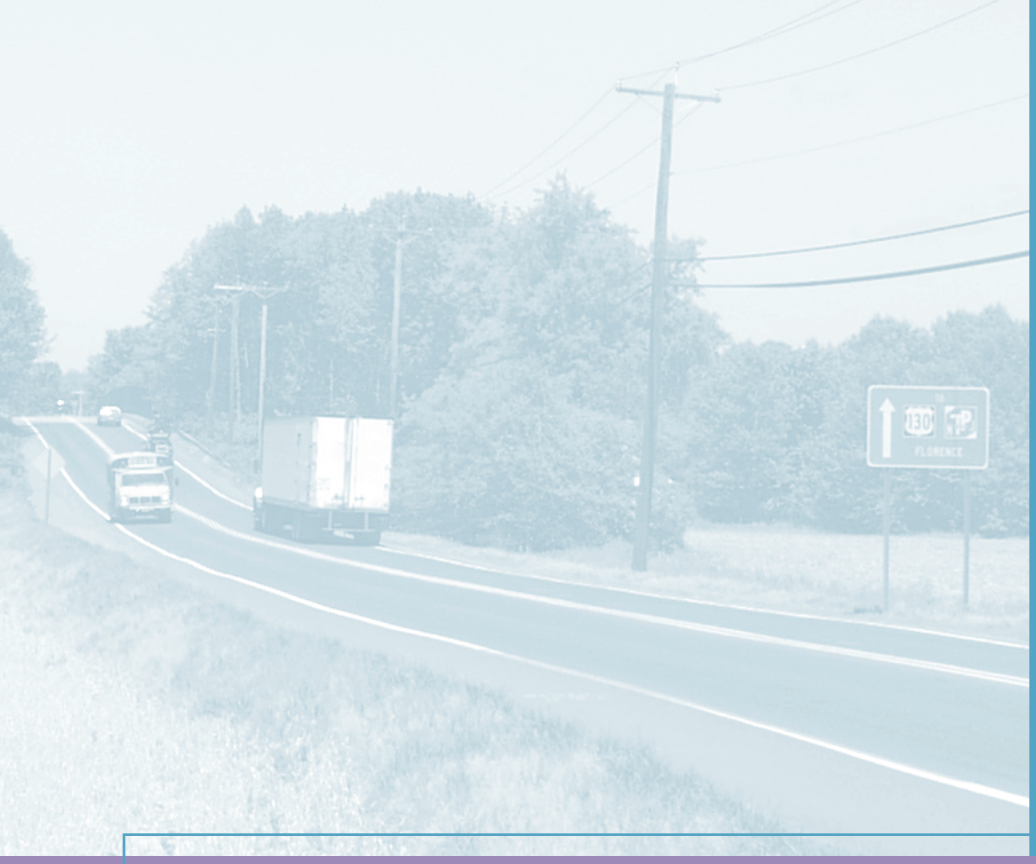

US 130 NJ TURNPIKE AREA INFRASTRUCTURE NEEDS ANALYSIS

DELAWARE VALLEY REGIONAL
PLANNING COMMISSION

JUNE 2001

US 130 - NJ Turnpike Area Infrastructure Needs Analysis

June, 2001

DELAWARE VALLEY
REGIONAL PLANNING COMMISSION

Created in 1965, the Delaware Valley Regional Planning Commission (DVRPC) is an interstate, intercounty and intercity agency that provides continuing, comprehensive and coordinated planning to shape a vision for the future growth of the Delaware Valley region. The region includes Bucks, Chester, Delaware, and Montgomery counties, as well as the City of Philadelphia, in Pennsylvania; and Burlington, Camden, Gloucester and Mercer counties in New Jersey. DVRPC provides technical assistance and services; conducts high priority studies that respond to the requests and demands of member state and local governments; fosters cooperation among various constituents to forge a consensus on diverse regional issues; determines and meets the needs of the private sector; and practices public outreach efforts to promote two-way communication and public awareness of regional issues and the Commission.

Our logo is adapted from the official DVRPC seal, and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole, while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by a variety of funding sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. The authors, however, are solely responsible for its findings and conclusions, which may not represent the official views or policies of the funding agencies.

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EXECUTIVE SUMMARY

In March 2000, the New Jersey Turnpike Authority completed a new interchange (6A) between US 130 and the New Jersey Turnpike Pennsylvania Extension in Florence Township, Burlington County. This is a full service interchange which replaces the old Exit 6A. An intent of this improvement was to remove heavy truck traffic from residential areas and to promote a more efficient system of interstate and intrastate goods movement. Improvement in local traffic circulation is also being accomplished by providing local traffic with a more direct access to the Turnpike.

Prior to the completion of the new interchange, Exit 6A had only two traffic moves. Eastbound traffic from Pennsylvania could exit the Pennsylvania Extension on to US 130. Westbound local traffic could enter the Pennsylvania Extension to Pennsylvania via the Delaware River Turnpike Bridge. Westbound traffic on the Pennsylvania Extension were not able to exit to US 130, and local traffic from communities such as western Florence Township and Roebling Township, were not able to enter the Pennsylvania Extension eastbound. All these moves are now possible with direct access to and from US 130.

In anticipation of the new interchange, several commercial and light industrial developments were completed or are underway. Due to the large tracts of undeveloped land, there is great potential for additional development. These opportunities exist primarily at the 660 acre Haines Industrial Park currently being developed immediately adjacent to the interchange and on several hundred additional acres in the immediate vicinity. There are more opportunities for fast food, mini-mart and other commercial development along US 130 in addition to the existing strip commercial development.

The lack of a coordinated plan for the growth of this area has raised concerns among local and county representatives. The fact that the growth in this area is primarily being felt in more than one municipality - Burlington Township and Florence Township - makes it more important to coordinate this growth. Some of the primary concerns in this area include: inadequate linkages between the light industrial areas, the NJ Turnpike, I-295, US 130 and local roads; potential circulation problems between different sites; lack of a coordinated infrastructure - other than transportation; lack of coordination between affected municipalities; and the interface between passenger cars on US 130, access to the Southern New Jersey Light Rail Transit System (SNJLRTS) station at Haines Industrial Park and the heavy truck traffic expected in the area.

The Delaware Valley Regional Planning Commission (DVRPC) was requested to assist in this effort by conducting a local impact analysis to determine the impact of the new interchange on the surrounding area. The intent of this study is to develop a coordinated plan to assess the infrastructure needs created by the growth in this area, while keeping in mind the existing light industrial facilities and residents. This growth must be harnessed and channeled in such a way so as to produce the greatest amount of positive economic

development without the negative side effects of congestion and environmental degradation. The following tasks were identified as integral to the completion of this study:

- Assess the potential for development on parcels not actively being discussed for development.
- Identify potential connections for internal circulation systems.
- Recommend improvement concepts for linkages between developed areas and US 130, Interchange 6A, I-295 and local roads.
- Evaluate access between the SNJLRTS station and US 130/new developments.

In an effort to fulfill these objectives, the study team held separate meetings with both Florence and Burlington townships to determine their concerns and plans for the future of this area. Municipal input, along with Burlington County's vision, helped to identify a coordinated action plan for the study area.

This report documents the study recommendations for coordinating the transportation and circulation infrastructure improvements in the study area. Recommendations are listed as either short term or long term. Short term recommendations include those improvements that are not capital intensive such as better signage to improve traffic flow and safety, and intersection modifications to improve turn radius. Long term improvements recommended include the construction of access roads to relieve congestion along specific highway segments, as well as the creation of ramps to improve circulation. An implementation plan has also been developed identifying the roles and responsibilities of various public and private entities.

STUDY AREA

The study area is comprised of the area extending from CR 656 (Delaware Avenue/Florence-Columbus Road) in the north, Old York Road and Bustleton Road in the east, Neck Road in the south, and River Road/West Front Street in the west. This comprises an area of approximately 3,803 acres or 5.94 square miles. (See Map 1)

LAND USE

The study area encompasses a variety of land uses ranging from single family residential to industrial and warehouse. The area to the east of US 130 is primarily agricultural, with large tracts of newly constructed single family homes and town houses. There are retail commercial and manufacturing activities along the US 130 strip. The area to the south of I-276 (New Jersey Turnpike Extension) and west of US 130 is primarily manufacturing and warehouse. North of I-276 and west of US 130 is primarily single family residential comprising of a older housing stock in established communities, with manufacturing uses along West Front Street.

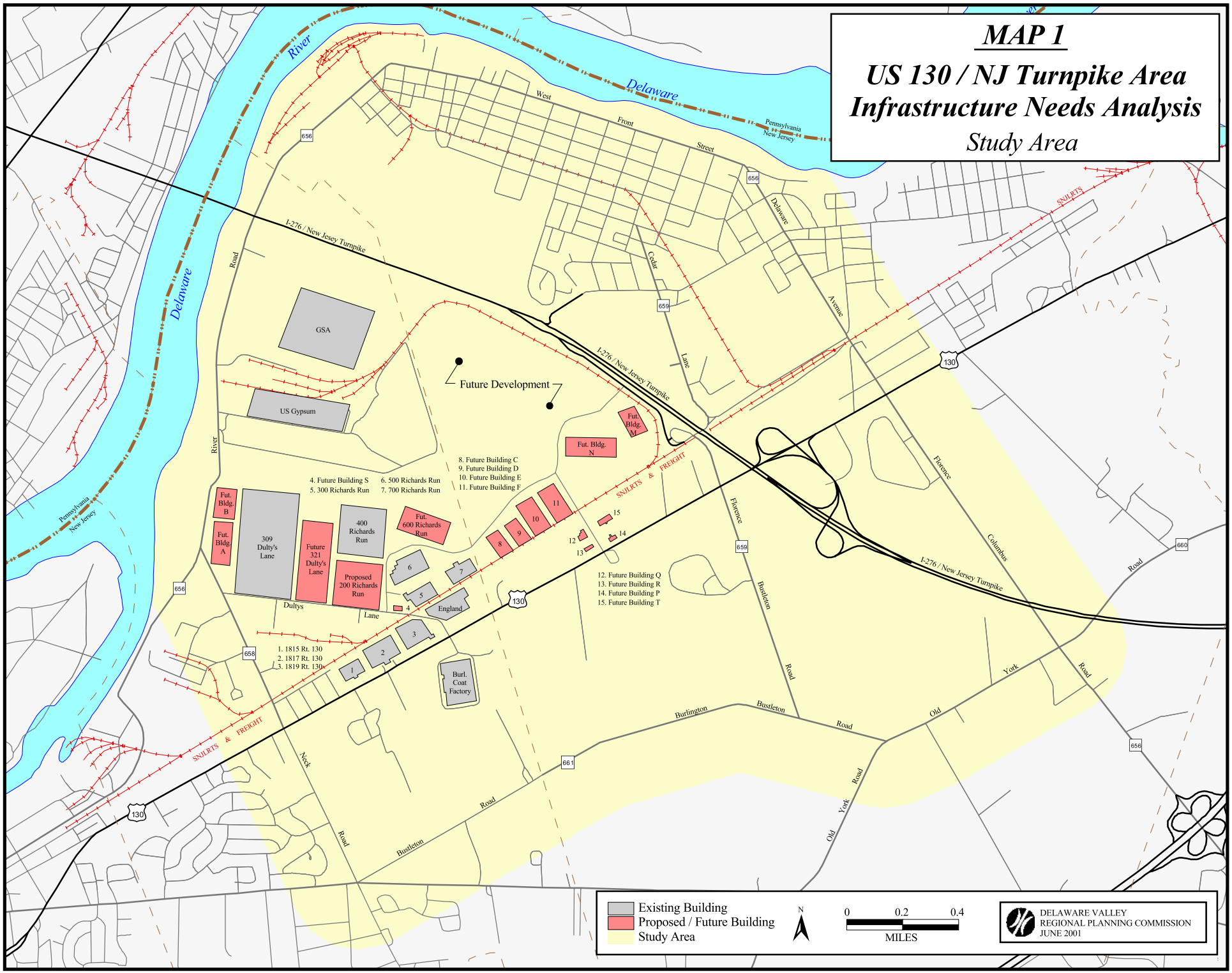
DVRPC's preliminary 2025 land use plan for the region shows 46.7% or 1,775 acres of the study area earmarked as future growth area (See Map 2). With approximately 639 acres already targeted for development by Whitesell Construction Company at the site of the Haines Industrial Center, 1,136 additional acres will be available for future growth. Any increase in land use activity will result in an increase in vehicular activity which will impact the existing road network.

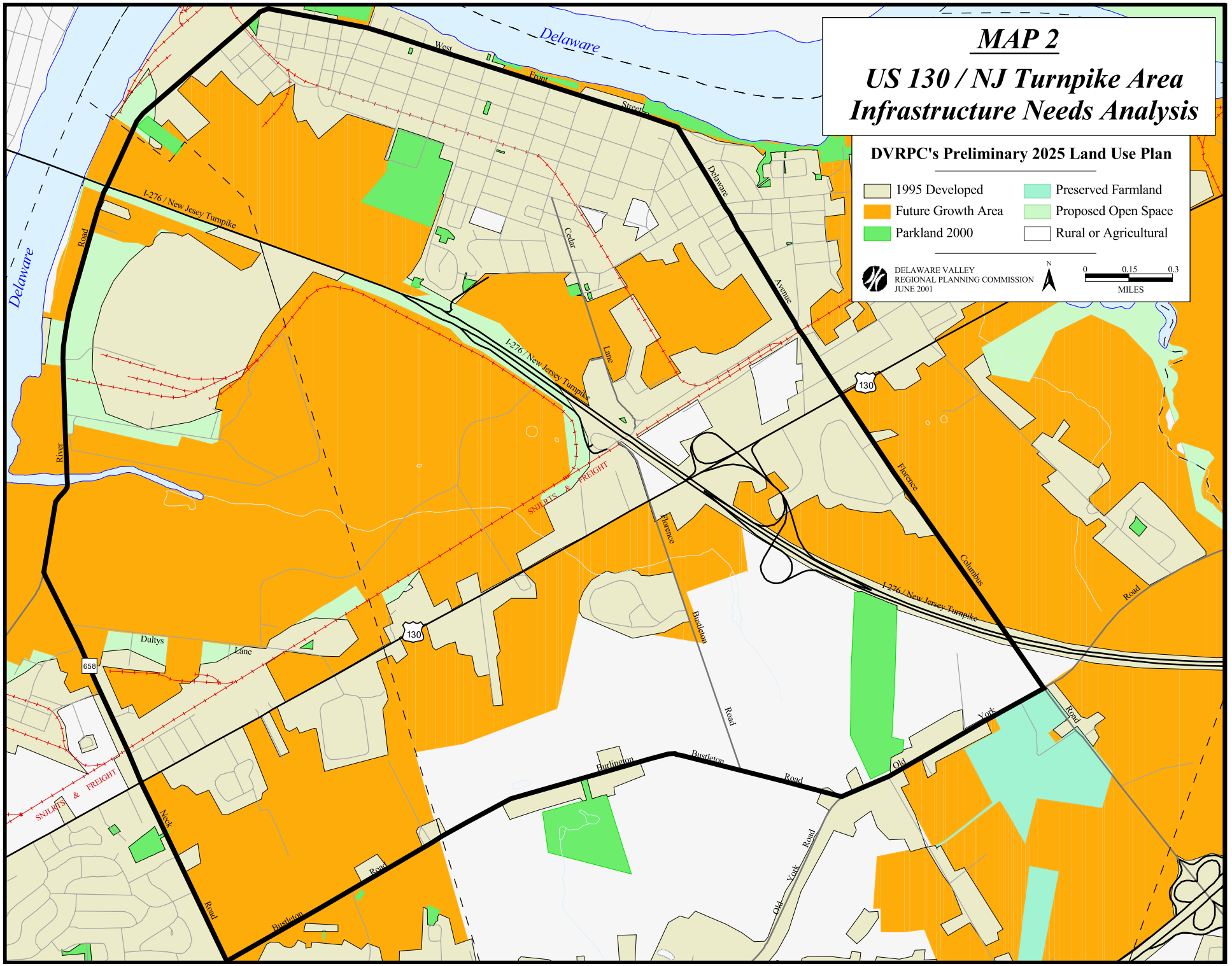
HIGHWAY NETWORK

The study area is traversed by a hierarchy of highways ranging from interstate highways to local roads. For the purpose of this study, traffic patterns will primarily be analyzed on county, state, and interstate highways. The impact on local roads will also be examined in cases where there is, or is expected to be, a negative impact on existing traffic patterns and volumes due to current and future development.

The New Jersey Turnpike Pennsylvania Extension is the major interstate highway in the study area. It has a full interchange with US 130, permitting access to Pennsylvania and northern and southern New Jersey.

Interstate 295 is a north-south highway located to the east of the area. It extends from US 1 in Mercer County in the north to Salem County in the south. Direct access is provided to the study area via Florence - Columbus Road.


MAP 1
US 130 / NJ Turnpike Area
Infrastructure Needs Analysis
Study Area
Delaware River
Pennsylvania
New Jersey
West Front Street
I-276 / New Jersey Turnpike
SNJLRTS & FREIGHT
GSA
US Gypsum
Future Development
Fut. Bldg. M
Fut. Bldg. N
Fut. Bldg. B
Fut. Bldg. A
309 Dulty's Lane
Future 321 Dulty's Lane
400 Richards Run
Fut. 600 Richards Run
Proposed 200 Richards Run
England
Burl. Coat Factory
4. Future Building S
5. 300 Richards Run
6. 500 Richards Run
7. 700 Richards Run
8. Future Building C
9. Future Building D
10. Future Building E
11. Future Building F
12. Future Building Q
13. Future Building R
14. Future Building P
15. Future Building T
1. 1815 Rt. 130
2. 1817 Rt. 130
3. 1819 Rt. 130
Cedar Lane
Florence Columbus Road
Bustleton Road
Burlington Bustleton Road
Old York Road
Neck Road
Dultys Lane
656
658
659
660
661
130
Existing Building
Proposed / Future Building
Study Area
N
0 0.2 0.4
MILES
DELAWARE VALLEY REGIONAL PLANNING COMMISSION
JUNE 2001


MAP 2
US 130 / NJ Turnpike Area
Infrastructure Needs Analysis
DVRPC's Preliminary 2025 Land Use Plan
1995 Developed
Future Growth Area
Parkland 2000
Preserved Farmland
Proposed Open Space
Rural or Agricultural
DELAWARE VALLEY
REGIONAL PLANNING COMMISSION
JUNE 2001
N
0
0.15
0.3
MILES
Delaware
West
Front
Street
Delaware
Avenue
Cedar
Lane
I-276 / New Jersey Turnpike
Road
River
Delaware
I-276 / New Jersey Turnpike
SNJLRTS & FREIGHT
130
Florence
Columbus
Road
I-276 / New Jersey Turnpike
Dultys
Lane
658
130
Florence
Bustleton
Road
Burlington
Bustleton
Road
Old
York
Road
SNJLRTS & FREIGHT
Neck
Road
Bustleton
Road
Old
York
Road

US 130 extends from the intersection with US 1 in Middlesex County in the north to Pennsville Township in Salem County in the south. US 130 is an Urban Principal Highway consisting of four travel lanes and a grass center median. It generally has 10 foot wide travel lanes, 16 foot wide median and shoulders of approximately 10 feet wide. There is an additional acceleration and deceleration lane In the vicinity of the New Jersey Turnpike interchange ramps. Traffic counts for the section of this road within the study area vary depending on the proximity of the counting station to the Turnpike interchange. The Average Annual Daily Traffic (AADT) for US 130 in both directions just north of the turnpike ramps was 21,311 in 2001. For the segment of highway just south of the interchange, the AADT was 28,711 in the same year. Further south on US 130, to the immediate south of Neck Road, the AADT at this location was 22,543 in the same year. The posted speed limit is 50 MPH.

River Road (CR 656) is a two lane Collector which runs parallel to the Delaware River and connects the town of Florence to Burlington City. It has a cartway width of 32 feet consisting of two 13 foot wide lanes and 3 foot wide shoulders on each side. In 2001, DVRPC recorded an AADT of 3,931 to the north of Neck Road.

West Front Street (CR 656) is a Collector which connects River Road in Burlington Township to Delaware Avenue in Florence Township. It has two travel lanes and serves as an important access road for adjacent industries.

Delaware Avenue (CR 656) is a Collector which extends from West Front Street to US 130 in Florence Township. A 2001 DVRPC traffic count recorded an AADT of 8,733 for this roadway in the vicinity of US 130. There is a posted speed limit of 25 MPH for this roadway.

Florence-Columbus Road (CR 656) is classified as a Collector and provides direct access between US 130 in Florence Township and I-295 in Mansfield Township. This is a two-lane road with a posted speed limit of 50 MPH. A 2001 DVRPC traffic count recorded an AADT of 9,472 along this road.

Dulty's Lane is located in Burlington Township and provides access to the major industrial sites along and between River Road and US 130. It is a 22 foot wide two lane undivided local road which provides access to adjacent warehouse and industrial properties.

Neck Road (CR 658) extends from Old York Road (CR 660) to River Road in Burlington County. It has two travel lanes with each lane being 11 feet wide. It has a functional classification of an Urban Collector and is an important link between US 130 and River Road as well as between US 130 and CR 661 and CR 660. DVRPC conducted traffic counts in 2001 which recorded an AADT of 1,323 just north of US 130 while an AADT of 3,018 was recorded to the north of CR 661.

