

## **I. PURPOSE AND NEED**

This section documents the need for transportation improvements within the US 301 corridor between the Delaware/Maryland state line and the Chesapeake and Delaware (C&D) Canal. This section reviews the history of planning and project development in this corridor, describes the significance of the corridor, and describes the project area. The section includes a statement on the project's purpose (to improve safety in the corridor, to relieve congestion and to manage through truck traffic), followed by a statement of the project need. The need is based on year 2030 projected future traffic and land use. Accident history within the corridor, existing and projected congestion, and the high percentage of truck traffic (especially through truck traffic) that mixes with local traffic are evaluated. A discussion of land use and demographics is followed by a review of existing and planned roadway improvements in the project area.

### **A. Introduction**

#### **1. Background**

In the mid-1960s, recognition of the regional significance of the US 301 corridor led the Delaware Department of Transportation (DelDOT) to investigate opportunities to improve mobility in the corridor. While an earlier study resulted in the siting and subsequent construction of the existing Summit Bridge by the US Army Corps of Engineers (ACOE) in the 1950s, the solution to improving mobility in southern New Castle County, Delaware, remains elusive today. Since that time, southern New Castle County has been transformed from a rural and largely agricultural area to a suburban residential area for commuters employed in Newark, Wilmington, Philadelphia, and throughout the I-95 corridor in Delaware, northern Maryland, southern Pennsylvania, and southern New Jersey. The Levels, southwest of Middletown, once known as Delaware's most productive agricultural area, is currently evolving into the Westown community of Middletown, and job growth is expanding with a full range of commercial and professional employers supporting the influx of new residents in southern New Castle County.

In recent years, DelDOT initiated two studies to address transportation needs in southern New Castle County and the US 301 corridor. In the early 1990s, DelDOT prepared the *U.S. Route 301 Corridor Study – Draft Environmental Impact Statement (DEIS)*. The 1993 DEIS evaluated the need for and the location and design features of transportation alternatives to improve traffic service and operation in the US 301 corridor between the Delaware/Maryland state line and I-95. While the 1993 DEIS compared the environmental impacts of a variety of alternatives, it focused primarily on assessing alternative highway corridors in a relatively narrow study area encompassing the US 301/SR 896 corridor and did not address the overall transportation needs in southern New Castle County.

In December 1994, following completion of the 1993 DEIS, Delaware's Secretary of Transportation, Anne Canby, made two announcements concerning the US 301 corridor. First, to bring some closure to the 1993 DEIS process, she announced that if the implementation of a new north-south limited access highway was to be advanced on any of the alignments studied in the 1993 DEIS, the corridor for those improvements would be the Ridge Route (or Ridge Alignment) south of the C&D Canal and the existing SR 896 corridor north of the Canal.

Secondly, she announced that the corridor would be the subject of a Major Investment Study (MIS) that would assemble a package of land use measures, transportation uses and design standards for both transportation and land use activities, transportation demand reduction strategies, financing and network management. The MIS, therefore, was designed to look at the needs for southern New Castle County without focus on just the US 301 corridor.

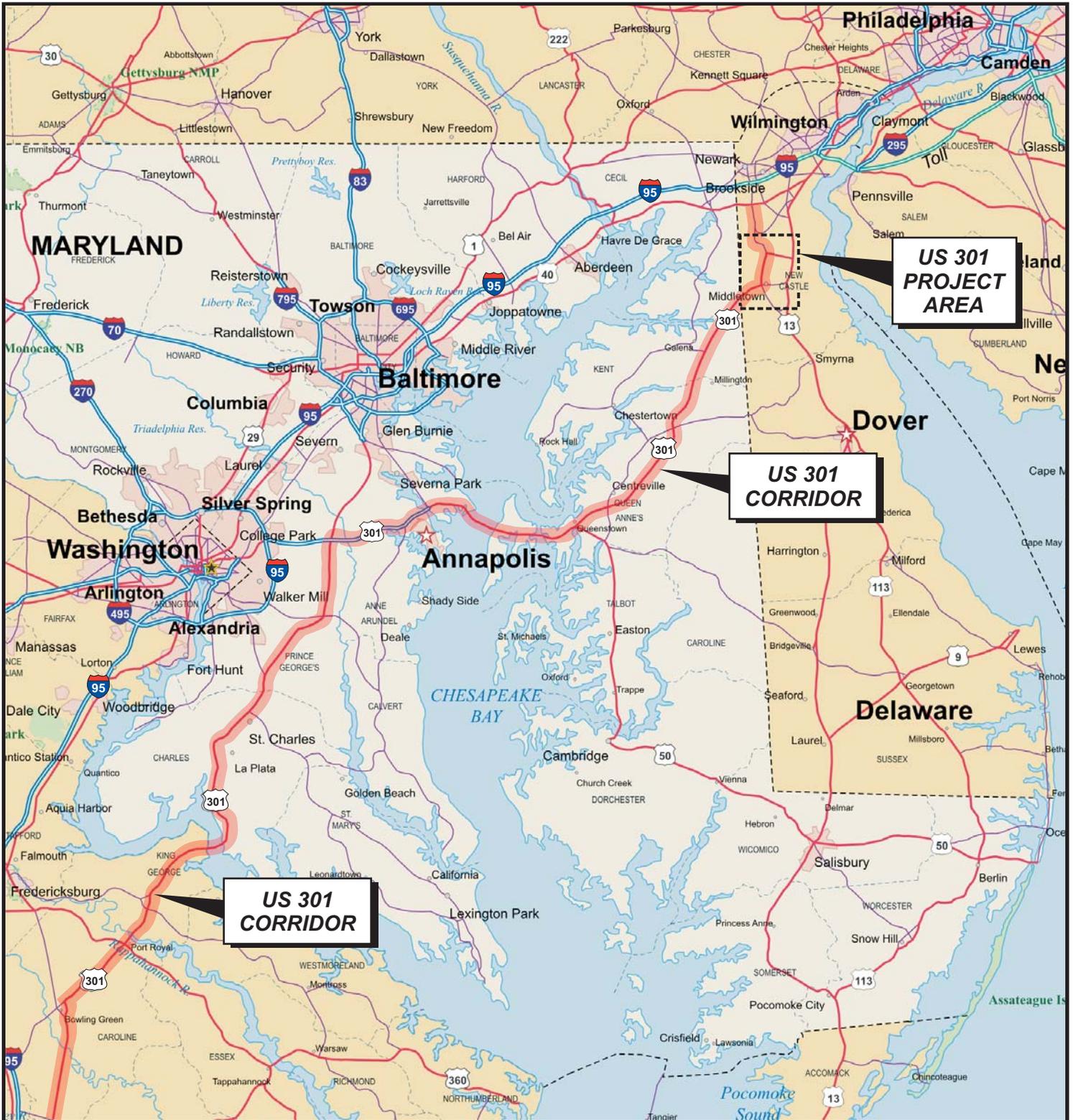
The *Greater Route 301 Major Investment Study* (January 2000) recommended that, in addition to a full range of transit, pedestrian, bicycle, transportation demand management and local roadway improvements, a major increase in roadway capacity was required to meet the transportation needs of southern New Castle County. The MIS recommended alternatives for further study to address mobility in the US 301 corridor that differ substantially from the Preferred Alternative that emerged from the 1993 DEIS. More specifically, the MIS recommended that capacity improvements for the US 301 corridor be developed from the Delaware/Maryland state line to SR 1 south of the C&D Canal, rather than to the SR 896 corridor north of the Canal as proposed in the 1993 DEIS. The MIS recommended that two build alternatives be retained for detailed study and evaluated in a new DEIS.

