in each direction along Philadelphia Pike within the study corridor. All the stops are listed in Figure 10 with the recent boarding and alighting data and information on existing amenities from DTC.

Transit Improvements

DTC has a Bus Stop and Passenger Facilities Policy which establishes guidelines for bus stop design and establishes criteria for determining when bus stop amenities should be provided. No specific changes to bus stops or services were noted by DTC at the time of the Study, but DTC participated in the study and commented on concepts that were recommended.