Cedar Lane is a two lane local road that provides direct access to US 130 from residential and industrial areas of Florence Township. A 2001 traffic count conducted by DVRPC recorded an AADT of 4,155 for this road.

Florence-Bustleton Road (CR 659) is a two lane local road which extends from US 130 to CR 661. A 2001 DVRPC traffic count on this road recorded an AADT of 1,990. This is a decrease from a 1999 count which recorded an AADT of 4,196 vehicles. It should be noted that prior to the completion of the new Interchange 6A, this road provided direct access for eastbound Turnpike traffic destined for I-295.

Old York Road (CR 660) is a two lane local road extending from Jacksonville Road in Burlington Township to US 206 in Bordentown. A 2001 DVRPC traffic count on Old York Road in the vicinity of CR 656 recorded an AADT of 2,730.

Burlington-Bustleton Road (CR 661) is a two lane road connecting Neck Road with Old York Road. A 2001 DVRPC traffic count on CR 661 in the vicinity of CR 659 recorded an AADT of 1,917 vehicles.

TRAFFIC PATTERNS

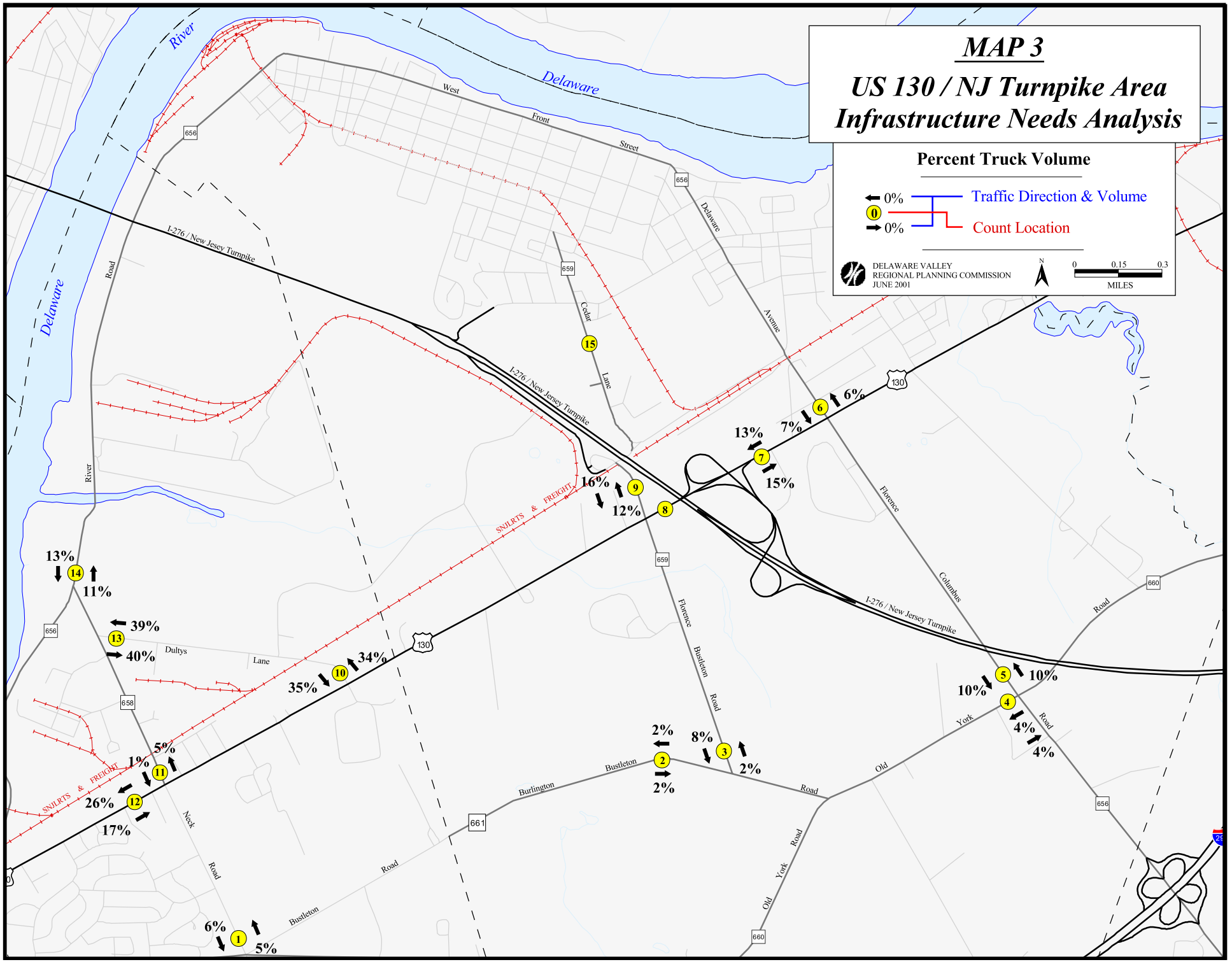
In an effort to understand existing trip movements, automatic traffic recorders were placed at 15 key locations within the study area in January 2001. Hourly vehicle counts were collected over a 24-hour time period at 15 different locations and tabulated to determine traffic direction and volumes (See Appendix). Vehicle classification counts were also taken to determine the percentage of truck traffic on various roadways. (Map 3)

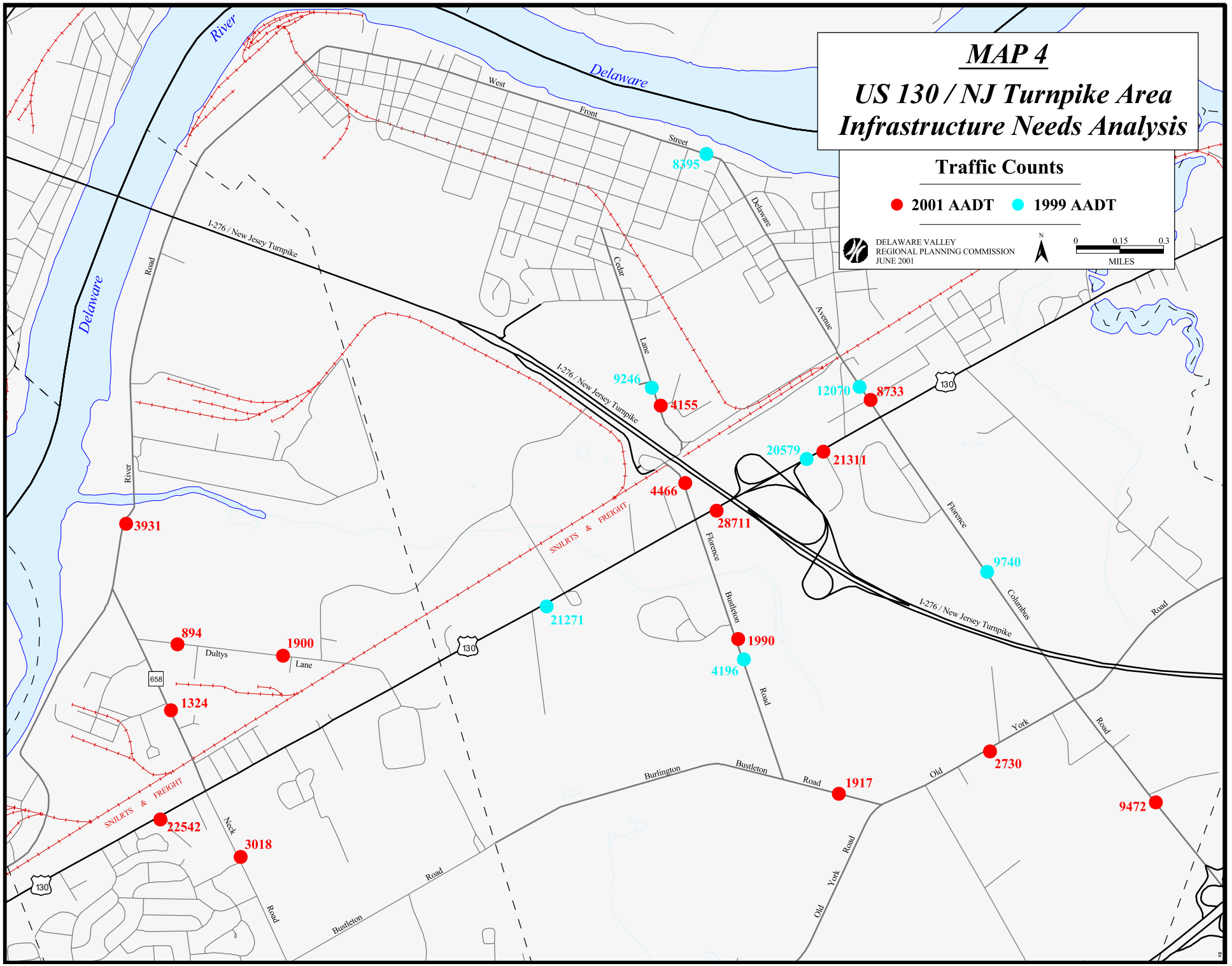
A comparative analysis of traffic counts since 1999, has shown distinctive changes in traffic patterns since Exit 6A was opened in January 2000. Volumes on certain highway links have shown marked increases or decreases depending on the location relative to the new interchange. (Map 4)

Prior to the new interchange, Florence - Bustleton Road (CR 659) was a major egress road from the Turnpike Extension via Cedar Lane. A 1999 counting station along Cedar Lane between US 130 and Access Road to the west, recorded an AADT of 9,246. In 2001, a count at the same location recorded an AADT of 4,466 vehicles, a 51.6% decrease from 1999. This is attributable to vehicles now exiting the Turnpike from the US 130 ramps as opposed to the former Cedar Lane exit ramps. Traffic on Cedar Lane now fulfills a primarily local function.

A similar trend exists at a counting station located on CR 656 between US 130 and the Bordentown Secondary right-of-way. In 1999, an AADT of 12,070 vehicles was recorded at this station. In 2001, the AADT was 8,733, a decrease of 27.6%. This is also attributed to changes in traffic patterns as a result of the new interchange. Westbound traffic from I-295 now proceed from Florence - Columbus Road to US 130 south to the Turnpike ramps instead of along Delaware Avenue to the Delaware River Turnpike Bridge.

Traffic along CR 659 between CR 661 and US 130 also recorded a dramatic decrease in volumes as a result of the opening of the new interchange. In 1999, an AADT of 4,196 was recorded at this location. In 2001, this declined to 1,190 vehicles, a 71.6% decrease. This is a result of traffic no longer exiting the Turnpike on Cedar Lane and proceeding along CR 659, CR 661 and CR 656 to access I-295.


MAP 3
US 130 / NJ Turnpike Area
Infrastructure Needs Analysis
Percent Truck Volume
0%
0
0%
Traffic Direction & Volume
Count Location
DELAWARE VALLEY
REGIONAL PLANNING COMMISSION
JUNE 2001
N
0
0.15
0.3
MILES
Delaware River
Delaware
West Front Street
I-276 / New Jersey Turnpike
Cedar Lane
Delaware Avenue
River Road
Florence Bustleton Road
Columbus Road
Dultys Lane
Neck Road
Bustleton Road
Burlington Bustleton Road
Old York Road
SNJLRTS & FREIGHT
656
658
659
660
661
130
1 6% 5%
2 2% 2%
3 8% 2%
4 4% 4%
5 10% 10%
6 6% 7%
7 13% 15%
8
9 16% 12%
10 35% 34%
11 1% 5%
12 26% 17%
13 39% 40%
14 13% 11%
15


MAP 4
US 130 / NJ Turnpike Area
Infrastructure Needs Analysis
Traffic Counts
2001 AADT
1999 AADT
DELAWARE VALLEY
REGIONAL PLANNING COMMISSION
JUNE 2001
N
0 0.15 0.3
MILES
Delaware River
Delaware River
West Front Street
Delaware Avenue
Cedar Lane
I-276 / New Jersey Turnpike
River Road
SNJLRTS & FREIGHT
Florence Bustleton Road
Columbus Road
Dultys Lane
Neck Road
Burlington Bustleton Road
Old York Road
Bustleton Road
130
658
8395
9246
4155
12070
8733
20579
21311
4466
28711
3931
21271
9740
894
1900
1990
4196
1324
22542
3018
1917
2730
9472

RAIL SERVICE

The Southern New Jersey Light Rail Transit System (SNJLRTS) is scheduled to provide passenger service between Camden and Trenton, along the Bordentown Secondary in the year 2002. The Bordentown Secondary is a single track Class 1 freight railroad operated by CONRAIL.

A Camden station will be located adjacent to the Walter Rand Transportation Center and will provide both park-and-ride and transfer facilities. A Trenton station will serve as a destination for passengers working in Trenton or connecting with Northeast Corridor trains and as an origin park and ride station. The 34 mile light rail line will provide rail service every 15 minutes during the peak and 30 minutes off-peak.

A passenger station to serve the light rail transit will be constructed at a site adjacent to the railroad south of Cedar Lane. The passenger station and Haines Industrial Center will be accessible via a new access road.

While passenger service will reduce the overall Vehicle Miles Traveled (VMT) in the region, there will be an increase in vehicular activity in the immediately vicinity. To accommodate the expected increase in traffic, vehicular access will have to be improved.

Site Access Road

A new access road to the site will be constructed at US 130, 3,200 feet south of Cedar Lane and to the north of Dulty's Lane. The intersection of US 130 and this new access road will be signalized. Major improvements proposed for the area in and around the site will include grade crossing signals and gates. In an effort to reduce congestion and delay at the grade crossing, it is proposed that the light rail stop should be located away from the grade crossing. This will permit through traffic on the access road when the train is in the station.

The station will also be accessible via Richards Run in the south. Two park and ride lots, with a total capacity for 625 cars, will be constructed on the north and southbound side of the tracks. It is expected that by the year 2020, daily boardings at this station will be 920.

Currently, the number of freight trains using this track averages 5 or less trains per day, while the maximum speed allowed on this track is generally between 11 - 25 MPH. This track will be upgraded to accommodate higher speed passenger service. Once passenger service is initiated, freight service will be confined to the hours of 10:00 pm to 6:00 am, while passenger service will operate between the hours of 6:00 am and 10:00 pm, connecting the cities of Camden and Trenton.

EXISTING TRIP GENERATORS

The greatest concentration of trip generators within the study area is at, or within close proximity to the Haines Industrial Center. The following is a brief description of the larger facilities:

Burlington Coat Factory

Burlington Coat Factory is located on two sites within the study area. The first site which is located at 1819 US 130, is only accessible from Dulty's Lane. The second site, located at 1830 US 130, has its entrance directly across from Dulty's Lane. It is expected that in the near future, there will be expansion at this site to accommodate a 7,000 square foot day care center.

C.R. England and Sons Inc.

This is a major shipping company located at 403 Dulty's Lane. It is anticipated that there will be a building expansion at this site which will lead to increased truck activity in the near future.

1815-1817 US 130

These are two warehouse buildings with frontage on US 130 that is within the Whitesell complex.

100 and 300 Richards Run

These are warehouses that are currently in operation. Richards Run is connected to US 130 via Dulty's Lane.

400 Richards Run

This a office/warehouse facility with an existing building area of 507,900 square feet, of which 502,900 square feet is warehouse and 5,000 square feet is office use. Based on a Traffic Impact Study conducted for Whitesell Construction Company, this site is projected to generate 89 AM peak hour trips (59 inbound and 30 outbound), and 82 PM peak hour trips (26 inbound and 56 outbound).

309 Dulty's Lane

This is the site of BJ's, a major regional wholesale distributor. Based on the Whitesell Traffic Impact Study, this 633,836 square foot site is projected to generate 98 AM peak hour trips (48 in bound and 46 outbound), and 97 PM peak hour trips (34 inbound and 63 outbound).

FUTURE TRIP GENERATORS

The Haines Industrial Center straddles both Burlington and Florence Townships. When fully built out, it is projected to have a total of 6,221,477 square feet of industrial buildings and 87,775 square feet of commercial buildings (See Table 1). To date, four buildings totaling 1,681,035 square feet have been approved for industrial use. A 100 room hotel and 27,775 square feet of retail space is proposed for the site, adjacent to a new access road to be located between Cedar Road and Dulty's Lane.

Based on the November 2000 traffic impact study of the Haines Industrial Center conducted for Whitesell, a total of 1,193 AM peak hour and 1,311 PM peak hour additional trips are expected to be generated when the site is fully built-out. This will necessitate improvements to the road network to improve traffic circulation and accommodate the expected growth in volume.

As Table 1 also illustrates, there are several buildings planned for the area that are yet to be constructed. The projected trip generation for specific buildings was determined based on the Whitesell Traffic Impact Study.

321 Dulty's Lane

On this site, a 565,000 square foot industrial building will be constructed. Based on the Whitesell Traffic Impact Study, this site is projected to generate 99 AM peak hour trips (66 inbound and 34 outbound), and 91 PM peak hour trips (29 inbound and 62 outbound).

200 Richards Run

This site is projected to house a 413,000 square foot industrial building. Based on the Whitesell Traffic Impact Study, it is projected to generate 73 AM peak hour trips (48 inbound and 25 outbound), and 66 PM peak hour trips (21 inbound and 45 outbound).

500 Richards Run

This site is projected to house a 126,484 square foot building. Based on the Whitesell Traffic Impact Study, the site is projected to generate 22 AM peak hour trips (15 inbound and 8 outbound), and 20 PM peak hour trips (6 inbound and 14 outbound).

600 Richards Run

This site is projected to house a 257,000 square foot building. Based on the Whitesell Traffic Impact Study, the site is projected to generate 45 AM peak hour trips (30 inbound and 15 outbound), and 41 PM peak hour trips (13 inbound and 28 outbound).

Table 1: Haines Industrial Center Proposed Development

Building	Size		
	Approved	**Future**	**Total**
Industrial Buildings			
Future Building 'A'		230,000 S.F.	230,000 S.F.
Future Building 'B'		230,000 S.F.	230,000 S.F.
309 Dulty's Lane	633,836 S.F.		633,836 S.F.
321 Dulty's Lane		565,000 S.F.	565,000 S.F.
200 Richards Run	413,000 S.F.		413,000 S.F.
400 Richards Run	507,715 S.F.		507,715 S.F.
500 Richards Run	126,484 S.F.		126,484 S.F.
600 Richards Run		257,000 S.F.	257,000 S.F.
Future Building 'S'		9,600 S.F	9,600 S.F
Future Building 'C'		48,000 S.F	48,000 S.F
Future Building 'D'		48,000 S.F.	48,000 S.F
Future Building 'E'		60,000 S.F.	60,000 S.F.
Future Building 'F'		60,000 S.F.	60,000 S.F.
Future Development 'G'		2,722,842 S.F.	2,722,842 S.F.
Future Building 'M'		53,000 S.F.	53,000 S.F.
Future Building 'N'		257,000 S.F.	257,000 S.F.
TOTAL	**1,681,035**	**4,540,442**	**6,221,477**
Commercial Buildings			
Future Building 'T'		60,000 S.F.	60,000 S.F.
Future Building 'P'		3,920 S.F	3,920 S.F
Future Building 'Q'		20,800 S.F	20,800 S.F
Future Building 'R'		3,055 S.F	3,055 S.F
TOTAL		**87,775**	**87,775**

Source: Haines Industrial Center Traffic Impact Study

TRANSPORTATION PROBLEM LOCATIONS

Several key locations were studied to determine their suitability to accommodate the expected increase in volumes due to the new interchange as well as to identify short and long term solutions to improve safety and reduce congestion. (Map 5)

1. Intersection of Neck Road (CR 658) and River Road (CR 656)

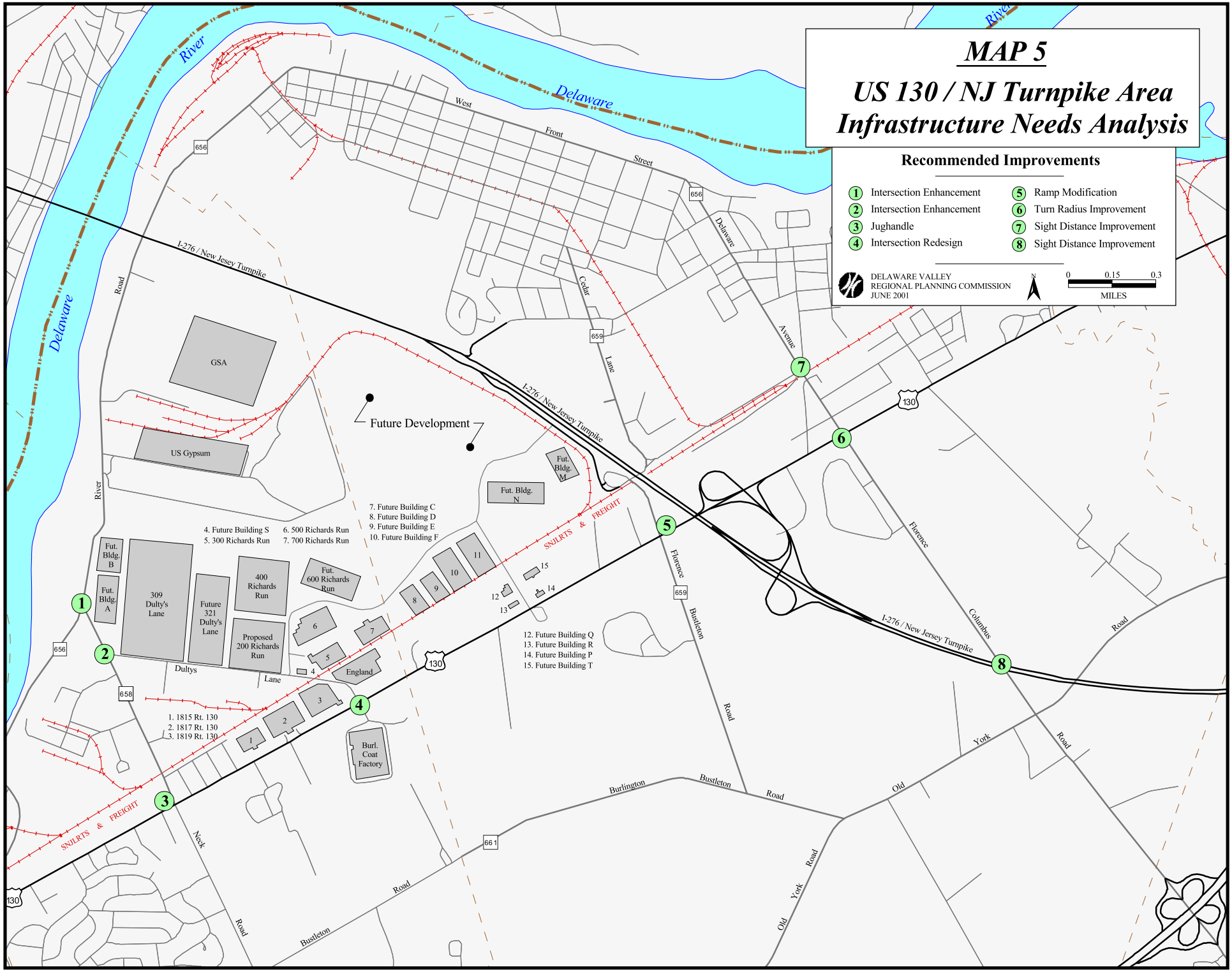
Existing Conditions:

River Road is a two lane Collector facility that runs generally north-south parallel to the Delaware River between Burlington Township and Florence Township. The intersection is controlled by a stop sign on River Road northbound. Each lane measures 13 feet in width and has a 3 foot shoulder. There is a posted speed limit of 40 MPH on River Road north of the intersection with Neck Road and 50 MPH south of Neck Road. River Road is an important link because it connects to I-295 at interchange 52 and also intersects US 130, serving as a truck route for the industries located along River Road and Dulty's Lane in Burlington Township. A DVRPC 2001 traffic count on River Road just north of the intersection with Neck Road revealed an AADT of 3,931 vehicles. Of that number, 13 percent of the traffic was trucks headed southbound, while 11 percent of the northbound traffic was trucks.