Efforts to implement the transit, pedestrian, bicycle, transportation demand management and local road improvement recommendations from the MIS are discussed later in this chapter. The current US 301 Project Development effort focuses on addressing the mobility and safety needs of this rapidly developing area. These needs were described in the 1993 DEIS and 2000 MIS and have become even more significant since the completion of the MIS only five years ago. The purpose and need builds upon and updates the previous purpose and need discussions presented in the 1993 DEIS and the 2000 MIS.

## **2. US 301**

US 301 extends approximately 1,100 miles from Sarasota, Florida, to New Castle County, Delaware. The opening of the National Interstate System greatly reduced the significance of US 301 as an interstate route; however, with the increase in the traffic volume and congestion on I-95 in northern Virginia, the Washington D.C. and Baltimore Metropolitan regions, and with the cost of tolls on I-95 at the Baltimore Harbor Crossings and the John F. Kennedy Highway northeast of Baltimore, US 301 has re-emerged as a through traffic alternative to I-95 between Richmond and Wilmington, particularly for truck traffic. In addition, with the influx of development in southern New Castle County, US 301 is growing as a commuter route to jobs in the region. *Figure I-1* illustrates US 301 in its regional context.

In Maryland, US 301 is a multi-lane, divided roadway. From its junction with US 50 in Queenstown, Maryland (approximately eight miles east of the Chesapeake Bay Bridge) to the Delaware/Maryland state line, a distance of 40 miles, the four-lane, divided highway has a limited number of at-grade intersections (none are fully signal-controlled) and only three grade-separated interchanges (MD 213 and MD 290 in Queen Anne's County, Maryland; MD 290/299 in Kent County). Maryland owns sufficient right of way to convert the entire length of US 301 from Queenstown to the state line to a limited access roadway. Conversion to access control is listed in Maryland's long-term planning document, *Highway Needs Inventory*.



**US 301  
CORRIDOR**

**US 301  
CORRIDOR**

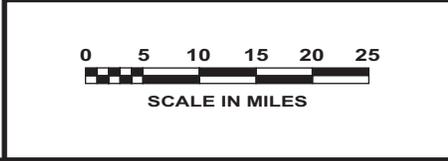
**US 301  
PROJECT  
AREA**



US 301 Project Development

FINAL ENVIRONMENTAL IMPACT STATEMENT

REGIONAL MAP



Delaware  
Department of  
Transportation

November 2007

Figure  
I-1

In contrast, in Delaware, US 301 from the state line to Mount Pleasant (south of the C&D Canal), a distance of 7.7 miles, is the only portion of the roadway in the region that is two lanes and has full signal-controlled intersections. At Mount Pleasant, US 301 again becomes a four-lane, divided roadway to its terminus at US 40 in Glasgow, Delaware, a total length of approximately 15 miles. Throughout this 15-mile length, there are 25 at-grade intersections with state and county numbered roads and subdivision streets, most of which provide full directional access. Of the 25 intersections, eleven are signalized. There are also several driveways with direct access to US 301 within this 15-mile segment, mostly in the Middletown and Mount Pleasant areas. Additional right-of-way would have to be acquired to convert the existing US 301 to limited access or to grade-separate any of the existing intersections.

### **3. Project Area**

The US 301 Project Development effort has analyzed the needs and resources of the area illustrated in *Figure I-2*, with emphasis on southern New Castle County, south of the C&D Canal. *Figure I-2* also illustrates the context of the surrounding geographic region and the local transportation network.