Neck Road intersects River Road at an acute angle. This facility is an Urban Collector with a posted speed limit of 40 MPH. It has an average lane width of 11 feet and a 1 foot shoulder on the eastbound lane and a 3 foot shoulder on the westbound lane for a total cartway of 26 feet. This segment of Neck Road serves as a connector between River Road and Dulty's Lane carrying predominantly commercial traffic. The intersection of Neck Road and Dulty's Lane is of particular importance because Dulty's Lane is the main access road to the Whitesell Industrial Properties.

Identified Problems:

- Traffic on northbound River Road experiences compromised sight distance of oncoming westbound Neck Road traffic due to the acute angle of the intersection. A field observation revealed traffic proceeding approximately 40 feet beyond the stop sign into the intersection in order to see oncoming westbound Neck Road traffic. This action places these vehicles in the path of southbound River Road traffic attempting to turn left onto Neck Road.


MAP 5
US 130 / NJ Turnpike Area
Infrastructure Needs Analysis
Recommended Improvements
1 Intersection Enhancement
2 Intersection Enhancement
3 Jughandle
4 Intersection Redesign
5 Ramp Modification
6 Turn Radius Improvement
7 Sight Distance Improvement
8 Sight Distance Improvement
DELAWARE VALLEY
REGIONAL PLANNING COMMISSION
JUNE 2001
N
0 0.15 0.3
MILES
Delaware River
Delaware River
West Front Street
I-276 / New Jersey Turnpike
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Fut. Bldg. M
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309 Dulty's Lane
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12. Future Building Q
13. Future Building R
14. Future Building P
15. Future Building T
1. 1815 Rt. 130
2. 1817 Rt. 130
3. 1819 Rt. 130
SNJLRTS & FREIGHT
Florence Bustleton Road
Columbus Road
Burlington Bustleton Road
Old York Road
Neck Road
Bustleton Road
656
658
659
661
130

Improvement Scenarios:

Short Term

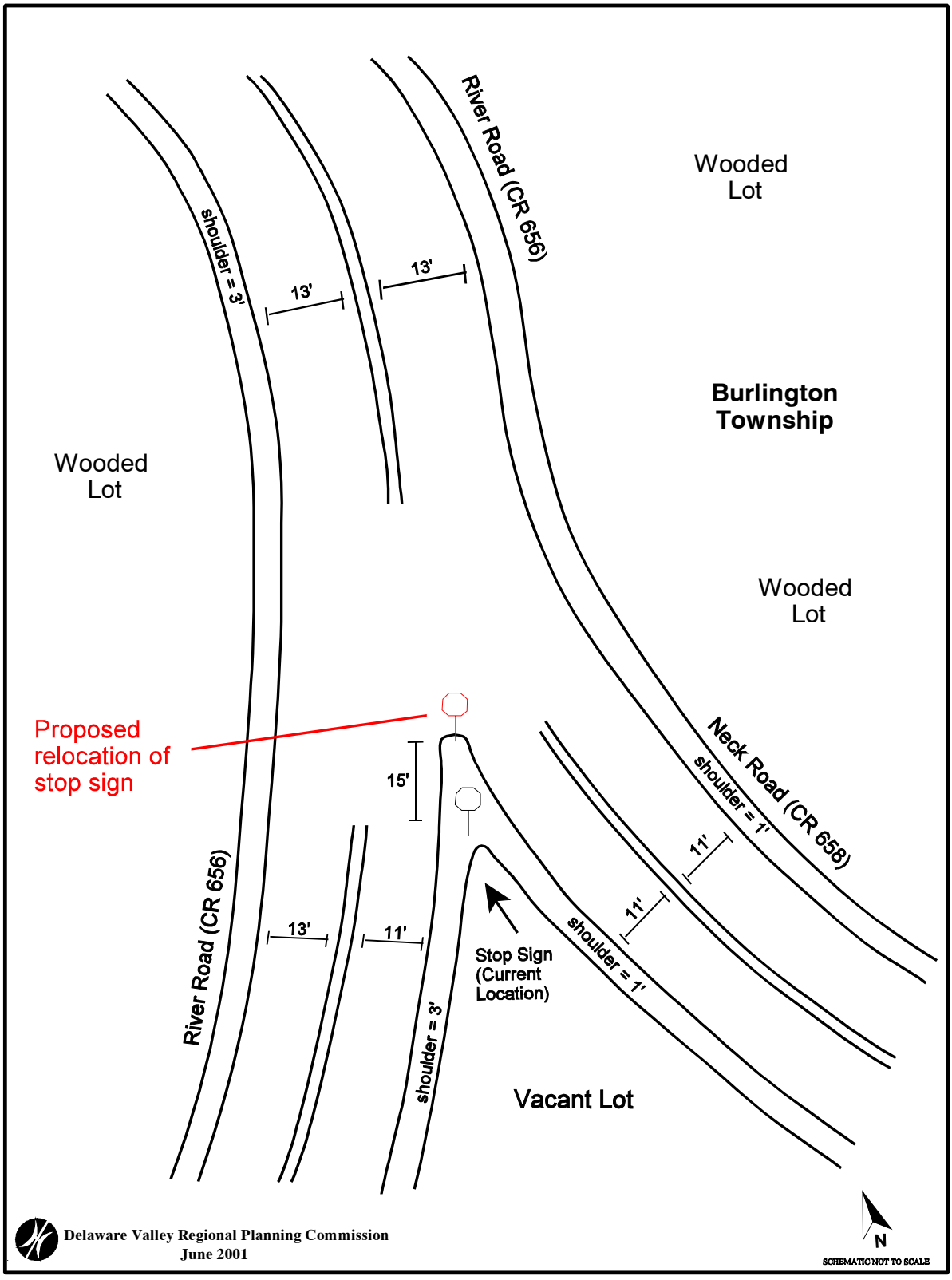
- Move stop sign forward approximately 15 feet from the current location.
- Re-stripe the intersection by placing a stop bar in line with the stop sign.
- Erect “Intersection Ahead” warning sign on River Road northbound approaching the intersection.
- Place regulatory speed limit sign on northbound River Road approaching the intersection. This will encourage drivers to slow down which will enable them to more easily navigate through the intersection.

Long Term

- Redesign the intersection creating a more perpendicular alignment for northbound River Road traffic. This will improve the sight distance of oncoming westbound Neck Road traffic and prevent River Road northbound traffic from entering the intersection.

  This can be accomplished by using the vacant parcel to the south of the intersection to realign the approaches to form a T-intersection. This, and a stop sign on the northbound River Road approach, should provide sufficient traffic control.

***Figure* 1: Intersection of Neck Road (CR 658) and River Road (CR 656)**



2. Intersection of Dulty's Lane and Neck Road (CR 658)

Existing Conditions:

Dulty's Lane is a two lane local road connecting US 130 and Neck Road (CR 658). Dulty's Lane has 11 foot and 12 foot wide lanes with a shoulders of 7 feet in width on the westbound side and an unpaved shoulder on the eastbound side. An AADT of 894 was recorded on Dulty's Lane near Neck Road in January 2001, with 40 percent truck traffic. Dulty's Lane has a stop sign at its intersection with Neck Road.

Neck Road is a 2-lane Urban Collector facility with 11 foot lanes, a 1 foot shoulder on the eastbound lane and a 3 foot shoulder on the westbound lane. The posted speed limit is 40 MPH. This segment of Neck Road serves as a connector between River Road and Dulty's Lane and carries predominantly commercial traffic.

This intersection is important because Dulty's Lane is the main access road to the Whitesell Industrial Properties. Currently, this industrial park contains 4 properties and has future plans for an additional 16 industrial and commercial properties equaling 4,628,217 square feet. This planned development indicates that traffic volume and percentage of trucks will increase in the future. NJ Transit bus #409 which serves the communities between Trenton and Philadelphia, provides hourly local service to this area.

Identified Problems:

– There is an inadequate turning radius at the intersection of Dulty's Lane and Neck Road. Trucks turning from southbound Neck Road to Dulty"s Lane are impeded by the sharp turn. Field observations reveal tire tracks in the roadway shoulders at the intersection which supports this finding. This problem is of particular concern to large trucks which currently account for approximately 40% of the traffic volume on Dulty's lane.

Improvement Scenarios:

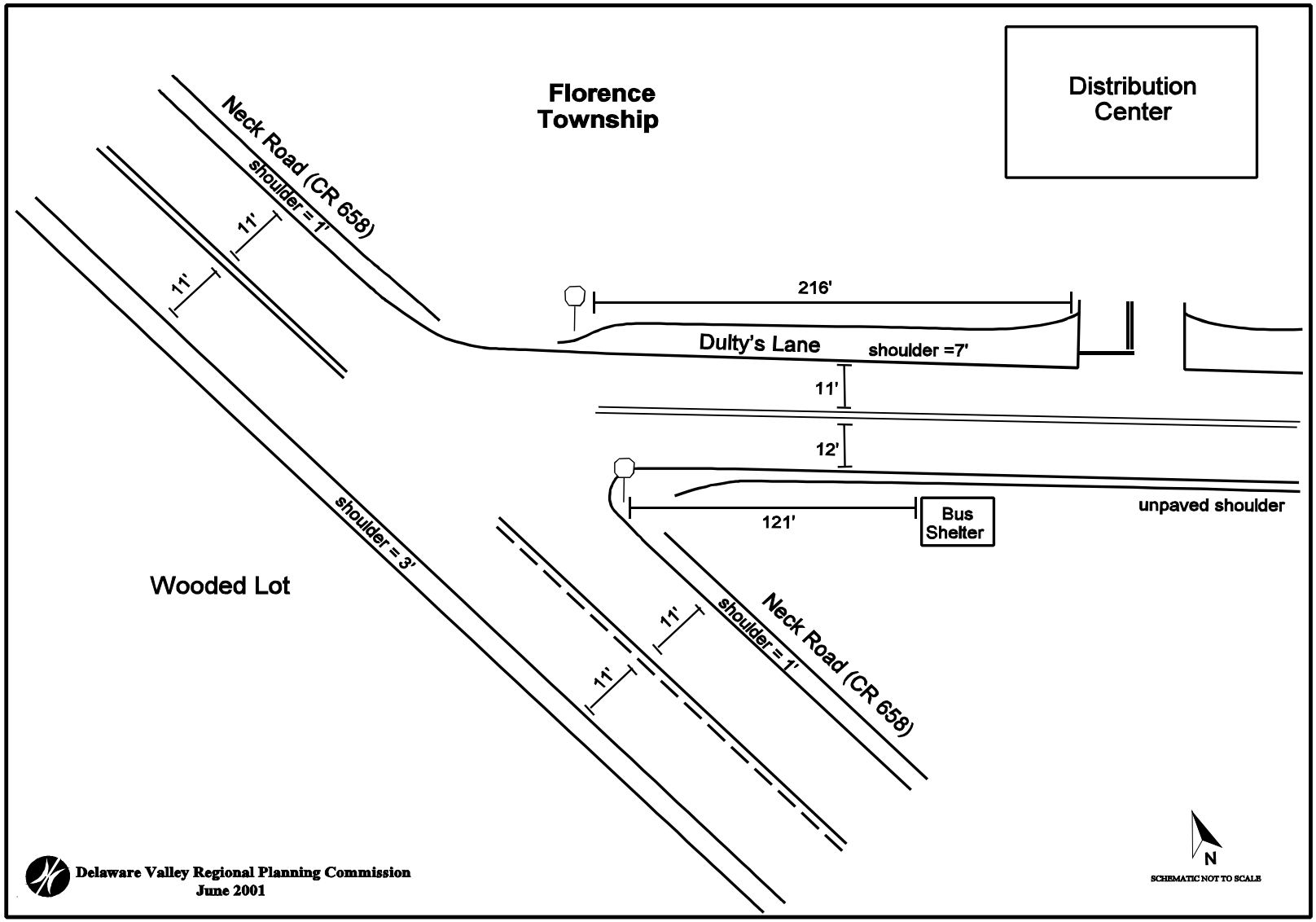
Short Term

- Erect cautionary signage on northbound Neck Road approaching the intersection.
- Place a regulatory speed limit sign on Neck Road to encourage drivers to slow down so as to better navigate through the intersection.
- Install pavement markings and improve landscaping to improve sight distance and safety.

Long Term

- Widen lanes and shoulders of Dulty's Lane at the intersection with Neck Road to better accommodate the expected increase in truck traffic en route to and from the industrial park.

***Figure* 2: Intersection of Dulty's Lane and Neck Road (CR658)**



3. Jug handle on US 130 at Neck Road Mile Post: 48.3

Existing Conditions:

The intersection of Neck Road and US 130 is a four-way signalized intersection. There are two through lanes, one protected left turn lane and inside and outside shoulders in both directions on US 130 at this location. US 130 has a center median with an average width of 16 feet which narrows approaching the traffic signals. Neck Road is generally 35 feet in width and has two travel lanes. The segment of Neck Road to the west of US 130 has an eastbound travel lane of 12 feet in width and an eastbound shoulder that is four feet wide. The westbound lane is 14 feet wide at this location.

Three of the four corners in the immediate vicinity of this intersection are vacant parcels. The fourth corner (the nearside of US 130 northbound) is in commercial/office use. Neck Road is primarily single family residential.

The speed limit on US 130 at Neck Road is 50 MPH. The posted speed limit on Neck Road is 35 MPH.

Traffic counts taken on US 130 at this location in 1991 showed an AADT of approximately 19,800. Traffic counts conducted in 2001 by DVRPC showed an increase in AADT volumes to approximately 22,500, a 12% increase. Vehicle classification counts shows that while 1,862 or 17% of northbound vehicles on US 130 were trucks, an even greater percentage, 2,864 or 26% of southbound vehicles using US 130 at this location were trucks. This could be a result of the numerous trucks accessing the many warehouses in the vicinity of Exit 6A.

Identified Problems:

Southbound truck traffic on US 130 whose trips originate south of Cedar Road are unable to make a U-Turn to travel north because of the absence of jug handles along US 130 in Burlington Township. Currently, southbound trucks travel south on US 130 to La Gorce Boulevard near mile post 47.85, and turn around in the parking lot of the former La Gorce Shopping Center, before proceeding north. This maneuvering is a complicated and unsafe method of turning around, which is even less desirable when navigated by large trucks.

There is therefore a need for a jug handle at the intersection of Neck Road and US 130 to permit southbound trucks to make a U-turn to US 130 north for access to the Turnpike and I-295.

Improvement Scenarios:

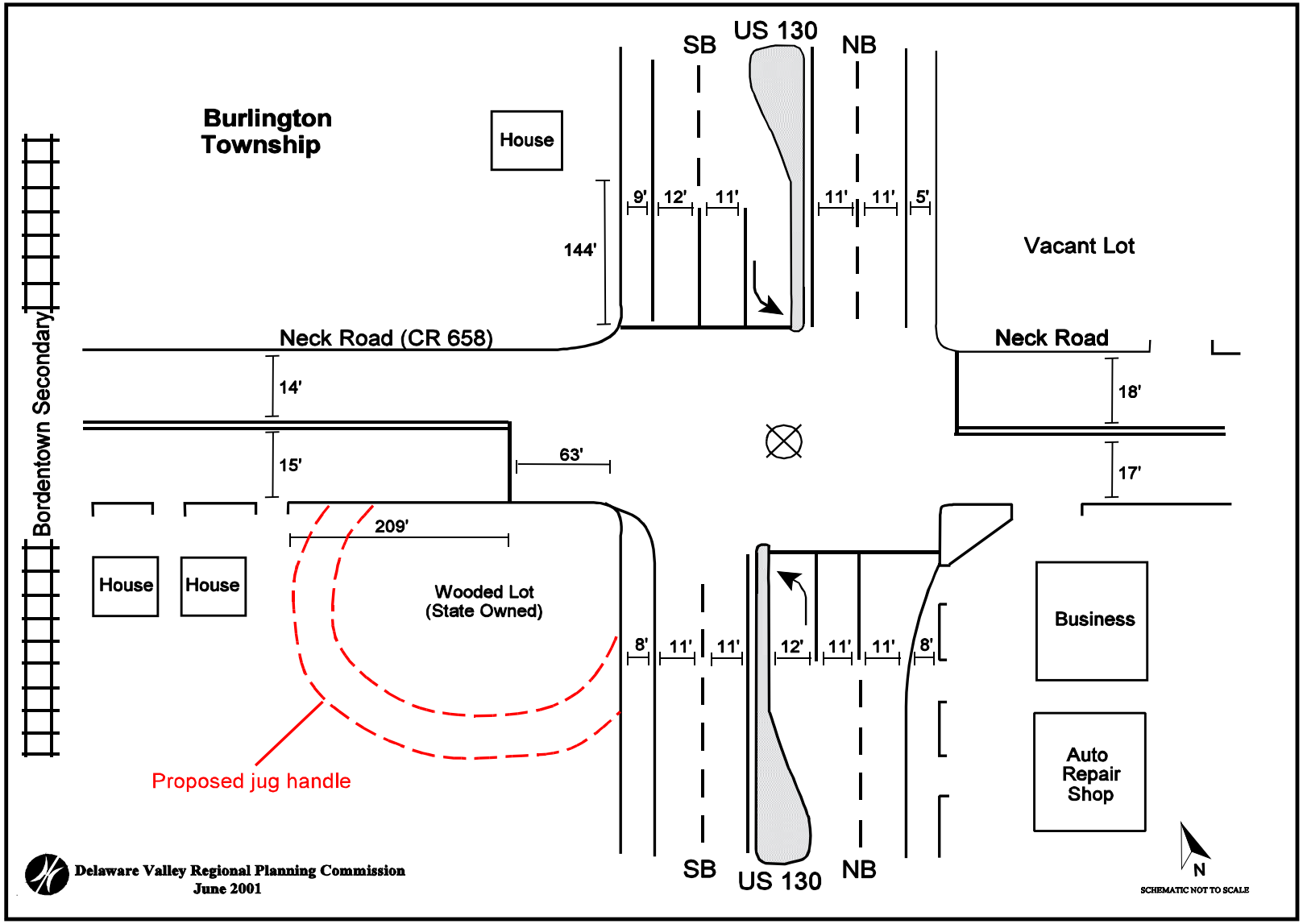
Short Term

- There are no effective short term solutions which will significantly improve the current traffic condition.

Long Term

- There are vacant parcels on southbound US 130 at Neck Road which could accommodate either a near-side or far-side jug handle.
- There is a sign on the far-side lot at US 130 south and Neck Road which indicates that the property is owned by the State of New Jersey. If this is the case, this property would be preferable not only because of minimal acquisition cost, but also because being the larger of the two lots, greater design options would be available here for a jug handle than at the near-side lot.
- A far-side jug handle would permit stacking of a greater number of vehicles and prevent traffic backing up on US 130.
- This intersection may require some widening to improve the turn radius for trucks turning left from Neck Road to US 130 north.
- This property extends for approximately 272 feet westward along Neck Road from US 130. The exit on Neck Road for the preferred jug handle could be at some point along this segment.