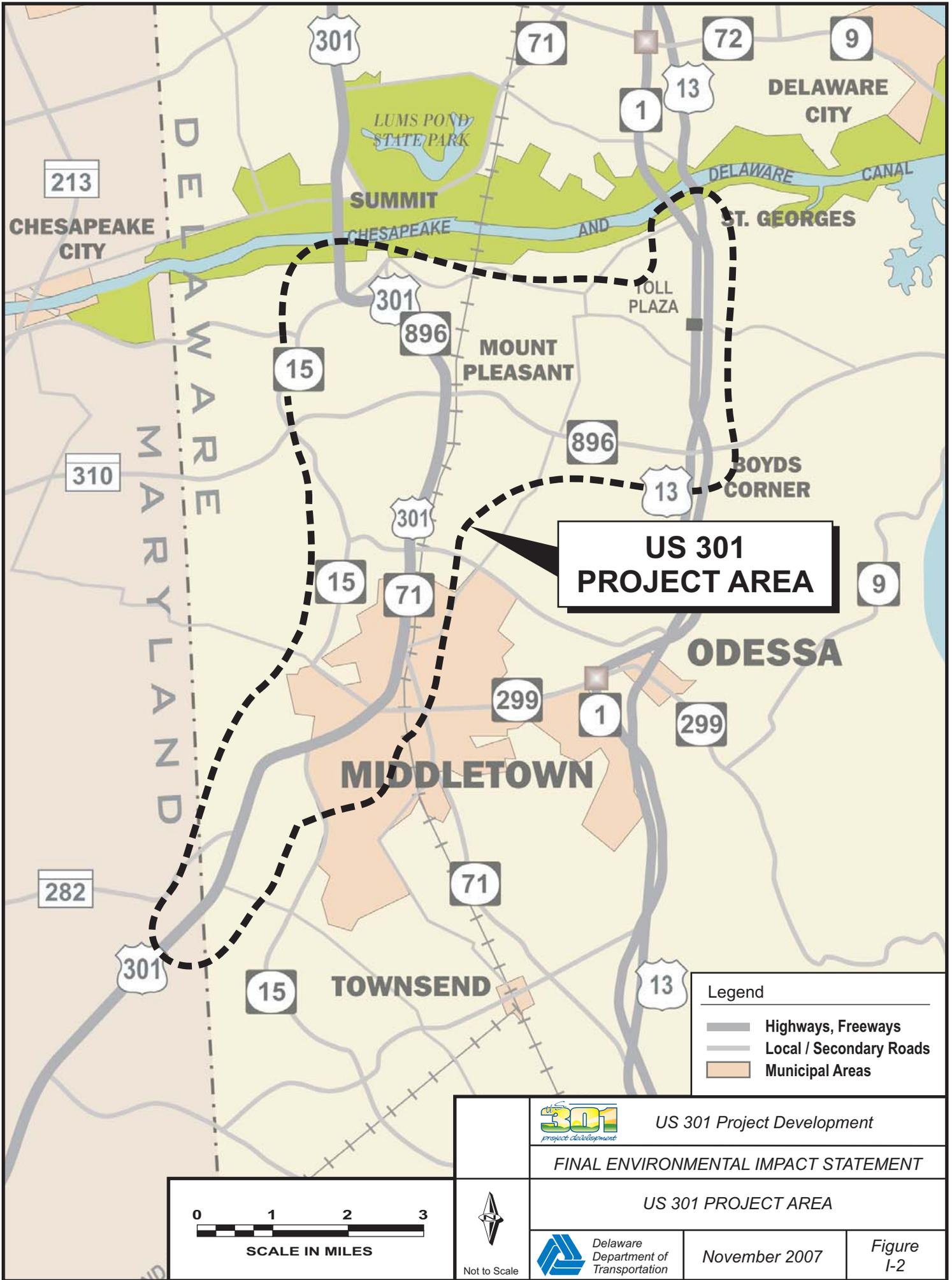
#### **B. Project Purpose**

The purpose of this project is to improve and enhance highway safety, manage truck traffic, and address existing and projected traffic congestion in the US 301 corridor, while minimizing environmental impacts and accommodating existing and planned development.

#### **C. Project Need**

During the seven years from January 2000 to December 2006, there were 1,193 accidents reported in the project area south of the C&D Canal. Approximately 36 percent of the accidents have involved injuries or death. Of the sixteen fatalities, thirteen occurred in the US 301/SR 896 corridor. Accidents on several segments of US 301, SR 299 and SR 15 have been occurring at rates that are higher than the statewide average. Several roadway segments on US 301/SR 896 are listed in DelDOT's Highway Safety Improvement Program (HSIP).

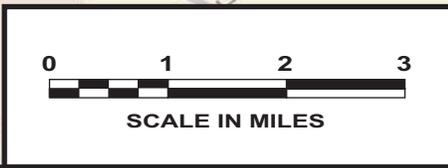
A traffic survey conducted in October 2004 showed that approximately sixty-five percent of all northbound traffic originating south of the C&D Canal is destined for the northeast to Wilmington, Philadelphia, New Jersey, and points beyond. Thirty-five percent of the traffic has destinations to the north towards Newark and Pennsylvania. However, the traffic survey, which asked motorists to document their actual travel routes, showed that despite the majority of northbound destinations being to the northeast, approximately 60% of motorists currently continue north on US 301/SR 896 and then east on I-95, rather than using a more direct east-west route south of the canal.



**US 301  
PROJECT AREA**

**Legend**

- Highways, Freeways
- Local / Secondary Roads
- Municipal Areas



 <b>US 301 Project Development</b>	
<b>FINAL ENVIRONMENTAL IMPACT STATEMENT</b>	
<b>US 301 PROJECT AREA</b>	
 Delaware Department of Transportation	November 2007
Not to Scale	<b>Figure I-2</b>

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US 301 currently functions as a regional truck route, bypassing the congestion and tolls of the I-95 corridor. As a result, a high ratio of trucks, 25 to 30 percent of the overall traffic at the Delaware/Maryland state line, travel on US 301. The mix of trucks with local traffic has affected roadway capacity, operations and safety. Interviews of truckers stopped at the US 301 travel plaza revealed that approximately 95 percent of the northbound truck traffic originating south of Middletown is destined to points northeast of the C&D Canal, with nearly 90 percent of them leaving Delaware.