***Figure 3*: Jug handle on US 130 at Neck Road**



4. **Intersection of Dulty's Lane and US 130** Mile Post 49.0

Existing Conditions:

Dulty's Lane is approximately 4,667 feet (0.88 miles) long, connecting Neck Road with US 130. It has one westbound lane from US 130 with a 8 foot wide shoulder. There is one eastbound lane which is increased to two lanes approximately 129 feet from the stop bar at the intersection with US 130. At this signalized intersection, the right lane is striped for right and through traffic while the left lane is for left turn only traffic. The left turn lane from Dulty's Lane to US 130 is 129 feet in length. Westbound Dulty's Lane has one approach lane from US 130. The average width of the lanes are 12 feet wide. There is an access road leading to the entrance to Burlington Coat Factory across from Dulty's Lane at US 130. This entrance has one inbound lane, one outbound left turn only lane and a right turn and through lane. NJ Transit bus # 409 provides hourly local bus service to this area from Trenton and Philadelphia.

Traffic counts conducted in January 2001 showed that 371 or 30 percent of traffic traveling eastbound on Dulty's Lane to US 130 over a 24 hour period were trucks. Westbound truck traffic at the same location was 259 or 34 percent. The land use in this area is primarily warehouse and industrial - uses that are highly dependent on trucks for goods movement. Truck volumes at this location will only increase once the adjacent lands are fully built-out.

The Bordentown Secondary, the primary rail freight line in the area, intersects with Dulty's Lane at-grade approximately 464 feet west of the entrance to C.R. England and Sons Inc., a major trucking company on Dulty's Lane. There are pavement markings, crossbucks signs and bells present to alert traffic of the at-grade crossing.

Identified Problems:

- Lack of capacity to stack left turning vehicles to US 130 North.
- Inadequate turning radius for vehicles turning right onto Dulty's Lane from US 130 south.
- Current bus stop shelter location impedes traffic flow whenever a bus is at the stop.
- Heavy northbound volumes on US 130 from the Burlington Coat Factory site to US 130 north.
- The at-grade crossing where the Bordentown Secondary intersects with Dulty's Lane will be a major congestion point when the Haines Industrial Center is fully built-out and the Southern New Jersey Light Rail Transit System is in operation. It is expected that there will be one train crossing Dulty's Lane every 15 minutes in the peak and one train every 30 minutes during the off peak. This will negatively impact truck traffic to and from warehouse and industrial buildings in the Haines Industrial complex.
- While there are crossbucks signs and bells present to signal the approaching trains, there are no gates at this crossing.

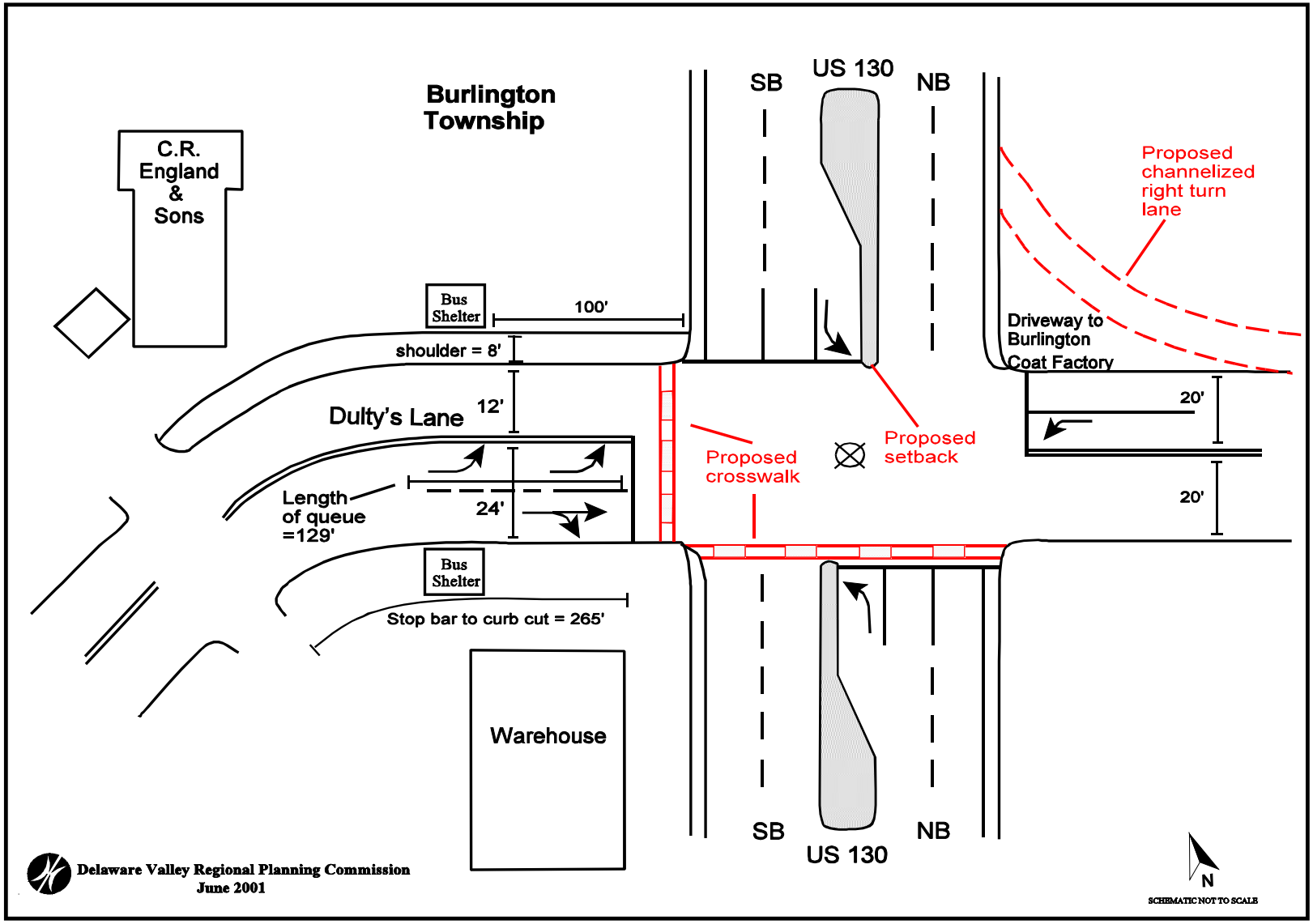
- There is an absence of sidewalks connecting the bus stops to the area traveled by pedestrians.
- There is an absence of pedestrian crosswalks at this intersection.
- Burlington Coat Factory access road currently has one lane to the site from the intersection with US 130. Leaving the site, there is one left turn lane to US 130 south, and a through and right turn lane to Dulty's Lane and US 130 north respectively. This configuration will be inadequate if as expected, expansion takes place at the site and more trips are generated.

Improvement Scenarios:

Long Term

- There are currently plans to widen Dulty's Lane to and from US 130 intersection extending approximately 100 feet from the intersection with US 130, to better accommodate truck traffic. The number of lanes would be increased to two eastbound left turn lanes to accommodate the heavy volumes turning on northbound US 130 towards the NJ Turnpike. There would also be one eastbound through and right turn lane to facilitate access to Burlington Coat factory as well as to permit access to US 130 south.
- There is a proposal to move both bus stop shelters back by approximately 15 feet further away from the intersection of Dulty's Lane and US 130. This will reduce the conflict between a parked bus and through traffic approaching the intersection.
- The entrance to C.R. England and Sons Inc. should be moved back further west along Dulty's Lane to accommodate the proposed widening. The guard house should also be set back to eliminate the problem of container trucks impeding traffic along Dulty's Lane while they wait to access the site.
- The at-grade crossing at Dulty's Lane by the Bordentown Secondary should be upgraded to include "Quad Gates". These gates are equipped with barrier arms on each side of the road on both sides of the track. This will permit the trains to clear the intersection at a greater speed, and minimize the time the street is closed. If standard gates are used, median barriers should be installed on both sides of the tracks, extending for approximately 50 feet, to discourage motorists from driving around the gates.
- Sidewalks are proposed extending on both sides of the road from the bus stops to the proposed pedestrian crosswalks at the intersection with US 130. By installing these new crosswalks, pedestrian traffic would be channeled across US 130 at the southern leg of the intersection. This would reduce vehicle/pedestrian conflicts with vehicles turning left from Dulty's Lane to US 130 north.
- It is recommended that a channelized right turn lane with an island be created from the Burlington Coat Factory access road to US 130 north. This should be approximately 60 feet in length which would reduce conflict with left turning vehicles from Dulty' Lane and permit traffic to merge gradually.
- The center island on US 130 is proposed to be moved back along with the stop bar for southbound US 130 traffic. This will accommodate the expansion proposal for Dulty's Lane.

Figure 4: **Intersection of Dulty's Lane and US 130**



5. Exit-Ramp from US 130 south to Cedar Lane (CR 659)

Existing Conditions:

The area of concern is the exit ramp from US 130 south to Cedar Lane in Florence Township. The distance between the I-276 westbound exit ramp and the ramp to the Cedar Lane exit off US 130 south is approximately 423 feet. It is at this section that traffic exiting US 130 south and traffic entering US 130 south from the Turnpike Extension experiences a weave in movement. US 130 southbound at this point has three travel lanes and a shoulder. Two of the travel lanes are through lanes while the third is a deceleration lane for the Cedar Lane exit. The travel lanes are 12 feet in width each while the shoulder is 10 feet wide. The speed limit on US 130 at this point is 50 MPH.

A 1991 NJDOT traffic count at this location for both northbound and southbound traffic, recorded an AADT of 17,230. In January 2001, DVRPC conducted traffic counts at the same location which recorded an AADT of 28,711, an increase of 67 percent over 10 years. This increase is primarily due to the January 2000 completion of the full service interchange which permits vehicular access to and from the NJ Turnpike extension to US 130.

Identified Problems:

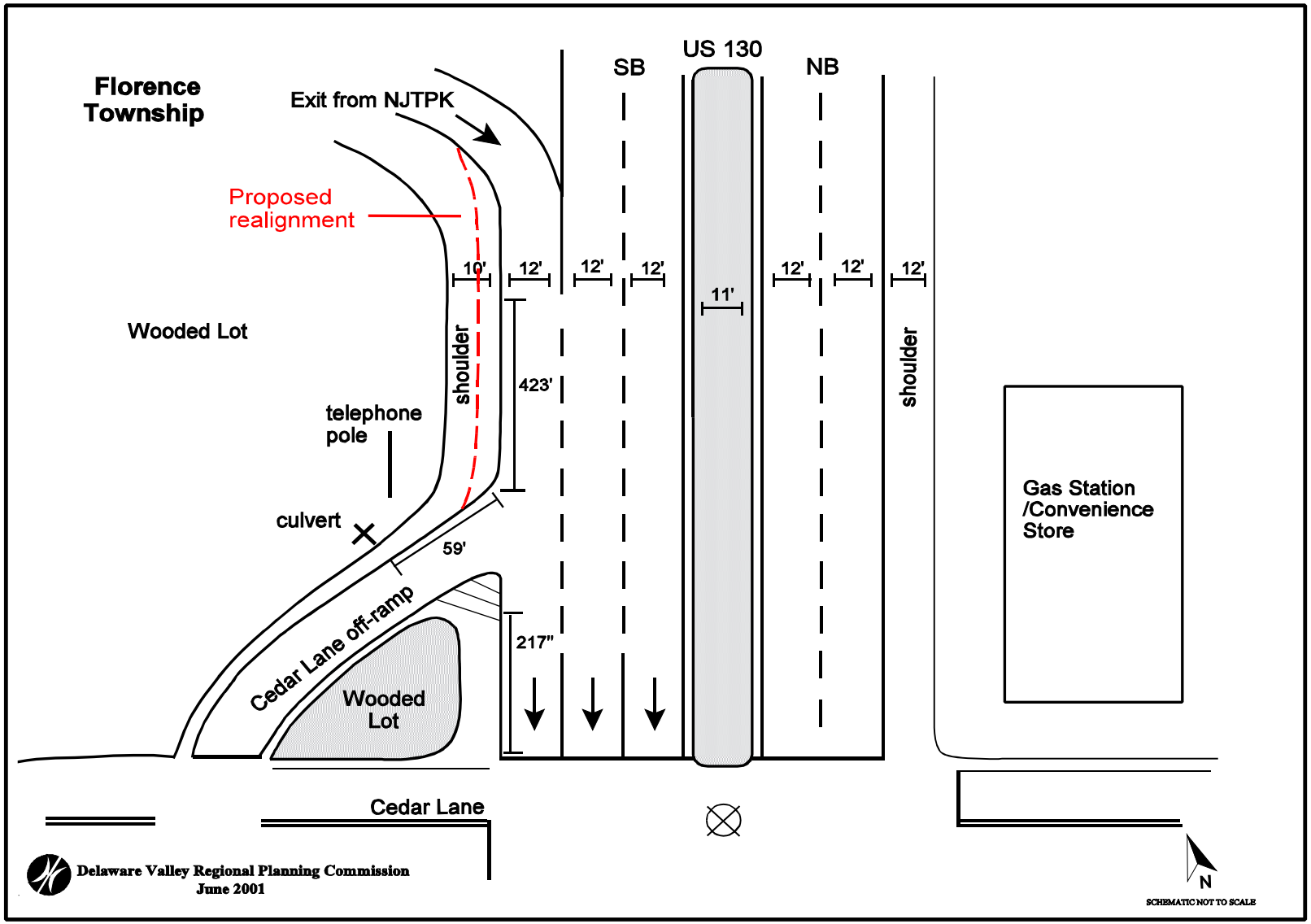
- There is a conflict between vehicles exiting the Turnpike ramp on to US 130 south and those traveling south on US 130 that are exiting at Cedar Lane. Some vehicles are required to accelerate while others have to decelerate quickly from US 130 over a short distance in order to navigate the exit ramp.
- The absence of guard rails to prevent vehicles from skidding off the Cedar Lane exit ramp to the wooded area.
- A lack of adequate warning signs alerting motorists of the need to decelerate quickly when exiting US 130 south.

Improvement Scenarios:

Short Term

- Relocating the exit lane by using all or part of the shoulder at the Cedar Lane exit as a travel lane. This would permit exiting vehicles to have a more gradual approach to the exit by providing more weaving room.
- Erect guard rails with reflectors along the island to corral vehicles that skids off the pavement.
- Erecting a chevron alignment sign at the Cedar Lane exit would assist in emphasizing the change in the horizontal alignment of the roadway. This would alert motorists of the need to reduce their speed.

***Figure* 5. Exit-ramp from US 130 south to Cedar Lane (CR 659)**



6. US 130 at Florence-Columbus Road

Existing Conditions:

Florence-Columbus Road carries a through lane and exclusive left turn lane in both direction. The posted speed limit on Florence-Columbus Road is 50 MPH. Florence-Columbus Road acts as a direct link between the NJ Turnpike interchange at US 130 and I-295. As a result, the intersection of US 130 and Florence-Columbus Road experiences heavy turn movements to and from US 130. A traffic count conducted by DVRPC in 2001indicated an AADT of 8,733 for the segment of Florence-Columbus Road to the west of US 130.

At this intersection, US 130 has two 10-foot through lanes in each direction. There is a left turn lane for southbound traffic, while there is a far side jug handle for northbound traffic. There is a 13 foot wide grass median and pedestrian crosswalk at the southern leg of the intersection.

Identified Problems:

- There is heavy right turn traffic volume from US 130 northbound to Florence-Columbus Road. The narrow turn radius makes it difficult for large trucks to negotiate the right turn. Trucks frequently jump the curb on the southeast corner and cross the center line on Florence-Columbus Road when making the turn.
- The grass median is an obstacle for trucks turning left on to US 130 southbound from Florence-Columbus Road. The current configuration results in a tight turn radius which leads to traffic, primarily tractor trailers, encroaching on the median in order to make the left turn.
- The truck traffic is expected to increase at this location due to the increase in warehouse activity in the general vicinity.

Improvement Scenarios:

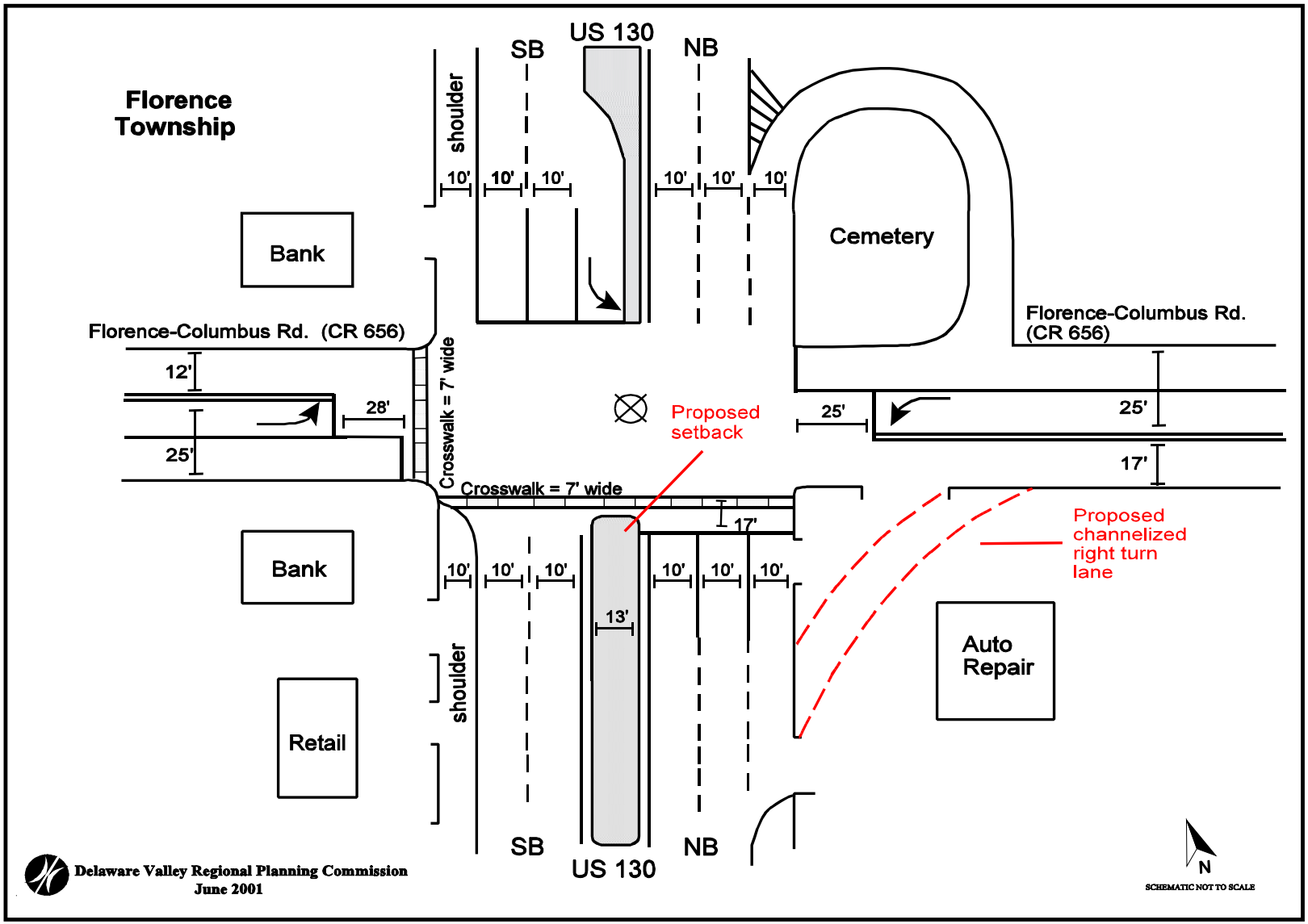
Short Term

- It is proposed that the US 130 median on the southern leg be moved back in order to improve the turn radius and permit trucks to safely negotiate the intersection from Florence-Columbus Road.

Long Term

- An exit ramp from US 130 northbound to Florence-Columbus Road eastbound should be constructed. This would improve the turn radius for the heavy truck volumes headed to I-295 as well as permit traffic to clear the intersection quickly. For this to be accomplished, it will be necessary to acquire property at the automobile repair shop at the south-east quadrant of the intersection.

Figure 6: **US 130 at Florence-Columbus Road**



7. Intersection of Delaware Avenue (656) and Station Road

Existing Conditions:

Delaware Avenue is a collector facility with one lane in each direction and a total cartway width of 35 feet. There are no shoulders on either side of the street at this location. However, on-street parking is allowed on both sides of the street. West of the intersection of Station Road, there is a no passing zone for eastbound vehicles. Westbound vehicles are allowed to pass in this section when appropriate. The speed limit on Delaware Avenue varies from 35 MPH east of Station Road to 45 MPH west of Station Road.

Station Road is a two lane local facility serving a primarily residential neighborhood. It intersects Delaware Avenue at an acute angle. Station Road is 36 feet wide and has a posted speed limit of 25 MPH. There is a "5 Ton Weight Limit" sign with a "No Trucks" symbol posted on Station Road near the intersection of Delaware Avenue.

The Bordentown Secondary rail line intersects with Delaware Avenue at grade 110 feet from the intersection of Delaware Avenue and Station Road. This is a residential section of Florence Township with houses on each side of Delaware Avenue and Station Road. There are no sidewalks at this location. A grocery store is located in the land area between Station Road and Delaware Avenue. There are two no parking signs located on Delaware Avenue just west of Station Road. The first, "No Parking Anytime", is 28 feet from the corner. The second, "No Parking Here To Corner", is located 48 feet from the corner.