Significant population and housing growth in the area south of the C&D Canal between the Delaware/Maryland line on the west and the SR 1/US 13 corridor to the east, coupled with increases in through and seasonal traffic, have resulted in increased traffic congestion and decreased safety on the existing roadway system. Projections for continued, significant growth forebode an ever worsening situation in one of Delaware's most rapidly developing areas. Infrastructure improvements have failed to keep pace with development.

The need for enhancements to the project area's transportation infrastructure was well-documented and summarized in the 2000 MIS:

“The transportation and land use alternatives developed and analyzed in the MIS were designed to address the transportation needs of the Study Area's existing and future residents and employees, as well as regional travel demands. From 1995 to 2020, the population of the Study Area is projected to grow by approximately 65 percent, and employment is projected to grow by 104 percent. As a result of the projected growth in the Study Area population and employment, and continuing growth in through traffic, dramatic growth in traffic volumes is anticipated to increase congestion throughout the Study Area.”

As will be discussed in more detail later in this Chapter, employment growth south of the C&D Canal has not yet occurred as was expected in 2000, but the population grew by over 70 percent from 1990 to 2000. Furthermore, the population of the study area (which represents nearly the entire Middletown-Odessa-Townsend (MOT) planning region in New Castle County south of the C&D Canal, is projected to increase by nearly 140% in the 27 years from 2003 to 2030. Likewise, over 9,400 additional jobs are projected in this region by 2030, an increase of 170% from 2003.

The specific needs for the project – safety, traffic growth, system deficiencies, demographics and land use – are detailed in the following sections.

**1. Safety**

Based upon accident information from the Delaware State Police, 1,193 accidents were reported in the seven year period between January 2000 and December 2006 in the project area, south of the C&D Canal. A number of roadway segments within the project area, including portions of US 301 and SR 299, have had annual accident rates that have exceeded the statewide averages for similar facilities. Accident rates such as these are based on the total number of collisions and are not influenced by the severity of the crash. Therefore, it is important to consider that of these 1,193 accidents, approximately 437 resulted in injuries or fatalities. A total of 15 fatal crashes occurred in the project area resulting in 16 fatalities. Of these 16 fatalities, thirteen (13) occurred

in the US 301/SR 896 corridor (see *Figure I-3*). It should be noted that in March 2007, two more fatal crashes occurred on US 301 in Delaware near the Maryland state line, resulting in 4 more fatalities.

The US 301/SR 896 corridor has a history of fatal accidents. In the mid-1990s, a rash of fatalities resulted in DelDOT's constructing longitudinal grooves ("centerline rumble strips") in the pavement along the centerline of US 301. In the months following their construction, the fatalities seemed to subside, but the most recent crash information since 2000 indicates that fatal accidents are continuing on this roadway segment.

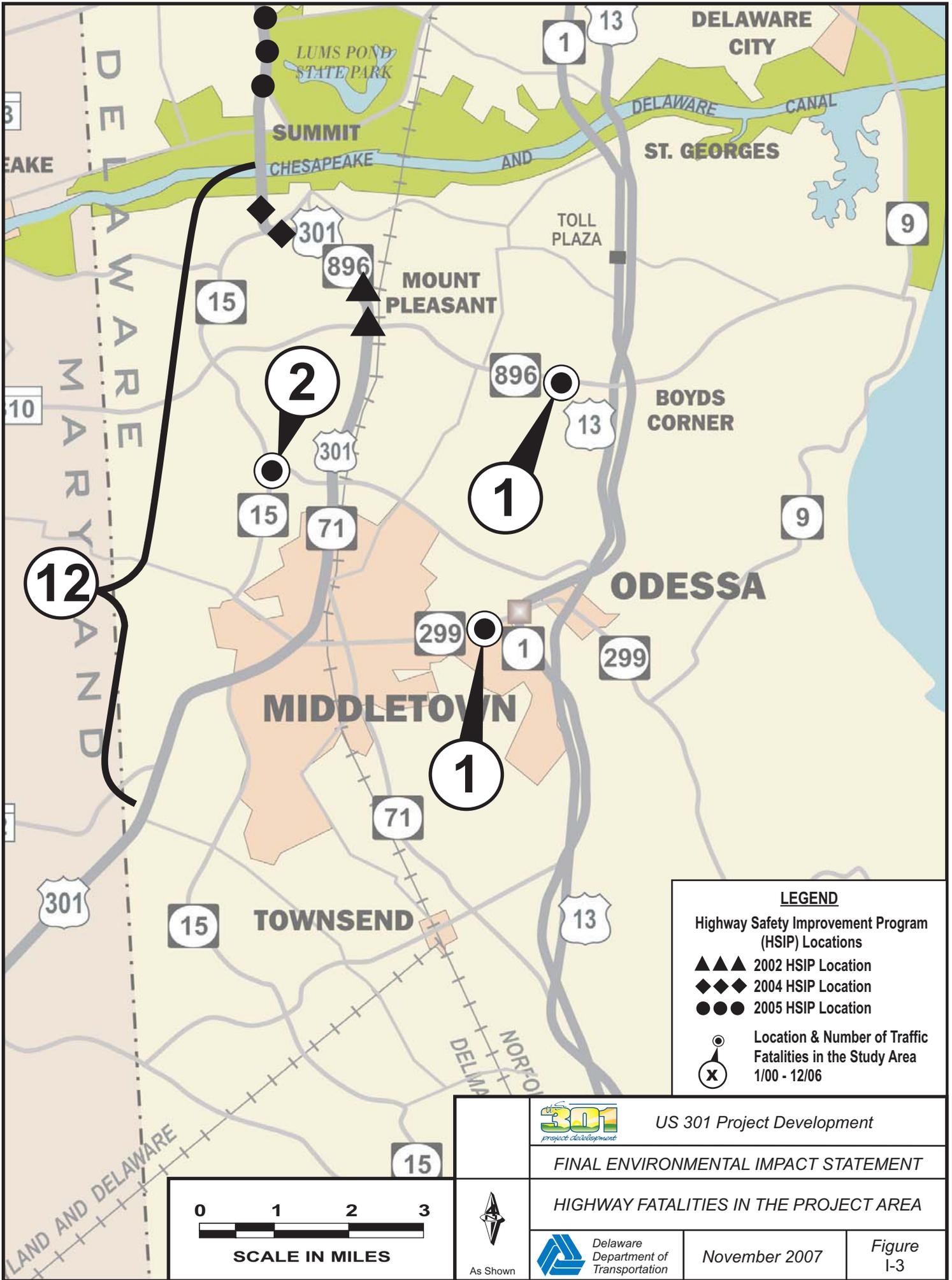
The threat of accidents continues to be one of the primary concerns of residents in the project area. With the anticipated increase in traffic and the high volume of trucks in the traffic mix, the potential for serious accidents increases. To reduce the accident potential, it is necessary to provide a system of transportation facilities and services to accommodate the various components of traffic in this area.

## **2. Traffic Growth: Existing and Future Conditions**

To gauge the growth in traffic throughout the project area, historic, current and future traffic volumes were compared at four key locations. These locations were selected to highlight the changes in volumes that have occurred on US 301 and on three other key east-west links south of the C&D Canal. *Table I-1* summarizes volume comparisons and associated Levels of Service (LOS).

Level of Service provides an evaluation of congestion by comparing the Annual Average Daily Traffic (AADT) to the daily traffic carrying capacity of a roadway segment. LOS is described on a scale of A to F, where A is free-flowing traffic and F is congested traffic. LOS D, E, and F are generally considered undesirable traffic conditions that warrant consideration of capacity. LOS is commonly used to describe the quality of travel on a roadway segment or at a junction of two or more roads (i.e., intersections or interchanges).

LOS is dependant on a number of factors including the physical characteristics of the road (number of lanes, type of terrain, frequency of access points, ability or lack of ability for vehicles to pass other vehicles, etc.) and the characteristics of the traffic using the facility (volume, percentage of trucks, free flow speed, fluctuation of traffic volumes within the peak hour, etc.). LOS is not based on the volume to capacity ratio.



**LEGEND**

Highway Safety Improvement Program (HSIP) Locations

- ▲▲▲ 2002 HSIP Location
- ◆◆◆ 2004 HSIP Location
- 2005 HSIP Location

Location & Number of Traffic Fatalities in the Study Area 1/00 - 12/06

(X)

0 1 2 3

SCALE IN MILES



**301** project development

US 301 Project Development

Delaware Department of Transportation

**Table I-1: Existing and Projected Daily Traffic and Level of Service for Significant Locations in the Project Area (No-Build)**

Significant Locations	Average Annual Daily Traffic (AADT)					2006 DeIDOT Roadway Segment Capacity, vehicles per day (vpd) <sup>4</sup>	Level of Service (LOS)	
	1990 AADT	2005 AADT	MIS Predicted 2005 AADT <sup>1</sup>	MIS Predicted 2020 AADT <sup>1</sup>	2006 DeIDOT Predicted 2030 AADT		2005 LOS	2006 DeIDOT Predicted 2030 LOS
US 301, southwest of Middletown	10,665	18,900	18,100	23,600	32,900	30,700	E	F
US 301/SR 896 at Summit Bridge	14,781	28,600	31,700	51,700	65,500	77,800	B	E
SR 299, Middletown to Odessa	3,444	18,800	7,900	15,100	26,600	23,100	E	F
SR 896 (Boyd's Corner Road) at Jamison's Corner	5,859	13,200	12,100	24,300	27,500	29,700	E	E
Intersections	US 301 @ SR 299 in Middletown						C	C <sup>2</sup>
	US 301 @ SR 896 in Mount Pleasant						D	D <sup>3</sup>
	US 301/SR 896 @ SR 15 south of Summit Bridge						B	E

- 1: Existing and Future Study Area Transportation Needs, Figures 1 and 2 (Source: November 1998 US 301 MIS Technical Report)
2. The 2030 LOS at the US 301/ SR 299 intersection includes the construction of an additional through lane in each direction on US 301, an improvement associated with the Westtown Project.
3. The 2030 LOS at the US 301/ SR 896 intersection in Mount Pleasant includes the construction of an additional through lane in each direction on US 301, a programmed improvement currently under construction at this location.
4. The strict definition of roadway capacity (from the 2000 Highway Capacity Manual) is based on an hourly time frame (actually less considering peak hour factors), not daily; The capacity values shown are rough approximations based on the assumed hourly distribution of traffic over a day.

**a. US 301, Southwest of Middletown**

The first significant location is US 301, southwest of Middletown, immediately south of SR 299 (Main Street). From 1990 to 2005, the traffic volume at this location grew by 77 percent (see **Table I-1**), or at an annual rate of 5.1 percent per year. Most recently, between 2000 and 2005, traffic on this portion of US 301 has grown at a rate of 5.0 percent per year, indicating a stable growth rate over the last decade or more. This rate of growth is higher than the average rate of growth for New Castle County, which has seen an annual growth in traffic of 3 percent per year between 1990 and 2000. The 5 percent per year rate of growth on US 301 is occurring within the context of a currently congested roadway (LOS E at this location) that carries a significant volume of trucks (nearly 30 percent of the daily traffic volume). The conditions in this location will be further compounded in the future as additional land is developed south of the C&D Canal, particularly the Westtown Project (see **Section III.A.2.a** and **Table III-5**), which is

proposing 1,764 acres of development on 2,500 acres of land with 3,100 residential units and 3.5 million square feet of commercial space.