Identified Problems:

- The sight distance is poor for motorists turning left onto Delaware Avenue eastbound from Station Road. These motorist must enter into the Delaware Avenue westbound lane in order to see oncoming eastbound Delaware Avenue traffic, thus impeding the flow of westbound traffic. This problem is exacerbated by delivery trucks and store patrons parking on Delaware Avenue westbound while visiting the corner store. These parked vehicles also present sight problems for motorists turning right out of Station Road on to Delaware Avenue westbound. These vehicles are forced into the oncoming lane in an effort to pass the parked vehicles to proceed westbound on Delaware Avenue.

- It is expected that in 2003 the SNJLRTS will be operating passenger rail trains along the Bordentown Secondary. This at-grade crossing could be a congested location for traffic traveling on Florence-Columbus Road. It is expected that there will be one train crossing Delaware Avenue every 15 minutes during the peak period and one train every 30 minutes during the off peak. It could also cause traffic to traffic to backup on Florence-Columbus Road towards US 130.

Improvement Scenarios:

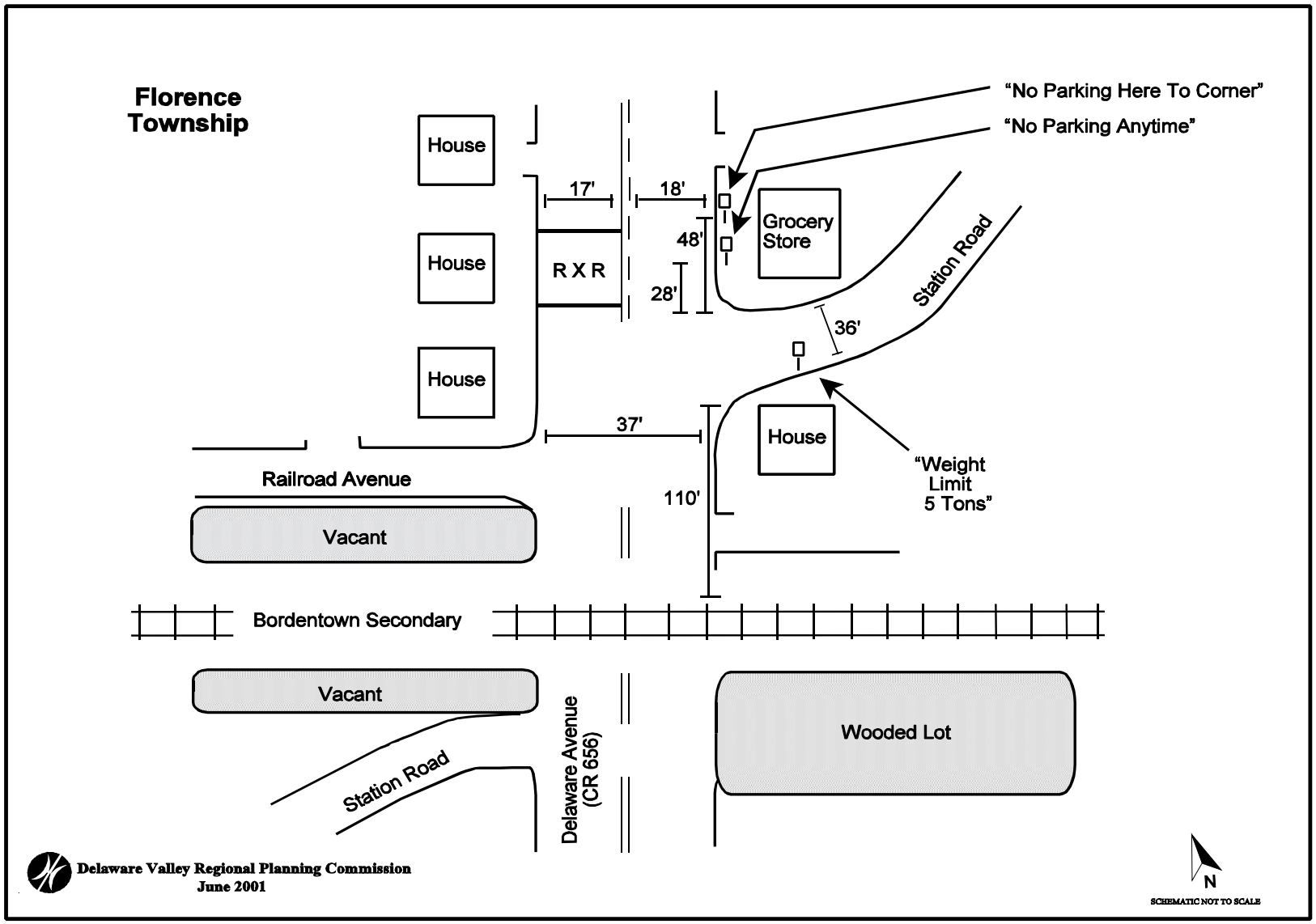
Short Term

- Although parking is restricted for a short length from the corner of Station Road and Delaware Avenue, it does not provide adequate sight distance. In addition, a field observation revealed that motorists are disregarding these signs. It is advisable to restrict parking for a greater distance, enough to provide unobstructed sight distance for motorists exiting Station Road. Another alternative measure is to restrict parking on a time basis requiring deliveries to be made during off-peak hours. A stop bar at this location is also recommended to more clearly define the intersection.

Long Term

- The at-grade crossing on Delaware Avenue by the Bordentown Secondary should be upgraded to include Quad Gates. These gates are equipped with barrier arms on each side of the road on both sides of the track. This will permit the trains to clear the intersection at a greater speed, and minimize the time the street is closed. If standard gates are used, median barriers should be installed on both sides of the tracks, extending for approximately 50 feet, to discourage motorists from driving around the gates.

Figure 7: **Intersection of Delaware Avenue (656) and Station Road**



8. Florence-Columbus Road (CR 656)overpass at I-276

Existing Conditions:

This segment of Florence-Columbus Road (CR 656) extends from US 130 to the interchange with I-295. The speed limit is 50 MPH between Old York Road and US 130. This is a two lane highway with 11 foot lanes and shoulders that are 2 and 4 feet wide. This is an important truck route for trucks destined to and from industrial parks in Burlington and Florence townships from I-295 and the New Jersey Turnpike Extension (I-276). CR 656 crosses over I-276 on a bridge. The cross section of the bridge consists of an 11-foot lane, a 4-foot shoulder and a 3-foot sidewalk in each direction. There are no sidewalks along the remainder of the road.

A 2001 DVRPC traffic count on CR 656 approaching Old York Road revealed an AADT of 9,472. Upon closer examination, the vehicle classification counts revealed 10 percent of the traffic northbound were trucks while 11 percent of southbound were trucks.

Identified Problems:

- Traffic approaching the I-276 overpass eastbound on CR 656 have an obstructed view of the traffic signal at Old York Road. This problem is exacerbated whenever vehicles are stopped at the intersection because of a red signal. The obstructed view caused by the overpass gives motorists a short response time while approaching the Old York Road intersection. Trucks, especially tractor trailers, require a longer stopping distance than passenger cars and are particularly vulnerable in this situation. This is particularly critical considering that approximately 10 percent of the vehicles using this road are trucks.

- In an effort to address this problem, a sign has been erected on the eastbound shoulder of the approach to the overpass to I-276 alerting motorist to exercise caution while approaching the signalized intersection. This is intended to alert motorists of the problem which becomes apparent approximately 0.1 mile from the crest of the overpass, or 0.8 mile east of US 130.

Improvement Scenarios:

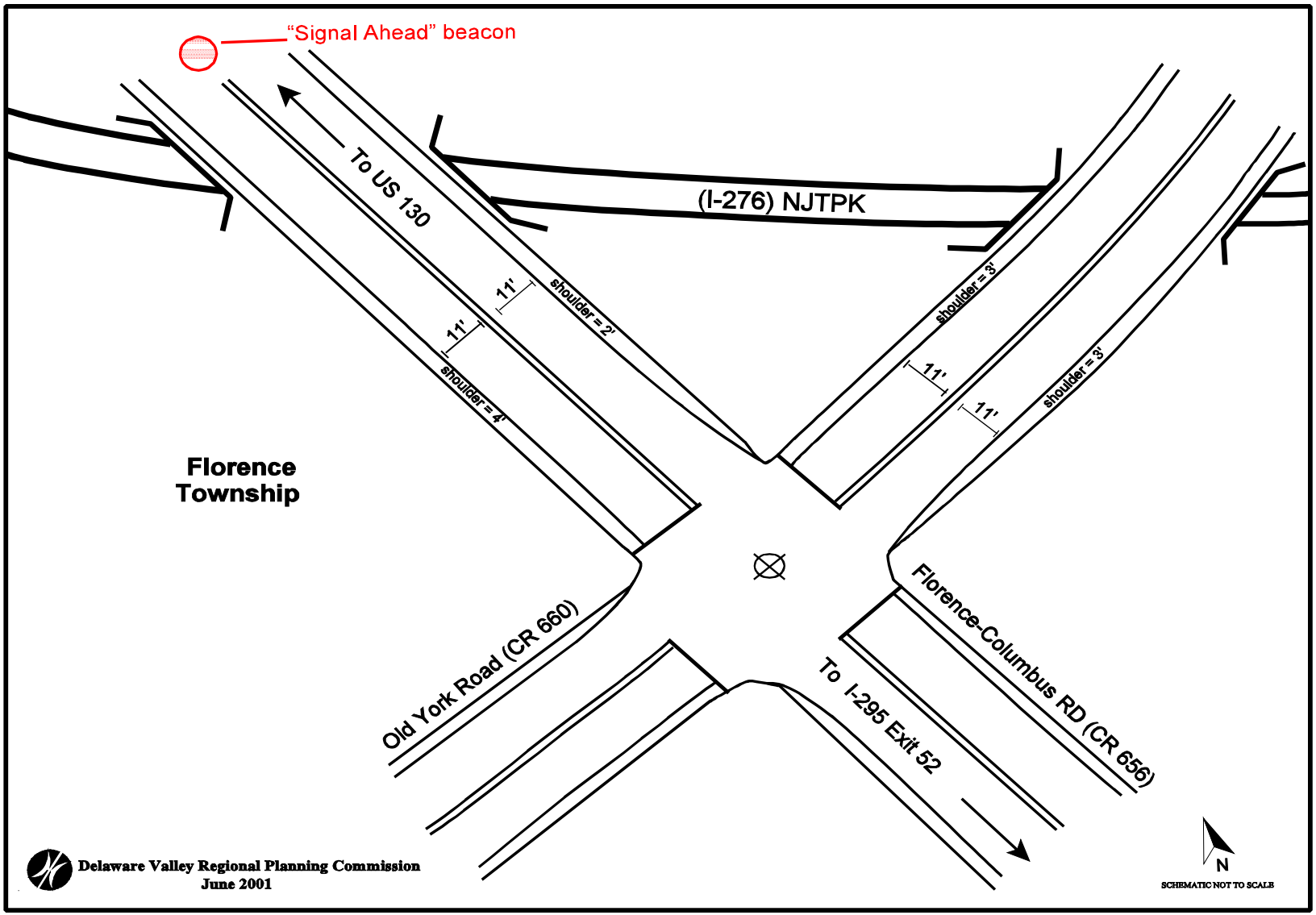
Short Term

- By installing a hazard identification beacon with a flashing “Red Signal Ahead” warning signal, motorists will be alerted of the need to reduce speed and be prepared to stop with short notice. This beacon should be installed over the eastbound lane, on the approach to the overpass. The beacon should be clearly visible for a distance of at least 0.25 miles under normal atmospheric conditions. This beacon should be interconnected with the traffic signal controller located at the intersection of CR 656

and Old York Road.

- Florence-Columbus Road should at the least be upgraded to AASHTO (American Association of State Highway and Transportation Officials) standards for lane and shoulder widths. These standards include 12-foot travel lanes and 8-foot shoulders. The traffic conditions should be monitored to determine the impacts of the new turnpike interchange and local development on this road.

Figure 8: **Florence-Columbus Road (CR 656)overpass at I-276**



9. Areawide Improvement Options

Rationalizing Posted Speed Limits along CR 656

Identified Problems

- The speed limit on the Delaware Avenue, Florence-Columbus Road section of CR 656 is inconsistent. The speed limit varies between 25 MPH, 35 MPH and 50 MPH at different segments of the road over a short distance. These variations are a function of adjacent land uses and road geometry.

Improvement Scenarios

- The speed limit designation should be reduced from 50 MPH to a lesser speed, based on accepted evaluation criteria established by the American Association for State Highway Officials. Signing should be consistent with the manual on uniform traffic control devices.
- With volumes expected to increase on this segment of roadway due to future development, a reduction in speed at the higher designated speed limit would improve safety.

Reducing Truck Volumes on Florence - Columbus Road

Identified Problems

- Florence-Columbus Road between US 130 and I-295 is used as an access road by most traffic in the study area destined for I-295 primarily because it is the most direct route. As a result, this 2-lane road is oftentimes encumbered with heavy truck volume. The traffic volumes and percent trucks will only increase over time as industrial and commercial development in the area intensifies. This section of Florence-Columbus Road will therefore become functionally obsolete.

Improvement Scenarios

- The alternative is to use directional signage to direct truck traffic to use US 130 northbound to Interchange 56 of I-295 in Bordentown, for northbound trucks. Southbound truck traffic could continue to use Interchange 52 of I-295 at Florence-Columbus Road. By reducing the truck volume on this road, safety will be enhanced.
- Interchange 56 in Bordentown has a ramp that is designed to facilitate easy access by trucks from US 130 northbound. This is better designed to accommodate truck traffic than Interchange 52 at Florence-Columbus Road.

New Connection to River Road

Identified Problems

- The most direct route to US 130 for truck traffic from industries along West Front Street and parts of River Road is via Delaware Avenue. This is primarily a residential street with trucks accounting for between 6-7% of the total volume. The negative impacts of truck traffic in residential areas ranges from safety to quality of life issues.

Improvement Scenarios

- Construction of an extension of the site roadway proposed for the Haines Industrial Center in the vicinity of Cedar Lane that would parallel the Turnpike extension and connect to River Road (See Figure 9). This would permit truck traffic from Griffin Pipe and the industrial areas in the vicinity of River Road and West Front Street to access US 130 and the Turnpike without using Delaware Avenue. The result would be a reduction in truck traffic in the residential area adjacent to Delaware Avenue.
- A connection would also be made to Cedar Lane, near the former ramp, to provide an alternate access to US 130.
- This road would also be an alternative to Dulty's Lane for vehicles entering and exiting the site which would result in a reduction in traffic volumes and congestion at Dulty's Lane.

Reverse Frontage Road parallel to US 130

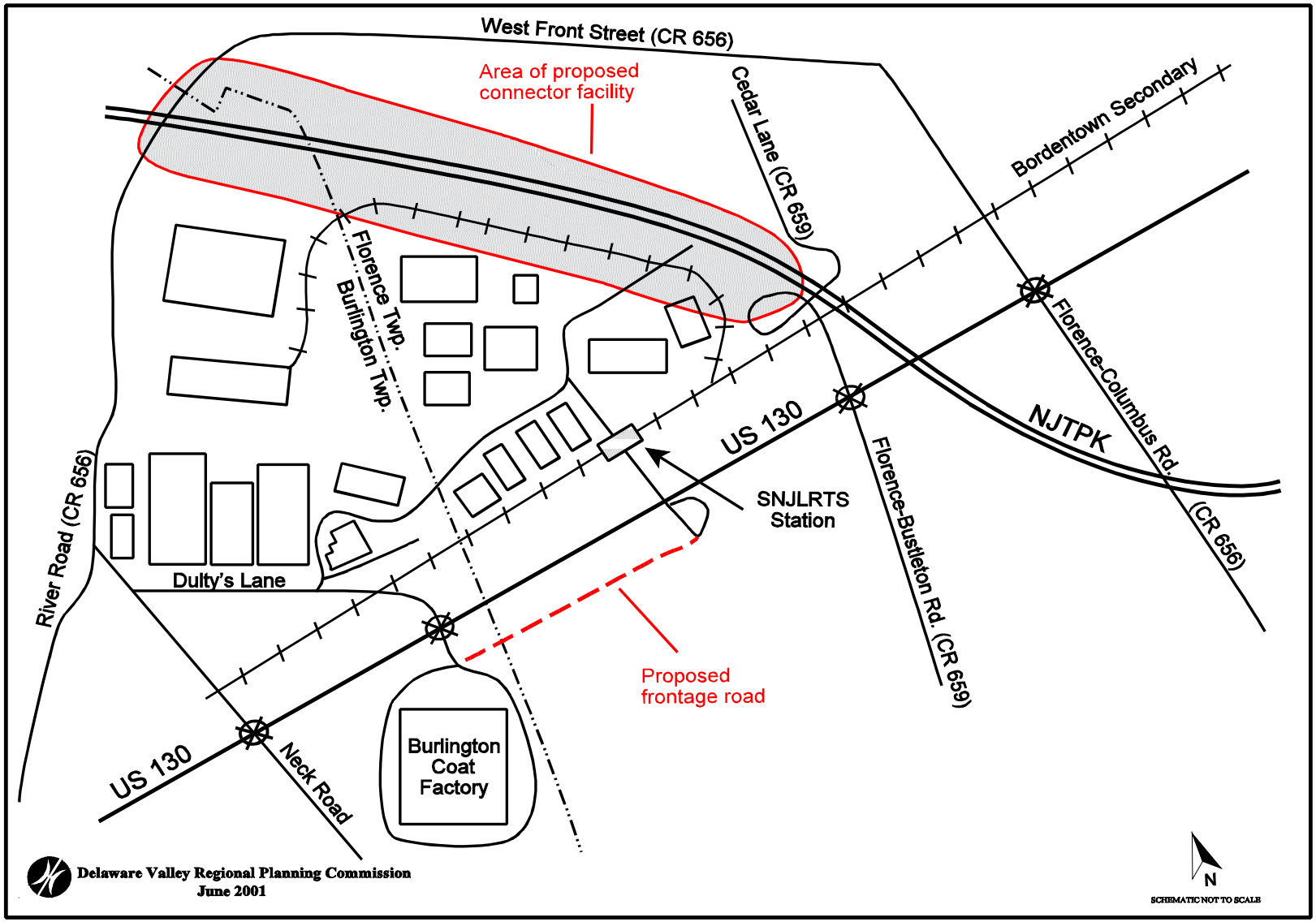
Identified Problems

- There is a large tract of vacant property east of US 130 between Florence-Bustleton Road and the entrance to Burlington Coat Factory that is undeveloped. If this property is subdivided into individual lots with each having direct access to US 130, the numerous entrances and exits will impede the smooth flow of traffic on US 130.

Improvement Scenarios

- By incorporating land adjacent to the Burlington Coat Factory parking lot, this would permit the creation of a frontage road that would parallel US 130. This concept should be explored further as a way of providing access to adjacent undeveloped land, and reducing the need for multiple curb cuts on US 130.
- A frontage road would provide access to the interior of the property facilitating its development. The commercially zoned area adjacent to US 130 would have access to the frontage road as well as to US 130.
- By providing an alternative to multiple access to US 130, traffic will proceed with less impedance than if there were multiple driveways.
- NJ DOT should periodically monitor traffic flow on US 130 within the study area to determine if the current capacity is adequate to provide an acceptable level of service.

Figure 9: **Areawide Improvement Options**



PLAN IMPLEMENTATION

The *US 130 - NJ Turnpike Area Infrastructure Needs Analysis* can be used as a dynamic long range tool for the systematic selection of projects to create a significantly improved transportation system within the study area. This document can serve as a *punch list* for the government agencies with a stake in the implementation of improvements. Municipal governments are key players in this process. Even though a highway may be maintained by the state or county, it is the welfare of the local residents which is affected the most. Safety and mobility benefits are felt more by those who use the highway frequently. Therefore, the local municipality should assure that the improvements are advanced expediently by being involved in the process no matter which agency has a lead role.

Characteristics

In choosing which projects should advance first, stakeholders can be guided by the information presented in Table 2 (page 48) *US 130 - NJ Turnpike Area Transportation Improvements Implementation Matrix*. This easy to use matrix suggests the relative importance to stakeholders of the various attributes of each problem location. Each improvement scenario, identified is evaluated in terms of project priority, cost range and project benefits. The stakeholders necessary to carry out the plan are also identified.

Priority

Priorities are estimated in terms of three categories: high, moderate and low. Priorities are assigned based on the perception of the extent of the problems they present drivers, with safety being most important, but congestion (or time delay) and mobility also being considered. A higher degree of priority is also assigned if there is an urgency to complete the improvement due to the imminent completion of a nearby major investment (development or transportation improvement). If there is concern that a section of right-of-way needed to complete an improvement is in danger of being developed or used for another use, the priority to act on that improvement is also heightened. If a project is relatively small scale and low cost, yet offers a projected high benefit, it also receives a higher priority ranking.

Cost Range

Costs are also assigned to categories of high, moderate and low. High cost projects usually involve a major commitment from one or more funding source, lengthy public involvement and several years lead time in programming the required funds. They are typically large scale, complex or multi-phased improvements and can entail the construction of new facilities. In general, a project in this category is estimated to cost between $5 and $35 million, however some major projects have been known to cost in the hundreds of millions of dollars. An improvement estimated to have a moderate cost could involve a major reconstruction of an intersection, construction of a short connector road or a widening of an existing road. In general, a project in this category is estimated to cost between $2 and $5 million. Low cost projects can often be fast-tracked with maintenance, or pool funding. They are often operational type improvements at isolated locations and

typically cost less than $2 million. These cost ranges are generalized estimates and could be significantly changed for a specific location due to environmental, right-of-way or other factors uncovered during detailed design of the improvement.