***b. US 301/SR 896 at Summit Bridge***

The second significant location is US 301/SR 896 at the Summit Bridge over the C&D Canal. From 1990 to 2005, the traffic volume has grown by 93 percent, or at an annual rate of six percent per year, as shown in **Table I-1**. This growth is approximately two times the rate of growth for New Castle County during the same time period. The capacity of this roadway segment is currently adequate to carry existing traffic, but will be approaching capacity by 2030 without any changes to the roadway system (No-Build condition). Currently, approximately 11 percent of the daily traffic crossing the Summit Bridge is trucks. Conditions are expected to worsen as development continues, traffic volumes grow, and trucks continue to make up a significant portion of the total traffic in this location.

***c. SR 299, Middletown to Odessa***

The third significant location is the roadway segment of SR 299 from Middletown to Odessa. From 1990 to 2005, the traffic volume on this roadway segment has grown tremendously, more than quadrupling the 1990 volume, a net increase of 450 percent (see **Table I-1**). On an annualized basis, the rate of growth from 1990 to 2005 has been about 30 percent per year. This period of rapid traffic growth coincides with the opening of the SR 1 Turnpike from Dover to Churchmans Crossing. SR 1 intersects with SR 299 west of Odessa. Further, the roadway segment is currently operating near capacity at LOS E. The 2005 and 2020 traffic volumes predicted in the 2000 MIS fall considerably short of the current volume on SR 299, indicating higher than anticipated growth along this corridor. It is anticipated that these conditions will worsen as development continues (especially the Westown development which is located near SR 299) and as regional traffic grows to the point that SR 299 will reach LOS F by 2030. The level of service will not improve in this location unless capacity improvements are made to the roadway network south of the C&D Canal to divert traffic away from SR 299 and/or if significant capacity improvements are made to SR 299 itself.

***d. SR 896 (Boyd's Corner Road) at Jamison's Corner***

The fourth significant location is SR 896 (Boyd's Corner Road) at Jamison's Corner. From 1990 to 2005, the traffic volume here grew by 125 percent, as shown in **Table I-1**, an annual rate of eight percent per year. As with the other locations discussed, this rate of growth is well above the rate for New Castle County during the same period. The roadway in this location is currently operating at LOS E and, by 2030, without any changes to the roadway network, the volumes are expected to increase almost to the road's capacity. Currently, there are truck restrictions on SR 299 through Middletown, making SR 896 one of the only direct east-west connections available to trucks south of the C & D Canal. As a result, the percentage of trucks using SR 896 (Boyd's Corner Road) is high; approximately 25 percent of the daily traffic is trucks. The poor operating conditions in this location will be further compounded in the future as the Scott Run Business Park and the Bayberry Project, proposing 1,460 acres of development with 1,954 residential units and 1.5 million square feet of commercial space, as well as the Whitehall Properties development, is constructed.

### **3. System Deficiencies**

As discussed above, portions of the primary roadway system south of the C & D Canal currently operate at a low Level of Service (LOS E or F) and have a recent history of serious accidents (13 fatalities in a 5-year period; nearly 34 percent of all collisions resulting in injuries or death). Significant truck traffic on US 301 and SR 896 contributes to these congestion and safety problems. These roads and the intersections along them will continue to deteriorate, several to the point of failure, in the next 25 years, including the critical north-south and east-west arterials of US 301, SR 299 and SR 896 (Boyd's Corner Road).

The 2000 MIS recognized these deficiencies, some of which have been exacerbated by recent traffic volume growth documented by 2005 traffic counts. The active housing market in southern New Castle County and its attendant population increase will only add to the continued deterioration of mobility without capacity improvements to address the system deficiencies.

### **4. Demographics and Land Use**

Based on US Census data, southern New Castle County (generally, the Middletown-Odessa-Townsend (M-O-T) Planning District), experienced a total population growth of 60 percent from 1990 to 2000. The countywide average growth for the same period was only 13 percent, and the statewide average for the same period was 18 percent. Similarly, between 1990 and 2000, the number of households grew by 62 percent in the M-O-T Planning district, while the number of households grew by only 13 percent countywide in New Castle County, mirroring the population growth trends. Together, these data show that southern New Castle County has experienced a growth in population and housing that is more than four times that of the rest of the county and more than three times that of the remainder of the state. This high level of growth is predicted to continue south of the Canal, particularly with the planned construction of two major subdivision developments, Westtown and Bayberry.

Employment in the project area between 1990 and 2000 did not increase at a similar rate. The current construction projects have provided employment for the building trades, but full-time professional jobs have been slow to develop in the project area. However, it is anticipated that service industry jobs will grow with the increase in residences in the area, and the completion of the Westtown and Bayberry projects will boost the growth of industrial, commercial and professional jobs in the project area.

### **5. Other Transportation Projects**

With the completion of the 2000 MIS, funding was established, through DelDOT's Capital Transportation Plan (CTP) process, to implement the transit, pedestrian, bicycle, intelligent transportation systems (ITS, or DelTRAC) and local roadway improvements recommended by the MIS. The efforts to date to implement the non-capacity related recommendations from the MIS are detailed in the following sections. The most recent approved CTP was completed for FY 2005-2010, and a draft is being reviewed for FY 2008-2013 (nearing approval).

***a. Rail Passenger Service***

In 2004, DelDOT restarted the Downstate Rail Study. The study analyzed the feasibility of rail passenger service between Wilmington and Dover. Three proposed routes using existing railway alignments were studied: one from Wilmington to Newark to Dover and two from Newark to New Castle to Dover. All three would use the Delmarva Secondary (Norfolk Southern Railroad alignment) from Porter to Dover. The study determined that commuter rail service between Wilmington and Middletown or Dover is feasible. The study is complete; however, the project is not currently active.