Benefits
Benefits describe the kind of impact the improvement will yield, such as enhancing safety, lessening congestion, improving mobility or encouraging economic development. Economic development benefits are derived from a transportation improvement generally through an increase in the accessibility of affected individual properties or areas. The strategic location and magnitude of the improvement determines the extent of the benefits received by the affected properties. The increased level of access to a property may make it attractive enough to induce new commercial or residential development or entice existing land uses to expand. Increased accessibility can also have a positive effect on property values.

Roles of Agencies
In terms of a hierarchy of agencies, the New Jersey Department of Transportation (NJDOT) is primary, both in terms of maintaining US 130 as well as providing much of the design, right-of-way and construction funding for major improvements. Municipalities make land use decisions in the corridor, which ultimately affect traffic levels on US 130. In addition, many of the cross streets are designed, built and maintained by local and county government, and these also impact how well US 130 functions. Lastly, developers actually build the housing, commercial and industrial projects which generate the trips which must be accommodated by a publicly-owned transportation infrastructure. In addition, some the transportation improvements themselves are designed and financed by developers.

New Jersey Department of Transportation
NJDOT has jurisdiction over the state highways in the corridor. These include I-295 and US 130. Improvements to these highways are typically financed by state and/or federal funds. Occasionally, developer contributions are also a source of funding if the project has special impact by a development. The State ultimately makes the decision on what improvements are done to their facilities but often coordinates with the county or local municipalities when the improvements include facilities under their jurisdiction.

Burlington County
The county has jurisdiction over a network of roads throughout the study area. In New Jersey, county roads are given 500, 600 or 700 route designations. There are several 600 series routes within the study area: CR 656, CR 658, CR 659 and CR 661. Most of the county roads in the corridor serve as access roads into or across US 130. The primary function of the county network is to serve medium range trips or to serve as feeders to the state system. Improvements to county roads are financed by county dollars or where eligible can they can receive federal or state funding. The county has the ultimate decision concerning improvements on county roads but typically coordinates with the municipality in which the improvement is located.

Metropolitan Planning Organization (MPO)
DVRPC, serving as the MPO for this region, is required to coordinate a comprehensive and continuing transportation planning process. This process results in the development of a Transportation Improvement Program (TIP) which identifies all priority projects for which federal funds will be sought. The TIP represents a consensus among state and regional officials as to what regional improvements are to be made. In addition to the TIP, the MPO is required by federal legislation to develop a long range plan (LRP) to help direct region-wide transportation decision making over a period of at least 20 years. Long range plans do not specify the design of actual projects. Rather, they identify future needs to address transportation deficiencies.

Municipalities
Local governments not only have jurisdiction over their local road system they also control local land use decisions. The decisions made at the local level can effect the traffic on roads at all levels. Therefore, local officials must understand the traffic impacts which could be generated from a particular development and understand the synergy that exists between land use decisions and transportation improvements. Local officials need to be involved in the transportation planning process for all levels of transportation improvements to make sure that the concerns of their residents are addressed and to assist in the problem identification and improvement recommendations. Municipal officials need to make use of the circulation element of their Master Plan to identify important missing links in their highway network and begin to preserve space for these links to be built. The Master Plan is an important tool for municipalities to use in addressing their circulation needs.

Developers
As properties are developed or redeveloped, the transportation needs of the properties can change, sometimes drastically. Providing proper transportation access to a new development is often critical to the success of that development. Therefore, developers must work with the transportation providers to assure that the necessary changes are beneficial to both the development and the existing transportation infrastructure. Developers frequently design and construct improvements for traffic attributable to their developments or to provide enhanced access to their site.

TABLE 2

US 130 - NJ Turnpike Area Transportation Improvements Implementation Matrix

Location		*Priority*	*Cost Range*	*Benefits*	*Lead Role*	*Assisting Role*
1	Intersection of Neck Road and River Road	M	L	Mobl, Safe	Co	DOT,MCD
2	Intersection of Dulty's Lane and Neck Road					
	- short term improvements	M	L	Safe, Mobl	Co	MCD
	- long term improvements	M	L	Safe, Mobl	Co	MCD
3	Jug Handle on US 130 at Neck Road	H	M	Mobl, Safe	DOT	Co, MCD
4	Intersection of Dulty's Lane and US 130	H	M	Cong, Safe, Mobl	DOT	Co, MCD
5	Exit ramp from US 130 south to Cedar Lane (CR 659)	L	L	Safe, Mobl	DOT	MCD, Co
6	US 130 at Florence-Columbus Road	H	M	Mobl, Safe	DOT	Co, MCD
7	Intersection of Delaware Avenue and Station Road	M	M	Cong, Safe, Mobl	Co	MCD, NJT
8	Florence-Columbus Road overpass at I-276	H	L	Safe	Co	MCD
9	Areawide Improvement Options					
	a. Rationalizing Posted Speed Limit along CR 656	L	L	Cong, Safe	Co	MCD
	b. Reducing Truck Volumes on Florence - Columbus Road	L	L	Cong, Mobl	DOT	Co
	c. New Connection to River Road	H	M	ED, Cong	Co	MCD, Dev
	d. Reverse Frontage Road Parallel to US 130	H	M	ED, Cong, Safe	DOT	Co, MCD, Dev

Key:

Priority:	H = High, M = Moderate, L = Low
Cost Range:	H = High, M = Moderate, L = Low
Benefits:	Cong = Congestion, ED = Economic Development, Mobl = Mobility, Safe = Safety,
Role:	MCD = municipality, Co = county, DOT = NJ Department of Transportation, NJT = NJ Transit, Dev = Developers

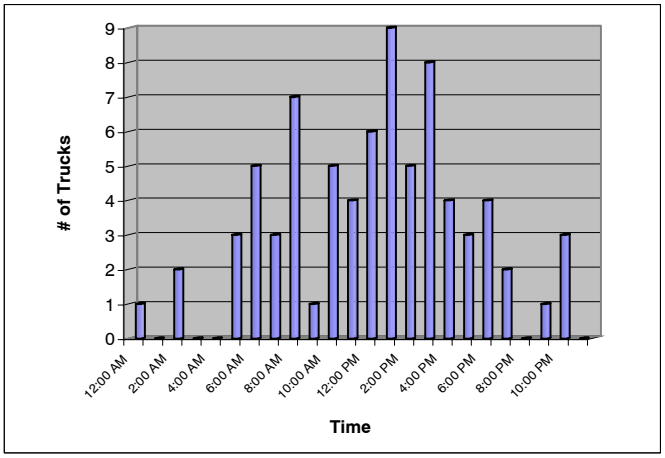
APPENDIX

2001 Vehicle Classification Counts

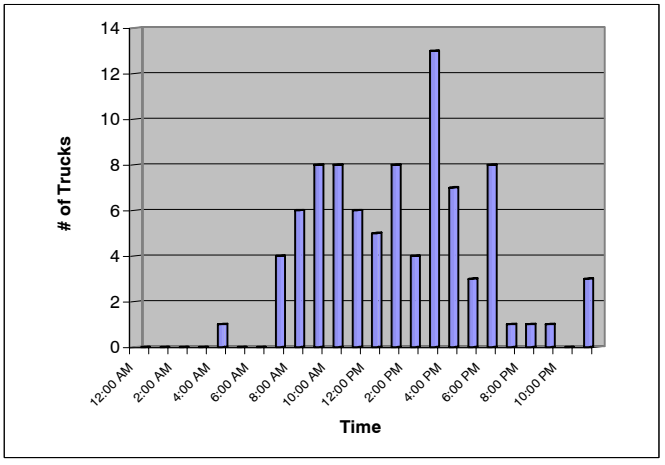
Vehicle Classification Counts
1. Neck Road (CR 658) Between US 130 & Bustleton Road
01/23/2001

Northbound					Southbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	NB & SB
12:00 AM	6	5	1	17	12:00 AM	14	14	0	0	20
1:00 AM	3	3	0	0	1:00 AM	7	7	0	0	10
2:00 AM	7	5	2	29	2:00 AM	4	4	0	0	11
3:00 AM	5	5	0	0	3:00 AM	3	3	0	0	8
4:00 AM	21	21	0	0	4:00 AM	10	9	1	10	31
5:00 AM	38	35	3	8	5:00 AM	6	6	0	0	44
6:00 AM	106	101	5	5	6:00 AM	26	26	0	0	132
7:00 AM	223	220	3	1	7:00 AM	48	44	4	8	271
8:00 AM	131	124	7	5	8:00 AM	63	57	6	10	194
9:00 AM	71	70	1	1	9:00 AM	51	43	8	16	122
10:00 AM	42	37	5	12	10:00 AM	49	41	8	16	91
11:00 AM	44	40	4	9	11:00 AM	69	63	6	9	113
12:00 PM	85	79	6	7	12:00 PM	78	73	5	6	163
1:00 PM	85	76	9	11	1:00 PM	83	75	8	10	168
2:00 PM	97	92	5	5	2:00 PM	95	91	4	4	192
3:00 PM	84	76	8	10	3:00 PM	104	91	13	13	188
4:00 PM	83	79	4	5	4:00 PM	164	157	7	4	247
5:00 PM	84	81	3	4	5:00 PM	189	186	3	2	273
6:00 PM	72	68	4	6	6:00 PM	152	144	8	5	224
7:00 PM	61	59	2	3	7:00 PM	83	82	1	1	144
8:00 PM	37	37	0	0	8:00 PM	69	68	1	1	106
9:00 PM	34	33	1	3	9:00 PM	54	53	1	2	88
10:00 PM	31	28	3	10	10:00 PM	31	31	0	0	62
11:00 PM	27	27	0	0	11:00 PM	33	30	3	9	60
Daily Total	**1477**					**1485**				**2962**

Northbound



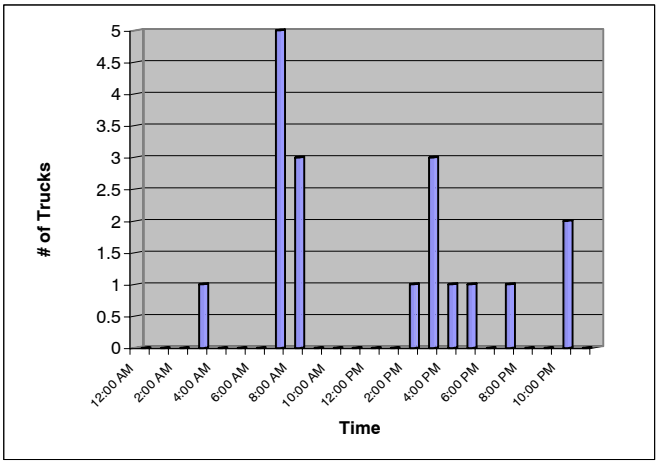
Southbound



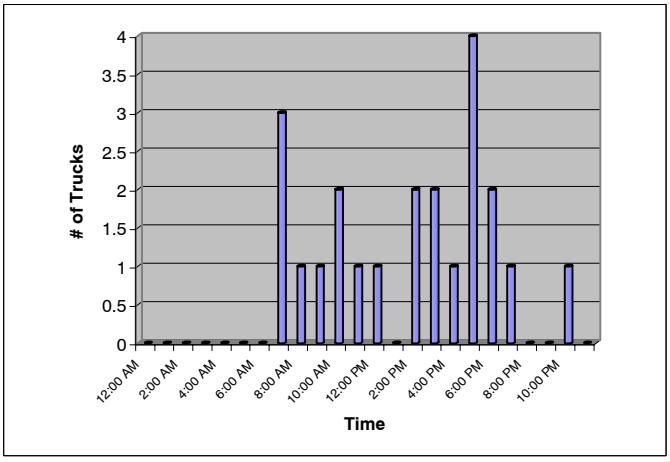
Vehicle Classification Counts
2. Burlington-Bustleton Road (CR 661) Between CR 658 and CR 659
01/23/2001

Eastbound					Westbound					Total Volumes
Time	**Total**	**# Cars**	**# Trucks**	**% Trucks**	**Time**	**Total**	**# Cars**	**# Trucks**	**% Trucks**	**EB & WB**
12:00 AM	3	3	0	0	12:00 AM	8	8	0	0	11
1:00 AM	0	0	0	0	1:00 AM	6	6	0	0	6
2:00 AM	1	1	0	0	2:00 AM	4	4	0	0	5
3:00 AM	2	1	1	50	3:00 AM	1	1	0	0	3
4:00 AM	10	10	0	0	4:00 AM	2	2	0	0	12
5:00 AM	31	31	0	0	5:00 AM	3	3	0	0	34
6:00 AM	96	96	0	0	6:00 AM	11	11	0	0	107
7:00 AM	196	191	5	3	7:00 AM	30	27	3	10	226
8:00 AM	74	71	3	4	8:00 AM	26	25	1	4	100
9:00 AM	46	46	0	0	9:00 AM	24	23	1	4	70
10:00 AM	36	36	0	0	10:00 AM	36	34	2	6	72
11:00 AM	38	38	0	0	11:00 AM	30	29	1	3	68
12:00 PM	35	35	0	0	12:00 PM	30	29	1	3	65
1:00 PM	26	26	0	0	1:00 PM	38	38	0	0	64
2:00 PM	36	35	1	3	2:00 PM	51	49	2	4	87
3:00 PM	47	44	3	6	3:00 PM	69	67	2	3	116
4:00 PM	46	45	1	2	4:00 PM	116	115	1	1	162
5:00 PM	50	49	1	2	5:00 PM	150	146	4	3	200
6:00 PM	48	48	0	0	6:00 PM	126	124	2	2	174
7:00 PM	38	37	1	3	7:00 PM	69	68	1	1	107
8:00 PM	15	15	0	0	8:00 PM	51	51	0	0	66
9:00 PM	18	18	0	0	9:00 PM	36	36	0	0	54
10:00 PM	10	8	2	20	10:00 PM	31	30	1	3	41
11:00 PM	5	5	0	0	11:00 PM	26	26	0	0	31
Daily Total	**907**					**974**				**1881**

Eastbound



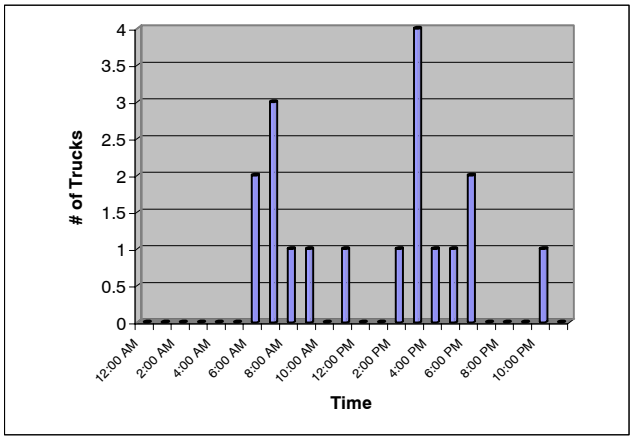
Westbound



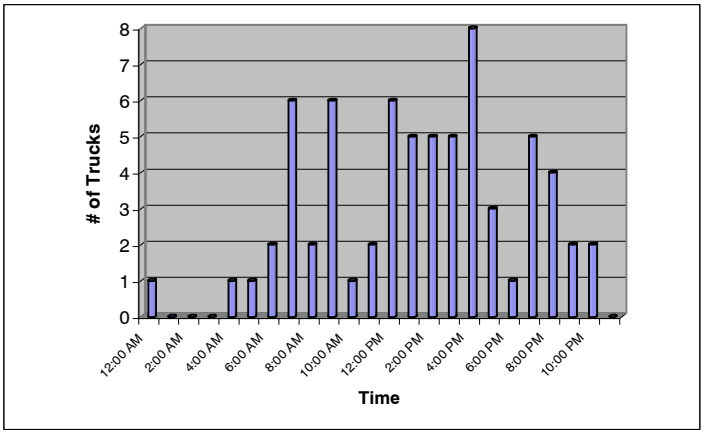
Vehicle Classification Counts
3. Florence-Bustleton Road between CR 661 and US 130
01/23/2001

Northbound					Southbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	NB & SB
12:00 AM	5	5	0	0	12:00 AM	8	7	1	13	13
1:00 AM	1	1	0	0	1:00 AM	3	3	0	0	4
2:00 AM	2	2	0	0	2:00 AM	4	4	0	0	6
3:00 AM	3	3	0	0	3:00 AM	0	0	0	0	3
4:00 AM	14	14	0	0	4:00 AM	3	2	1	33	17
5:00 AM	30	30	0	0	5:00 AM	3	2	1	33	33
6:00 AM	80	78	2	3	6:00 AM	18	16	2	11	98
7:00 AM	129	126	3	2	7:00 AM	58	52	6	10	187
8:00 AM	76	75	1	1	8:00 AM	43	41	2	5	119
9:00 AM	41	40	1	2	9:00 AM	33	27	6	18	74
10:00 AM	33	33	0	0	10:00 AM	27	26	1	4	60
11:00 AM	50	49	1	2	11:00 AM	45	43	2	4	95
12:00 PM	45	45	0	0	12:00 PM	46	40	6	13	91
1:00 PM	44	44	0	0	1:00 PM	31	26	5	16	75
2:00 PM	49	48	1	2	2:00 PM	56	51	5	9	105
3:00 PM	74	70	4	5	3:00 PM	61	56	5	8	135
4:00 PM	86	85	1	1	4:00 PM	85	77	8	9	171
5:00 PM	84	83	1	1	5:00 PM	121	118	3	2	205
6:00 PM	60	58	2	3	6:00 PM	91	90	1	1	151
7:00 PM	53	53	0	0	7:00 PM	50	45	5	10	103
8:00 PM	31	31	0	0	8:00 PM	46	42	4	9	77
9:00 PM	30	30	0	0	9:00 PM	33	31	2	6	63
10:00 PM	19	18	1	5	10:00 PM	18	16	2	11	37
11:00 PM	13	13	0	0	11:00 PM	18	18	0	0	31
Daily Total	**1052**					**901**				**1953**

Northbound



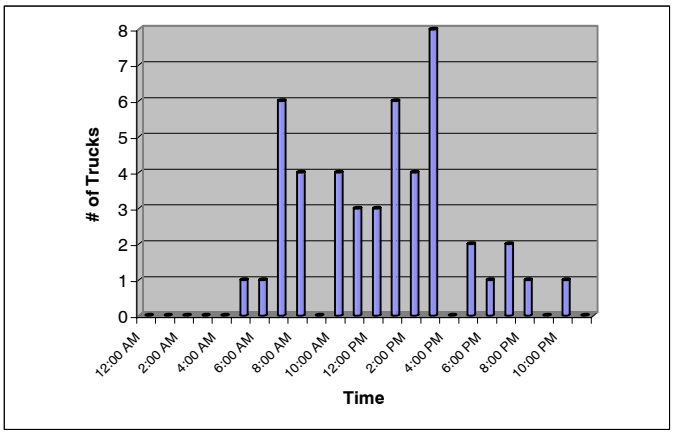
Southbound



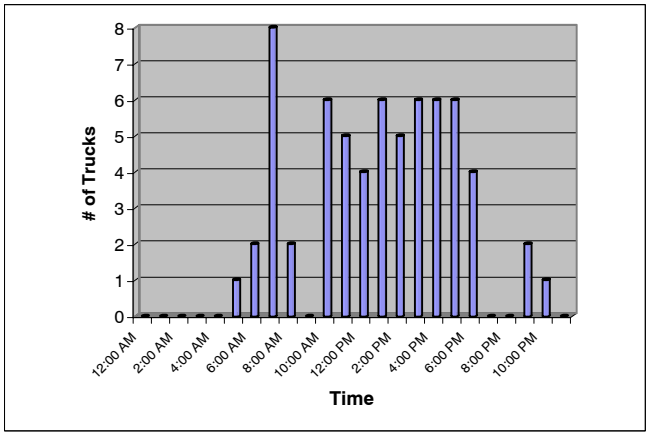
Vehicle Classification Counts
4. Old York Road between CR 661 and Florence-Columbus Road
01/23/2001

Eastbound					Westbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	EB & WB
12:00 AM	6	6	0	0	12:00 AM	11	11	0	0	17
1:00 AM	0	0	0	0	1:00 AM	5	5	0	0	5
2:00 AM	3	3	0	0	2:00 AM	4	4	0	0	7
3:00 AM	1	1	0	0	3:00 AM	4	4	0	0	5
4:00 AM	10	10	0	0	4:00 AM	5	5	0	0	15
5:00 AM	27	26	1	4	5:00 AM	11	10	1	9	38
6:00 AM	116	115	1	1	6:00 AM	22	20	2	9	138
7:00 AM	217	211	6	3	7:00 AM	50	42	8	16	267
8:00 AM	131	127	4	3	8:00 AM	64	62	2	3	195
9:00 AM	49	49	0	0	9:00 AM	41	41	0	0	90
10:00 AM	57	53	4	7	10:00 AM	50	44	6	12	107
11:00 AM	57	54	3	5	11:00 AM	49	44	5	10	106
12:00 PM	67	64	3	4	12:00 PM	66	62	4	6	133
1:00 PM	50	44	6	12	1:00 PM	64	58	6	9	114
2:00 PM	72	68	4	6	2:00 PM	86	81	5	6	158
3:00 PM	68	60	8	12	3:00 PM	122	116	6	5	190
4:00 PM	57	57	0	0	4:00 PM	182	176	6	3	239
5:00 PM	67	65	2	3	5:00 PM	211	205	6	3	278
6:00 PM	65	64	1	2	6:00 PM	141	137	4	3	206
7:00 PM	35	33	2	6	7:00 PM	96	96	0	0	131
8:00 PM	36	35	1	3	8:00 PM	63	63	0	0	99
9:00 PM	18	18	0	0	9:00 PM	46	44	2	4	64
10:00 PM	8	7	1	13	10:00 PM	43	42	1	2	51
11:00 PM	8	8	0	0	11:00 PM	18	18	0	0	26
Daily Total	**1225**					**1454**				**2679**

Eastbound



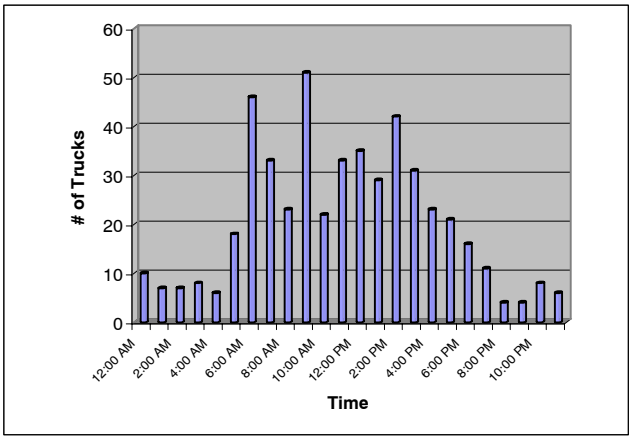
Westbound



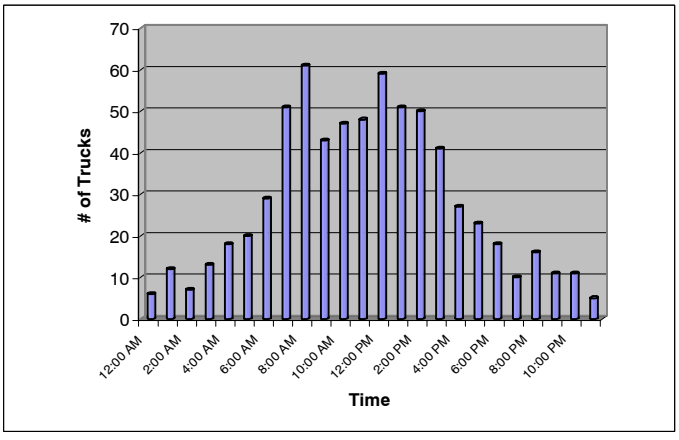
Vehicle Classification Counts
5. Florence-Columbus Road between Old York Road and NJTPK
01/23/2001

Northbound					Southbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	NB & SB
12:00 AM	47	37	10	21	12:00 AM	30	24	6	20	77
1:00 AM	24	17	7	29	1:00 AM	35	23	12	34	59
2:00 AM	14	7	7	50	2:00 AM	22	15	7	32	36
3:00 AM	16	8	8	50	3:00 AM	28	15	13	46	44
4:00 AM	25	19	6	24	4:00 AM	44	26	18	41	69
5:00 AM	93	75	18	19	5:00 AM	73	53	20	27	166
6:00 AM	255	209	46	18	6:00 AM	184	155	29	16	439
7:00 AM	438	405	33	8	7:00 AM	318	267	51	16	756
8:00 AM	405	382	23	6	8:00 AM	273	212	61	22	678
9:00 AM	241	190	51	21	9:00 AM	175	132	43	25	416
10:00 AM	214	192	22	10	10:00 AM	188	141	47	25	402
11:00 AM	218	185	33	15	11:00 AM	215	167	48	22	433
12:00 PM	235	200	35	15	12:00 PM	234	175	59	25	469
1:00 PM	235	206	29	12	1:00 PM	249	198	51	20	484
2:00 PM	277	235	42	15	2:00 PM	290	240	50	17	567
3:00 PM	352	321	31	9	3:00 PM	309	268	41	13	661
4:00 PM	398	375	23	6	4:00 PM	367	340	27	7	765
5:00 PM	409	388	21	5	5:00 PM	380	357	23	6	789
6:00 PM	312	296	16	5	6:00 PM	289	271	18	6	601
7:00 PM	224	213	11	5	7:00 PM	250	240	10	4	474
8:00 PM	153	149	4	3	8:00 PM	198	182	16	8	351
9:00 PM	120	116	4	3	9:00 PM	139	128	11	8	259
10:00 PM	74	66	8	11	10:00 PM	104	93	11	11	178
11:00 PM	54	48	6	11	11:00 PM	68	63	5	7	122
Daily Total	**4833**					**4462**				**9295**

Northbound



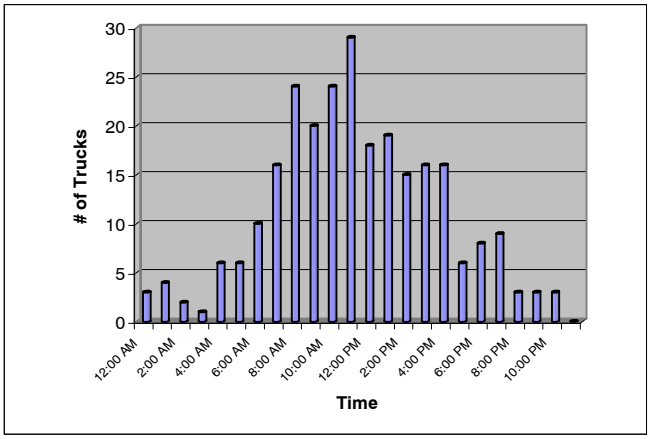
Southbound



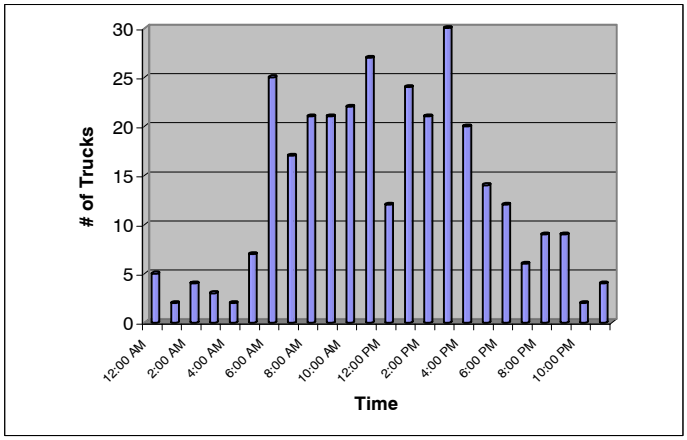
Vehicle Classification Counts
6. Florence-Columbus Road between US 130 and Station Road
01/23/2001

Northbound					Southbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	NB & SB
12:00 AM	32	29	3	9	12:00 AM	30	25	5	17	62
1:00 AM	23	19	4	17	1:00 AM	24	22	2	8	47
2:00 AM	22	20	2	9	2:00 AM	6	2	4	67	28
3:00 AM	19	18	1	5	3:00 AM	11	8	3	27	30
4:00 AM	40	34	6	15	4:00 AM	22	20	2	9	62
5:00 AM	68	62	6	9	5:00 AM	93	86	7	8	161
6:00 AM	123	113	10	8	6:00 AM	292	267	25	9	415
7:00 AM	256	240	16	6	7:00 AM	467	450	17	4	723
8:00 AM	181	157	24	13	8:00 AM	391	370	21	5	572
9:00 AM	159	139	20	13	9:00 AM	203	182	21	10	362
10:00 AM	180	156	24	13	10:00 AM	220	198	22	10	400
11:00 AM	208	179	29	14	11:00 AM	218	191	27	12	426
12:00 PM	207	189	18	9	12:00 PM	211	199	12	6	418
1:00 PM	211	192	19	9	1:00 PM	216	192	24	11	427
2:00 PM	235	220	15	6	2:00 PM	236	215	21	9	471
3:00 PM	309	293	16	5	3:00 PM	308	278	30	10	617
4:00 PM	424	408	16	4	4:00 PM	281	261	20	7	705
5:00 PM	477	471	6	1	5:00 PM	311	297	14	5	788
6:00 PM	330	322	8	2	6:00 PM	212	200	12	6	542
7:00 PM	246	237	9	4	7:00 PM	191	185	6	3	437
8:00 PM	188	185	3	2	8:00 PM	121	112	9	7	309
9:00 PM	160	157	3	2	9:00 PM	73	64	9	12	233
10:00 PM	115	112	3	3	10:00 PM	77	75	2	3	192
11:00 PM	80	80	0	0	11:00 PM	63	59	4	6	143
Daily Total	**4293**					**4277**				**8570**

Northbound



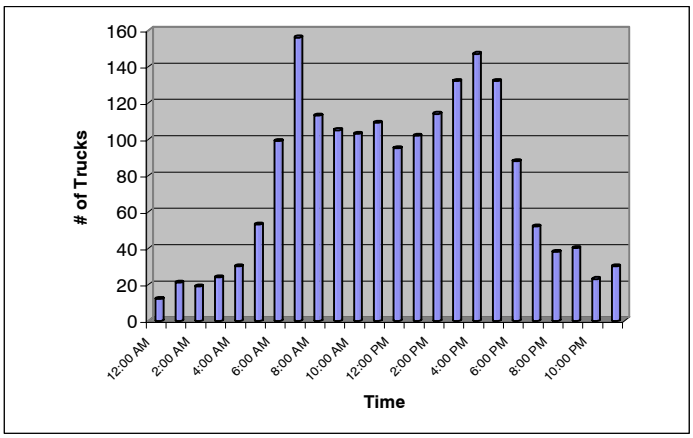
Southbound



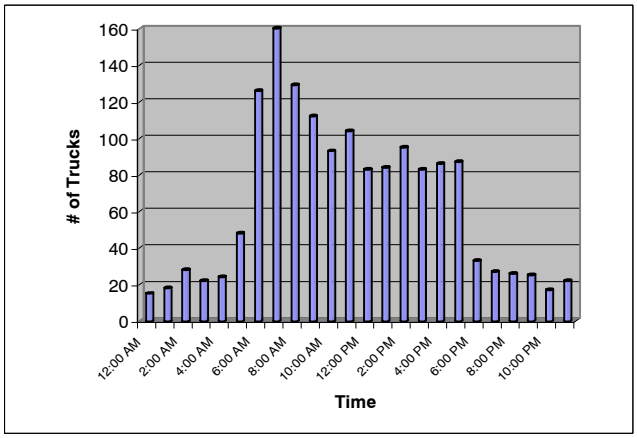
Vehicle Classification Counts
7. US 130 at NJTPK Ramps & Florence-Columbus Road
02/01/2001

Northbound					Southbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	NB & SB
12:00 AM	83	64	12	14	12:00 AM	93	78	15	16	176
1:00 AM	52	28	21	40	1:00 AM	71	52	18	25	123
2:00 AM	62	42	19	31	2:00 AM	80	51	28	35	142
3:00 AM	72	45	24	33	3:00 AM	75	53	22	29	147
4:00 AM	127	94	30	24	4:00 AM	159	132	24	15	286
5:00 AM	298	231	53	18	5:00 AM	316	264	48	15	614
6:00 AM	658	551	99	15	6:00 AM	726	590	126	17	1384
7:00 AM	951	774	156	16	7:00 AM	995	821	160	16	1946
8:00 AM	804	661	113	14	8:00 AM	798	656	129	16	1602
9:00 AM	539	412	105	19	9:00 AM	556	439	112	20	1095
10:00 AM	498	372	103	21	10:00 AM	503	399	93	18	1001
11:00 AM	537	409	109	20	11:00 AM	543	430	104	19	1080
12:00 PM	530	411	95	18	12:00 PM	532	447	83	16	1062
1:00 PM	572	428	102	18	1:00 PM	568	472	84	15	1140
2:00 PM	563	415	114	20	2:00 PM	529	429	95	18	1092
3:00 PM	682	513	132	19	3:00 PM	648	561	83	13	1330
4:00 PM	852	658	147	17	4:00 PM	768	673	86	11	1620
5:00 PM	915	712	132	14	5:00 PM	807	714	87	11	1722
6:00 PM	653	517	88	13	6:00 PM	630	595	33	5	1283
7:00 PM	433	349	52	12	7:00 PM	425	395	27	6	858
8:00 PM	349	291	38	11	8:00 PM	359	331	26	7	708
9:00 PM	312	250	40	13	9:00 PM	309	284	25	8	621
10:00 PM	249	212	23	9	10:00 PM	218	200	17	8	467
11:00 PM	169	127	30	18	11:00 PM	167	145	22	13	336
Daily Total	**10960**					**10875**				**21835**

Northbound



Southbound

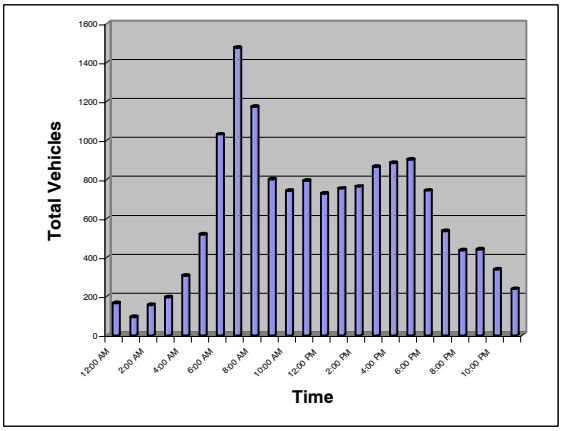


Vehicle Counts
8. US 130 between NJ Turnpike Ramps and Florence-Bustleton RD

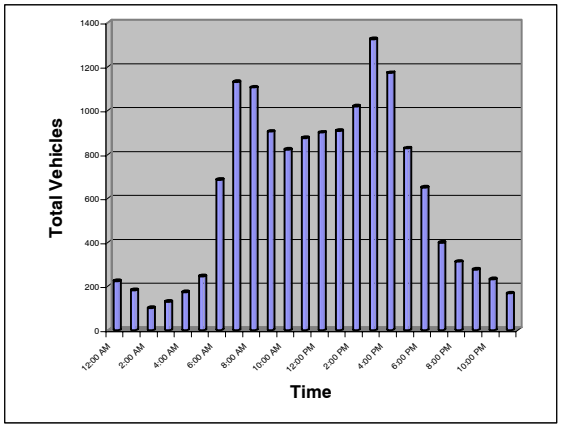
01/23/2001

						Total
Northbound				Southbound		Volumes
Total		Time		Total		NB & SB
164		12:00 AM		224		388
93		1:00 AM		182		275
154		2:00 AM		101		255
195		3:00 AM		130		325
305		4:00 AM		173		478
517		5:00 AM		246		763
1030		6:00 AM		685		1715
1475		7:00 AM		1130		2605
1172		8:00 AM		1105		2277
800		9:00 AM		904		1704
740		10:00 AM		822		1562
793		11:00 AM		874		1667
726		12:00 PM		900		1626
752		1:00 PM		908		1660
762		2:00 PM		1019		1781
864		3:00 PM		1325		2189
883		4:00 PM		1171		2054
901		5:00 PM		828		1729
742		6:00 PM		650		1392
534		7:00 PM		398		932
436		8:00 PM		312		748
441		9:00 PM		276		717
337		10:00 PM		232		569
237		11:00 PM		168		405
15053				**14763**		**29816**

Northbound



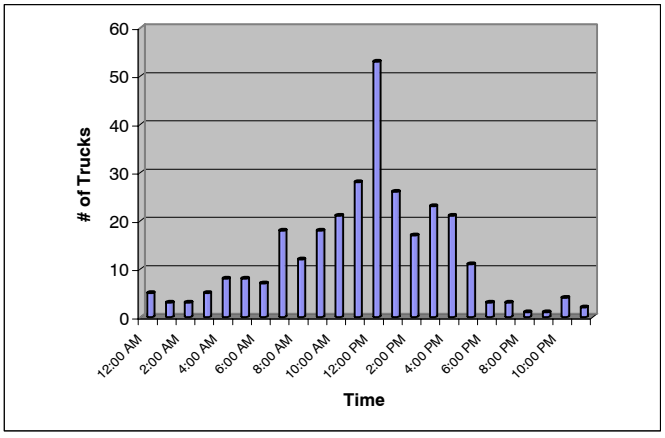
Southbound



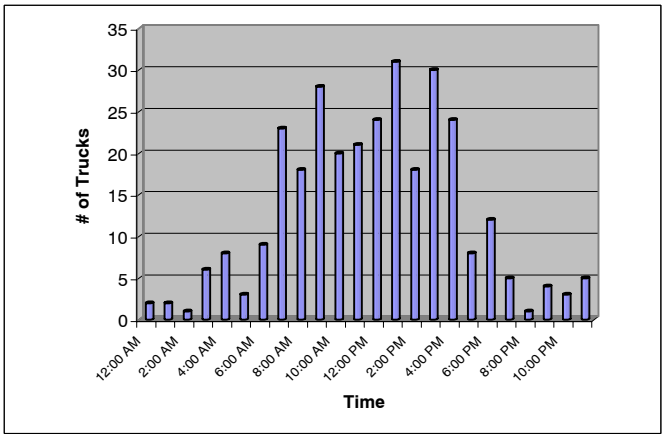
Vehicle Classification Counts
9. Florence-Bustleton Road at US 130 & NJTPK
02/01/2001

Eastbound					Westbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	EB & WB
12:00 AM	29	24	5	17	12:00 AM	31	29	2	6	60
1:00 AM	17	14	3	18	1:00 AM	16	14	2	13	33
2:00 AM	19	14	3	16	2:00 AM	15	14	1	7	34
3:00 AM	29	22	5	17	3:00 AM	20	14	6	30	49
4:00 AM	34	25	8	24	4:00 AM	32	24	8	25	66
5:00 AM	56	46	8	14	5:00 AM	51	48	3	6	107
6:00 AM	101	93	7	7	6:00 AM	54	45	9	17	155
7:00 AM	195	172	18	9	7:00 AM	125	102	23	18	320
8:00 AM	136	121	12	9	8:00 AM	101	83	18	18	237
9:00 AM	96	74	18	19	9:00 AM	101	73	28	28	197
10:00 AM	92	71	21	23	10:00 AM	111	91	20	18	203
11:00 AM	118	88	28	24	11:00 AM	131	110	21	16	249
12:00 PM	156	102	53	34	12:00 PM	166	142	24	14	322
1:00 PM	114	88	26	23	1:00 PM	164	133	31	19	278
2:00 PM	107	90	17	16	2:00 PM	178	160	18	10	285
3:00 PM	152	126	23	15	3:00 PM	212	182	30	14	364
4:00 PM	156	134	21	13	4:00 PM	179	155	24	13	335
5:00 PM	124	112	11	9	5:00 PM	217	209	8	4	341
6:00 PM	121	118	3	2	6:00 PM	173	161	12	7	294
7:00 PM	74	71	3	4	7:00 PM	127	122	5	4	201
8:00 PM	47	46	1	2	8:00 PM	79	78	1	1	126
9:00 PM	53	51	1	2	9:00 PM	90	86	4	4	143
10:00 PM	29	25	4	14	10:00 PM	78	75	3	4	107
11:00 PM	32	30	2	6	11:00 PM	38	33	5	13	70
Daily Total	**2087**					**2489**				**4576**

Eastbound



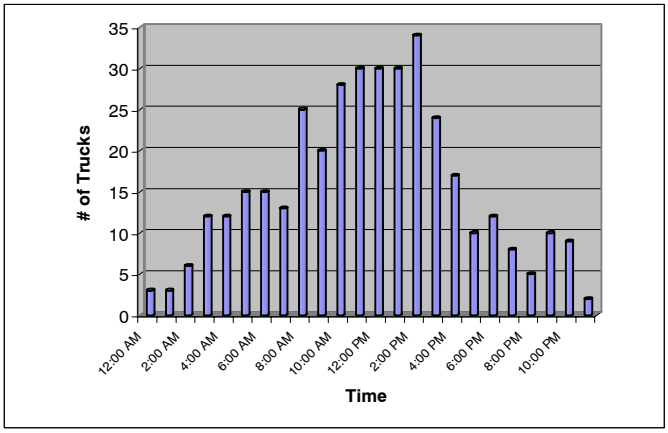
Westbound



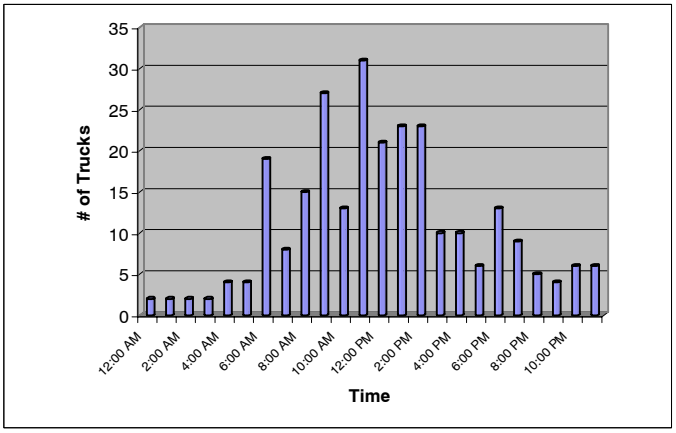
Vehicle Classification Counts
10. Dulty's Lane from US 130 to Neck Road
01/23/2001