***b. Enhanced Transit Service and Transit Supportive Infrastructure***

DelDOT, through the Delaware Transit Corporation (DTC), has implemented the following bus routes to support the growth in southern New Castle County:

- Route 301, the former “Blue Diamond” route, now operating along SR 1 between Wilmington and Dover. Route 301 operates express and local service on weekdays only between 5:25 AM and 8:48 PM, with stops at the Odessa Park & Ride and the Boyds Corner Park & Ride; and
- Middletown Shuttle, bus route 304, operates daily and provides transfer connections to the Route 301 Express at the Odessa Park & Ride. The Shuttle operates local stop service from the Bethesda United Methodist Church Park & Ride along SR 299 to the Odessa Park & Ride. DTC is currently evaluating two proposals to expand service to accommodate the growth occurring at locations west of US 301.

In addition, DTC continues to evaluate additional service to Newark and Wilmington from the Middletown area along SR 71, SR 72 and SR 1.

***c. DelTRAC (ITS) Improvements***

DelDOT’s Phase I plan for implementing the integration of traffic signals statewide includes the US 301 corridor. To date, integration of the signals in the US 301 corridor into a coordinated system has only occurred north of US 40. Coordination of the existing signals between US 40 and Middletown has yet to occur.

***d. US 301 Northbound Weigh and Inspection Station***

DelDOT is planning to construct a weigh and inspection station on northbound US 301 north of Strawberry Lane. The station will complement a similar, but not identical, weigh and inspection station constructed by the Maryland State Highway Administration on southbound US 301 at the MD 299 intersection, which opened in June 2007. DelDOT's northbound weigh and inspection station is scheduled for completion in 2009. The weigh and inspection station will incorporate state-of-the-art technology that will enable DelDOT and the Delaware State Police to detect, identify and weigh all vehicles approaching the station while the vehicles are still traveling at full highway speeds. DelDOT will also incorporate CVISN (Commercial Vehicle Information Systems and Networks) technology that will give participating trucks a greater probability of being permitted to pass the station without being required to enter (provided the truck is not overweight and is in good standing with the monitoring agency).

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The weigh and inspection station has been designed to be compatible with potential future US 301 improvements, requiring only minimal geometric modifications to the station's entry and exit ramps. The weigh and inspection station will be equipped with a Variable Message Sign (VMS) and a traffic camera that will both be linked to DelDOT's Traffic Management Center (TMC).

***e. Bicycles, Greenways and Trails***

There are two designated bicycle routes within the project area. Bicycle Route 1 is a statewide north/south bicycle route which traverses from Summit Bridge to Summit Bridge Road, west to Choptank Road, east on Bunker Hill Road and Main Street, then south on SR 71 to Green Giant Road, west to Wiggins Mill Road, and then south to Townsend. The C&D Canal Greenway provides bicycle trails paralleling the C&D Canal on both sides. DelDOT is currently conducting a statewide planning study to identify bicycle routes to link communities, parks, urban centers, tourist destinations and employment centers.

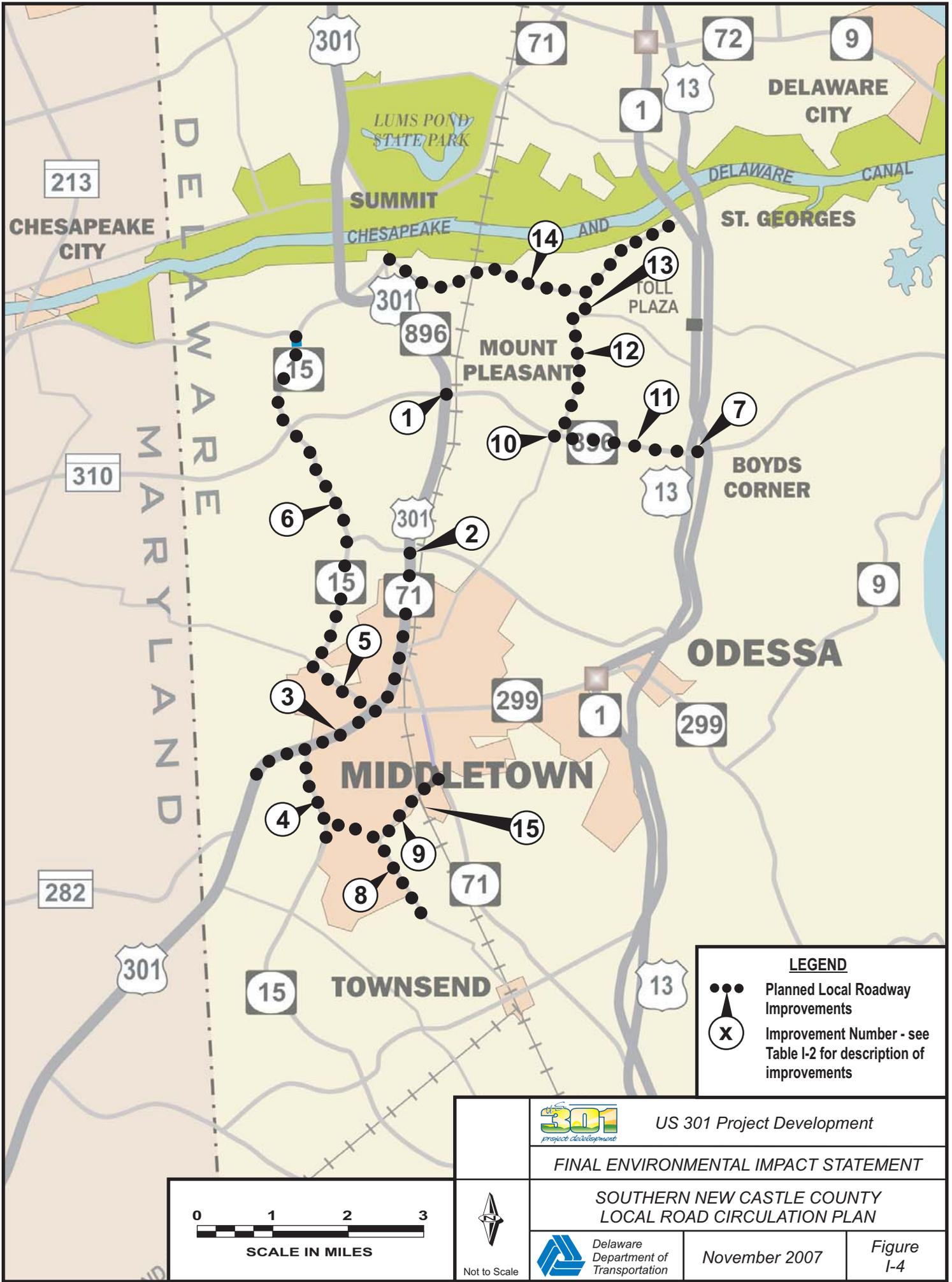
WILMAPCO and Delaware Greenways are conducting project planning to enlarge the existing greenways and trails system in New Castle County and Cecil County, Maryland. Proposed trails public workshops were held in the spring of 2006.

***f. Southern New Castle County Local Road Circulation Plan***

Over the next few years, a series of local and arterial roadway improvements are scheduled for implementation. These improvements are a part of the network of roadway improvements that are included in the traffic model that was used to develop the 2030 traffic forecasts. The improvements are listed in **Table I-2** and shown on **Figure I-4**, and include those for the Westown development (see section g, below).

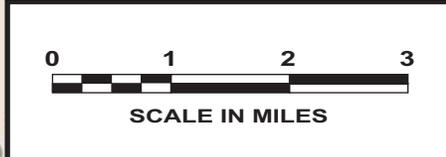
**Table I-2: Southern New Castle County Local Road Circulation Plan**

No.	Improvement	Status
1	Mount Pleasant (intersection improvements)	Completed
2	Armstrong Corner Road/US 301 (traffic signal)	Completed
3	US 301, Middleneck Road to Frogtown Crossing (lane addition)	In design
4	Levels Rd., St. Anne's Church Road to US 301 (reconstruction)	In construction
5	Bunker Hill Road, US 301 to Choptank Road (reconstruction)	In construction
6	Choptank Road, Bunker Hill Road to Bethel Church Road (reconstruction)	In construction
7	Boyd's Corner Road / US 13 (intersection improvements)	In design
8	Wiggins Mill Road, Green Giant Road to St. Anne's Church Road (reconstruction)	In design
9	St. Anne's Church Road, Levels Road to east of Wiggins Mill Road (reconstruction)	In design
10	Cedar Lane Road/Boyd's Corner Road (intersection improvements)	In design
11	Boyd's Corner Road, Cedar Lane Road to US 13 (lane addition)	In design
12	Jamison Corner Road (reconstruction)	In design
13	Route 412A (realignment)	In design
14	Lorewood Grove Road (reconstruction)	In design
15	St. Anne's Bridge over Norfolk Southern Railroad	In design



**LEGEND**

-  Planned Local Roadway Improvements
-  Improvement Number - see Table I-2 for description of improvements



 US 301 Project Development	
<b>FINAL ENVIRONMENTAL IMPACT STATEMENT</b>	
SOUTHERN NEW CASTLE COUNTY LOCAL ROAD CIRCULATION PLAN	
 Delaware Department of Transportation	November 2007
Figure I-4	

***g. Westown Roadway Improvement Projects***

There are several transportation improvement projects included in the Westown Program Management project to design and construct transportation improvements in the area to support planned growth in the area known as Westown. These projects are provided under an agreement between the Westown Development Group, the Town of Middletown and DelDOT to coordinate the necessary improvements, including public utilities. The agreement also provides for private financial contributions to the transportation improvements. These improvements include:

- US 301 from Middleneck Road to Petersen Road - Reconstruct US 301 to provide 4 travel lanes, sidewalks and drainage improvements
- Levels Road, from MOT Charter School to US 301 - Reconstruct Levels Road to provide 12-foot lanes and 8-foot shoulders between US 301 and future Industrial Drive and 11-foot lanes with 5-foot shoulders for the balance
- Wiggins Road, from Green Giant Road to St. Anne's Road - Improve to include 11-foot lanes with 5-foot shoulders
- St. Anne's Church Road from Levels Road to east of Wiggins Mill - Reconstruct to provide 11-foot lanes with 5-foot shoulders between Levels Rd and NS RR Bridge; includes roundabouts at Levels Rd and Wiggins Mill Rd intersections
- Bunker Hill Road, from US 301 to Choptank Road - Reconstruct to provide 11-foot lanes, 5-foot shoulders, and sidewalks

***h. Improvements in Maryland***

In Maryland, the Consolidated Transportation Program includes project planning by the Maryland State Highway Administration to develop interchange options at US 301/MD 304. The Maryland Transportation Authority's *Task Force on Traffic Capacity across the Chesapeake Bay* issued a report addressing issues associated with crossing the Chesapeake Bay.

**D. Conclusion**

Forty years and numerous studies later, the need to improve mobility in southern New Castle County, and in particular to increase capacity and safety in the US 301 corridor, remains. DelDOT's most recent study, the *Greater Route 301 Major Investment Study*, began with the premise that additional roadway capacity would only be a last resort, if all other possible solutions for addressing mobility in the study area failed. After a concerted effort and an evaluation of over 100 alternatives including land use scenarios, bus transit options, commuter rail options, HOV lanes, bicycle facilities and area wide pedestrian improvement plans, transportation demand management measures, tolls and congestion pricing, ITS Improvements and roadway improvements, the conclusion was that a new limited access roadway must be an element of the overall solution.

DelDOT has begun to initiate the non-capacity related recommendations from the 2000 MIS. The focus of this US 301 Project Development effort is to determine where additional capacity should be developed in the US 301 corridor. This effort will attempt to improve and enhance safety, manage truck traffic, and address existing and projected traffic congestion in the US 301 corridor, while accommodating existing and planned development and minimizing environmental impacts.