Eastbound					Westbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	EB & WB
12:00 AM	16	13	3	19	12:00 AM	5	3	2	40	21
1:00 AM	9	6	3	33	1:00 AM	5	3	2	40	14
2:00 AM	6	0	6	100	2:00 AM	6	4	2	33	12
3:00 AM	19	7	12	63	3:00 AM	5	3	2	40	24
4:00 AM	19	7	12	63	4:00 AM	7	3	4	57	26
5:00 AM	20	5	15	75	5:00 AM	14	10	4	29	34
6:00 AM	38	23	15	39	6:00 AM	90	71	19	21	128
7:00 AM	63	50	13	21	7:00 AM	70	62	8	11	133
8:00 AM	51	26	25	49	8:00 AM	54	39	15	28	105
9:00 AM	47	27	20	43	9:00 AM	62	35	27	44	109
10:00 AM	64	36	28	44	10:00 AM	35	22	13	37	99
11:00 AM	68	38	30	44	11:00 AM	60	29	31	52	128
12:00 PM	84	54	30	36	12:00 PM	60	39	21	35	144
1:00 PM	73	43	30	41	1:00 PM	56	33	23	41	129
2:00 PM	84	50	34	40	2:00 PM	60	37	23	38	144
3:00 PM	115	91	24	21	3:00 PM	29	19	10	34	144
4:00 PM	100	83	17	17	4:00 PM	31	21	10	32	131
5:00 PM	59	49	10	17	5:00 PM	23	17	6	26	82
6:00 PM	53	41	12	23	6:00 PM	21	8	13	62	74
7:00 PM	26	18	8	31	7:00 PM	24	15	9	38	50
8:00 PM	21	16	5	24	8:00 PM	13	8	5	38	34
9:00 PM	19	9	10	53	9:00 PM	9	5	4	44	28
10:00 PM	17	8	9	53	10:00 PM	15	9	6	40	32
11:00 PM	32	30	2	6	11:00 PM	8	2	6	75	40
Daily Total	1103					762				1865

Eastbound



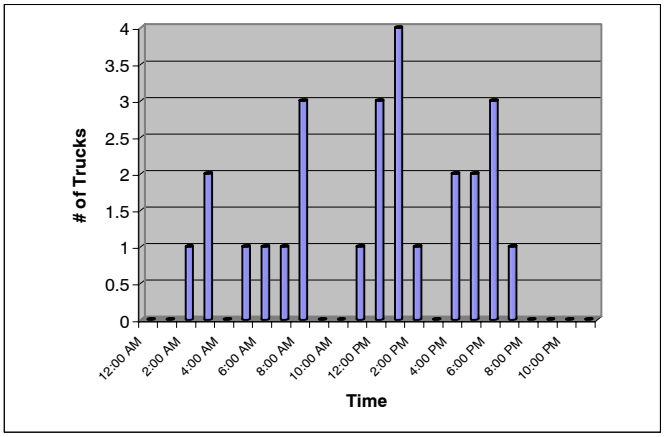
Westbound



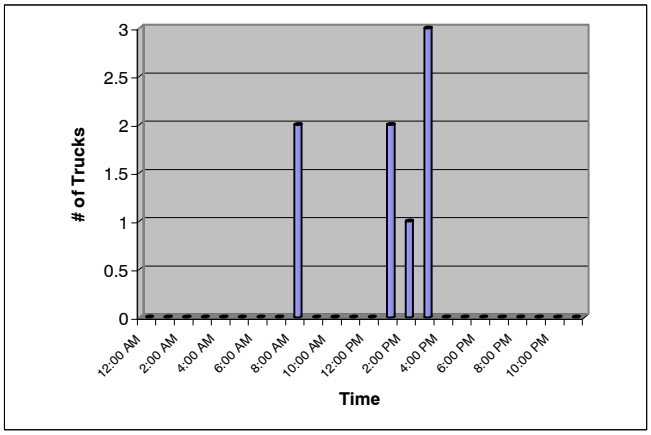
Vehicle Classification Counts
11. Neck Road from US 130 to River Road
01/23/2001

Northbound					Southbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	NB & SB
12:00 AM	3	3	0	0	12:00 AM	19	19	0	0	22
1:00 AM	3	3	0	0	1:00 AM	5	5	0	0	8
2:00 AM	4	3	1	25	2:00 AM	1	1	0	0	5
3:00 AM	8	6	2	25	3:00 AM	1	1	0	0	9
4:00 AM	9	9	0	0	4:00 AM	6	6	0	0	15
5:00 AM	6	5	1	17	5:00 AM	11	11	0	0	17
6:00 AM	37	36	1	3	6:00 AM	21	21	0	0	58
7:00 AM	71	70	1	1	7:00 AM	53	53	0	0	124
8:00 AM	37	34	3	8	8:00 AM	45	43	2	4	82
9:00 AM	21	21	0	0	9:00 AM	33	33	0	0	54
10:00 AM	20	20	0	0	10:00 AM	15	15	0	0	35
11:00 AM	23	22	1	4	11:00 AM	31	31	0	0	54
12:00 PM	19	16	3	16	12:00 PM	28	28	0	0	47
1:00 PM	28	24	4	14	1:00 PM	42	40	2	5	70
2:00 PM	30	29	1	3	2:00 PM	30	29	1	3	60
3:00 PM	36	36	0	0	3:00 PM	101	98	3	3	137
4:00 PM	35	33	2	6	4:00 PM	100	100	0	0	135
5:00 PM	54	52	2	4	5:00 PM	64	64	0	0	118
6:00 PM	32	29	3	9	6:00 PM	64	64	0	0	96
7:00 PM	21	20	1	5	7:00 PM	31	31	0	0	52
8:00 PM	10	10	0	0	8:00 PM	19	19	0	0	29
9:00 PM	12	12	0	0	9:00 PM	14	14	0	0	26
10:00 PM	13	13	0	0	10:00 PM	16	16	0	0	29
11:00 PM	6	6	0	0	11:00 PM	11	11	0	0	17
Daily Total	**538**					**761**				**1299**

Northbound



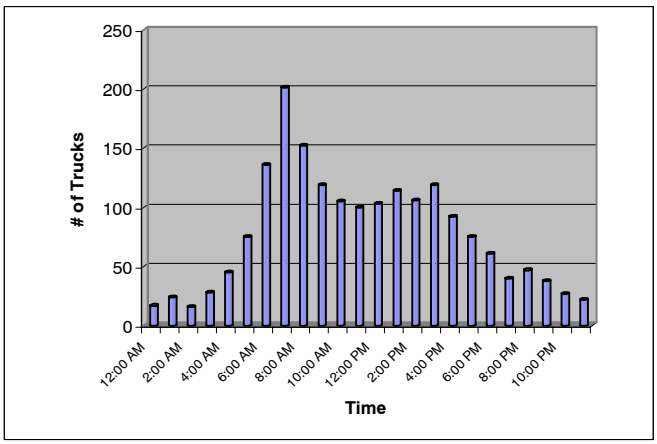
Southbound



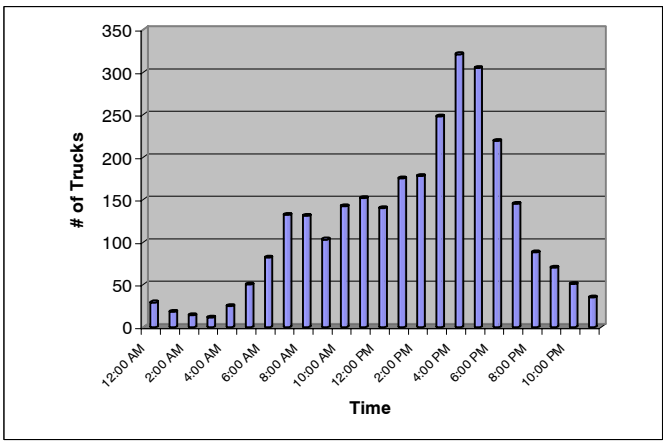
Vehicle Classification Counts
12. US 130 Between Neck Rd. (CR 658) and Laveer Road
01/25/2001

Northbound					Southbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	NB & SB
12:00 AM	80	63	17	21	12:00 AM	149	120	29	19	229
1:00 AM	84	60	24	29	1:00 AM	86	68	18	21	170
2:00 AM	62	46	16	26	2:00 AM	54	40	14	26	116
3:00 AM	112	84	28	25	3:00 AM	40	29	11	28	152
4:00 AM	191	146	45	24	4:00 AM	69	44	25	36	260
5:00 AM	383	308	75	20	5:00 AM	162	112	50	31	545
6:00 AM	835	699	136	16	6:00 AM	364	282	82	23	1199
7:00 AM	1104	903	201	18	7:00 AM	579	447	132	23	1683
8:00 AM	833	681	152	18	8:00 AM	541	410	131	24	1374
9:00 AM	564	445	119	21	9:00 AM	472	369	103	22	1036
10:00 AM	509	404	105	21	10:00 AM	508	366	142	28	1017
11:00 AM	557	457	100	18	11:00 AM	520	368	152	29	1077
12:00 PM	580	477	103	18	12:00 PM	590	450	140	24	1170
1:00 PM	653	539	114	17	1:00 PM	648	473	175	27	1301
2:00 PM	650	544	106	16	2:00 PM	613	435	178	29	1263
3:00 PM	689	570	119	17	3:00 PM	853	605	248	29	1542
4:00 PM	647	555	92	14	4:00 PM	1068	747	321	30	1715
5:00 PM	626	551	75	12	5:00 PM	1058	753	305	29	1684
6:00 PM	517	456	61	12	6:00 PM	829	610	219	26	1346
7:00 PM	438	398	40	9	7:00 PM	524	379	145	28	962
8:00 PM	359	312	47	13	8:00 PM	377	289	88	23	736
9:00 PM	338	300	38	11	9:00 PM	318	248	70	22	656
10:00 PM	274	247	27	10	10:00 PM	253	202	51	20	527
11:00 PM	165	143	22	13	11:00 PM	197	162	35	18	362
Daily Total	**11250**					**10872**				**22122**

Northbound



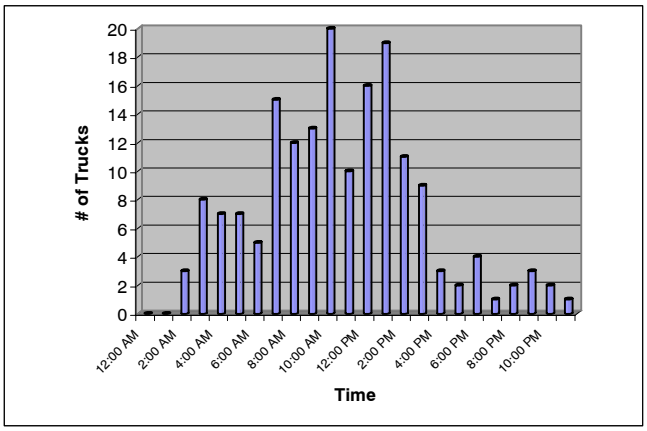
Southbound



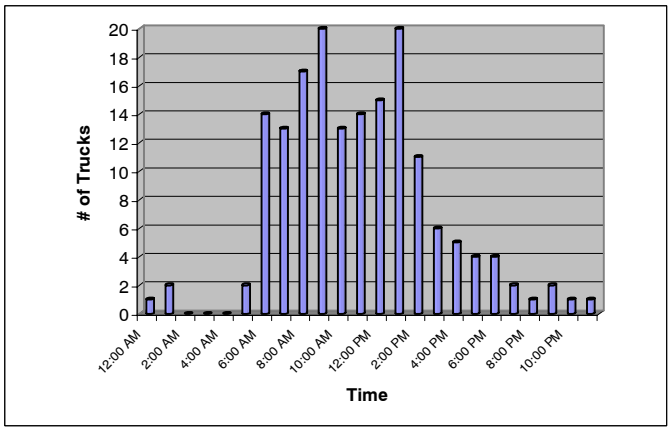
Vehicle Classification Counts
13. Dulty's Lane from Neck Road to US 130
01/23/2001

Eastbound					Westbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	EB & WB
12:00 AM	3	3	0	0	12:00 AM	2	1	1	50	5
1:00 AM	1	1	0	0	1:00 AM	3	1	2	67	4
2:00 AM	3	0	3	100	2:00 AM	1	1	0	0	4
3:00 AM	10	2	8	80	3:00 AM	2	2	0	0	12
4:00 AM	9	2	7	78	4:00 AM	0	0	0	0	9
5:00 AM	11	4	7	64	5:00 AM	4	2	2	50	15
6:00 AM	29	24	5	17	6:00 AM	32	18	14	44	61
7:00 AM	40	25	15	38	7:00 AM	45	32	13	29	85
8:00 AM	34	22	12	35	8:00 AM	30	13	17	57	64
9:00 AM	21	8	13	62	9:00 AM	30	10	20	67	51
10:00 AM	31	11	20	65	10:00 AM	27	14	13	48	58
11:00 AM	34	24	10	29	11:00 AM	30	16	14	47	64
12:00 PM	38	22	16	42	12:00 PM	40	25	15	38	78
1:00 PM	34	15	19	56	1:00 PM	34	14	20	59	68
2:00 PM	26	15	11	42	2:00 PM	25	14	11	44	51
3:00 PM	53	44	9	17	3:00 PM	37	31	6	16	90
4:00 PM	22	19	3	14	4:00 PM	35	30	5	14	57
5:00 PM	12	10	2	17	5:00 PM	14	10	4	29	26
6:00 PM	15	11	4	27	6:00 PM	8	4	4	50	23
7:00 PM	2	1	1	50	7:00 PM	6	4	2	33	8
8:00 PM	3	1	2	67	8:00 PM	6	5	1	17	9
9:00 PM	3	0	3	100	9:00 PM	2	0	2	100	5
10:00 PM	9	7	2	22	10:00 PM	7	6	1	14	16
11:00 PM	2	1	1	50	11:00 PM	12	11	1	8	14
Daily Total	**445**					**432**				**877**

Eastbound



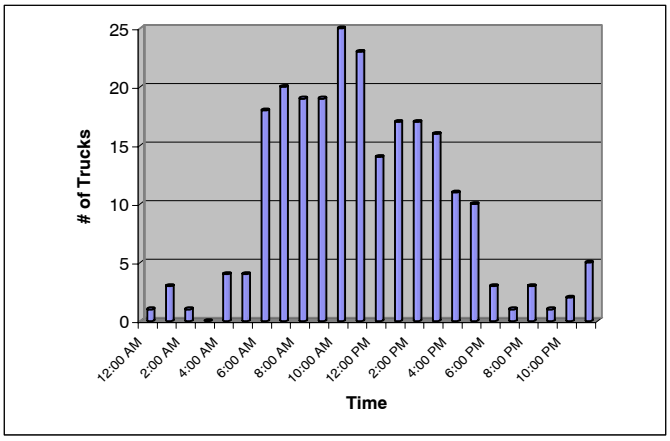
Westbound



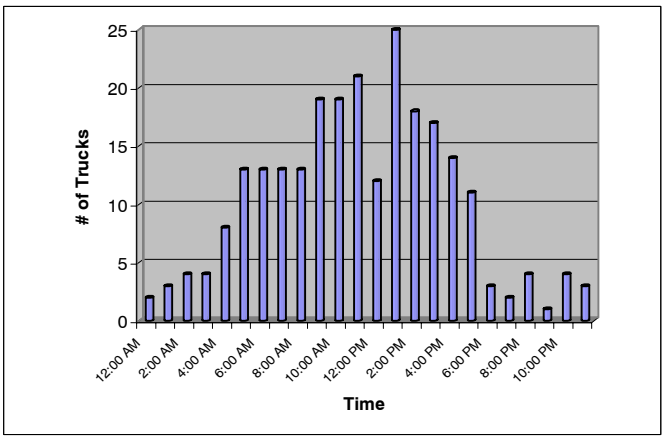
Vehicle Classification Counts
14. River Road from Neck Road to Hooker Lane
01/23/2001

Northbound					Southbound					Total Volumes
Time	Total	# Cars	# Trucks	% Trucks	Time	Total	# Cars	# Trucks	% Trucks	NB & SB
12:00 AM	10	9	1	10	12:00 AM	22	20	2	9	32
1:00 AM	16	13	3	19	1:00 AM	7	4	3	43	23
2:00 AM	9	8	1	11	2:00 AM	12	8	4	33	21
3:00 AM	29	29	0	0	3:00 AM	19	15	4	21	48
4:00 AM	62	58	4	6	4:00 AM	20	12	8	40	82
5:00 AM	35	31	4	11	5:00 AM	35	22	13	37	70
6:00 AM	182	164	18	10	6:00 AM	64	51	13	20	246
7:00 AM	244	224	20	8	7:00 AM	141	128	13	9	385
8:00 AM	69	50	19	28	8:00 AM	102	89	13	13	171
9:00 AM	89	70	19	21	9:00 AM	95	76	19	20	184
10:00 AM	84	59	25	30	10:00 AM	80	61	19	24	164
11:00 AM	105	82	23	22	11:00 AM	100	79	21	21	205
12:00 PM	116	102	14	12	12:00 PM	100	88	12	12	216
1:00 PM	112	95	17	15	1:00 PM	96	71	25	26	208
2:00 PM	141	124	17	12	2:00 PM	96	78	18	19	237
3:00 PM	136	120	16	12	3:00 PM	242	225	17	7	378
4:00 PM	147	136	11	7	4:00 PM	256	242	14	5	403
5:00 PM	131	121	10	8	5:00 PM	131	120	11	8	262
6:00 PM	77	74	3	4	6:00 PM	70	67	3	4	147
7:00 PM	76	75	1	1	7:00 PM	59	57	2	3	135
8:00 PM	59	56	3	5	8:00 PM	42	38	4	10	101
9:00 PM	46	45	1	2	9:00 PM	31	30	1	3	77
10:00 PM	36	34	2	6	10:00 PM	30	26	4	13	66
11:00 PM	53	48	5	9	11:00 PM	48	45	3	6	101
Daily Total	**2064**					**1898**				**3962**

Northbound

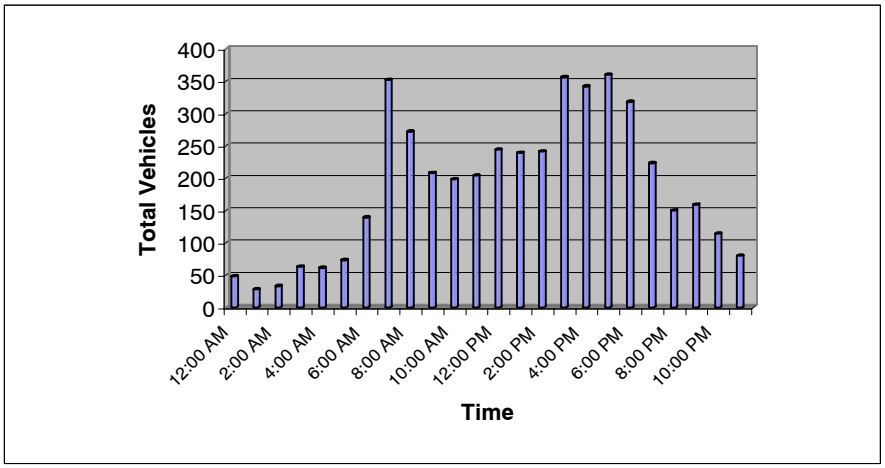


Southbound



Vehicle Counts
15. Cedar Lane from Morris Court to NJ Turnpike
01/23/2001

Both Directions		
Time		**Total**
12:00 AM		48
1:00 AM		28
2:00 AM		33
3:00 AM		63
4:00 AM		61
5:00 AM		73
6:00 AM		139
7:00 AM		352
8:00 AM		272
9:00 AM		208
10:00 AM		198
11:00 AM		204
12:00 PM		244
1:00 PM		239
2:00 PM		241
3:00 PM		356
4:00 PM		342
5:00 PM		360
6:00 PM		318
7:00 PM		223
8:00 PM		150
9:00 PM		159
10:00 PM		114
11:00 PM		80
Daily Total		**4505**



Title of Report: US 130/NJ Turnpike Area Infrastructure Needs Analysis

Publication No.: 01019

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Geographic Area Covered:
The study area includes or is adjacent to the following Burlington County municipalities: Burlington Township, Florence Township and Mansfield Township.

Key Words:
traffic counts, classification counts, intersection analysis, improvement options, truck volumes, station access, trip generators, posted speed limit, at-grade crossing, sight distance, hazard identification beacon, speed limit, signalized intersection

ABSTRACT:
In March 2000, New Jersey Turnpike Authority completed a new interchange (6A) between US 130 and the New Jersey Turnpike Pennsylvania Extension in Florence Township, Burlington County. This is a full service interchange which replaces the old Exit 6A. There are large tracts of undeveloped land available for commercial and light industrial development within the vicinity of this interchange. These opportunities exist primarily at the 660 acre Haines Industrial Park currently being developed immediately adjacent to the interchange and on several hundred additional acres in the immediate vicinity. The Delaware Valley Regional Planning Commission was requested to assist in this effort in conducting a local impact analysis to determine the impact of the new interchange on traffic in the area. This activity focused on developing a coordinated plan to assess the infrastructure needs created by the growth in this area. In an effort to fulfill these objectives, the study team held separate meetings with both Florence and Burlington townships to determine their concerns and plans for the future of this area. This, along with Burlington County's vision, helped to identify a coordinated action plan for the study area. This report documents the study recommendations for coordinating the transportation and circulation infrastructure improvements in the study area.

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